

Issue:	Natural Assets & Green Infrastructure	
Action Tool Title	<i>integrated</i> Storm Water Management (iSWM)	
Description of the tool:	Development and redevelopment by their nature increase the amount of imperviousness in the environment. This increased imperviousness translates into loss of natural areas, more sources for pollution in runoff, and heightened flooding risks. To help mitigate these impacts, the <i>integrated</i> Storm Water Management (iSWM) program provides criteria and tools to guide local governments and developers in the control and management of storm water quality and quantity.	
How Well Does It Work?		
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?	What are the benefits and who will they help?	
<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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?	
<ul style="list-style-type: none"> Perceptions among some in the development community that focus only on perceived increased cost. Hesitation by local governments to change long-standing drainage design requirements and concerns about cost. 	<ul style="list-style-type: none"> Education, training, and outreach efforts 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		
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		
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?	When will it happen?	
<ul style="list-style-type: none"> Release of updated iSWM program products Training and outreach activities Regionally recommended date of adoption by local governments 	<ul style="list-style-type: none"> 1st Quarter 2010 Beginning 2nd Quarter 2010 and ongoing thereafter 4th Quarter 2010 	
What Examples Can We Follow?		
North Texas Case Studies	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.	
Other Texas Case Studies		
Other U.S. Case Studies	Georgia, West Virginia, Maryland, City of Nashville	
Supporting Research		
Related Information		
Acknowledgements	Vision North Texas Water/Natural Assets Team	