



A “How to” Guide for Local Officials



Stormwater Fact Sheet No. 7

This fact sheet is No. 7 of a eight-part series focused on stormwater runoff problems and control strategies. The series covers:

- 1) Stormwater Impacts
- 2) Human Health Impacts
- 3) How Citizens Can Help
- 4) Prevention and Control
- 5) Control for Development
- 6) Rules and Regulations
- 7) “How to” for Local Officials
- 8) Municipal Prevention



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Elements Of A Comprehensive Local Program

This fact sheet describes the elements of a comprehensive local stormwater management program, including funding options. The required elements of a comprehensive local stormwater management program may vary considerably from one community to another. Political, social, environmental, and economic conditions vary between communities. In addition, state and federal requirements potentially impact the elements of the local program. Cities and counties may have different problems, approaches and needs which require different program elements. Typical elements of a comprehensive stormwater program are discussed below.

Stormwater Goals and Objectives

A set of well-defined goals and objectives is perhaps the most important element of a successful stormwater management program. Unfortunately, communities often undertake expensive construction projects or adopt stormwater control ordinances without fully understanding the problem, why action is needed, or how much control or management is required. Goals and objectives state a community’s philosophy and needs and give direction to the entire stormwater program. They also serve as a benchmark that can be used to gauge the effectiveness of the program.

- **System Inventory:** This inventory identifies and maps the location, size, capacity and condition of the stormwater drainage system. It also helps to identify pollution sources such as illicit connections.

- **Hydrologic/Water Quality Studies:** Hydrologic studies examine the location, frequency and severity of flooding. Water quality monitoring helps to identify specific pollutants and their sources and to develop an effective stormwater pollution prevention and control program.

- **Stormwater Master Plan:** This plan evaluates various control options and lays out a plan of action for addressing stormwater problems, issues and needs in each drainage basin. Up to date master plans should address impacts of both stormwater quantity and quality.

Policies, Regulations and Design Manuals

Numerous policy decisions have to be made when developing and implementing a local stormwater management program. These policies address the fundamental questions of “who, what, when, where and how” For example, who pays for the program and how?

Stormwater regulations and ordinances are another important part of a comprehensive stormwater management program. These are typically used to control runoff quantity and/or quality from new development or redevelopment projects. They strive to reduce the volume and peak rate of runoff and prevent and control pollutant loadings from a particular site.

Design, operation, and maintenance manuals provide detailed specifications for preparing stormwater management plans. These include how to design, construct, and maintain structural practices and facilities including pipes, culverts, channels, inlets/outlets, detention/ retention basins, infiltration and vegetative practices, and other Best Management Practices. Manuals should also address nonstructural practices, such as pollution source reduction measures.

Program Administration and Funding

Adequate staff and equipment are needed to administer a comprehensive local program. Many local programs are administered by staff within the public works, planning, engineering, inspections or other departments. Some larger communities establish separate stormwater departments, divisions or branches to carry out the program. Multijurisdictional arrangements or agencies may also be used. Depending on the elements of the program, staff is needed to carry out various functions including administration, planning, capital improvements, operation and maintenance, and public education and public involvement. This may require only one person in a small town or rural county, or several people in a large city that has a comprehensive program including significant infrastructure. Equipment used in a comprehensive municipal program may include street sweepers, catch basin vacuum trucks, backhoes and other equipment to remove sediment and debris from basins and watercourses, computer hardware/ software, water quality monitoring equipment, and construction equipment. A county without a storm sewer system may need very little equipment since its program may consist primarily of enforcing regulations and implementing stormwater education programs.

Adequate funding of the program is critical to its success and is often the biggest challenge facing stormwater managers. In the past, reliance on the general fund to provide needed revenues often resulted in poorly funded programs. Stormwater utilities which charge user fees are rapidly becoming a popular method of funding stormwater programs. These and other funding options are listed in the shaded box and described below.

Public Education and Involvement Programs

Public education and involvement programs are also vital to a successful stormwater program. It is important to keep the public informed about the program’s goals, objectives and strategies. Many communities use citizen advisory committees to help develop and target their programs. Education and involvement programs help build support for the stormwater program. Citizen support is especially needed when governing bodies adopt regulations and seek adequate funding. Stormwater managers increasingly realize that government programs with limited resources cannot do the job alone. Citizens must take more responsibility for dealing with stormwater problems. Many citizens are eager to help if given the opportunity. Without a doubt, education and involvement programs represent money well spent.

Stormwater Funding Alternatives

Tax Revenues (General Fund): Property and sales tax revenue can be used for stormwater management activities. However, stormwater programs usually lose in the budget battle for these funds.

Special Service Districts: District tax revenues can be used to provide specific stormwater services not available in sections of a city or county.

User Fees (Stormwater Utility): Local governments in North Carolina may now charge monthly user fees to individual properties based on their contribution to stormwater runoff.

Special Assessments: One time assessments can be levied against properties in proportion to the benefit each receives from a specific stormwater project.

Powell Bill Funds: Cities may use these gas tax revenues to construct and maintain stormwater drainage systems within city street rights-of-way.

Grants and Loans: Few grant and loan funds are available for stormwater program. Check with the North Carolina or the Environmental Protection Agency about special demonstration funds or with Rural Development Administration about funds for rural areas and small towns.

Permit and Inspection Fees: Local governments can set fees to cover the cost of permitting and inspection programs.

Impact/Facility Fees: Special local enabling legislation is needed to charge these one-time fees that are related to the impact generated by a new development project.

Online Resources:

Local Government Environmental Assistance Network

www.lgean.org click on “Hot Topics” and the “Stormwater”

Center for Urban Policy and the Environment

stormwaterfinance.urbancenter.iupui.edu/

and

stormwaterfinance.urbancenter.iupui.edu/General%20Manuals.htm

Environmental Protection Agency

www.epa.gov/owow/nps/funding.html

The Stormwater and Urban Watershed Management Sector

wrrc.p2pays.org/indsectinfo.asp?indsect=1

National Transportation Library

ntl.bts.gov/DOCS/322PFA.html

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For more information

- Appropriate Local Government Officials www.seris.info/RiverLink/techinfo.shtml
- Land of Sky Regional Council 251-6622.

- Center for Watershed Protection. www.cwp.org.
- North Carolina Division of Water Quality Stormwater Unit: Manuals and Factsheets
- www.h2o.enr.state.nc.us/su
- North Carolina Division of Water Quality Stormwater Permitting Unit: Stormwater Permitting Unit Home h2o.enr.state.nc.us/su/stormwater.html
- North Carolina Phase II Stormwater www.ncphase2sw.org/
- North Carolina State University www.bae.ncsu.edu/stormwater/
- RiverLink www.seris.info/RiverLink/techinfo.shtml or www.riverlink.org