### Issue:

**Natural Assets & Green Infrastructure**

**Action Tool Title**

Integrated Storm Water Management (iSWM)

### Description of the tool:

Development and redevelopment by their nature increase the amount of impermeability in the environment. This increased impermeability translates into loss of natural areas, more sources for pollution in runoff, and heightened flooding risks. To help mitigate these impacts, the integrated Storm Water Management (iSWM) program provides criteria and tools to guide local governments and developers in the control and management of storm water quantity and quality.

### How Valuable is this tool? How important is its contribution to achieving North Texas' vision for the future?

iSWM is a vital tool for accomplishing reduced impervious surfaces and green infrastructure in new and redeveloped areas.

### How does it actually work?

Local governments adopt the iSWM Criteria Manual for Construction and Development as their construction and post-construction storm water management/drainage requirements. Developers implement the requirements of the program during the design, construction, and operation of their developments.

### What are the costs and who will they affect?

- Some types of developments may incur additional costs in meeting iSWM requirements when compared to business as usual, although reduced infrastructure (storm sewers, streets, parking, etc.) costs may offset other costs. In addition, open space and other green infrastructure may increase revenue.
- Planning and engineering costs may increase due to more thorough analysis required by iSWM.

### What are the benefits and who will they help?

- Regional implementation of iSWM will ease the development process through heightened predictability development requirements. Through improved site and drainage designs, downstream flooding risk and streambank erosion are minimized and water quality is protected.
- Green infrastructure & open space provides amenities for residents.
- Local governments meet requirements of stormwater regulations.

### What are the biggest stumbling blocks? How can they be addressed?

- Perceptions among some in the development community that focus only on perceived increased cost.
  - Education, training, and outreach efforts
- Hesitation by local governments to change long-standing drainage design requirements and concerns about cost.
  - Education, training and outreach efforts

### Who Would be Responsible?

- **Primary (lead) responsibility**
  - Local government engineering, planning, and development departments.
- **Secondary responsibility**
  - Developers and consulting engineering, landscape architecture and architecture firms.

### Need for coordination

- **Primary (lead) responsibility**
  - Implementation of iSWM in local government are typically funded through development permitting and impact fees.
- **Secondary responsibility**
  - None

### How Should it be Funded?

- **Primary (lead) responsibility**
  - Implementation of iSWM in local government are typically funded through development permitting and impact fees.
- **Secondary responsibility**
  - None

### How Does It Connect?

**What other VNT issues are helped by this tool?**

Waterworks

**What other VNT issues could be hurt by this tool?**

None

### How Should It Be Implemented?

- **What will be done?**
  - Release of updated iSWM program products
  - Training and outreach activities
  - Regionally recommended date of adoption by local governments

- **When will it happen?**
  - 1st Quarter 2010
  - Beginning 2nd Quarter 2010 and ongoing thereafter
  - 4th Quarter 2010

### What Examples Can We Follow?

<table>
<thead>
<tr>
<th>North Texas Case Studies</th>
<th>Cities of Fort Worth, Benbrook, Southlake, Grand Prairie and others have adopted iSWM. The City of Dallas is in the early stages of a phased implementation program.</th>
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</thead>
<tbody>
<tr>
<td>Other Texas Case Studies</td>
<td>Georgia, West Virginia, Maryland, City of Nashville.</td>
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<tr>
<td>Other U.S. Case Studies</td>
<td>Vision North Texas Water/Natural Assets Team</td>
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### Acknowledgements

Vision North Texas Water/Natural Assets Team