

Clermont County Stormwater Management Plan 2005 Annual Report

CHAPTER 1: PUBLIC EDUCATION AND OUTREACH

Section 103.1 East Fork Watershed Management Program Measurable Goals

1. *Hold Lower East Fork Watershed Public Meeting:* Completed in 2003 and 2004.
2. *Complete draft of Lower East Fork Watershed Action Plan/submit to OEPA and ODNR:* Completed in 2003. The Lower East Fork Watershed Action Plan has been submitted to and endorsed by both Ohio EPA and the Ohio Department of Natural Resources (ODNR). The plan can be downloaded at www.oeq.net (from main menu, click on Water Quality, then Watershed Action Plans), or hard copies can be requested by contacting the East Fork Watershed Coordinator at (513) 732-7075.
3. *Hold Middle East Fork Public Meeting:* The East Fork Watershed Collaborative had proposed an aggressive schedule for completing watershed action plans (WAPs) in five watersheds of the 520 square mile East Fork Little Miami River watershed by the end of 2006. Although the Collaborative was one of the first in Ohio to have an endorsed WAP (Lower East Fork), it has been difficult to maintain the proposed schedule because of the geographic scope of the project and several personnel changes (three watershed coordinators) which have occurred. Also, a shift in funding emphasis at the state level (Ohio EPA 319 Grant Program, ODNR Watershed Coordinator Grant Program) from planning to implementation has resulted in a realignment of the timetable for completing watershed planning in favor of undertaking more implementation in those watersheds where action plans are already complete (Lower East Fork, East Fork Headwaters pending).

Additionally, the time frame in which the various plans were to be developed has been revised since the submittal of the Stormwater Management Plan in March 2003. The Middle East Fork planning process was originally scheduled to begin in September 2004. In an effort to increase the involvement of the three counties that comprise the upper portion of the East Fork drainage basin, the decision was made to focus on completing two watershed plans for the East Fork Headwaters and Lake Harsha and its tributaries. Numerous stakeholder meetings have been held in both of these watersheds (details presented in 2004 Annual Report), and a draft Watershed Action Plan for the East Fork Headwaters was submitted in October 2005. Comments from Ohio EPA and Ohio DNR were received in December 2005. These comments will be addressed in early 2006 and a revised Headwaters plan will be resubmitted for endorsement. Also in 2005, the East Fork Watershed Coordinator and Office of Environmental Quality staff began drafting an action plan for the Harsha Lake Tributaries (portions of which fall within the Phase II area). This plan will be completed in 2006.

The East Fork Watershed Collaborative plans on initiating public meetings in the Middle East Fork watershed in 2006. These will continue into 2007, when the Middle East Fork Watershed Action Plan will be completed and submitted to Ohio EPA and Ohio DNR for endorsement.

4. *Complete draft of Middle East Fork Watershed Action Plan/submit to OEPA and ODNR:* This was originally planned for December 2004, but postponed due to reasons explained in #3 above. The final plan should be completed in 2007.

5. *Post current version of Watershed Action Plans at www.oeq.net*: Completed in 2004. The final, endorsed Lower East Fork Watershed Action plan can be downloaded at this site.
6. *Present final Watershed Action Plans to the Clermont County Board of Commissioners, City/Village Councils, and Township Trustees for adoption*: In progress. The East Fork Watershed Coordinator presented the Lower East Fork Watershed Action Plan to Milford and Batavia Township. Both agreed to pass a resolution in support of the action plan. Presentations to the Board of County Commissioners and the Union Township Trustees still need to be arranged. In late 2005, Clermont Soil & Water Conservation District hired Jason Brown as East Fork Watershed Coordinator to replace Jay Dorsey who left to work with ODNR Division of Soil and Water. Mr. Brown will schedule presentations of the Lower East Fork Watershed Action Plan to these two groups in 2006.
7. *Provide implementation progress reports to County Commissioners, City/Village Councils and Township Trustees*: Complete. A two-page progress report (“East Fork News and Notes”) was sent out as an insert in the Soil and Water Conservation District’s winter 2005 newsletter (included in Appendix 1). This was distributed to all local governments in Clermont County, as well as local governments outside Clermont County but within the East Fork watershed.

Section 103.2 Measurable Goals for Stormwater Educational Programs

1. *Conduct 25 Enviroscape programs for County school children*: Completed/ongoing. In 2005, the Clermont SWCD Educational Specialist conducted 28 Enviroscape presentations in Clermont County schools, including:
 - 6 presentations to Clermont Northeastern 5th grade classes (1/19/05)
 - 6 presentations to Bethel Middle School 7th grade classes (3/5/05)
 - 3 presentations to Clermont Northeastern kindergarten classes (4/11/05)
 - 4 presentations to Clermont Northeastern kindergarten classes (4/12/05)
 - 4 presentations to Mulberry Elementary kindergarten classes (4/29/05)
 - 1 presentation at a Nagel Middle School teachers workshop (7/27/05)
 - 4 presentations to Williamsburg 5th grade classes (10/4/05)

The Program Manager for the Clermont County Storm Water Management Department also gave an Enviroscape demonstration to a 5th grade science class at St. Thomas More on February 24, 2005. Teachers and students also received watershed window stickers, temporary tattoos, and a copy of the brochure entitled “When it Rains, Clermont Drains.” Other than the fact that the Program Manager put the bottom of the Enviroscape model on backwards and the “stormwater runoff” ended up on the classroom carpet, the presentation was a success. We are also happy to report that the damage from this illicit discharge was minimal and cleaned up quickly.

2. *Conduct three Streamulator public presentations*: Not Completed. In 2005, the Clermont SWCD Educational Specialist was not able to conduct any Streamulator public presentations; however, the number of special stormwater education programs conducted by the Education Specialist was well above the number originally planned (see item #3 below).
3. *Conduct 15 additional stormwater education programs to schools*: Completed/ongoing. In addition to the Enviroscape and Streamulator programs, the Clermont SWCD Educational

Specialist conducted 71 other stormwater programs County schools, including the following presentations: Indoor Stream Monitoring (16), Web of Life/Links in the Chain (21), Sum of the Parts (17), Feed the Fish (11), and Landforms/Drainage (6).

4. *Conduct three stormwater-related presentations to interest groups:* Completed/ongoing. The East Fork Watershed Coordinator conducted nine stormwater presentations to different interest groups in 2005. These included:
 - Hosting two public stakeholder meetings to provide input to the East Fork TMDL project
 - Organizing two home septic system workshops (total attendance of about 100)
 - A presentation at the East Fork Watershed Nutrient Management Workshop (attendance of about 20 people)
 - A presentation to the Eastgate Junior Women's League (attendance of 30)
 - Organizing and facilitating a stream morphology tour (attendance of 15)
 - Organizing and facilitating two educational canoe floats (total attendance of about 45). The canoe floats included a presentation on the history of the East Fork area, facts about the river and the watershed and some shared thoughts on stream conservation and health. An Ohio DNR Division of Wildlife field crew gave an electrofishing demonstration, and the Soil & Water Conservation District's educational specialist gave a kick-seining demonstration. The canoe floats were made possible through an Ohio Environmental Education Fund (OEEF) grant.
5. *Submit two stormwater-related articles to local newspapers:* Completed/ongoing. In 2005, four storm water articles ran in local papers (see Appendix 1), including:
 - Top 10 things homeowners can do to prevent stormwater pollution prevention (*Clermont Community Journal*, March 23, 2005)
 - "Clermont Considers Storm Utility" (*Cincinnati Enquirer*, March 23, 2005)
 - Information to homeowners on how to properly close a swimming pool (*Clermont Community Journal*, September 21, 2005)
 - Front page article about the storm water management video produced by the Clermont County Storm Water Management Department and the Office of Public Information (*Clermont Sun*, November 8, 2005)

These are in addition to the numerous articles that ran for local clean-up events, including the annual East Fork River Sweep, Ohio River Sweep, Clean and Green Neighborhood Clean-up, and the various municipal/township clean-up days.

6. *Local Zoning Commissions will complete "Community Ordinance Worksheet":* Completed. The Community Ordinance Worksheet, or COW, is a worksheet developed by the Center for Watershed Protection that serves as a tool for local communities to evaluate how friendly their local subdivision and zoning regulations are to low impact development practices. In February 2005, Clermont County contracted with the Center for Watershed Protection to hold a "Better Site Design" workshop and tour. The workshop was organized around the Center's 22 Better Site Design principles, which are the basis for the COW. On October 11, 2005, the Storm Water Management Department held a meeting of all local zoning officials to review the COW. Zoning officials in turn used the COW to conduct a review of the local zoning regulations. As of the end of 2005, all but three of the Phase II partners have submitted a

completed COW. One of the three (Pierce Township) is in the process of revising their zoning regulations and is using the COW to help assess potential changes.

Section 103.3 Measurable Goals for Stormwater Educational Materials

1. *Publish three stormwater articles in Clermont Environmental Quarterly:* Completed/ongoing. A number of articles related to stormwater management were published in the County newsletter – the *Clermont Environmental Quarterly*. Copies of each are included in Appendix 1. The Spring 2005 issue included the following:

- articles about the annual East Fork River Sweep and the Clean and Green Neighborhood Clean-up,
- a review of the Center For Watershed Protection workshop, held on February 16, and
- an announcement about the availability of the Office of Environmental Quality’s 2004 Water Quality Report.

The summer edition of the newsletter included these articles:

- a summary of the Office of Environmental Quality’s 2005 stream monitoring and sampling program,
- an article about the annual Ohio River Sweep,
- wrap up articles for the East Fork River Sweep and the Clean and Green clean-up,
- information about the Adopt-a-Waterway program (even though this program was discontinued by the ODNR Division of Watercraft, the Soil and Water Conservation District and the Adams-Clermont Solid Waste District have continued to support the Adopt-a-Waterway program locally).

Three stormwater-related articles were included in the fall edition of the newsletter, including:

- A description of the storm drain labeling program,
- An article about the two educational canoe floats held by the Soil and Water Conservation District, and
- An update on OEQ’s stream monitoring and sampling program

Finally, the winter edition of the Clermont Environmental Quality included the following two articles:

- General information for homeowners associations and residents about the management of stormwater detention/retention basins, and
- A summary of Clean and Green’s “Make a Difference Day,” which involved a litter clean-up in the City of Milford.

2. *Publish two stormwater articles in the local SWCD newsletter:* Completed/ongoing. In 2005, three stormwater-related articles were published in the Clermont SWCD newsletter. The summer edition included a two page insert titled “Effective Storm Management...Naturally.” This article discusses how natural systems manage and treat storm water runoff, and problems that occur when these natural services are eliminated.

The fall newsletter included a notice about the October 6 workshop titled “Principles of Stream Management.” This workshop included an overview of how streams work and the benefits and services provided by streams and stream corridors, a discussion of stream management issues and options, and a tour of different practices already in use in the East Fork Watershed.

The winter newsletter included a full section on “East Fork News and Notes,” which provided updates on watershed planning activities, TMDL Development, Project SIGNS, the Lower East Fork 319 Grant Project, and the Lower East Fork Riparian Corridor Protection Project being conducted through Ohio EPA’s Water Resource Restoration Sponsor Program (WRRSP). The winter newsletter also included information on how farmers could apply for cost share funds for conservation practices through the Environmental Quality Incentive Program (EQIP). Copies of the Soil and Water Conservation District’s newsletters are included in Appendix 1.

3. *Publish two stormwater articles in the SWCD Urban Development newsletter:* Completed/ongoing. The spring edition of this newsletter included an article about guidelines for stream setbacks, a notice about Ohio House Bill 411 which strengthens County authority over sediment and erosion control, notices about the Adopt-a-Waterway program, the storm drain labeling program and Project SIGNS, and a notice about April 28-29 workshops entitled “Designing Storm Water Detention Basins” and “Essential Hydrology for Storm Water Management.” A copy of the Urban Development newsletter is included in Appendix 1.
4. *Compile stormwater fact sheet for homeowners:* Completed. In 2003 and 2004, Clermont County partnered with the Miami University Institute of Environmental Sciences (IES) to develop a stormwater web site for the county. A team of graduate students from the IES program completed a year-long public service project that resulted in the development of the web site and an assessment of County, municipal and township pollution prevention practices (see details under summary for Minimum Measure #6). As part of the web site development project, the student team compiled or developed a variety of residential fact “sheets” that present stormwater management information as it relates to auto care practices, home repair projects, lawn and garden practices, pet care, household hazardous waste disposal, litter prevention and recycling. All these can be viewed by going to the stormwater web site at www.oecq.net/sw and clicking on “Residential” under the main menu. Additionally, there are links to fact sheets produced by other organizations, including U.S. EPA, and sections that have “Fun Stuff for Kids” and “Resources for Teachers.” To view materials for last two items, click on “Educational Materials” under the Stormwater home page’s main menu.
5. *Compile stormwater BMP fact sheets:* Completed/to be posted on the Storm Water Department’s web site in 2006. Clermont County partnered with the Sanitation District No. 1 of Northern Kentucky to develop a manual that focuses on post-construction BMPs, including wet ponds, dry ponds, grass swales, infiltration ditches, rain gardens and others. Within the manual there is a fact sheet for each BMP that summarizes its effectiveness in removing different pollutants, construction and maintenance requirements, estimated range of costs to implement, and links to additional information. Copies of the BMP fact sheets are included in Appendix 5.
6. *Complete “When It Rains, It Drains” brochure/ distribute 1000 copies annually:* Partially completed. The brochure was developed in 2003. In 2005, a total of 700 printed copies of “When It Rains, It Drains, Clermont Drains” brochure were distributed to citizens and Phase II Community Partners. This number was a little short of the Storm Water Management Plan’s

goal, primarily because so many copies of the brochure were sent out in 2004 (7,500 were distributed). The brochure can be downloaded from the Clermont SWCD web site at <http://www.clermontswcd.org/rains.pdf>.

7. *After the Rain: Urban Runoff video to local cable channels:* Clermont County began airing the “After the Rain: Urban Runoff” video produced by Oregon State University on local access cable TV in 2004 (Clermont County, Stonelick Township and Miami Township broadcasts). While this is a good video, it has a west coast focus. Since this time, Clermont County obtained a copy of the “After the Storm” video produced by U.S. EPA and the Weather Channel, which is more appropriate for communities in the Midwest. In 2005, the Clermont County Office of Public Information ran the “After the Storm” video daily during the first two weeks of January 2005, and again during the week of March 18-25, 2005.

Section 103.4 Storm Drain Labeling Program

1. *Develop storm drain labels for Little Miami and Ohio River basins:* Completed. Storm drain labels are available for the Little Miami, East Fork Little Miami and Ohio River watersheds.
2. *Information about storm drain labels and spill reporting on web sites:* Completed. Visit <http://www.clermontswcd.org/stdrain.htm> to view information about the storm drain labeling program.
3. *Issue program press release:* Completed. The press release was issued on December 16, 2003.
4. *Label at least 1250 storm drains:* In progress. As of the end of 2004, a total of 496 storm drains were labeled. During 2005, an additional 334 labels were applied, including:
 - a. *Village of Amelia:* Purchased 275 labels and applied 164 labels in Amelia Park and Quail Creek II subdivisions (Chapel Road, Floral Avenue, S. Kline, N. Kline, Letitia Avenue, Maple Avenue, Oak Street).
 - b. *Village of Batavia:* Replaced 22 existing catch basins with new catch basins. Each of the 22 basins has been labeled.
 - c. *Union Township:* Purchased 2000 labels in 2002. In 2005, 148 labels were applied on the following streets: Argentine Court, Barnsby Lane, Bostwick Court, Calgary Court, Dorgene Lane, Equine Lane, Fireside Drive, Fordon Court, Goal Post Lane, Guards Lane, Hurlingham Way, Kennecot Drive, Mallet Hill Drive, Mendon Hill Lane, Midfield Road, Palermo Road, Polo Woods Drive, Tournament Drive, and Westchester Way.

Section 103.5 Measurable Goals for Solid/Household Hazardous Waste Education Program

1. *Print/distribute 2000 copies of Clermont County Recycling & Waste Disposal Guide:* Completed in 2003. An additional 3,000 copies were printed and distributed in 2005.
2. *Post recycling/waste disposal guide on web sites:* Completed. The Recycling Guide is available at <http://www.oeq.net/upload/RecyclingBrochure.pdf>. The Clean and Green Collaborative, which is a volunteer group dedicated to beautifying Clermont County and keeping it litter free, has also posted the recycling brochure on its web site (<http://www.clermont2020.org/programs/cg/RecyclingBrochure.pdf>). Links to the recycling guide are also provided by Phase II municipalities with web sites.

3. *Review and update guide:* Completed/ongoing effort. The Recycling Guide is reviewed and updated at least once a year. In 2005, two revisions were completed, including one in April 2005 and one in December 2005. The most recent version is available on OEQ's web site (see link above).
4. *Monitor Environmental Response Line (513-732-7894):* Completed/Ongoing. The Clermont County Office of Environmental Quality continues to publicize this number and answer questions on a variety of issues related to stormwater management.

Additional Activities Not Contained in Storm Water Management Plan

Clermont County continues to look for new opportunities to raise the public's awareness about storm water issues that face the county, and to encourage the public to take steps to reduce the problems associated with storm water runoff. Additional public education activities included the following:

1. *Project SIGNS:* The Clermont SWCD has partnered with other community agencies, watershed groups and environmental organizations to conduct a public education campaign known as Project SIGNS (Signage Inspires Great Neighborhood Streams). As part of this program, signs are installed at stream crossings that identify the stream and the watershed in which it is located, along with a "Keep It Clean" message. The stream crossing signs will help people identify with the streams in their neighborhood and hopefully encourage them to take steps as individuals to protect these important resources. The Clermont SWCD partnered with the County Engineer's Office and the Phase II communities to print and install these signs at 37 stream crossings in the urbanized area, including:
 - Five stream crossings in Batavia Township,
 - One stream crossing in the Village of Batavia,
 - Six stream crossings in Goshen Township,
 - Six stream crossings in Miami Township,
 - Five stream crossings in the City of Milford,
 - Five stream crossings in Stonelick Township,
 - Eight stream crossings in Union Township, and
 - One stream crossing at the Miami/Union Township border (East Fork at Roundbottom Road)
2. *Additional Newsletter Articles:* The April 2005 edition of *Clermont County On the Move* (citizen newsletter published by Office of Public Information) included an article promoting the annual Clean and Green volunteer clean-up.
3. *Milford Utility Brochure:* A new brochure summarizing the City's stormwater utility was developed, distributed and posted on the City's web site (www.milfordohio.org/pdf/StormWaterBrochure.pdf)
4. *HSTS Workshops:* The Clermont County Health District and the East Fork Watershed Collaborative partnered to hold two home sewage treatment system (HSTS) workshops, in conjunction with the Lower East Fork 319 Grant Project. More detail about the workshops is presented in Chapter 3 (Illicit Discharge Detection and Elimination).

5. *Storm Water Utility Presentations:* The Program Manager for the Storm Water Management Department gave three public presentations related to the proposed establishment of a storm water utility in Clermont County. The first was provided to the Monroe Township trustees at a Board of Trustees meeting on February 8, 2005. The second presentation was given to the Clermont 20/20 Senior Leadership class on March 10, 2006. The last presentation was given to a group of township trustees at the Clermont County Township Association on August 18. As the County progresses toward the adoption of a utility, more public presentations will be provided,

CHAPTER 2: PUBLIC INVOLVEMENT

Section 205.1 Press Releases

1. *Issue press releases, in conjunction with local clean-ups:* Completed. Each year, press releases are issued announcing the East Fork River Sweep, the Clean and Green Neighborhood Clean-up and the Ohio River Sweep, as well as Milford's Fall Litter Pick-Up Day. In 2005, these press releases resulted in ten separate articles in the *Clermont Community Journal*, the *Clermont Sun*, and the *Cincinnati Enquirer*. Additionally, the Clean and Green Collaborative purchased three advertisements in the Community Journal promoting the April 23 Neighborhood Clean-up. Copies of the articles are provided in Appendix 2.
2. *Watershed Action Plan public meetings:* Partially Completed. Notices were posted on the OEQ and Soil and Water Conservation District web sites for the three East Fork Watershed Collaborative meetings held in 2005. None of the local papers ran notices about these meetings.

Section 205.2 Newsletters

1. *Publish three stormwater articles in Clermont Environmental Quarterly:* Completed. See Section 103.3 above. Copies are provided in Appendix 1.
2. *Publish two stormwater articles in local of SWCD Newsletter:* Completed. See Section 103.3 above. Copies are provided in Appendix 1.
3. *Publish two stormwater articles in SWCD Urban Development Newsletter:* Completed. See Section 103.3 above. Copies are provided in Appendix 1.
4. *Include stormwater-related information in at least one issue of municipal/ township newsletter:* All communities with newsletters, with one exception, included multiple stories related to stormwater management or pollution prevention. Copies of each are included in Appendix 2.
 - a. *City of Milford:* The spring edition included information promoting the annual Milford clean-up day and the East Fork River Sweep, both held in April. This newsletter also included the "Top Ten Things You Can Do to Prevent Storm Water Pollution," and an article about the City's "pooper scooper" ordinance.
 - b. *Village of Amelia:* The 1st quarter newsletter included an article promoting the annual Clean and Green volunteer clean-up, and information about the construction of a new salt barn. The Village's second quarter newsletter had an article about the storm drain labels recently placed, as well as some tips for residents on how to prevent pollutants from entering the storm drain
 - c. *Village of Batavia:* The "Batavia Bulletin" March 2005 newsletter included information promoting the annual East Fork River Sweep.
 - d. *Miami Township:* The spring edition included an article promoting the annual Clean and Green volunteer clean-up. The summer newsletter included an article entitled "Storm Water Management Key to Keeping Miami Township River and Streams Clean." This article listed the top ten actions residents can take to keep streams and rivers clean. The winter edition of the newsletter included information on the township's snow removal program, including information about the ground sensing

- equipment installed on each truck that helps to monitor the amount of salt applied and to regulate application amounts as the trucks speed up and slow down.
- e. *Monroe Township*: The Fall 2005 newsletter included information about the clean-up of lead contamination at Fair Oak park through a grant received from U.S. EPA (for information, visit www.epaosc.net/fairoakparklead/), and an article mentioning that 1700 tires had been collected by the township during its clean-up days. The tire clean-up was made possible by a Scrap Tire Collection grant received by the Solid Waste District from the ODNR Division of Recycling and Litter Collection.
 - f. *Pierce Township*: No stormwater-related articles were included in the township's 2005 newsletters.
 - g. *Union Township*: The Fall "Talk of the Township" newsletter included an article titled "Pollution: It's Everyone's Problem...And Everyone's Responsibility." This article listed five steps residents can take to stop pollution of our creeks and rivers.
5. *Publish quarterly waste disposal and recycling brochure (Milford)*: Completed. Milford published four waste disposal and recycling brochures that were distributed quarterly with pay-as-you-throw garbage stickers.

Section 205.3 Public Work Groups / Committees.

1. *East Fork Watershed Collaborative County Team meetings*: The structure of the East Fork Collaborative was changed in 2004. Rather than forming "County Teams," special topic groups are established that focus on specific topics. Two such groups met in 2005 – one to participate in the development of a TMDL for the East Fork Little Miami River, and one to discuss the preservation and restoration of riparian corridors. There were two TMDL stakeholder meetings in 2005. Both were held on June 15 – one for the upper East Fork Watershed in Fayetteville, and one for the lower watershed in Batavia. During these meetings, the County presented the initial results from the stressor identification work conducted by Tetra Tech, and asked stakeholders to comment on the findings and to suggest other stressors that should be considered under the TMDL program. Additional TMDL stakeholder meetings will be held in 2006.

A second group met for the first time on December 12, 2005 to begin discussing ways to protect and restore riparian buffer zones. Approximately 15 people attended the first meeting, including representatives from the Storm Water Management Department, Office of Environmental Quality, Soil and Water Conservation District (SWCD), OSU Extension Office, Natural Resources Conservation Service, Little Miami, Inc. and other county SWCDs within the East Fork watershed. Shortly afterwards, the East Fork Watershed Coordinator employed by Clermont SWCD accepted a job with the ODNR Division of Soil and Water. A new coordinator has since been hired; however, it is uncertain if the riparian work group will meet again in 2006.

2. *East Fork Watershed Collaborative Executive Board Meetings*: Completed. The EFWC Executive Committee met on January 28 and August 9.
3. *Stormwater Stakeholder Meeting, with focus on Little Miami / Ohio River basins*: In 2005, a Technical Advisory Committee was established to explore the potential of establishing a storm water utility in Clermont County. Consideration has been given to creating a county-wide utility that would serve residents in the Little Miami, Ohio River and East Fork watersheds. Notices for these meetings are posted on the Storm Water Management Department's web site (www.clermontstorm.net). The Technical Advisory Committee began

meeting in April 2005 and met eight times throughout the year. This group will continue meeting in 2006.

The recommendations of this committee will be brought to a larger public stakeholder advisory group in 2006, which will in turn review different aspects of a storm water utility and make recommendations to the Board of County Commissioners. Additionally, several open public meetings concerning the utility will be held in 2006. If at any time during this process the Board of Commissioners decides against the implementation of a utility, meetings of the stakeholder groups described above will be terminated.

In addition to the utility stakeholder meetings, the Clermont County Sewer District, together with the Office of Environmental Quality and the Health District, held two public meetings in subdivisions that have problems with discharging HSTSs. These were held on August 22 and August 30. More information on this is provided in Chapter 3 (Illicit Discharge Detection and Elimination).

4. *City of Milford Stormwater Advisory Committee meetings:* Completed. The Storm Water Advisory Committee met jointly with the Hazard Mitigation Committee on August 24. Nine people were in attendance. The two committees were combined into one at this meeting, and members agreed to meet at least annually. The City's Hazard Mitigation Plan was reviewed at the August meeting. The City has adopted ODNR's model ordinance to regulate projects in flood hazard areas. The committee also reviewed applications for utility credits. Credits are offered to non-residential properties that install and maintain certain best management practices. The Powhatan Street Storm Sewer Project was also discussed.

Section 205.4 Storm Drain Labeling

1. *Develop storm drain labels for Little Miami and Ohio River basins:* Completed. See Section 103.4.
2. *Information about storm drain labels and spill reporting on web sites:* Completed. Visit <http://www.clermontswcd.org/stdrain.htm> to view information about the storm drain labeling program.
3. *Issue program press release:* Completed in 2003.
4. *Label at least 1250 storm drains:* In progress. To date, a total of 830 have been applied, plus a number that have been purchased but not yet placed (including 2000 labels purchased by Union Township). In an effort to increase public involvement and awareness, volunteers have been recruited and used to label the storm drains and place door hangers. See Section 103.4 for details.

Section 205.5 Volunteer Monitoring

1. *Provide assistance to local schools conducting volunteer monitoring programs:* This task is done on an as-needed basis. In 2005, no schools requested assistance with volunteer monitoring programs.

Section 205.6 Volunteer Clean-Ups

1. *Clean and Green Neighborhood Clean-up:* Completed. The annual Clean and Green neighborhood Clean-up was held on Saturday, April 23. A record 1,159 people registered for the clean-up; however, freezing rain the day of the event kept many people away. Some sites rescheduled the clean-up for May 14. Even with the inclement weather, 341 people gathered at 14 different locations throughout Clermont County (up from 11 in 2004) to help clean litter from county roads and parks. Volunteers were able to gather 669 bags of litter (an estimated 13,380 lbs. of trash).
2. *East Fork River Sweep:* Completed. The 13th Annual East Fork River Sweep was held on Saturday, April 16. The “East Fork Stream team” of more than 360 volunteers walked the banks and canoed about seven miles of the East Fork and Stonelick Creek, picking up litter and garbage along the way. Volunteers recovered 362 30-gallon bags of trash, 149 tires, two televisions, a refrigerator, four 55-gallon plastic drums, two shopping carts and another 30 to 40 cubic yards of other large miscellaneous garbage.
3. *Ohio River Sweep:* Completed. The annual Ohio River Sweep was held on Saturday, June 18. A total of 302 volunteers helped clean approximately 600 bags of trash (an estimated 12,000 lbs of trash), plus 51 tires, 108 5-gallon plastic buckets, five propane tanks and one refrigerator from portions of the river in New Richmond, Moscow, Neville and Chilo.
4. *City of Milford Litter Clean-Up:* Completed. The City of Milford conducted their annual fall clean-up on October 22. A total of 160 volunteers helped to make this event successful. Over 2,020 pounds of litter were collected as part of this effort.
5. *Promote Adopt-a-Waterway program:* Although funding for the popular Adopt-a-Waterway program administered by the ODNR Division of Watercraft has been eliminated, the Clermont SWCD is working to continue this program locally. In 2005, three Adopt-a-Waterway clean-ups were conducted. On April 16, Tetra Tech EMI cleaned their adopted stretch of the East Fork through the Milford area in conjunction with the annual River Sweep. Tetra Tech crews collected six bags of trash, 16 ties, an RV refrigerator, two shopping carts and two cubic yards of miscellaneous trash.

On June 14, the Clermont County Park District partnered with staff from the Soil and Water Conservation District and the Office of Environmental Quality to clean a short stretch of the East Fork downstream of Harsha Dam where illegal dumping of tires has been a problem. This effort resulted in 104 tires being cleared from the river bed and banks (still more remain).

On July 30, the Batavia Rotary Club conducted its first clean-up along their adopted stretch of the East Fork downstream of Batavia Village. The Rotary Club cleared ten bags of trash from this 3.5 mile stretch of stream, along with 12 tires, two basketballs, two traffic cones, a wheelbarrow frame, a toilet, a very heavy waterlogged carpet and a cubic yard of miscellaneous large trash.

6. *Complete reports summarizing the success of the above programs, including number of participants, miles of stream cleaned, and the estimated amount of trash collected:* Completed. Reports were submitted to the Ohio Department of Natural Resources/Division of Recycling and Litter Prevention and ORSANCO. This information is also included in the event descriptions above.

Section 205.7 Waste Collection Events

1. *Continue antifreeze/motor oil recycling program/track amount collected:* Completed. All residents are able to bring used antifreeze, motor oil or other automotive fluids to the County fleet maintenance garage at no cost. The antifreeze is recycled and used in County vehicles. The motor oil is used to fuel an oil burning furnace that heats the garage. In 2005, 35 residents dropped off approximately 100 gallons of oil, while another 23 people brought in an estimated 52 gallons of antifreeze.
2. *Continue appliance recycling program:* Completed. County residents can bring appliances to the fleet maintenance garage for a \$20 fee. The appliances are then transported to Adams-Brown Recycling in Georgetown, OH where the refrigerant is removed and the appliances recycled. In 2005, 661 appliances were collected by the county (versus three refrigerators collected during River Sweeps and Adopt-a-Waterway clean-ups).
3. *Free HHW Drop-off Program with Environmental Enterprises, Inc.:* The free household hazardous waste drop-off program has been very successful and cost-effective, and the Adams-Clermont Solid Waste District has made this an on-going program. Under this program, homeowners who wish to dispose of HHW materials first call the District and provide a description of what they have, including type and amount of material. If at all possible, ACSWMD will first refer the caller to a local disposal or recycling center. If the material in question cannot be recycled or properly disposed of locally, the District issues that resident a disposal voucher. The resident is then responsible for bringing the hazardous material to Environmental Enterprises, who then bills ACSWMD for the cost of disposal.

In 2005, the Solid Waste District issued a total of 29 HHW vouchers; however, only two of these were claimed. In 2004, 67 percent of the vouchers were claimed. The Solid Waste District will investigate reasons why so few vouchers were utilized in 2005 and work to increase this number.

4. *Partner with Hamilton and Brown County to hold two HHW collection days:* The Adams-Clermont Solid Waste District partners with the Hamilton and Brown County Solid Waste Districts whenever they hold household hazardous waste (HHW) collection days. In 2005, Brown County hosted a HHW collection days on last two weekends in July. Appliances and tires were collected on the first day, while other HHW materials were collected on Day 2. A total of 26 cars from Clermont County dropped off materials during the event. Hamilton County did not host such an event (they now rely on a voucher program similar to the one described above).
5. *Review/revise and distribute Clermont County Recycling/Waste Disposal Guide:* Completed. In 2005, two revisions were completed, including one in April 2005 and one in December 2005. A total of 3,000 copies of the Recycling Guide were printed and distributed.
6. *Hold Township/Village Junk Collection days:*
 - a. *Batavia Village and Township:* Joint village/township “Junk Days” were held from May 5-7 and from October 6-8. During the May event, six 30-cubic yard dumpsters were filled, and three were filled in October, along with three rear-load garbage trucks. A total of 102 tires were collected in May and 79 tires in October. Also, 45 appliances were collected in May and 30 in October.

- b. *Miami Township*: Miami Township held its semi-annual Junk days on May 6-7, and on September 23-24. During the May event, 76.6 tons of waste was collected, while 75.15 tons were collected in September. A total of 167 appliances were also collected during both events, including 93 in May and 74 in September.
- c. *Union Township*: Union Township's Junk Days were held on April 18-23, and on October 13-15. A total of 132.8 tons of waste was collected during the spring Junk Days, and 62.5 tons of waste during the fall collection. Over the two events, over 115 appliances were collected. Tires were not accepted.
- d. *City of Milford*: The City of Milford Junk Days event was held on October 14 and 15. During Junk Days, waste filling 10 30 cubic yard dumpsters and three packer trucks were collected, along with 68 tires.
- e. *Village of Amelia*: Amelia held its annual Junk Day on June 11. A total of 36.53 tons of waste was collected. Tires were not accepted.
- f. *Goshen Township*: The annual Goshen Junk Day was held on April 30. Nearly 58 tons of waste was collected, plus one 20 cubic yard dumpster was filled. Tires and appliances were not accepted.
- g. *Stonelick Twp/Village of Owensville*: The township and village held their annual collection on May 5-6. Approximately six tons of trash were collected, and two 40 cubic yard dumpsters were filled with scrap material. This included an estimated 24 Freon-containing appliances. Tires were also collected, filling two semi trailers. A total of 470 cubic yards of waste was collected, 120 tons of which was recycled. Also, 27 refrigerators, 14 stoves and seven air conditioners were collected, along with a large number of tires.

Additional Activities Not Contained in Storm Water Management Plan

Each year, Clermont County looks for new opportunities to involve the public in the implementation of the storm water management program. Additional public participation activities included the following:

1. *Mercury Collection Program*: In 2005, the Adams-Clermont Solid Waste District partnered with the Clermont County Health District to offer a mercury collection program. Under this program, Clermont County residents can drop off any items containing mercury (e.g. thermometers, thermostats, etc.) at either OEQ or Health District offices. Personnel from Ohio EPA collect the mercury from the County for proper disposal. In 2005, a total of three five-gallon buckets were filled with items containing mercury.
2. *Backyard Compost Bin Sale*: On April 2, 2005, the Adams-Clermont Solid Waste District hosted a backyard compost bin sale, where 80-gallon capacity bins that typically cost \$80 were sold for \$20. By encouraging Clermont residents to compost, grass clippings and other yard waste which would normally be dumped in a ditch or swale, or lay in a gutter waiting to be washed down the storm drain, are now recycled and stay on site. If composting is conducted on a large scale, there would likely be measurable improvements in water quality, particularly in residential watersheds, as grass clippings and other yard waste that enter the storm conveyance system contribute significant nutrient and BOD loadings to nearby streams.

CHAPTER 3: ILLICIT DISCHARGE DETECTION and ELIMINATION

Section 306.1 Inventory of Home Sewage Treatment Systems.

1. *Create a map of home sewage treatment systems using existing information collected under the Basic System Assessment program, and information on parcels not served by a central sewer system:* Approximately 95 percent completed. The Clermont County Health District has been tracking both discharging and non-discharging septic systems through its Basic System Assessment (BSA) database. Approximately 95 percent of the discharging systems have been identified. Maps have been developed for the various watersheds within the Phase II urbanized area, and are shown in Appendix 3. These maps will be updated as new home sewage treatment systems (HSTSs) have been identified.
2. *Add at least 200 HSTSs to the GIS inventory annually, until inventory is completed:* Completed/Ongoing. The Health District conducts onsite HSTS investigations throughout the year. As new HSTSs (both discharging and non-discharging) are identified, they are added to the GIS database. There were 1,175 new systems added to the BSA program during 2005.

Section 306.2 Storm Sewer System Map

1. *Complete map of all publicly-owned stormwater outfalls in Phase II areas:* Nearly completed. To date, the Storm Water Management Department has completed mapping both public and private storm water outfalls in the following watersheds:

East Fork Little Miami River Watershed

- Backbone Creek
- Back Run
- Dry Run/Sugarcamp Run
- Four Mile Run
- Hall Run
- Happy Hollow
- Lick Fork
- Lower East Fork
- Lucy Run
- Owensville area tributaries
- Salt Run
- Shayler Run
- Ulrey Run
- Wolfpen Run

Little Miami River Tributaries

- Horner Run

Ohio River Tributaries

- Nine Mile Creek
- Twelve Mile Creek

Maps depicting the watershed boundaries, stream network and stormwater outfalls for each of the above watersheds are included in Appendix 3. Watersheds that still need to be mapped include the Batavia area tributaries to the East Fork, unnamed tributaries to the Little Miami River in Miami Township, O'Bannon Creek and Ten Mile Run. It is anticipated that mapping for these watersheds will be completed in 2006, more than a year ahead of schedule.

Section 306.3 Illicit Discharge Ordinance

1. *Develop regulations prohibiting illicit discharges to the MS4; incorporate into the County's existing WMSC regulations:* In progress. The Storm Water Management Department completed a first draft of illicit discharge regulations and submitted these to the County Prosecutor's office for review. There are concerns that the County does not have the authority to enact such regulations, as Ohio Revised Code does not give a statutory form of county government the authority to enact criminal provisions and penalties. The County will work with Ohio EPA to resolve these questions.
2. *Develop regulations prohibiting illicit discharges to the MS4; incorporate into the City's ordinances (Milford):* Not yet completed. The City of Milford currently plans to adopt the illicit discharge resolution to be passed by the County; however, Milford will be responsible for enforcing the regulations within the city limits.

Section 306.4 Illicit Discharge Detection

1. *Host meeting of County Scientific Advisory Committee (SAC) to develop stream monitoring and sampling program:* Completed, March 2005.
2. *Conduct stream monitoring and sampling program:* Completed. The final draft of the 2005 chemistry monitoring report is included in Appendix 3. The County is still waiting on a final biological monitoring report from its consultant. Part of the 2005 monitoring program included dry weather sampling at multiple locations along Wolfpen Run and an unnamed tributary to the Little Miami River in the Miami area. The dry weather surveys were designed to screen for potential illicit discharges through the direct measurement of instream pollutant concentrations during periods free from the influence of storm water runoff. Sampling results documented problems from point and nonpoint sources in both the Miami area and in Wolfpen Run. The nonpoint sources of concern are primarily underperforming home sewage treatment systems in the upper reaches of both watersheds.

More direct monitoring of potential illicit discharges – specifically discharging HSTSs – was conducted in both the Miami area and the Wolfpen Run watershed. In 2005, the Office of Environmental Quality partnered with the Clermont Health District to sample discharging HSTSs in three subdivisions (Windfield Hills and Winding Woods in Miami Township and Eagles Ridge in upper Wolfpen Run). Results of the sampling program indicated substantial problems with the quality of the discharges (see Appendix 3).

In an effort to eliminate these sources of water quality impairment, the Clermont County Sewer District is currently evaluating the feasibility of providing central sewer service to all three areas. Public workshops were held in both areas to present the findings of the sampling surveys and to discuss options with the residents. The Winding Woods/Windfield Hills meeting was held on August 22, and a second meeting was held on August 30 for the residents of Eagles Ridge.

3. *Develop illicit discharge detection training form:* Completed. In 2005, Storm Water Management Department staff completed a detailed protocol for detecting illicit discharges in the field (see Appendix 3). The *Illicit Discharge Detection and Elimination Guidance Manual* developed by the Center for Watershed Protection was used as the basis for the Clermont manual. The Storm Water Department also created a shorter, four-page guidance document along with an Illicit Discharge Detection Form for township and municipal staff

that spend time in the field (also shown in Appendix 3). These personnel will serve as an extra set of eyes for the Storm Water Management Department. If something suspicious is spotted in the field, township and municipal staff have been requested to fill out the Illicit Discharge Detection Form and immediately notify the Storm Water Management Department, which will be responsible for conducting follow-up investigations.

Section 306.5 Illicit Discharge Fact Sheet

1. *Compile and distribute fact sheet for home-owners on hazards associated with illicit discharges:* Partially completed. A draft fact sheet has been developed by the Storm Water Management Department and will be published in conjunction with the development of illicit discharge regulations. The draft is shown in Appendix 3.

Section 306.6 HSTS Operation and Maintenance

1. *Conduct HSTS installer training sessions:* Completed. The Health District conducted two installer training sessions on January 25 and January 27, 2005.
2. *Inspect at least 3500 HSTSs annually:* Completed. In 2005, the Health District completed 6,369 Basic System Assessments.
3. *Mail HSTS care and maintenance fliers to homeowners after HSTS inspections:* Completed. After conducting HSTS inspections, the Health District mails “Care and Maintenance” fliers with each initial assessment report.

Additional Activities Not Contained in Storm Water Management Plan

1. *Storm Water Outfall Screening:* In 2005, Storm Water Management Department staff started screening outfalls for potential signs of illicit discharges as they were mapping outfall locations. If anything suspicious was noted, an Illicit Discharge Detection Form was completed, and follow-up work was conducted to determine if an illicit discharge had occurred, and if so, where it originated. Copies of all illicit discharge detection forms that were filled out in 2005 are included in Appendix 3. A summary of each is provided below:
 - February 2, 2005 – A large oil sheen and strong petroleum odor was detected in a small stream draining Ridgecrest Drive in Miami Township. The spill was reported to Ohio EPA and Miami Township Fire Department. The source of the spill was identified as a leaky storage tank. Remediation was conducted. (Note: this spill occurred before the illicit discharge detection form was completed; therefore, no form exists for this incident.)
 - May 4, 2005 – sheen located below outfall at 4450 Eastgate North Drive. The field crew thought it could be from grease from a nearby restaurant. Further investigations showed no signs of this being the case. The sheen was possibly from parking lot runoff. This outfall will be revisited by the Storm Water Department to see if sheen is persistent.
 - August 17, 2005 – A petroleum sheen was detected in the East Fork in the Village of Williamsburg. This was reported to and investigated by Ohio EPA. It was found that an oil-water separator at Woods Auto Service in the village was unknowingly connected to a very old clay storm drain rather than the sanitary sewer. This was quickly corrected by Woods Auto Service.

- November 8, 2005 – In a ditch near 4444 Meese Drive, a faint trace of grayish sheen was detected. The trace of the grayish color was directly in line with the septic clean-out for the system (leach field). The Clermont Sewer District will soon be providing central sewers to this area.
 - November 30, 2005 – Below the outfall draining the parking lot at 4101 Founders Bay, there was an excessive amount of foam that was moderately discolored. It is likely that this was a natural occurrence (see below)
 - November 30, 2005 – A thick foam was identified below an outfall on the Sun Chemical property at 3922 Bach-Buxton Road. The foam did not appear natural, as there were small hard grains of a Styrofoam-like substance within the foam. Ohio EPA was contacted, and Dale Farmer met later that day with staff from the Storm Water Department and a representative from Sun Chemical. Field tests were conducted and no properties of a surfactant were detected. It was concluded that it was natural nutrient foaming.
2. *Chemical Spill/HazMat Response:* Throughout the year, there are invariably a number of spills that local emergency units respond to. A summary of these incidents is provided in Appendix 3.
 3. *HSTS Public Workshops:* The East Fork Watershed Coordinator worked with the Clermont County Health District to host two HSTS public workshops in 2005 under a 319 grant received from Ohio EPA. Letters announcing the workshop were sent to all homeowners with HSTSs in the lower East Fork watershed. Approximately 100 people turned out for the two workshops held on March 1 in Union Township and March 2 in Miami Township. As part of the workshop, HSTS owners were given information on the proper operation and maintenance of their systems. Also, homeowners were told of the cost-share available through the 319 grant to repair or replace failing systems. To date, grant funds have been used to help replace five failing systems.
 4. *Storm Sewer System Inventory:* Union Township hired an engineering firm to map all storm sewer structures located within the right-of-way along township roads, including catch basins, culverts, headwalls, manholes and ditch lines. This project should be completed in 2006.

CHAPTER 4: CONSTRUCTION SITE RUNOFF CONTROL

Section 407.1 Revision/Adoption of WMSC Regulations.

1. *Complete revision of Clermont County Water Management and Sediment Control (WMSC) regulations:* In progress. Several sets of comments were received as the result of the first public notification process. The Building Inspection Department has addressed these and has completed a draft revision of the regulations. In 2005, the Storm Water Management Department conducted a further review, comparing the existing regulations to Ohio EPA's Phase II Construction General Permit and to the regulations in neighboring Hamilton and Warren Counties, and submitted additional comments to the Building Inspection Department. Staff from the two departments reviewed each of these in detail and discussed further revisions to the regulations. As of the end of 2005, the Building Inspection Department was working to complete a final revised draft.
2. *Municipal adoption of Clermont County WMSC regulations:* Completed. All Phase II municipalities, including the City of Milford and the Villages of Amelia, Batavia and Owensville have adopted the County's WMSC regulations.

Section 407.2 Inspection/Enforcement of WMSC Regulations

1. *Contracts between County and municipalities for County enforcement of WMSC regulations:* In progress. The County is working to finalize contracts with the Villages of Amelia, Batavia and Owensville that provide for County enforcement of the WMSC regulations. The City of Milford conducts its own enforcement activities.
2. *Inspect 100 percent of construction sites for compliance with WMSC regulations:* Completed. Inspections of active construction sites are conducted by the County Building Inspection Department in conjunction with other inspection activities.
3. *Assign customer complaints to Building Dept. inspector; monitor and track complaint resolution; achieve 50 percent resolution of valid complaints:* Completed. Anyone can submit a written complaint about sediment runoff or erosion problems at active construction sites to the Building Inspection Department. Complain forms can be obtained by calling the Building Inspection Department or downloading them from the department's web page at <http://www.co.clermont.oh.us/building/upload/complaintform.pdf>. Most complaints are able to be addressed within 48 hours. During 2005, the Building Inspection Department addressed and resolved 72 percent of the valid complaints.
4. *Track the number of stop work orders and conditional occupancy certificates as indicator of program success:* Completed. In 2005, the Building Inspection Department issued eight stop workers and 51 conditional occupancy certificates for WMSC violations.

Additional Activities Not Contained in Storm Water Management Plan

1. *Promotion of Construction BMPs.* In 2005, the Building Inspection Department distributed subscription cards to developers and contractors for two free publications that promote construction best management practices (see Appendix 4). The publications are *Erosion Control* and *Grading & Excavation Contractor*.

CHAPTER 5: POST-CONSTRUCTION STORMWATER MANAGEMENT

Section 505.1 WMSC Regulations

1. *Complete revision of Clermont County Water Management and Sediment Control (WMSC) regulations:* The County WMSC regulations include post-construction as well as construction regulations for stormwater controls. This task is in progress. See Section 407.1 for details.
2. *Municipal adoption of Clermont County WMSC regulations:* Completed. All Phase II municipalities, including the City of Milford and the Villages of Amelia, Batavia and Owensville have adopted the County's WMSC regulations.

Section 505.2 Stormwater BMP Manual

1. *Complete BMP Manual:* Completed. A Stormwater BMP manual was developed as a joint project between Sanitation District No. 1 of Northern Kentucky and Clermont County. The manual focuses on post-construction BMPs, including wet ponds, dry ponds, grass swales, infiltration ditches, rain gardens and others. Within the manual there is a fact sheet for each BMP that summarizes its effectiveness in removing different pollutants, construction and maintenance requirements, estimated range of costs to implement, and links to additional information. These are meant to provide general information about each BMP and to encourage developers and builders to consider some alternative storm water management practices in new developments or sites that are re-developed. Those interested in more detailed engineering drawings and specifications for different BMPs will be referred to ODNR's Rainwater and Land Development Manual. The Clermont County BMP fact sheets will be provided on the Storm Water Management Department's web site in the very near future. Also, a link will be provided to the Rainwater Manual once this has been completed by ODNR. Copies of the fact sheets are included in Appendix 5.

Section 505.3 Guidance and Options for Open Space Preservation

1. *Complete revisions to "Guidance and Options for Open Space Preservation" document:* Completed. The Planning Department and the Open Space Committee completed this document in June 2005. The final report is titled "Tools for Open Space Protection: Guidance and Options for Local Governments." The cover page and table of contents is included in Appendix 5. The entire 84-page document can be downloaded by visiting the Clermont County Planning Department's web site (<http://www.clermontcountyohio.gov/planning/>).
2. *Hold regular meetings of Clermont Open Space Committee:* Completed. One meeting of the Open Space Committee was held in May 2005 to finalize the "Tools for Open Space Protection" guidance manual. Since the manual has been completed, the committee will meet on an as-needed basis in the future.

Section 505.4 Subdivision Regulations

1. *Complete report and recommendations for changes to Clermont Subdivision Regulations / present to Planning Commission:* Completed. Clermont County began conducting a review of its subdivision regulations in 2004. Formal changes to the regulations were adopted by the Board of County Commissioners in October 2005. Specific items in the regulations pertaining to storm water management include:

- Review of concept plans, formal plans and design plans for new subdivisions by representatives of the Natural resource Conservation Service, the Health District and the County Engineer, among others.
- Require submittal of “as-built” construction drawings in accordance with the rules of the Engineer’s Office and the Water & Sewer District.
- Criteria and requirements for “sensitive development areas,” which are “considered those lands that pose special hazards to development or to the environment, consisting of lands or soils that are of such sensitive character that they may require special use, design and engineering restrictions.”
- Easements shall be provided for storm drainage purposes which conform substantially to the lines of any natural watercourses. If a stream flows through or adjacent to the proposed subdivision, the plat shall provide a storm water drainage easement sufficient to accommodate the 100-year storm event.
- The Planning Commission may require conservation easements on lands designated as open space, Sensitive Development Areas, or any other lands deemed to be so exceptional in character as to require the protection of a permanent conservation easement.
- Site Protection – the subdivision regulations state that the “smallest practical area of land should be exposed at any one time during development and should be kept to the shortest practical period of time.”
- Encourages every applicant to provide open space. Any lands dedicated for open space shall contain appropriate covenants and noted on the record plat.

The Clermont County Subdivision regulations can be downloaded in their entirety from the Clermont County Planning Department’s web site (www.clermontcountyohio.gov/planning/).

2. *Review and, if necessary, revise City/village subdivision regulations:* No activity to report for this measurable goal in 2005.

Section 505.5 Low Impact Development

1. *Host Low Impact Development Workshop:* Completed. In 2004, the Clermont County Office of Environmental Quality (OEQ) received an Ohio Environmental Education Fund grant from Ohio EPA to host a low impact development workshop and tour. Grant funds were used to contract with the Center for Watershed Protection (CWP) to host the workshop, which was held on February 16, 2005. A follow-up tour of Greater Cincinnati area developments that have incorporated “better site design” principles in their designs was held on February 17. Approximately 100 people attended the Better Site Design workshop and over 50 people participated in the tour, including representatives from Clermont County, the City of Milford, the Village of Amelia, Batavia Township, Goshen Township, Miami Township, Monroe Township, Pierce Township and Stonelick Township. A copy of the agenda is provided in Appendix 5. A CD containing all workshop materials has already been forwarded to Ohio EPA (including the Department of Environmental Education and all staff that attended the workshop).
2. *Develop Low Impact Development educational materials:* Completed. A binder and CD containing all information presented at the Better Site Design workshop and additional resources, was provided to anyone who attended the workshop. A CD containing all

workshop materials has already been forwarded to Ohio EPA (including the Department of Environmental Education and all staff that attended the workshop).

In addition to the February workshop and tour, the Storm Water Management Department presented the Codes and Ordinance Work Sheet (COW) developed by the Center for Watershed protection to local municipal and township zoning officials in October 2005. To date, all but three of the Phase II partners have used the COW to conduct a review of their zoning regulations (see Public Education and Outreach chapter, pages 3-4).

POLLUTION PREVENTION /GOOD HOUSEKEEPING

Section 604 Measurable Goals

1. *Evaluate existing pollution prevention programs/provide detailed summary:* Completed. In 2003-04, a public service project team from Miami University's Institute of Environmental Sciences (IES) graduate program completed an evaluation of the pollution prevention programs in place at each of the Phase II townships and municipalities. The final report, which included the team's assessment and recommendations for each Phase II partner, was provided with the 2004 Annual Report.
2. *Develop recommendations for pollution prevention program improvements with time line for implementation:* Completed. The IES public service project team developed overall and individual recommendations for each of the Phase II communities (see above).
3. *Develop pollution prevention/good housekeeping training programs for employees:* Completed. The Clermont County Storm Water Management Department worked with Excal Visual, Inc. to review a draft municipal pollution prevention training video and employee quiz. Excal Visual provided a free copy of the final video and training kit to the County in late 2004. In 2005, the Storm Water Department worked with the Phase II partners to develop a schedule where the video and training materials would be loaned to each partner. As of the end of 2005, each Phase II partner has been able to provide training sessions for their employees with the exception of Batavia Township and Clermont County Fleet Maintenance. These training sessions will be conducted in early 2006.
4. *Identify commercial/industrial target areas; provide training and education materials:* Completed. The Storm Water Management Department developed an industrial pollution prevention brochure and directly mailed a small supply of the brochures to all industrial businesses in the Phase II urbanized area. A copy of the brochure and the cover letter that accompanied it is included in Appendix 6. The brochure can also be downloaded at www.clermontstorm.net/industrial_p2_brochure.pdf.
5. *Institute record-keeping for road salt/sand application:* Completed for all Phase II co-permittees (note that the Village of Owensville contracts with Stonelick Township for roadway deicing).
6. *Compile baseline information on amount of salt applied:* Completed. The following summarizes the amount of salt applied during 2005. For data from past years, check previous annual reports.
 - a. Clermont County Engineer's Office. Records are kept by seasons rather than by calendar year. For the 2005-06 winter season, 2,264 tons of salt were applied to approximately 400 miles of county roads during seven major events and six minor events (where overpasses and small sections of roads are treated). This equates to 5.66 tons per mile.
 - b. *Village of Amelia:* During the 2005-06 season, Amelia used 39 tons of salt on the village's 14 miles of roads. There were five total application events, for an average of 7.8 tons of salt per event.
 - c. *Village of Batavia:* During the first quarter of 2005, the Village applied 61 tons of salt during 10 events (average 6.1 tons/event) over 448.64 lane miles. From

October through December, 14.5 tons of salt were applied during three events (average 4.8 tons per event) covering 117.12 lane miles.

- d. *Village of Owensville*: Owensville contracts with Stonelick Township for roadway deicing.
- e. *Batavia Township*: In 2005, there were four application events in which 126.25 tons of salt were applied to 58.29 lane miles (average of 31.6 tons/event).
- f. *Goshen Township*: In 2005, there were seven application events in which 308 tons of salt were applied to the township's 39.36 miles of roads (average of 44 tons/event).
- g. *Miami Township*: During the 2005-06 season, there were seven application events in which 1,213 tons of salt and 2,375 tons of brine were applied to 135.12 miles (1621.4 miles total).
- h. *Monroe Township*: In 2005, the township applied a total of 300 tons of salt to its 26 miles of roads. The number of application events was not recorded. Monroe Township will begin recoding this information in 2006.
- i. *Ohio Township*: In 2005, there were 12 application events in which an estimated 107 tons of salt were applied (average 8.9 tons/event). During each application, Ohio Township treats 7.5 miles of roadways.
- j. *Pierce Township*: Between October and December 2005, the township used 250 tons of road salt during five application events. During each application, Pierce Township treats 50 miles of roadways.
- k. *Stonelick Township*: During the first quarter of 2005, the Township applied 208 tons of salt during nine events (average 23.1 tons/event). From October through December, 50 tons of salt were applied during three events (average 16.7 tons per event) covering 117.12 lane miles. During each storm, the Township treats 26.75 miles in Owensville and Stonelick Township.
- l. *Union Township*: In 2005, there were six application events in which an estimated 600 tons of salt were applied to 118 miles (1,534 miles total).

7. *Salt reduction program - complete evaluation of existing programs, recommend improvements*: Continual reviews conducted.

In 2005, Batavia Village installed computerized systems on its snow trucks to help minimize the amount of salt applied. Tons of salt applied per event dropped from an average of 6.1 tons/event between January and March to an average of 4.8 tons/event between October and December.

Batavia Township has budgeted \$30,000 to purchase salt calibration computers for its trucks. These should be installed in the fall of 2006.

Miami Township employs state-of-the-art technology on its snow removal trucks to automatically manage salt usage. Application rates are set by the driver but controlled by the truck. As the trucks slow, so does the amount of salt applied, thus reducing the amount of salt applied to the township roads. The trucks, the amount of salt applied, the route taken and the exact location of road salt application are monitored in real time by Township staff. Residents can also view the progress of the trucks via the Internet. For more information, visit the township's snow removal web site at http://miamitownshipoh.gov/service/road_maintenance/snow/snow_control.htm

Pierce Township made modifications to the salt bin area to keep all runoff on-site.

Other Pollution Prevention / Good Housekeeping Activities

1. The Village of Amelia reported recycling 22 quarts of oil from its vehicles during 2005. Storm sewer catch basins in the village were cleaned twice – once in early spring and once in late summer. Street sweeping was conducted by court referrals four times during 2005.
2. Batavia Village cleaned all catch basins and manholes for 12,435 linear feet of storm sewer. A total of 8.8 miles of streets were swept throughout the year. Approximately 100 quarts of oil from village vehicles were recycled.
3. Batavia Township approved \$30,000 in its budget for new salt calibration computers for its plow trucks. Regular vehicle maintenance is performed by an outside company.
4. Goshen Township reported 135 quarts of motor oil recycled from township vehicles.
5. The City of Milford recycled 55 gallons of motor oil in 2005. A total of 75 miles of city streets were swept through the year.
6. Miami Township accepts used motor oil from township residents throughout the year. The number of gallons accepted in 2005 is not available. The township cleaned 1,805 linear feet of storm sewer.
7. Ohio Township recycled 20 quarts of motor oil and 10 quarts of antifreeze taken from its vehicles. The township also modified the detention facility serving the township hall to reduce the amount of silt discharged and to increase the amount of grass cover.
8. Pierce Township recycled 150 gallons of motor oil and 55 gallons of antifreeze taken from its vehicles. The township cleaned 150 linear feet of storm culverts. Modifications were also made to the salt storage area to keep all runoff on site.
9. Stonelick Township reported recycling 10 gallons of motor oil and 50 gallons of antifreeze.
10. Union Township recycled 450 gallons of motor oil and 20 gallons of antifreeze taken from its vehicles. The township cleaned over 300 linear feet of storm sewer in 2005.