

# **Post-Construction Storm Water Ordinance Administrative Manual**



*Adopted by Town Council on June 8, 2010*

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## **SECTION 1 INTRODUCTION**

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### **1.1 PURPOSE OF ADMINISTRATIVE MANUAL**

The purpose of this Administrative Manual is to provide guidance to the general public for the effective and efficient implementation and administration of the Post-Construction Ordinance. The Administrative Manual includes application requirements and forms, submission schedules, fee schedules, maintenance agreement, criteria for recordation of documents, inspection report forms, requirements for submittal of bonds and where to obtain copies of the Post Construction Ordinance and Design Manual. A copy of the Administrative Manual is available at the following website [www.indiantrail.org](http://www.indiantrail.org).

### **1.2 IMPACTS OF STORM WATER ON WATER QUALITY**

Storm water runoff from urban and developing areas is a major source of water pollution and water quality degradation. Oil, antifreeze and other automotive producing deposited in parking lots, metal associated with tire and brake pad wear deposited ailing roadways, pesticides and fertilizers applied to lawns as well as a variety of other chemicals are picked up in storm water runoff and carried to surface waters. The combined effect of increased pollutants due to urbanization, as well as increased stream channel erosion due to volume and velocity increased results in significant degradation of surface water resources. The increased volume and velocity of storm water runoff can also cause significant downstream flooding problems. The Post-Construction Storm Water Ordinance is designed to control storm water pollutants as well as increased storm water volume and velocity from new development and redevelopment so that water quality is protected and downstream flooding is reduced.

### **1.3 STORM WATER ADMINISTRATOR**

The person responsible for administering and enforcing the Ordinance is called the Storm Water Administrator. The powers and duties for the Storm Water Administrator as specified in the Post-Construction Storm Water Ordinance are as follows:

1. The review and approve or disapprove applications submitted pursuant to the Ordinance.
2. The make determinations and render interpretations or the Ordinance.
3. To establish application requirements and schedules for submittal and review of applications and appeals.
4. To enforce the Ordinance in accordance with its enforcement provisions.
5. To maintain records, maps, and official materials as relate to the adoption, amendment, enforcement, or administration of the Ordinance.
6. To provide expertise and technical assistance upon request to the Storm Water Advisory Committee (SWAC).
7. To designate appropriate other persons(s) who shall carry out the powers and duties of the Storm Water Administrator.

8. To provide information and recommendations relative to variances and information as requested by the Board of Adjustment in response to appeals.
9. To take any other action necessary to administer the provision of the Ordinance.
10. To develop and implement the Administrative Manual prepared for the Ordinance.

The Storm Water Administrator has authority to determine the interpretation of the Post-Construction Storm Water Ordinance. Any person may request an interpretation by submitting a written request to the Storm Water Administrator who shall respond in writing interpretations of the Ordinance.

#### **1.4 PROCESS FOR AMENDING THE ADMINISTRATIVE MANUAL**

The Administrative Manual may be updated and expanded from time to time, based on policy changes, etc. The Storm Water Administrator is responsible for all amendments to the Administrative Manual. All substantive, policy related changes to the Manual require a change by the Town Council.

### **SECTION 2 POST-CONSTRUCTION STORMWATER ORDINANCE**

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#### **2.1 LOCATION OF POST-CONSTRUCTION STORM WATER ORDINANCE**

The Post-Construction Storm Water Ordinance for the Town of Indian Trail can be at either the Town's website: [www.indiantrail.org](http://www.indiantrail.org); from the Storm Water Administrator; or at the Indian Trail Town Hall.

### **SECTION 3 DESIGN MANUAL**

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#### **3.1 LOCATION OF THE DESIGN MANUAL**

The Town of Indian Trail has adopted the NCDENR Storm Water BMP Manual. Additionally, please refer to Section 1370 "Storm Water Management" of the Indian Trail Unified Development Ordinance for storm water detention requirements. In all cases, the more restrictive of each ordinance applies.

The NCDENR Storm Water BMP Manual and the Indian Trail Unified Development Ordinance can be found on the Town's website: [www.indiantrail.org](http://www.indiantrail.org); or from the Storm Water Administrator.

## **SECTION 4 CONCEPT PLAN AND CONSULTATION MEETING**

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### **4.1 PURPOSE OF CONSULTATION MEETING**

The purpose of the Concept Plan is to demonstrate how a proposed development shall “in concept” comply with the Post-Construction Storm Water Ordinance requirements. The Concept Plan is not a detailed design but is meant to provide the basic information necessary for the review agency to ensure that compliance with Post-Construction Storm Water Ordinance requirements can and shall be achieved by the proposed project. A Concept Plan Application must be submitted to the Storm Water Administrator and be approved prior to approval of the preliminary plan for the project. The Concept Plan should be submitted for review along with Sketch Plans for the project.

The Storm Water Administrator or land owner or the land owner’s duly authorized agent or anyone having interest in the property by reason of a written contract with the owner may request a Consultation Meeting on a Concept Plan for the post-construction storm water management system to be utilized in the proposed development project. The Consultation Meeting shall take place prior to the submittal of the preliminary plan for the project and following the submittal of storm water management measures necessary for the proposed project, as well as to discuss and assess constraints, opportunities and potential approaches to storm water management designs before formal site design engineering commences. Local watershed plans and other relevant resource protection plans may be consulted during the discussion of the Concept Plan.

### **4.2 APPLICATION FOR CONCEPT PLAN**

Appendix 4-1 provides a blank Concept Plan Application form. The Concept Plan Application conveys the information necessary for review of the Concept Plan for compliance with the applicable Post-Construction Storm Water Ordinance. It also provides the information necessary for conducting Consultation Meetings. The form contains a box to be checked if a Consultation Meeting is requested by the applicant. If a Consultation Meeting is requested by the Storm Water Administrator, staff shall contact the applicant following the receipt of the Concept Plan Application.

## **SECTION 5 STORM WATER MANAGEMENT PERMIT**

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### **5.1 PURPOSE OF STORM WATER MANAGEMENT PERMIT AND APPLICATION**

The purpose of the Storm Water Permit is to provide a mechanism for the review, approval, an inspection of the approach to be used for the management and control of storm water for a development or redevelopment site consistent with the requirements of the Post-Construction Storm Water Ordinance. A Storm Water Management Permit is required for all development and redevelopment unless exempt pursuant to the Post-Construction Storm Water Ordinance (see Sections 105 (B) and (C)). No land development activity, including land clearing, grading, etc., can be initiated for such development or redevelopment until a Storm Water Management Permit has been issued by the Storm Water Administrator. A Storm Water Management Permit shall govern the design, installation, and construction of storm water management and control practices on the site, including structural BMPs and elements of site design for storm water management other than structural BMPs. Compliance after project construction is assured by the maintenance provision of the Post-Construction Storm Water Ordinance.

The purpose of the Storm Water Management Permit Application is to determine how post-construction storm water runoff shall be controlled and managed and how the proposed project shall meet the requirements of the Ordinance. A properly submitted, reviewed and approved Storm Water Management Permit Application is required for the issuance of a Storm Water Management Permit. The content and form of the Storm Water Management Permit Application shall be established by the Storm Water Administrator. All plans submitted with the application shall be prepared by a North Carolina Registered Professional Engineer. The engineer shall perform services only in their area of competence, and shall verify that the design of all storm water management facilities and practices meets the submittal requirements for complete applications, that the designs and plans are sufficient to comply with applicable standards and policies found in the Design Manual, and that the designs and plans ensure compliance with the Post-Construction Storm Water Ordinance.

Within 30 working days after a complete application is submitted, the Storm Water Administrator shall review the application and determine whether the applicant complies with the standards of the ordinance.

## **5.2 APPLICATION FOR STORM WATER MANAGEMENT PERMIT**

A copy of the Storm Water Management Permit Application Content and Form can be found in Appendix 5-1.

# **SECTION 6 OPERATIONS AND MAINTENANCE AGREEMENT**

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## **6.1 PURPOSE OF OPERATIONS AND MAINTENANCE AGREEMENT**

An Operations and Maintenance Agreement is required for all BMPs. The purpose of this agreement is to ensure that each BMP receives adequate maintenance so that it can satisfactorily perform its pollutant removal function. The agreement also designates the responsible party who shall be in charge of maintaining the BMP. It serves as a legal document to ensure maintenance and also outlines the routine maintenance schedule for each BMP.

Prior to final approval of any BMP design plans and the issuance of the Storm Water Management Permit, an Operations and Maintenance Agreement must be submitted and approved by the Storm Water Administrator for each BMP. The Operation and Maintenance Agreement should include the following:

1. Acknowledgement that the Covenanter(s) shall continuously operate, maintain, repair and if necessary reconstruct the storm water control and management facilities.
2. Shall state the terms, conditions, and schedule of maintenance for the structural BMP. The schedule of maintenance should identify specific activities to be completed for maintenance.
3. In addition, it shall grant to the Town of Indian Trail a right of entry in the event that the Storm Water Administrator has reason to believe it has become necessary to inspect, monitor, maintain, repair, or reconstruct the structural BMP; however, in no case shall the right of entry, of itself, confer an obligation on the Town of Indian Trail to assume responsibility for the structural BMP.

Reference Appendix 6-1, and 6-2 for standard Operations and Maintenance Agreements for BMPs. The Operations and Maintenance Agreement must be approved by the Storm Water Administrator prior to plan approval, and it shall be referenced on the final plat and shall be recorded by the applicant or owner with the Union County Register of Deeds upon final plat approval as described in Section 7. A copy of the recorded Operation and Maintenance Agreement shall be given to the Storm Water Administrator within fourteen (14) days following its recordation.

## **6.2 ANNUAL MAINTENANCE AND INSPECTION REPORT**

The Operations and Maintenance Agreement requires that each BMP be inspected by a North Carolina Registered Professional Engineer on an annual basis. An inspection report must be completed for each BMP indicating the status of each item inspected and any maintenance that was conducted. The first inspection report is due to the Storm Water Administrator within one (1) year from the date of as-built certification and each year thereafter. The inspector shall certify that the BMP has been inspected and that at the time of the inspection the BMP was performing properly and was in compliance with the terms and conditions of the approved Operation and Maintenance Agreement and Maintenance Plan required by the Post-Construction Storm Water Ordinance. Therefore, the inspector should allow enough time before the end of the one year time period to conduct necessary inspections(s) and completed the necessary maintenance and repairs prior to submittal of the report.

Within two (2) weeks following the completion of the inspection and maintenance activities, the owner of the BMP shall forward the signed and sealed maintenance and inspection report to the Storm Water Administrator. Submitted inspection forms shall be entered into the BMP maintenance database to track inspections and maintenance activities and the hard copy shall be placed in the file. The owner of the BMP shall keep records of inspections, maintenance, and repairs for at least five (5) years from the date of creation of the record and shall submit the same upon reasonable request to the Storm Water Administrator.

## **SECTION 7 FINAL PLAT RECORDATION**

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### **7.1 PURPOSE OF A FINAL PLAT**

Enforceable restrictions on property usage are required to run with the land to ensure that future development and redevelopment maintains the site in compliance with Ordinance requirements. This is achieved through specific notations on final plats as described below, which shall be reviewed and approved by the Town of Indian Trail prior to recordation. To the extent that a lot is subject to these restrictions, those restrictions that show up on the recorded final plat shall be picked up by the surveyor and shown on the survey for the lots given to purchasers at the time of closing. In this way, the property owner shall be made aware of the restrictions and shall hopefully maintain the site in compliance with Ordinance requirements.

## **7.2 NOTES ON FINAL PLAT**

The following shall appear on all final plats and shall be recorded at the Union County Register of Deeds Office:

1. The location of all designated Undisturbed Open Space areas. The following language is to be recorded for these areas: “Undisturbed Open Space Area: Future disturbance is prohibited in these areas except for greenway trails with unlimited public access, new utility lines and channel work/maintenance by Union County Public Works”.
2. The location and name of major streams and buffer boundaries including the delineation of each buffer zone and the top of the stream bank (field located). The buffer area shall be labeled as “Stream Buffer” and the stream side zone labeled as “UNDISTURBED”.
3. The location of all best management practices (BMPs), including their corresponding NAD 83 (feet) coordinates. The maximum built-upon area draining to each BMP must be shown along with the wet pond elevation for the high water mark and any vegetation, tree save areas, open space or site conditions that contribute to the project. The following language shall be recorded for all BMPs: “The purpose of the BMP is to treat/reduce the pollutants associated with storm water runoff in order to minimize negative effects to downstream receiving waters. The easement around the BMP is to allow storm water conveyance and system maintenance. The removal of plants or disturbance of the BMP structure or otherwise affecting the overall functionality of the BMP for reasons other than maintenance is strictly prohibited.”
4. The following language shall appear on the final plat regarding BMP maintenance: “This property contains water quality features that must be maintained according to the Operations and Maintenance Agreement and Plan recorded in Deed Book \_\_\_\_ and Page \_\_\_\_.”
5. Dimensions of the BMP area and all maintenance easements with the corresponding BMP identification name/number.
6. Storm drainage easements around BMPs or leading to BMPs including access easements.
7. Copy of the Operation and Maintenance Agreement and attached BMP Maintenance Plan stamped by the Union County Register of Deeds Office must be provided with the final plat.
8. A surety bond must be posted for each BMP indicated on the plat.

## **7.3 APPROVAL PROCESS**

Final plats shall not be approved until a copy of the recorded Operation and Maintenance Agreement and Maintenance Plan as described in Section 6 above have been received by the Town of Indian Trail. These documents were reviewed prior to recording by the plan review engineer as a condition for issuance of the Storm Water Management Permit. Following approval, the final plat shall be signed by The Town of Indian Trail Storm Water Administrator and recorded at the Union County Register of Deeds Office.

## **SECTION 8 PERFORMANCE AND MAINTENANCE SURETIES**

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### **8.1 PURPOSE OF A SURETY**

In the case of plat approval for a shared BMP, the Town of Indian Trail requires a surety to be held. A surety is used to ensure that funds are secured to complete the construction of BMPs prior to the approval of the plat. If the developer does not complete the construction of the BMPs, the Town of Indian Trail will cash the bond to obtain the money to do so.

### **8.2 PROCESS FOR HOLDING A SURETY**

A surety may be in the form of a bond, irrevocable letter of credit, certificate of deposit, or other form as approved by the Town of Indian Trail.

The surety posting process is as follows:

1. Submit an itemized cost estimate of improvements with the initial submittal of the plat for administrative review.
2. The cost estimate will then be reviewed by the Town Engineer. Any revisions must be made before the surety is obtained.
3. Processing Fees for Sureties: refer to the Town of Indian Trail Fee Schedule.
4. Performance sureties will be 125% of the total cost of the BMP(s).
5. Maintenance sureties will be 33% (1/3) of the total cost of the BMP(s).

### **8.3 RELEASE OF PERFORMANCE SURETY**

Performance sureties shall not be released until as-built plans have been received and approved and it has been determined by the Town of Indian Trail through an in-site inspection that all infrastructure has been installed and the project is in full compliance with approved plans and specifications and the requirements of the Post-Construction Storm Water Ordinance.

### **8.4 BMP MAINTENANCE SURETIES**

A Maintenance Surety, in the amount 1/3 the total cost of the improvements for the BMP(s), must be received before the original Performance Surety can be released.

## **SECTION 9 AS-BUILT SURVEYS AND DIGITAL SUBMITTALS**

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### **9.1 AS-BUILT PLANS AND FINAL APPROVAL**

The applicant shall certify that the completed project is in accordance with the approved storm water management plans and designs, and shall submit actual "as-built" plans for all storm water management facilities after final construction is completed. Failure to provide approved as-built plans within the time frame specified by the Storm Water Administrator may result in assessment of penalties as specified in Section 503 of the Post-Construction Ordinance. At the discretion of

the Storm Water Administrator, performance securities or bonds may be required for storm water management facilities or practices until as-built plans are approved and for one year thereafter.

As-built plans shall show the final design specifications for all storm water management facilities and practices and the field location, size, depth, and planted vegetation of all measures, controls, and devices, as installed. The designer of the storm water management measures and plans shall certify, under seal, that the as-built storm water measures, controls, and devices are in compliance with the approved storm water management plans and designs and with the requirements of this ordinance.

Upon receipt of the as-built surveys, the Storm Water Administrator shall arrange for inspections of BMPs, detention structures, undisturbed open space areas, water quality buffers and other measures as necessary to ensure compliance with the Post-Constructions Storm Water Ordinance. If inspections reveal compliance with as-built surveys and all Ordinance requirements, the Storm Water Administrator shall issue a written notice of site compliance to the owner within 30 days of the date of the inspection.

Final as-built plans and a final inspection and approval by the Storm Water Administrator are required before a project is determined to be in compliance with this ordinance. At the discretion of the Storm Water Administrator, certificates of occupancy and any other permits or certifications issued by the Town may be withheld pending receipt of as-built plans and the completion of a final inspection and approval of a project.

## **9.2 PROCESS FOR SUBMITTAL OF DIGITAL RECORDS**

Once the Storm Water Management Permit Application has been submitted and the plans have been reviewed and approved, electronic copies of the plans shall be submitted as AutoCAD (.DWG) files.

The following layers should be included in the digital files:

1. Property Lines/Exterior Property Lines
2. Right of Way Lines
3. Back of Curb
4. Edge of Pavement
5. New Lot Lines
6. Building Outlines (for Commercial and Multi-Family Sites)
7. Name, Location, Size, and Elevation of the BMPs
8. Location and Elevation of BMP Inlets and Outlets
9. Latitude/Longitude Coordinates for BMPs

Issuance of the Storm Water Management Permit shall be withheld until the receipt of this digital submittal.

As-built plans shall be submitted digitally to the Storm Water Administrator as a separate AutoCAD file after the final inspection and approval on the project.

At the discretion of the Storm Water Administrator, certificates of occupancy may be withheld pending receipt of the digital file.

## **SECTION 10 APPEALS AND VARIANCES**

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### **10.1 APPEALS AND VARIANCES FROM THE POST-CONSTRUCTION STORM WATER ORDINANCE**

Reference The Town of Indian Trail Unified Development Ordinance for information on Appeals and Variances.