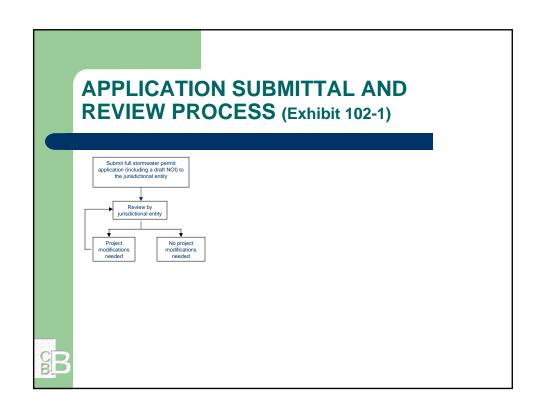
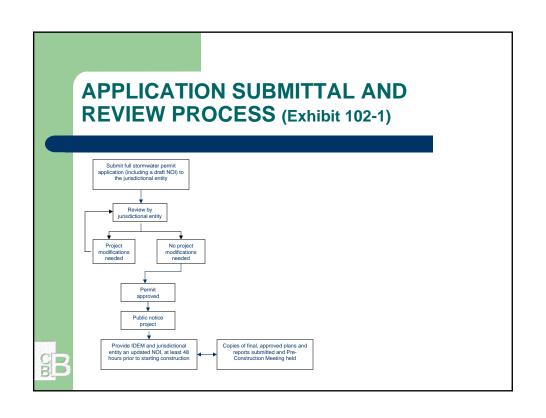
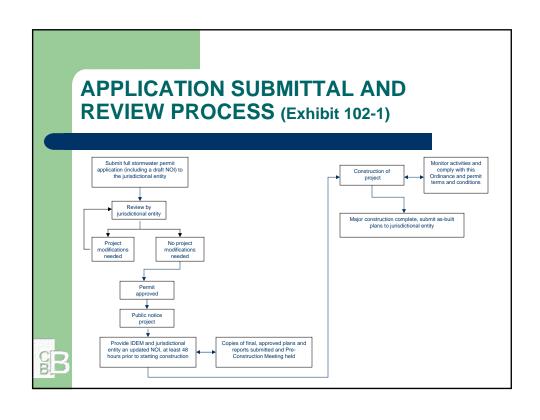
Hamilton County Stormwater Regulations Workshop Session 2 – Application Procedures Presented by: Siavash Beik, P.E., CFM David Eichelberger, P.E. Christopher B. Burke Engineering Ltd.

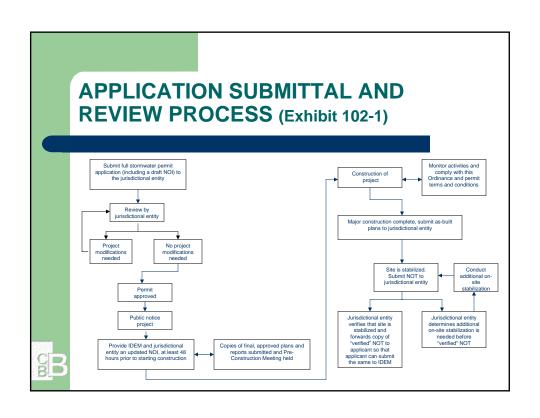
STRUCTURE OF PRESENTATION

- Procedures for Application Submittal and Review
- Data Requirements for Permit Applications
- Individual Lot Requirements
- Fees, Assurances
- Permit Terms & Conditions
- Construction Inspection and Approval
- As-built Plans, and Maintenance Bonds









DATA REQUIREMENTS FOR PERMIT APPLICATIONS (Section 102.01)

- Data required for Stormwater Permit Application include:
 - Draft Notice of Intent (NOI)
 - construction plans (including a digital copy in a format accepted by the jurisdictional entity)
 - stormwater drainage technical report
 - stormwater pollution prevention plan (SWPPP) for active construction sites
 - post-construction SWPPP
 - BMP O&M Manual(s), bound separately
 - other necessary supporting information



DATA REQUIREMENTS FOR PERMIT APPLICATIONS (Section 102.03)

- Construction Plan Requirements:
 - Detailed listing of construction plan requirements is provided in Section 102.03
 - If the proposed project is a specific section or phase of a larger project, the detailed information requested in Section 102.03 must be accompanied by an overall project plan that includes the location, dimensions, and supporting analyses of all detention facilities, primary conveyance facilities, and outlet conditions



DATA REQUIREMENTS FOR PERMIT APPLICATIONS (Section 102.04)

- Stormwater Drainage Technical Report Requirements:
 - A detailed listing of Stormwater Drainage Technical Report requirements is provided in Section 102.04
 - The report must include a summary narrative, calculations, copies of all computer runs, and a set of exhibits showing the drainage sub-areas and schematics detailing how the computer models were set up
 - The report must include a narrative and photographic record of the condition of the downstream receiving system

B

DATA REQUIREMENTS FOR PERMIT APPLICATIONS (Section 102.04)

- Stormwater Drainage Technical Report Requirements:
 - The report must show that the proposed stormwater management plan meets the requirements of the ordinance and standards. Table 102-1 must be filled in and submitted as part of the report for each eventual site outlet



DATA REQUIREMENTS FOR PERMIT APPLICATIONS (Section 102.05)

- Requirements for Stormwater Pollution Prevention Plans for Active Construction Sites:
 - A detailed listing of the requirements for Stormwater Pollution Prevention Plans (SWPPP) for active construction sites is provided in Section 102.05. Be sure to include:
 - Construction sequence
 - Typical erosion and sediment control plan for individual lot development (as needed)
 - Material handling and storage plan
 - Self-monitoring program including plan, procedures, and personnel information



DATA REQUIREMENTS FOR PERMIT APPLICATIONS (Section 102.06)

- Post-Construction SWPPP Requirements:
 - A detailed listing of the Post-Construction SWPPP requirements is provided in Section 102.06
 - A separate, bound, Operation and Maintenance Manual for all post-construction stormwater quality measures must be provided



INDIVIDUAL LOTS (Section 102.07)

- Separate review process for individual lots within a larger permitted project
 - For individual lots disturbing less than 1 acre, developed within a larger permitted project
 - Formal review and issuance of an Individual Lot Plot Plan Permit will be required prior to issuance of building permit
 - All stormwater management measures necessary to comply with the ordinance must be implemented in accordance with permitted plan for the larger project



INDIVIDUAL LOT DATA REQUIREMENTS (Section 102.07)

- Individual lot operator must complete a Residential Lot Plot Plan Permit Request and pay the applicable fee.
- A certified site layout for the subject lot and all adjacent lots showing building pad location, dimensions, and elevations, and the drainage patterns and swales.
- Erosion and sediment control plan that, at a minimum, includes the information detailed in Section 102.07.
- Name, address, telephone number, and list of qualifications of the trained individual in charge of the mandatory stormwater pollution prevention selfmonitoring program for the project site.



FEES (Section 102.09)

- As a condition of the submittal and review of development plans, applicant agrees to pay any applicable fees with respect to reviews, as well as any applicable pre-paid inspection fees
- Fee amount set by a separate ordinance
- Review fee and any pre-paid inspection fees due upon receipt of billing statement both during the review (if applicable) and before final permit is issued

ASSURANCES (Section 102.10)

- Required to assure a good faith execution of the stormwater drainage plan, the SWPPP, the stormwater quality management plan, and any permit conditions
- Assurance/performance bond to be provided in the form of an irrevocable letter of credit or a bond
- Assurance is due after all permits are granted and all applicable fees have been paid, and before construction can begin
- The amount of assurance is 100% to 120% of total cost of stormwater management measures (installation, monitoring, and maintenance during construction) as determined by the contractor's bid or by an estimate prepared by a registered PE. The minimum is \$5,000
- Each public facility improvement or installation shall be bonded individually and shall not have the performance guarantee provided in combination with any of the other public facility improvements and installations

TERMS AND CONDITIONS OF PERMITS (Section 102.11)

- Project site owner shall inform all general contractors, construction management firms, grading/excavation contractors, utility contractors, and the prime contractors for individual lots of terms and conditions of the permit and schedule/sequence of implementation
- Projects impacting Sensitive Areas or Impact
 Drainage Areas may be subjected to more stringent requirements than that detailed in the Ordinance

TERMS AND CONDITIONS OF PERMITS (Section 102.11)

- Sensitive Areas
 - Highly erodible soils (SWQMP Part B)
 - Outstanding waters (SWQMP Part B)
 - Impaired waters (SWQMP Part B)
 - Recreational waters (SWQMP Part B)
 - Surface drinking waters (SWQMP Part B)
 - Wetlands (if suspected, they should be delineated)
 - Threatened or endangered species habitat (if suspected, applicant must have site evaluated and inspected by experienced professional, with results turned in to entity)
- Impact Drainage Areas
 - Designated floodway or floodplain areas
 - Areas within the regulated drain easements
 - Land without an adequate outlet

CONSTRUCTION INSPECTION AND APPROVAL (Section 103.01)

- After permit approval, jurisdictional entity will conduct inspections to ensure compliance with ordinances and standards, and the terms and conditions of the approved permit
- Installed storm sewer will not be accepted until all requirements for inspection and testing are completed
- Portions not passing the tests will be repaired or replaced, and retested

CONSTRUCTION INSPECTION AND APPROVAL (Section 103.02)

Requirements

- Contractor/owner provides written notice to jurisdictional entity (and to IDEM) 48 hours prior to starting construction
- Copies of final, approved construction plans, stormwater drainage technical report, SWPPP for active construction sites, and the post-construction SWPPP must accompany the written notification
- Pre-construction meeting is required prior to any grading activity to ensure appropriate erosion and sediment control measures have been implemented and the location of existing tiles has been properly marked
- A Stop Work Order will be issued for all projects that proceed without following these procedures

CONSTRUCTION INSPECTION AND APPROVAL (Section 103.03)

 Testing requirements are provided in detail in Section 103.03

CONSTRUCTION INSPECTION AND APPROVAL (Section 103.04)

Release of performance sureties

- Notice of scheduled date for completion of construction must be provided at least 72 hours prior to the planned completion
- Contractor/owner will schedule the final inspection
- Storm drain and site grading performance sureties will be released after submittal and approval of:
 - As-built or Record Drawings
 - For subdivided and platted or developments larger than 2 acres, a copy of the maintenance bond
 - A "Certificate of Completion and Compliance"

CONSTRUCTION INSPECTION AND APPROVAL (Section 103.04)

- That portion of the performance surety associated with the storm sewer system, detention facilities, and postconstruction BMPs <u>may be released prior</u> to the release of performance surety associated with early permanent site stabilization or the installation of required erosion and sediment control measures for individual lots within a permitted subdivision
- The performance surety associated with erosion and sediment control measures may only be released upon the final acceptance of the project and the issuance of the "verified" NOT, upon stabilization of the entire site, and the removal of temporary erosion and sediment control measures

AS-BUILT OR RECORD DRAWINGS (Section 103.05)

- Must be prepared by the "engineer of Record" (the company/engineer who prepared the construction plans)
- Due after completion of construction and before the final project acceptance ("verified" NOT)
- As-built plans must include all pertinent data relevant to the completed stormwater quantity and quality management systems and shall be in accordance with the Hamilton County Record Drawing and Digital Submission Standards
- Digital copies of all as-built plans, drainage calculations, reports, and SWPPP shall be submitted in their final accepted forms

MAINTENANCE BONDS (Section 104.01)

- Property owner, developer, or contractor must file a 3-year maintenance bond prior to release of performance sureties. Intended to guarantee proper maintenance of:
 - Post-construction erosion and sediment controls
 - Storm sewer system
 - Sub-surface drains
 - Detention facilities
 - Post-construction BMPs
- Also intended to ensure corrective actions to remedy damages to upstream or downstream channels or storm sewers resulting from the as-built development of the project
- The amount of maintenance bond will be 20% of the cost of all stormwater management improvements and installations

