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Proposed Outline for iSWM Stormwater Process & Criteria Manual for Construction and Development

City of ___ : iSWM Stormwater Process and Criteria Manual for Construction and Development

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The iSWM program elements will consist of the following:

1. **iSWM Stormwater Process and Criteria Manual**
This manual to be a completed final draft by 10-1-09.
2. **iSWM Online Technical Guidance Module**
This module will have an outline completed by 10-1-09, with all the technical modifications completed on the existing technical components by 1st quarter of 2010. New guidance will be developed from 2010 to 2011.
3. **iSWM Education and Training Module**
This module will be developed over 2010-2011.

The following is additional detail on each of these iSWM elements.

iSWM Stormwater Process and Criteria Manual

The iSWM Stormwater Process and Criteria Manual is an approximately 50 page adoptable document that identifies process and criteria for the iSWM program, for both site development and construction. Detailed information will be available in iSWM Online Technical Guidance Module, supported by the iSWM Education and Training Module and referenced appropriately in this document.

1.0 Introduction

- 1.1 Goals and Objectives
- 1.2 Definitions

2.0 Process

2.1 Introduction

2.2 Planning

- Sustainability through site design practices
- Conceptual review
- Optional Preliminary Plan Review
- Platting/ Easements
- Planning Checklists
- Chapter 1 of TriSWM

2.3 Design

- Site Design Sections 1.3 and 1.4
- Erosion and Sediment Control Plan
- Design Checklists

2.4 Construction

- Pre-construction meeting and notices
- Stormwater Pollution Prevention Plan (SWPPP)
- Inspections (public infrastructure and temporary controls)

2.5 Operation & Maintenance

- O&M plan requirements

- Maintenance Agreements
- Public infrastructure

3.0 Design Criteria for Private Infrastructure

3.1 Introduction/ Applicability

- 3 Design Storms
- Water Quality and Quantity
- Combined use of BMPs

3.2 Public and Private Infrastructure

- Easements
- Private Agreements

3.3 Water Quality

3.3.1 Integrated Site Design Practices

- Selection and Applicability of Practices
- Ranking systems
- Incentives for use of integrated site design practices
- Consider achievement of WQ requirements through site design and treatment of remaining volume.

3.3.2 Treat the Water Quality Protection Volume

- Treat first 1.5" of rainfall

3.3.3 Regional/ Watershed Program or Facilities

- Master Planned facilities designed to treat for water quality

3.3.4 Construction

- Prioritization of methods
- Consider incentives in conjunction with integrated site design
- Design of BMPs
- SWPPP development
- Compliance with TPDES Construction General Permit

3.4 Stream Bank Protection (Section 1.2)

3.4.1 Downstream Assessment

- Downstream Assessment currently based on velocity, consider move towards volume based.
- Downstream Assessment criteria
- Details of downstream assessment moved to the iSWM Online Technical Guidance Module

3.4.2 Stabilize Downstream Controls

3.4.3 Install stormwater controls to maintain existing downstream conditions

3.4.4 Control the release of the 1-yr, 24 hour storm event

3.5 Conveyance and Flood Control (Section 1.2)

3.5.1 Downstream Assessment Criteria

3.5.2 Conveyance System Design

- Onsite conveyance/ controls
- Sections __.1 of iSWM Chapters 2, 3, 4, 5

3.5.3 Flood Control System Design

- Manage downstream flood impacts
- Sections __.1 of iSWM Chapters 2, 3, 4, 5

4.0 Local Provisions

- Place holder for communities to add local provisions that are not included or referenced to the iSWM Online Technical Guidance Module.

iSWM Stormwater Process & Criteria Manual Implementation Guide:

The Implementation Guide is a guidance document to step communities through the process of editing, adopting, and implementing the Stormwater Process & Criteria Manual to meet their individual needs.

Includes:

- Adoption and Implementation “Roadmap”
- Model Ordinance
- Survey of what other communities are doing
- Guidance on adopting iSWM Online Technical Guidance Module Documents by ordinance

iSWM Online Technical Guidance Module:

iSWM Online Technical Guidance Module contains iSWM technical guidance documents that will be maintained by NCTCOG on the web. This module will be referenced by the Stormwater Process & Criteria Manual and provides the technical details of how to meet the requirements established by each community in their iSWM manual. The legal issues of adopting iSWM Online Technical Guidance Module Documents when it is web based and controlled by NCTCOG will need to be worked out.

- Technical:
 - Hydrologic Analysis (Chapter 2)
 - Hydraulic Design of Streets and Closed Conduits (Chapter 3)
 - Hydraulic Design of Open Channels, Culverts, Bridges, and Detention Structures (Chapter 4)
 - Stormwater Controls (Chapter 5)
 - SWPPP Preparation (Portions of Chapter 3)
 - Construction BMPs (Chapter 4)
 - Appendices (Site Development and Construction)
 - Checklists
- Program:
 - TBD by NCTCOG
- Regulations:
 - MS4 Permit requirements for development/ re-development and construction
 - Construction General Permit requirements

iSWM Education and Training Module

This module contains iSWM training guides, examples, and design tools to assist designers and communities in ongoing understanding and use of the iSWM Process and Criteria Manual and the iSWM Online Technical Guidance Module.

Includes:

- iSWM Program:
 - General information for elected officials, the benefits of iSWM, etc.
- Training Guides
- Examples
- Design Tools
- Public Involvement Tools