CSN Guide to the Best Stormwater Resources

Essential Elements for Strong Local Stormwater Programs

Chesapeake Stormwater Network

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There certainly is a great deal of stormwater information out there, indeed, probably more than the average stormwater manager can read in a lifetime. Herewith, is CSN's effort to sort the wheat from the chaff and pick the best publications and websites out there to help build your municipal stormwater program, organized by the following topics:

1. Good General Stormwater Website Resources
2. Public Involvement, Education and Stormwater Outreach
3. Erosion and Sediment Control
4. Post Construction Stormwater
5. Illicit Discharge Detection and Elimination
6. Municipal Good Housekeeping
7. Stormwater Pollution Prevention
8. Stormwater Retrofits
9. Stormwater and Watersheds
10. MS4 Program Evaluation
11. MS4 Program Financing
12, Stormwater Research
13. Industrial Stormwater
14. Employee Training

1. Good General Stormwater Website Resources

☺ ☺ ☺   **Chesapeake Stormwater Network**

Available from CSN website @ www.chesapeakestormwater.net

- 15 Baywide Stormwater Design Specifications
- Tech Bulletin: Stormwater Design in Karst Terrain
- Tech Bulletin: The Impervious Cover Model Revisited
- Tech Bulletin: Stormwater Design in the Coastal Plain
- Tech Bulletin: The Baywide Runoff Reduction Method
- Stormwater Research Updates
- Monthly Stormwater Blogs when you sign up as a Network Member

☺ ☺ ☺   **Center for Watershed Protection –** The Center for Watershed Protection is a non-profit organization providing local governments, activists and watershed organizations with technical tools for watershed planning and restoration, education and training, and stormwater management. www.cwp.org/   The website has several important resources that can be downloaded for free

- Post Construction Stormwater Manual
- Municipal Housekeeping Manual
- IDDE Manual
- Munocipal Stormwater Monitoring Guide
- National BMP Pollutant Removal Database
- Small Watershed Restoration Manual Series

CWP also maintains a website, www.stormwatercenter.net, which contains a wealth of basic stormwater information, but has not been updated for at least five years

Villanova Urban Stormwater Partnership

The VUSP is the premiere stormwater research center in PA

http://www3.villanova.edu/VUSP/

Pennsylvania DEP Stormwater Home Page

This site is where you can find the latest on state-wide stormwater permits and download the PA Stormwater Manual

http://www.depweb.state.pa.us/watershedmgmt/cwp/view.asp?a=1437&q=518682

StormwaterPA.

Green Treks operates a stormwater website dedicated for folks in PA
www.stormwaterpa.org

EPA Region 3 Stormwater and MS4 Permit Links

These two sites have useful documents and fact sheets about stormwater and permitting

http://www.epa.gov/reg3wapd/stormwater/index.htm

http://www.epa.gov/reg3wapd/stormwater/permits.htm

EPA Chesapeake Bay Program Stormwater

http://archive.chesapeakebay.net/info/stormwater.cfm

Low Impact Development Center - The Low Impact Development Center strives to help communities use proper site design techniques to protect their water resources.
www.lowimpactdevelopment.org

National EPA Stormwater Websites - EPA operates multiple websites with technical and regulatory information about the NPDES stormwater program. It is organized according to the three types of regulated stormwater discharges—construction activities, industrial activities, and municipal separate storm sewer systems.
www.epa.gov/npdes/stormwater

- **EPA's Stormwater Webcast Series**, www.epa.gov/npdes/training
- **EPA's Compliance Monitoring Strategy** (Audits and Inspections) www.epa.gov/compliance/monitoring/programs/cwa/npdes.html
- **EPA's LID Website**, www.epa.gov/owow/owow/nps/lid
- **National Menu of Best Management Practices (BMPs) for Phase II** - Contains more than 100 fact sheets detailing BMPs for each minimum control measure. www.epa.gov/npdes/stormwater/menuofbmps
- **NPDES News** - Use this website to sign up for EPA's email newsletter called NPDES News. Receive periodic updates on the latest happenings in the NPDES program.
  cfpub.epa.gov/npdes/newsregister.cfm
- **Stormwater Phase II Final Rule Fact Sheet Series** – This series of 14 fact sheets explains the Phase II rule, the six minimum measures, and other important parts of the program.
  cfpub.epa.gov/npdes/stormwater/swfinal.cfm
- **National Management Measures to Control Nonpoint Source Pollution from Urban Areas**–Urban management measures.
  www.epa.gov/owow/nps/urbanmm/

2. Public Involvement, Education and Stormwater Outreach

- ☺ ☺ ☺ **EPA Nonpoint Source Outreach Toolbox** – This toolbox contains nearly 800 print, radio, and TV advertisements in a searchable catalogue in the categories of lawn and garden care, motor vehicle care, pet care, septic system care, household chemicals and waste, and general stormwater and storm drain awareness. It also contains a comprehensive collection of surveys and evaluations of outreach programs; a collection logos, slogans and mascots for community campaigns;.
www.epa.gov/nps/toolbox

- ☺ ☺ ☺ **Getting In Step: A Guide for Conducting Watershed Outreach Campaigns**, The Getting in Step watershed outreach effective watershed outreach plan. This manual will help you address public perceptions, promote stormwater-friendly activities, and inform or motivate stakeholders.
www.epa.gov/nps/outreach.html

- **Getting in Step: Engaging and Involving Stakeholders in Your Watershed** - This document, developed by EPA, provides the tools needed to effectively identify, engage, and involve stakeholders to help restore and maintain healthy environmental conditions.
www.epa.gov/owow/watershed/outreach/documents/stakeholderguide.pdf

- **California Stormwater Toolbox** –The California State Water Resources Control Board's innovative public education campaign "Erase the Waste" includes this toolbox containing advertisements, posters, and other outreach materials, as well as a Neighborhood Action Kit in English, Spanish, Chinese, Korean and Vietnamese. The toolbox includes a learning model for grades 4-6 that meets state curriculum standards, an after school program, and an online inventory of stormwater materials in California.
www.erasethewaste.com

- **Stormwater Outreach Materials and Reference Documents** - EPA has developed a set of materials that state or local governments can customize and use in their own stormwater outreach campaigns.
www.epa.gov/npdes/stormwatermonth

3. Erosion and Sediment Control

- ☺ ☺ ☺ **Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Sites** - This manual provides detailed guidance on the development of storm water pollution prevention plans (SWPPP) and identification of best management practices (BMPs) for construction activities. The SWPPP guide is written in a general format and can be used at most construction sites nationwide, in any state, territory or in Indian country. The guide contains a SWPPP template and sample inspection form which should be customized to meet specific permit requirements and the conditions at the site.
www.epa.gov/npdes/swpppguide

- **Construction Industry Compliance Assistance Center** - Developed by the National Center for Manufacturing Sciences, this site provides explanations of environmental rules for the construction industry. Also provided are links to detailed information, including state regulations and other resources. www.cicacenter.org

- **National Menu of BMPs: Construction Site Runoff Control** - This EPA website links to 39 fact sheets outlining various IDDE best management practices. www.epa.gov/npdes/stormwater/menuofbmps/construction

- **Construction General Permit** - The website describes EPA's construction general permit and provides links to fact sheets and the new electronic Notice of Intent (eNOI) website. www.epa.gov/npdes/stormwater/cgp

- **International Erosion Control Association** - The International Erosion Control Association is a non-profit, member organization that provides education and resource information for professionals in the erosion and sediment control industry. www.ieca.org/

- **Construction Site Runoff Control Case Studies** - EPA's searchable archive of case studies which contains a variety of reports on site runoff control for contractors and stormwater managers. www.epa.gov/npdes/casestudies (Click on Construction Site Runoff Control under Minimum Control Measures search tab)

4. Post Construction Stormwater

- ☺ ☺ ☺ **Center for Watershed Protection's Post-Construction Manual.** This publication and supporting modules was completed in 2008 and is the definitive guide for developing a local stormwater program. Definitely worth a read, and its free www.cwp.org

- **EPA Webcasts on Post-Construction, Smart Growth, Low Impact Development**, www.epa.gov/npdes/training

- **National Menu of BMPs: Post-Construction Site Runoff Control** - This EPA website links to 39 fact sheets outlining various structural and non-structural best management practices for post-construction runoff control. www.epa.gov/npdes/stormwater/menuofbmps/postconstruction

- **Model Ordinances** - Assists managers in developing their own ordinances for the six minimum measures of stormwater control. www.epa.gov/npdes/stormwater/ordinances

- **Low Impact Development Strategies and Tools for NPDES Phase II Communities –** This site provides information to stormwater Phase II communities on integrating low impact development (LID) strategies into their compliance programs. www.lowimpactdevelopment.org/lidphase2/home.htm

5. Illicit Discharge Detection and Elimination

- ☺ ☺ ☺ **Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments** - This comprehensive manual outlines practical, low cost and effective techniques for stormwater managers and practitioners. It is specifically designed to provide valuable guidance for those seeking to establish Illicit Discharge Detection and Elimination (IDDE) programs. cfpub.epa.gov/npdes/docs.cfm?program_id=6&view=allprog&sort=name#idde manual www.cwp.org/idde_verify.htm

- **National Menu of BMPs: Illicit Discharge Detection and Elimination (IDDE)** - This EPA website links to 8 fact sheets outlining various IDDE best management practices. www.epa.gov/npdes/stormwater/menuofbmps/illicitdischarge

- **EPA NPDES Webcast:** Developing Your IDDE Program (IDDE 101) www.epa.gov/npdes/training

- **Investigation of Inappropriate Pollutant Entries into Storm Drainage Systems: A User's Guide** Information to allow the design and conduct of local investigations to identify the types and to estimate the magnitudes of non-stormwater entries into storm drainage systems www.epa.gov/npdes/pubs/investigating_inappropriate_pesds.pdf

- **Illegal Discharge Detection and Elimination Case Studies** - EPA's searchable archive of case studies which includes a variety of reports on Illegal Discharge Detection and Elimination (IDDE) for stormwater managers. www.epa.gov/npdes/casestudies

6. Municipal Good Housekeeping

- ☺ ☺ ☺ **Manual 9: Municipal Practices and Programs** Urban Subwatershed Restoration Series. This document was released by the Center for Watershed Protection in 2008 and contains the most comprehensive information on how to analyze your municipal operations to reduce stormwater pollution http://www.cwp.org/

- **EPA's National Menu of BMPs**, www.epa.gov/npdes/menuofbmps

- **California Stormwater Quality Association Handbook on Municipal Operations**, http://www.cabmphandbooks.com

- **Unified Subwatershed and Site Reconnaissance: A User's Manual**. Urban Subwatershed Restoration Manual 11 (Center for Watershed Protection, 2005) http://www.cwp.org

- **Unified Stream Assessment: A User's Manual** Urban Subwatershed Restoration Manual 10: (Center for Watershed Protection, 2005) http://www.cwp.org/PublicationStore/USRM.htm#usrm10

7. Stormwater Pollution Prevention

- ☺ ☺ ☺ : **Pollution Source Control Practices.** Urban Subwatershed Restoration Manual 8 (Center for Watershed Protection, 2005) http://www.cwp.org/PublicationStore/USRM.htm#usrm8

- **National Menu of Stormwater Best Management Practices: Pollution Prevention/Good Housekeeping** (US EPA, 2007) http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm

- Stormwater Management Manual for Western Washington: Volume IV: Source Control BMPs (Washington State Department of Ecology, 2005) http://www.ecy.wa.gov/biblio/0510032.html

- **California Stormwater Best Management Practice Handbook: Municipal** (California Stormwater Quality Association, 2003) http://www.cabmphandbooks.org/municipal.asp

- King County (WA) **Stormwater Pollution Prevention Manual** (King County (WA) Department of Natural Resources and Parks, 2005) http://dnr.metrokc.gov/wlr/dss/sppm.htm

- **Stormwater Pollution Prevention Bulletin Series** (California Department of Transportation, 1998 - 2003) http://svhqsgi4.dot.ca.gov/hq/env/stormwater

- **Municipal Pollution Prevention and Good Housekeeping Program Assistance Document** (New York State Department of Environmental Conservation, 2006) http://www.dec.ny.gov/docs/water_pdf/mppaf.pdf

8.Stormwater Retrofits

- ☺ ☺ ☺ :**Urban Stormwater Retrofit Practices**. Manual 3. Small Watershed Restoation Manual Series, Released by CWP in 2007, this manual is the definitive work on this important topic. www.cwp.org

9. Stormwater and Watersheds

- ☺ ☺ ☺ **The Urban Subwatershed Restoration Manual Series**, particularly Manuals 1 and 2 provide a useful guide for managing stormwater and other restoration objectives at the small watershed level, www.cwp.org

- **EPA's Watershed Planning Handbook**, www.epa.gov/owow/nps/watershed_handbook

10. MS4 Program Evaluation

- **Measurable Goals Guidance** - Helps small MS4 communities select measurable goals to evaluate their programs. www.epa.gov/npdes/stormwater/measureablegoals

- **Municipal Stormwater Program Effectiveness Assessment Guidance**. California Stormwater Quality Association's, www.casqa.org ($30.00)

- **EPA's Stormwater Webcast on Municipal Program Effectiveness** www.epa.gov/npdes/training

- **EPA's MS4 Program Evaluation Guide**, www.epa.gov/npdes/stormwater/municipal

11. MS4 Program Financing

- **An Internet Guide to Financing Stormwater Management** - This site was designed to help communities find ways to fund stormwater management projects. stormwaterfinance.urbancenter.iupui.edu/

- **Catalog of Federal Funding Sources for Watershed Protection** - The Catalog of Federal Funding Sources for Watershed Protection website is a searchable database of financial assistance sources (grants, loans, and cost-sharing) available to fund a variety of watershed protection projects. cfpub.epa.gov/fedfund/

- **Financing a Municipal Stormwater Program (Stormwater Utilities 201)** - Two-hour audio Web broadcast on July 12, 2006 with Andy Reese of AMEC Earth and Environmental, Inc. Description of stormwater funding methods and the advantages of developing a stormwater utility. cfpub.epa.gov/npdes/courseinfo.cfm?program_id=0&outreach_id=290&schedule_id=930

- **Guidance for Municipal Stormwater Funding** - Guidance document produced by the National Association of Flood and Stormwater Management Agencies (NAFSMA) under a grant from EPA. This resource for local governments examines funding approaches including legal, procedural and

financial considerations. It focuses on guidelines for developing service/user/utility fees to support funding programs. www.nafsma.org/Guidance%20Manual%20Version%202X.pdf

- **Stormwater Utility Survey** – Results from the sixth national stormwater utility survey conducted by Black and Veatch Corporation can help those in the stormwater industry gain insight into a range of stormwater topics. Survey questions and responses, including charts and graphs, are organized into the following topics: public education, administration, planning, finance, user fees, BMPs, major challenges and events affecting utilities. clerkdoc.sannet.gov/RightSite/getcontent/local.pdf?DMW_OBJECTID=0900145 1800b8385

12. Stormwater Research

- **EPA's Urban BMP Performance Tool**, www.epa.gov/npdes/urbanbmptool

- **EPA's BMP Performance webcast**, www.epa.gov/npdes/training

- **National Pollutant Removal Database** Center for Watershed Protection's, www.cwp.org/PublicationStore/special.htm (free)

- **National Stormwater Quality Database** - A national database of Phase 1 stormwater monitoring data providing a scientific analysis of the data, and recommendations for improving the quality and management value of future NPDES monitoring efforts. The cumulative value of the monitoring data collected over almost a ten year period from hundreds of municipal outfalls and streams can help characterize the quality of stormwater runoff, and compare it against historical benchmarks (such as the NURP and USGS national datasets). unix.eng.ua.edu/~rpitt/Research/ms4/mainms4.shtml

- **International Stormwater Best Management Practices (BMP) Database** - A centralized clearinghouse of BMP data and information to help developers, builders, engineers, and planners improve BMP selection and design. It contains searchable information on more than 200 studies, including test site locations, researchers, design parameters, watershed characteristics, costs, and precipitation and flow data. . The database is managed by the Water Environment Research Foundation with the assistance of the American Society of Civil Engineers and other organizations. www.bmpdatabase.org/

- **UNH Stormwater Research Center** - The University of New Hampshire's online stormwater database contains factsheets, research materials, articles and links to other stormwater sites. www.unh.edu/erg/cstev

13. Industrial Stormwater

- ☺ ☺ ☺ : **Pollution Source Control Practices.** Urban Subwatershed Restoration Manual 8 (Center for Watershed Protection, 2005) http://www.cwp.org

- **The Industrial Stormwater Pollution Prevention Site** – A resource to help educate industry on the federal and state requirements on stormwater pollution. Additionally, this site will help guide you through the process of producing a Stormwater Pollution Prevention Plan (SWPPP) for your facility. www.gatechstormwater.com/

- **Auto Repair and Fleet Maintenance Pollution Prevention Website** (US EPA Region 9, 2007) http://www.epa.gov/region09/waste/p2/autofleet/

- **Vehicle and Equipment Wash Water Discharges** Best Management Practices Manual (Washington State Department of Ecology, 2007) http://www.ecy.wa.gov/pubs/95056.pdf

- **California Stormwater Best Management Practice Fact Sheet SC-33: Outdoor Storage of Raw Materials (**California Stormwater Quality Association, 2003) http://www.cabmphandbooks.org/Documents/Municipal/SC-33.pdf

- **California Stormwater Best Management Practice Fact Sheet SC-30: Outdoor Loading/Unloading** (California Stormwater Quality Association, 2003) http://www.cabmphandbooks.org/Documents/Municipal/SC-30.pdf

- **Stormwater BMP: Solid Waste Container** (Harvard University, 2006) www.uos.harvard.edu/ehs/env_sbmp4.shtml

14. Employee Training

- **Municipal Employee Training Resources Website** (North Central Texas Council of Governments, 2005) http://www.nctcog.org/envir/seeclean/stormwater/program-areas/pollution_prevention/cd/version_1/p2_training_materials.asp

- **NPDES Training Courses and Workshops** (US EPA, 2007) http://cfpub.epa.gov/npdes/outreach.cfm?program_id=0&otype=1

- **Los Angeles (CA) City Employee Training Website** (Los Angeles (CA) Stormwater Program, No Date) http://www.lastormwater.org/Siteorg/education/ctyemptrng.htm