

Clermont County Storm Water Management Plan 2006 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 was submitted to and endorsed by both Ohio EPA and the Ohio Department of Natural Resources (ODNR). The plan can be downloaded at www.oeg.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:* As reported in 2005, 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 resulted in a realignment of the timetable for completing watershed planning in favor of undertaking more implementation activities in those watersheds where action plans are already complete.

For these reasons, the time frame in which the various plans were to be developed has been revised since the submittal of the Storm Water 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 the Lake Harsha Tributaries. Numerous stakeholder meetings were 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 were addressed in early 2006 and a revised Headwaters plan was endorsed in September, 2006 (see Appendix 1 for endorsement letter).

Also in 2004-2005, the East Fork Watershed Coordinator and Office of Environmental Quality staff held several public stakeholder meetings and began drafting the action plan for the Harsha Lake Tributaries (portions of which fall within the Phase II area). This year, the Lake Tributaries plan was completed and endorsed by both Ohio EPA and Ohio DNR in November (see Appendix 1 for endorsement letter).

With the plans for the Headwaters and Lake Tributaries subwatersheds endorsed, the focus again turned to the Middle East Fork watershed. On November 8, 2006, the East Fork Watershed Collaborative held a Watershed Issue Framing meeting with 15 community leaders where current stream and water quality conditions were reviewed, and issues facing the Middle East Fork watershed on November 8, 2006, were discussed. Comments received at this meeting were incorporated into a draft of the Middle East Fork watershed plan.

4. *Complete draft of Middle East Fork Watershed Action Plan/submit to OEPA and ODNR:* As of December 2006, approximately 75% of the draft Watershed Action Plan for the Middle East Fork was complete. It is anticipated that a final draft of the plan will be completed and submitted to Ohio EPA and Ohio DNR in Spring 2007.
5. *Complete draft of Stonelick Creek Watershed Action Plan.* This is the fifth and final Watershed Action Plan to be completed for the East Fork River watershed. Efforts to complete this plan began in 2002, when two public meetings were held in the upper and lower parts of the watershed. Drafts of two management plans for the upper and lower watersheds were completed and presented to Ohio EPA that same year. After receiving comments from Ohio EPA (and after a change in watershed coordinators), the East Fork Watershed Collaborative decided to change its approach (as described in Item #3 above), and postponed the development of the Stonelick Creek plan. Efforts toward developing a plan for this watershed began again in 2006 when the Collaborative began combining the two drafts plans into one overall management plan. As of December 2006, the plan was approximately 50 percent complete. A final plan will be submitted for state endorsement in 2007.
6. *Post current version of Watershed Action Plans at www.oeq.net:* Complete/Ongoing. Final, endorsed Watershed Action Plans for the Lower East Fork, Lake Tributaries, and Headwaters watersheds can be downloaded by going to www.oeq.net, clicking on “Water Quality” from the main menu, and then selecting “Watershed Action Plans.”
7. *Present final Watershed Action Plans to the Clermont County Board of Commissioners, City/Village Councils, and Township Trustees for adoption:* In progress. Because the two watershed plans for the Headwaters and the Lake Tributaries were endorsed by the state late in the year, the final approved plans had not yet been presented to local governments for adoption. This will be completed in 2007.
8. *Provide implementation progress reports to County Commissioners, City/Village Councils and Township Trustees:* Pending, as of December 2006. A two-page annual progress report (“East Fork News and Notes”) was in development, but not yet complete, at the end of 2006. This progress report will be completed and distributed to County Commissioners, City and Village Councils and Boards of Township Trustees in early 2007 (note: the progress report was completed and distributed in February 2007, and is included in Appendix 1).

Section 103.2 Measurable Goals for Storm Water Educational Programs

1. *Conduct 25 Enviroscope programs for County school children:* Completed. In 2006, the Clermont SWCD Educational Specialist conducted 44 Enviroscope presentations in Clermont County schools, including:
 - 4 presentations to Clermont Northeastern 5th grade classes (2/13/06)
 - 3 presentations to Clermont Northeastern 5th grade classes (2/14/06)
 - 5 presentations to Pattison Elementary 4th grade classes (2/23/06)
 - 4 presentations to Williamsburg 5th grade classes (3/3/06)
 - 6 presentations to Clermont Northeastern 3rd grade classes (3/15/06)
 - 1 presentation to McCormick Elementary 3rd, 4th, 5th grade classes (3/20/06)
 - 1 presentation to the Teacher Workshop 5th grade class (4/6/06)
 - 6 presentations to Clermont Northeastern kindergarten classes (4/16/06)
 - 4 presentations to New Richmond Elementary 1st grade classes (11/8/06)
 - 4 presentations to Mulberry Elementary 5th grade classes (12/8/06)
 - 6 presentations to Clermont Northeastern 5th grade classes (12/12/06)

2. *Conduct three Streamulator public presentations:* Not Completed. In 2006, the Clermont SWCD Educational Specialist was not able to conduct any Streamulator public presentations; however, the number of special storm water education programs conducted by the Education Specialist was well above the number originally planned (see item #3 below).
3. *Conduct 15 additional storm water education programs to schools:* Completed/ongoing. In addition to the Enviroscape programs, the Clermont SWCD Educational Specialist conducted 110 other storm water programs County schools, including the following presentations: Indoor Stream Monitoring (35), Web of Life/Links in the Chain (21), Sum of the Parts (17), Feed the Fish (14), Landforms/Drainage (6), Pollution on the Move (6), A Grave Mistake (6), and Outdoor Stream Monitoring (5).
4. *Conduct three storm water-related presentations to interest groups:* Completed/ongoing. The East Fork Watershed Coordinator conducted five storm water presentations to different interest groups in 2006. These included:
 - Organizing two home septic system workshops, of which approximately 30 people attended. More information on these workshops is provided in Chapter 3.
 - Held a stream management workshop for nearly 40 volunteers at Cincinnati Nature Center on October 2, 2006
 - A December 6 presentation to Clermont County Water Treatment Plant operators where watershed efforts related to surface and source water resources in the East Fork watershed was summarized (11 participants).

The Clermont County Soil & Water Conservation District also presented to attendees of the OKI Regional Conservation Council Annual Meeting on March 28, 2006 (see meeting agenda in Appendix 1). The presentation focused on riparian protection through the use of the Lower East Fork Water Resource Restoration Sponsor Program (WRRSP).

Storm Water Utility Presentations: The Program Manager for the Storm Water Management Department gave 14 public presentations related to the proposed establishment of a storm water utility in Clermont County. A regional utility would help the County and other permitted communities within the county to meet the Phase II requirements and reduce pollution from storm water runoff to the maximum extent practical. Each presentation was tailored to the individual audiences, but were generally similar in the scope of material covered. Presentations typically reviewed the different types of storm water-related problems that are present in the County, the efforts involved in conducting a storm water utility feasibility study, the services a storm water utility would provide, the associated costs and a timeline for implementation. After each presentation, questions were taken from the audience. A copy of a typical presentation can be found in Appendix 1. A summary of the storm water utility presentations given in 2006 is as follows:

- Tuesday, January 10 – Batavia Rotary Club (The January 17, 2006 edition of *Batavia Rotary Beacon* included a review of the presentation)
- Thursday, March 9 – Clermont 20/20 Senior Leadership Class
- Monday, July 17 – Amelia Village Council presentation
- Tuesday, July 18 – Goshen Township Trustees presentation
- Wednesday, August 2 – Batavia Township Trustees presentation
- Monday, August 7 – Batavia Village Council presentation
- Monday, September 11 – Ohio Township Trustees presentation
- Tuesday, September 12 – Pierce Township Trustees presentation

- Monday, November 6 – Owensville Village Council presentation
- Tuesday, November 14 – Monroe Township Trustees presentation
- Monday, November 20 - Miami Township Trustees presentation
- Monday, December 4 – Batavia Village Council presentation #2
- Wednesday, December 6 – Stonelick Township Board of Trustees
- Thursday, December 7 – LEAD Clermont 20/20 Government & Infrastructure class

5. *Submit two storm water-related articles to local newspapers:* Completed/ongoing. In 2006, nine storm water articles ran in local papers, including:

- “Inspecting a Storm Water Pond” (*Clermont Sun*, April 16, 2006)
- “Taking Steps in Storm Water Pond Management” (*Clermont Community Journal*, April 19, 2006)
- “Handling Storm Water Ponds A Must” (*Clermont Community Journal*, May 25, 2006)
- “Taking Proper Steps in Storm Water Pond Management” (*Clermont Sun*, May, 2006)
- “It Is Important to Maintain Storm Ponds” (*Clermont Sun*, June, 2006)
- “What’s up with the fish on the signs near water?” (*Clermont Community Journal* editorial, July 12, 2006)
- Stormwater Department Manager to Present Project to Local Governments (*Clermont Sun*, July 27, 2006)
- “County Makes Plans for Stormy Weather” (*Clermont Community Journal*, August 23, 2006)
- “East Fork Watershed Conservation Plan Endorsed by State Agencies” (*Clermont Sun*, November 2, 2006)

Copies of each article are provided in Appendix 1. 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 2006, 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 Storm Water Educational Materials

1. *Publish three storm water articles in Clermont Environmental Quarterly:* Completed/ ongoing. A number of articles related to storm water management were published in the County newsletter – the *Clermont Environmental Quarterly*. Copies of each are included in Appendix 1. The Spring 2006 issue included the following:

- articles about the annual East Fork River Sweep, Ohio River Sweep, and the Clean and Green Neighborhood Clean-up,

- preliminary results of 2005 biological sampling of several watersheds by the Office of Environmental Quality,
- the first article in a series of four outlining proper steps in storm water pond management.

The summer edition of the newsletter included these articles:

- an article about the upcoming Ohio River Sweep, and wrap up articles for the East Fork River Sweep and the Clean and Green clean-up,
- an article about a successful clean-up project of a major tributary by an Eagle Scout in New Richmond,
- the second article in series of four focusing on proper inspection and maintenance of storm water ponds,
- an article about the hazards of abandoned tires in waterways.

Two storm water-related articles were included in the fall edition of the newsletter, including:

- an article outlining the 2006 water quality sampling program,
- the third in a series of four storm water pond articles focusing on proper vegetation management.

Finally, the winter edition of the *Clermont Environmental Quarterly* included the following articles:

- an article updating the progress of state endorsement of the East Fork Headwaters and Lake Tributaries Watershed Action Plans by both OEPA and ODNR,
- an article pertaining to low-corrosive alternatives to rock salt de-icing; *calcium magnesium acetate* and *calcium chloride*.

2. *Publish two storm water articles in the local SWCD newsletter:* Completed/ongoing. Copies of the Soil and Water Conservation District's newsletters are included in Appendix 1.

The winter newsletter (February 2006) included:

- an announcement for a class focusing on proper manure and pasture management techniques for horse owners,
- information on Clermont SWCD's pond clinic,
- an announcement about the East Fork River Sweep,
- an article explaining how proper aquatic weed control can reduce threat of winter fish kills.

The summer newsletter included:

- an article describing the SWCD project "SIGNS". See item #1 in the **Additional Activities** section below.
- the effort of the local aviation group, Blue Ash Aviation, to photograph much of the East Fork Little Miami River at points within the East Fork watershed. These aerial photographs have been used to better understand the problems facing conservation in the East Fork watershed.
- an update on the utilization of a Soil and Water Conservation District and East Fork Collaborative Lower East Fork 319 grant. This grant was used to replace several failing septic systems in the watershed and to also perform research on and restore several segments of stream that were channelized, eroded, and entrenched.

3. *Publish two storm water articles in the SWCD Urban Development newsletter:* Not completed. Due to staff changes and modified program scope, no newsletters were published in 2006; therefore additional efforts were made to include articles in the SWCD and OEQ newsletters as well as local newspapers.
4. *Compile storm water fact sheet for homeowners:* Completed. See 2005 Phase II Annual Report.
5. *Compile storm water BMP fact sheets:* Completed. In addition to the fact sheets developed for post-construction best management practices (see 2005 Annual report), the Storm Water Management Department partnered with Miami University's Institute of Environmental Sciences to develop fact sheets for construction BMPs. More information is provided in Chapter 4 (Construction Site Runoff Control). A copy of the Construction BMP Manual is included in Appendix 4.
6. *Complete "When It Rains, It Drains" brochure/ distribute 1000 copies annually:* Completed. In 2006, a total of 1070 copies of the brochure 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 2006, the Clermont County Office of Public Information ran the "After the Storm" video daily during January 27 and February 3, and again during the week of March 17-23 (See Appendix 1 for airing schedule).

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 2006, 1,220 storm drain labels have been applied, including 496 from 2003-2004, 334 in 2005 and 390 in 2006. In 2006, Union Township labeled 250 catch basins, and the Village of Batavia labeled all 140 catch basins within the village limits. During the labeling process, 350 door hangers were left with residents explaining the purpose of the storm drain labels. Additionally, Batavia Township set aside budgetary funds to purchase a number of drain labels in 2007 in an effort to target older developments suffering from poor surface water quality.

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. Demand for this publication has been great. In 2005, 3,000 more copies were printed and distributed, and in 2006, an additional 1000 copies were printed and distributed. Among other places, the recycling guide is available on-line (see below) and at all Clermont County public libraries.

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 (a volunteer group dedicated to beautifying Clermont County and keeping it litter free, has also posted the 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 via individual web sites.
3. *Review and update guide*: Completed. 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 storm water 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*: Clermont SWCD has partnered with other community agencies, watershed groups and environmental organizations to conduct an on-going 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. In 2005, the Clermont SWCD partnered with the County Engineer's Office and the Phase II communities to print and install these signs at 39 stream crossings in the urbanized areas, 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),
 - Two stream crossings in the Village of Williamsburg

Signs installed in 2005 were maintained in 2006.

2. *HSTS Workshops*: In 2006, 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).
3. *Ohio NPDES & Audit Workshop*: Clermont County Storm Water Program Manager, John McManus, attended a one-day workshop in Toledo, OH on November 30, 2006. The workshop was meant to prepare NPDES permittees for the upcoming storm water Phase II audit by focusing on

some of the elements that make a successful and compliant storm water program. A copy of items discussed is provided in Appendix 1.

4. Clermont County Storm Water Management staff attended an Ohio EPA workshop in Lexington, KY on September 20 -21. The seminar was titled "Getting in Step with Phase II" and focused on each NPDES control measure separately and also holistically as a way to build better storm water practices. A copy of the workshop agenda is included in Appendix 1.
5. Stonelick Township aired Ohio EPA's "Tempest in a Channel" video on its cable access channel from February 17, 2006 until March 8, 2006 in seventeen segments at two hours a segment for a grand total viewing times of 136.

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 litter pick-up day in the fall ("Make a Difference Day").
2. *Watershed Action Plan public meetings:* Completed. An "Issue Framing Meeting" to continue the process of developing the Middle East Fork Watershed Action Plan was held on November 6. Direct invitations were extended to 62 community leaders and other stakeholders. Copies of the invitation letter and list of people invited are provided in Appendix 2. Notices were also posted on the OEQ and Soil and Water Conservation District web sites.

Section 205.2 Newsletters

1. *Publish three storm water articles in Clermont Environmental Quarterly:* Completed. See Section 103.3 above. Copies are provided in Appendix 1.
2. *Publish two storm water articles in local SWCD Newsletter:* Completed. See Section 103.3 above. Copies are provided in Appendix 1.
3. *Publish two storm water articles in SWCD Urban Development Newsletter:* See Section 103.3 above.
4. *Include storm water-related information in at least one issue of municipal/ township newsletter:* All communities with newsletters containing articles related to storm water management or pollution prevention are listed below and copies of each are included in Appendix 2.
 - a. *Village of Amelia:* The Villages first quarter newsletter included a notice about the Clean and Green litter clean-up on April 22, Village "junk days" on June 10, and a short article about the curbside yard waste service offered to all residents. Under this program, leaves grass and clippings – all potential significant sources of nutrient loadings – are collected free of charge by the Village two days a week.
 - b. *Village of Batavia:* The "Batavia Bulletin" March 2006 newsletter included information explaining the need for the County to undertake a storm water outfall inventory throughout the Village.
 - c. *Miami Township:* The spring edition included an article promoting the annual Clean and Green volunteer clean-up and the township's "Spring Trash Clean-up". This edition also included an article that summarized responsibilities for maintaining storm sewers and ditches. The fall edition contained a notice about the upcoming trash days (held Sept 22-23). 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, and some alternative de-icing agents to rock salt.
 - d. *City of Milford:* The winter edition included an article on proper storm water pond management, and also an article on the importance of better backyard conservation as it applies to storm water quality. The spring edition included information promoting the annual Clean and Green clean-up day and the East Fork River Sweep, both held in April. This newsletter also included an article describing the storm system improvement project taking place on Powhatton Drive in an effort to improve drainage, and a combined sewer overflow elimination project. The spring edition also re-ran the reminder about the "pooper-scooper"

ordinance. The fall edition contained an article describing the Milford Storm Water Utility's credits program, which offers incentives to non-residential customers who install certain storm water BMPs. This edition also mentioned the annual junk days for 2006 as well as the Fall Litter Collection Day.

- e. *Monroe Township*: The Spring 2006 newsletter included information about the clean-up days scheduled for three days in June where recyclable goods can be collected by Adams, Brown, and Clermont Counties; and an article mentioning the importance of clean ditches and waterways to the survival of farm pond fisheries.
 - f. *Pierce Township*: No storm water-related articles were included in the township's 2006 newsletters.
 - g. *Union Township*: The Spring "Talk of the Township" newsletter promoted the Spring Junk Days clean-up held from April 17-22. Likewise, the fall edition of the newsletter promoted the Fall Junk Days, held on October 19 – 21.
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. A copy of the most recent brochure is included in Appendix 2.

Section 205.3 Public Work Groups / Committees.

1. *East Fork Watershed Collaborative County Team meetings*: As reported in previous annual reports, the structure of the East Fork Collaborative was changed in 2004. Rather than forming "County Teams," special topic groups were established that focus on specific watershed management issues. In 2006, representatives of the Collaborative continued to meet to discuss the possibilities of conducting a biologically-driven TMDL in the East Fork watershed. Through a grant received from U.S. EPA, Clermont County OEQ and its consultant have been conducting a study to statistically link physical and chemical stressors to biological response in an effort to determine the primary causes of stream impairment. The TMDL group held multiple meetings and conference calls throughout 2006 to discuss the findings of the biostatistical analyses, stressor identification results, and modeling predictions. A final report summarizing the findings of the study should be completed in 2007.
2. *East Fork Watershed Collaborative Executive Board Meetings*: Not Completed. Due to the change in watershed coordinators at the beginning of 2006, and the special effort made throughout the year to complete drafts of the watershed action plans, formal Executive Board meetings were not held in 2006; however, members of the Board were kept up to date on Collaborative activities through direct calls and emails. With two of the watershed action plans endorsed toward the end of 2006 and the final two plans nearing completion, the Board will begin meeting again in 2007 to discuss implementation activities and other programs.
3. *Storm Water Stakeholder Meeting, with focus on Little Miami / Ohio River basins*: In 2006, the Clermont County Storm Water Department discussed the proposed storm water utility and the services it would provide with each of the Boards of Township and Village Councils within the Ohio and Little Miami River basins. These include:

Little Miami River watershed
(excluding East Fork)
Goshen
Miami

Ohio River Watershed
Amelia Village
Monroe Township
Ohio Township
Pierce Township

More information on these is included in Section 103.2, Item #4.

4. *City of Milford Storm Water Advisory Committee meetings*: Not completed. Milford's Assistant City Manager, who also administered the programs conducted by the City's storm water utility, left the City to accept a position elsewhere. Because it was some time before the City was able to hire a new Assistant City Manager, a storm water advisory committee meeting was not held in 2006; however, the City was making plans by the end of the year to reconvene this group in early 2007.

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 2006, 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 22. Some 733 volunteers donated their time and energy to collect over 928 bags of litter and 120 bags of recyclable material from several sites throughout Clermont County.
2. *East Fork River Sweep*: Completed. The 14th Annual East Fork River Sweep was held on Saturday, April 29. The "East Fork Stream team" of 270 volunteers walked the banks of five sites and canoed about ten miles of the East Fork and Stonelick Creek, picking up litter and garbage along the way. Volunteers recovered 243 30-gallon bags of trash, 186 tires, a television, a 5 gallon kerosene can, seven 55-gallon plastic drums, one plastic car top carrier, a 25 gallon propane tank, twenty 5 gallon plastic buckets, a microwave oven, a water heater, two sections of plumbing, an engine manifold, a roll of barbed wire, an ODOT rubber mat, several footballs and toys, a swing set, several pieces of aluminum siding, the bucket from a wheel barrow, a construction barrel, another 2 to 3 yards of other large miscellaneous garbage. A copy of the wrap-up report that was posted on the Clermont SWCD web site is included in Appendix 2.
3. *Ohio River Sweep*: Completed. The annual Ohio River Sweep was held on Saturday, June 17. A total of 357 volunteers gathered approximately 1,048 bags of trash, 165 tires, a screen door, several refrigerators, a washing machine, an air conditioner, a walker and crutches 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 28. A total of 110 volunteers from the Milford Junior High School collected

approximately 90 bags of trash, 7 bags of recyclable material and filled one dump truck with steel drums, a pop machine, scrap metal and car parts.

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 initiated three Adopt-a-Waterway clean-ups in 2006. On April 29, 12 volunteers from the Batavia Rotary, 105 participants from the Valley View Foundation, and 36 participants from the Teen Challenge Ranch in Milford cleaned their adopted stretches of the East Fork through in conjunction with the efforts of the participants in the annual East Fork River Sweep. A complete list of what was recovered during this combined effort is listed in item #2 of this section.
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. 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. While the motor oil is used to fuel an oil burning furnace that heats the garage. In 2006, residents dropped off approximately 100 gallons of oil, while other residents brought in an estimated 20 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 2006, 53 appliances were collected by the county (versus two refrigerators collected during River Sweeps and Adopt-a-Waterway clean-ups).
3. *Free HHW Drop-off Program with Environmental Enterprises, Inc.:* Since its initiation in 2003, the free household hazardous waste drop-off program has been successful and cost-effective; however, participation did appear to drop off in 2006. 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 2006, the Solid Waste District issued a total of 34 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:* Hamilton County has discontinued its HHW collection days, as they have gone to a voucher program similar to the one operated by the Adams-Clermont Solid Waste District. The Adams-Clermont Solid Waste District still partners with the Brown County Solid Waste District whenever they hold household hazardous waste (HHW) collection days. In 2006, Brown County hosted a HHW collection days
5. *Review/revise and distribute Clermont County Recycling/Waste Disposal Guide:* Completed. In 2006, a revision was completed and 1000 copies of the Recycling Guide were printed and distributed.

6. *Hold Township/Village Junk Collection days:*

- a. *Village of Amelia:* Amelia held its annual Junk Day on June 10. A total of 50.07 tons of waste was collected. Tires were not accepted.
- b. *Batavia Village and Township:* Joint village/township “Junk Days” were held from May 4-6 and from October 5-7. During the May event, four 30-cubic yard dumpsters were filled, and four were filled in October, along with two rear-load garbage trucks. A total of 185 tires were collected in May and 145 tires in October. Also, 50 appliances were collected in May and 32 in October.
- c. *Goshen Township:* The annual Goshen Junk Day was held on May 6. A little more than 61 tons of waste was collected, plus two 3 yard dumpsters were filled and introduced as a weekly depository pick up for paper, plastic, and aluminum. Approximately 235 gallons of used oil was recycled. Tires and appliances were not accepted.
- d. *Miami Township:* Miami Township held its semi-annual Junk days on May 5-6, and on September 22-23. During the May event, 78 tons of waste was collected, while 65 tons were collected in September. A total of 167 appliances were also collected during both events, including 93 in May and 74 in September.
- e. *City of Milford:* The City of Milford Junk Days event was held on October 20 and 21. During Junk Days, 12.41 tons of waste filling fourteen 30 cubic yard dumpsters and 2 packer trucks were collected.
- f. *Monroe Township:* Held June 8-10. Recycled 90 refrigerators, 1300 used tires. Three scrap metal dumpsters were filled; 45 tons of metal recycled. Six trash dumpsters and three garbage trucks filled. Also, 40 recycled automotive batteries were collected.
- g. *Stonelick Twp/Village of Owensville:* The township and village held their annual collection on May 5-6. Approximately 1,000 cubic yards of trash were collected, along with two tractor trailer loads of tires, 200 batteries, 75 refrigeration units and 100 gallons of used motor oil.
- h. *Union Township:* Union Township’s Junk Days were held on April 17-22, and on October 19-21. More than 500 tons of waste was collected during the combined Junk Days collection efforts. Also, 160 refrigerators and a number of used tires were collected.

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:* Since 2005, the Adams-Clermont Solid Waste District has 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 2006, an estimated 50 pounds of mercury was collected and provided to Ohio EPA.

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:* The Clermont County Health District has been tracking both discharging and non-discharging septic systems through its Basic System Assessment (BSA) database. Approximately 96 percent of the discharging systems have been identified. Maps showing locations of both discharging and non-discharging systems have been developed for the various watersheds within the Phase II urbanized area. These maps were provided in Appendix 3 of the 2005 Annual Report. The maps are 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 465 new systems added to the BSA program during 2006 bringing the total of BSAs conducted to 6400.

Section 306.2 Storm Sewer System Map

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

East Fork Little Miami River Watershed

- Backbone Creek
- Back Run
- Batavia Area Tributaries*
- Dry Run/Sugarcamp Run
- Four Mile Run
- Hall Run
- Happy Hollow
- Lick Fork
- Lower East Fork
- Lucy Run
- O'Bannon Creek*
- Owensville area tributaries
- Salt Run
- Shayler Run
- Ulrey Run
- Wolfpen Run

Little Miami River Tributaries

- Horner Run
- Unnamed Tributaries*

Ohio River Tributaries

- Nine Mile Creek
- Ten Mile Creek*
- Twelve Mile Creek

Watersheds marked with an asterisk indicate those where mapping was completed during 2006. Maps depicting the watershed boundaries, stream network and storm water outfalls for

each of the watersheds inventoried in 2006 are included in Appendix 3. Outfall maps completed previously were provided in the 2005 Annual Phase II Report.

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. At the end of 2005, the Storm Water Management Department had completed a first draft of illicit discharge regulations and submitted these to the County Prosecutor's office for review. There were concerns at the time that the County did 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. These questions were resolved in 2006, and final draft of the regulations was completed. The draft is included in Appendix 3. The illicit discharge regulations will be incorporated into the County's existing Water Management and Sediment Control regulations, revisions of which will be adopted in 2007.
2. *Develop regulations prohibiting illicit discharges to the MS4; incorporate into the City's ordinances (Milford):* See above. 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. The annual meeting of the Scientific Advisory Committee was held on March 23, 2006. The purpose of the meeting was to plan the 2006 monitoring and sampling program, which included dry weather surveys to detect illicit discharges in two separate watersheds.
2. *Conduct stream monitoring and sampling program:* Completed. Part of the 2006 monitoring program included dry weather sampling at multiple locations along Happy Hollow Run and Newtonsville Creek. 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 the Newtonsville area and in Happy Hollow 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 was conducted in the Hall Run, Shayler Run, and Wolfpen Run watersheds. Seven semi-public waste water treatment plants (or "package plants") located in the East Fork Little Miami River watershed were sampled periodically throughout the summer. Results of the dry weather surveys and auto sampling in these areas indicated substantial problems with the quality of the discharges and supports that underperforming HSTs are the likely source of high nutrient and fecal values.

A report summarizing the findings of the 2006 chemistry sampling program, including results from the dry weather surveys and the package plant effluent sampling, is provided in Appendix 3.

3. *Develop illicit discharge detection training form:* Completed. See 2005 Annual Phase II Report.

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 of the 2005 report.

Section 306.6 HSTS Operation and Maintenance

1. *Conduct HSTS installer training sessions:* Completed. The Health District conducted two installer training sessions on February 15 and 22, 2006. A total of 34 people attended the first workshop while 48 people attended the second workshop. The workshops included discussions on the new HSTS rules, changes in the 2006 installation manual, repairs completing Health District as-built forms and other items. A copy of the workshop agenda and the sign-in sheets are provided in Appendix 3.
2. *Inspect at least 3500 HSTSs annually:* Completed. In 2006, the Health District completed 6,400 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. Copies of these fliers are provided in Appendix 3.

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 2006 are included in Appendix 3. A summary of each is provided below:
 - January 6, 2006 - During the outfall inventory and reconnaissance a red stain was discovered surrounding the catch basin in the parking lot at 1366 SR 131 in the Sugar Camp watershed. The stain, later found to be grout from recent improvements, could not be found at discharge point of system. Business owner was approached by staff for investigation and a letter (attached) from the Clermont County Storm Water Management Program Manager was sent as reminder of good housekeeping practices.
 - January 30, 2006 - During the outfall inventory and reconnaissance two catch basins in the parking lot at 1919 SR 131 were found to be impacted with oil-laden sediment. A sample from a depth of 18" revealed that the catch basins were completely full of used motor oil. The automotive repair and parts supply was contacted by the Storm Water Program Manager and a contact of the corporate offices was made. The problem and improper disposal methods were addressed through correspondence between County officials and business owners. The offending business was instructed to have the catch basins cleaned at their own expense and the sediment and oil disposed of properly, given a copy of the Office of Environmental Quality's *Recycling Guide*, provided contact information for Ohio EPA's Office of Compliance

Assistance, and warned that further offences would result in the intervention of Ohio EPA if better practices were not observed. In March, 2006 the business was inspected and found to have adopted better housekeeping practices and used oil recycling. This business has been placed on the storm water “hot list” and regular site visits will be conducted.

- February 5, 2006 – In response to citizen’s complaints about homeowners dumping motor oil, the Storm Water Management Department sent a letter reminding the resident in question that the practice of dumping motor oil into a ditch or storm drain is illegal and of the potential penalties. Information was also provided to the homeowner about where used motor oil could be brought in Clermont County, and a copy of the County’s Recycling Guide was included.
- March 15, 2006 - During the outfall inventory and reconnaissance a white substance was found to be running off of several sheets of drywall that were disposed of in the parking lot next to a catch basin at 2235 Bauer Road, Batavia, OH. The material was from a recent remodeling job inside the business and owners were contacted by the County and instructed to dispose of materials properly.
- March 21, 2005 - During the outfall inventory and reconnaissance, staff noticed a large amount of trash that had been collecting for some time on a hillside behind the businesses at 471 Wards Corner in the Lower East Fork Watershed. This excessive amount of trash and debris was nearly knee-deep and contained several bottles, cans, and empty oil cans. This site was targeted in the next voluntary spring clean up by Clean and Green.
- March 29, 2006 - During the outfall inventory and reconnaissance a plastic pipe was found to be connected to the septic tank of a camp trailer on Riverside Drive in Batavia Village and running the length of a bank to the surface waters of the East Fork Little Miami River. The resident was contacted and the illegal discharge was eliminated.
- March 29, 2006 - A foamy white substance was found in the parking lot catch basin and side yard of a local Batavia Village granite cutting business. The substance was found to be washing into the drain from the side yard and discharging into the East Fork Little Miami River through the storm system. It was later discovered and documented that employees at 77 Foundry Ave. were discharging the granite dust from the machinery into the side yard. This activity was captured on camera by staff and the situation was turned over to the Ohio EPA as this business was repeating practices deemed by the Ohio EPA to be improper due to past offenses.
- April 10, 2006 - A mass of stringy orange bacteria was found in a ditch after being discharged from a retention pond via a 6” corrugated plastic drain pipe at 6887 Stage Road. The flow through the ditch system and into the tributary of O’Bannon Creek was stagnant. The substance broke apart when tapped with a stick and settled to the bottom of the stream bed. It was identified as iron-oxidizing bacteria and found to be non-threatening after further investigation.
- December 11, 2006 - Due to aerial photography taken during a routine fly-over of Wolfpen Run, a local river conservation organization discovered a plume of discolored water. County officials investigated after the plume was brought to their attention. The plume was the result of runoff from discarded concrete and cement at 1141 US 50 where the cement trucks were washing out at the edge of an abandoned gravel parking lot next to the business and the material was sliding down the embankment and being weathered by rain events and entering the tributary through a drainage swale. Chris Cotton, Southwest District of Ohio EPA, investigated the site with John McManus, Clermont County Storm Water, to meet with owner and

perform site assessment. The owner was instructed to cease such practices that could ultimately damage the East Fork River. As of the end of 2006, Mr. Cotton is currently inquiring into whether or not Hotel Trucking needs to operate under an industrial storm water discharge permit.

2. *Host illicit discharge training:* On July 20, 2006 the Clermont County Storm Water Management Department hosted an illicit discharge detection workshop for its Phase II partners and other interested parties. A workshop agenda is included in Appendix 3. The session consisted of two key speakers from Ohio EPA who informed attendees about how to properly identify and categorize an illicit discharge. Dale Farmer, a field investigator for Ohio EPA's Southwest District Office, gave a very informative presentation that helped attendees learn how to identify different types of illicit discharges through a series of observations and tests, and how to distinguish potential illicit discharges from natural occurrences. Dave Combs, a criminal investigator of environmental spill violations for Ohio EPA, talked about how to trace possible illicit discharges to a specific source, how to handle the situation when a spill or illegal discharge is coming from industry or private property, and when to involve Ohio EPA.
3. *Chemical Spill/HazMat Response:* Throughout the year, there are invariably a number of spills to which local emergency units respond. A summary of these incidents is provided in Appendix 3.
4. *HSTS Public Workshops:* The East Fork Watershed Coordinator worked with the Clermont County Health District to host two HSTS public workshops in 2006 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 (see Appendix 3 for mailer). Approximately 100 people turned out for the two workshops held on January 30th in Union Township and February 1st 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.
5. *Storm Sewer System Inventory:* In September, 2006 the Storm Water Management Department began the *Shayler Run Storm System Inventory and Condition Assessment* pilot project after contracting with the consulting team of Burgess & Niple and Strand Associates. The project goal is to inventory and perform condition assessments of all storm system structures, including outfalls, catch basins, manholes pipes and other structures. Attribute data including location, size, diameter, material and condition will be collected. The end product will be a fully connected GIS geodatabase of the system serving the Shayler Run watershed. The project will continue and is expected to conclude in 2007.
5. In cooperation with the ORSANCO effort to compile a TMDL bacterial study of the Ohio River, the County conducted a series of sampling at four locations of confluence of local tributaries and the Ohio River. Samples were collected at each site for five consecutive weeks from May 23 to June 20 (same dates and locations as ORSANCO samples taken from Ohio River). Samples were analyzed for *E. coli* by the Clermont County Sewer District wastewater laboratory. The results were submitted to ORSANCO for further analysis. Resulting *E. coli* values of these samples and a map of sampling locations are included in Appendix 3.

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 2006, the Building Inspection Department had completed a final revised draft that was presented to County Commissioners in 2006 and is set for presentation for public input in January, 2007.
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 all Phase II municipalities that provide for County enforcement of the WMSC regulations. Contracts will be finalized when the revised WMSC regulations are adopted by the Clermont County Board of Commissioners in January 2007. The City of Milford will continue to conduct 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. Complaint 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 2006, the Building Inspection Department addressed 99 complaints and resolved 83 percent of the valid complaints.
4. *Track the number of stop work orders and conditional occupancy certificates as indicator of program success:* Completed. In 2006, the Building Inspection Department issued four stop workers and 160 conditional occupancy certificates for WMSC violations.

Additional Activities Not Contained in Storm Water Management Plan

1. *Education/Training:* Clermont County Storm Water Management staff attended the Southwest Ohio Sediment and Erosion Control Field Day sponsored by the Warren Soil and Water Conservation District. The agenda was packed with several rotating BMP training

sessions and an outdoor product demonstration. A copy of the agenda is included in Appendix 4.

2. *Construction BMP Manual:* From 2005-06, the Storm Water Management Department partnered with Miami University's Institute of Environmental Sciences to develop a manual of construction best management practices. The manual includes fact sheets for numerous BMPs, each with information regarding usage, benefits, limitations, installation tips, maintenance requirements, estimated costs, alternatives and vendors. Fact sheets available include:

Erosion Control BMPs

Anionic Polyacrylamide
Earth Dikes
Geotextiles
Hydroseeding
Mulching
Riprap
Seeding
Slope Drain
Sodding
Soil Roughening

Sediment Control BMPs

Check Dam
Fiber Roll/Sediment Log
Gravel Berm Bag
Sandbag Barrier
Sediment Basin
Sediment Trap
Silt Fence
Storm Drain Inlet Protection
Vegetative Buffer Strip

Site Maintenance BMPs

Dust Control
Entrance/Outlet Tire Wash
Stabilized Construction Exit
Street Sweeping
Temporary Stream Crossings

A copy of the manual is provided in Appendix 4.

CHAPTER 5: POST-CONSTRUCTION STORM WATER 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 storm water 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 Storm Water Post-Construction BMP Manual

1. *Complete BMP Manual:* Completed. A post-construction 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 of the 2005 Annual Phase II Report.

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 Planning Department's web site (<http://www.clermontcountyohio.gov/planning/>).
2. *Hold regular meetings of Clermont Open Space Committee:* Although there was no meeting held in 2006, several committee members attended a conference publicized by Clermont County Soil and Water Conservation District via website. The conference, held November 16, 2006, was titled "Putting Conservation Development in the Ground in Southwest Ohio" (see Appendix 5 for workshop brochure), and targeted developers, designers, architects, and planners and community officials. People from Clermont County attending the workshop included:
 - Paul Berringer - Clermont SWCD staff
 - Josh Will - Clermont SWCD staff
 - Dave Anspach - Clermont SWCD Board of Supervisors, Owensville Resident

- Jim Wilson - Clermont SWCD Board of Supervisors, Batavia Twp. resident
- Christopher Knoop - Representing Pierce Township
- Brian St. Clair - Representing Pierce Township
- Jeff Wright - Representing City of Loveland
- Judy Squire - Representing Jackson Township Zoning
- Rick Record - Clermont County's At-Large Representative to the Miami Valley RC&D (Appointed by Clermont County Commissioners)
- Eric Partee – Little Miami Inc. (LMI) staff, Milford, LMRP Board of Directors
- Andy Dickerson - LMI staff, Milford

Section 505.4 Subdivision Regulations

1. *Complete report and recommendations for changes to Clermont Subdivision Regulations / present to Planning Commission:* Completed. Formal changes to the regulations were adopted by the Board of County Commissioners in October 2005. See the 2005 Annual report for details.

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 2006.

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. See the 2005 Annual Report for more details.
2. *Develop Low Impact Development educational materials:* Completed. See the 2005 Annual report for more details.

Additional Activities Not Contained in Storm Water Management Plan

1. *Additional Open Space Conservation Efforts; EQUIP program:* As part of the Environmental Quality Incentive Program (EQUIP), four conservation efforts were implemented by homeowner cooperators in the Phase II area. The cooperators and practices were:
 - Ollie Burdsall of Stonelick Township- installation of grass waterway; seeded with thick Kentucky 31 grass mixture to ensure better filtration of corn and soy bean field runoff.
 - Gordon Hancock of Monroe Township- installation of livestock fencing to prohibit entry and erosion damage along stream bank, roadway, and forests.
 - Mary McAnnich of Goshen Township- installation of grass waterway; seeded with thick Kentucky 31 grass mixture to ensure better filtration of corn and soy bean field runoff.

- Elaine Miller of Batavia Township- installation of geotextile/gravel access road into heavily- trodden fields to lessen erosion at roadside intersection and to provide safe access for farming machinery and implements.

More information can be found about these EQUIP efforts, as well a program outline at the SWCD website: www.clermontswcd.org. An article can also be found in the winter, 2006 edition of the SWCD newsletter (Appendix 1).

Chapter 6: 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 2006, each Phase II partner has been able to provide training sessions for their employees with the exception of Batavia Township, Village of Owensville, and Clermont County Fleet Maintenance. These training sessions will continue in 2007.
4. *Host pollution prevention workshop:* The Clermont County Storm Water Management Department hosted a pollution prevention workshop for township and municipal operations on June 20, 2006. The workshop agenda is included in Appendix 6. This workshop featured three key speakers, including:
 - Miami Township's Service Director, who reviewed the details and the history behind the Township's state of the art road de-icing program. 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. A snow removal truck was on hand for viewing by the workshop participants.
 - The Village of Batavia's Administrator, who discussed the new street sweeper purchased by the Village. He discussed the specifications and costs of the new sweeper, the costs associated with the old street sweeping program, the increase in the amount of materials able to be collected by the new street sweeper, and the amount of time saved. The Village also discussed the possibilities of loaning the street sweeper to other Clermont communities. The street sweeper was on display during the workshop.
 - Clermont County Fleet Maintenance personnel gave a presentation on its automotive fluid recycling program. Details were provided on Fleet's antifreeze recycling unit and its motor oil collection program. The Fleet Maintenance Department has offered to accept used motor oil from the other Phase II partners.

5. *Identify commercial/industrial target areas; provide training and education materials:* Completed in 2005. 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 of the 2005 Annual Report. The brochure can also be downloaded at www.clermontstorm.net/industrial_p2_brochure.pdf.
6. *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).
7. *Compile baseline information on amount of salt applied:* Completed. The following summarizes the amount of salt applied during 2006. For data from past years, see previous annual reports.
 - a. Clermont County Engineer's Office. Records are kept by seasons rather than by calendar year. For the 2006-07 winter season, 5,215 tons of salt were applied to 398 miles of county roads during 10 events.
 - b. *Village of Amelia:* During the 2006-07 season, Amelia used 114 tons of salt on the village's 14 miles of roads.
 - c. *Village of Batavia:* During the 2006-07 season (through the end of January 2007), the Village applied 104.9 tons of salt that covered a total of 1132 lane, with an average of 185.3 lbs. of salt per lane mile.
 - d. *Batavia Township:* During the 2006-07 season, there were 16 application events in which 624.5 tons of salt were applied to 58.29 lane miles (average of 39.1 tons/event).
 - e. *Goshen Township:* During 2006-2007 season, there were 11 application events in which 308.21 tons of salt were applied to the township's 39.36 miles of roads (average of 28.0 tons/event).
 - f. *Miami Township:* Miami Township is responsible for treating 147.58 miles of roads each winter season. During the 2006-07 season, there were 11 application events in which the Township applied 1,700.51 tons of road salt. During five of the application events, 3,605 tons of brine were also applied. During another four events, the Township applied 3,505 tons of calcium chloride, a more environmentally friendly alternative than sodium chloride.
 - g. *City of Milford:* During 2006 season, the City applied a total of 400 tons of salt during 8 application events (average of 50 tons per event) to 32 miles of road.
 - h. *Monroe Township:* During the 2006-07 season, the township applied a total of 222.67 tons of salt to its 26 miles of roads. There were 14 application events, resulting in an average of 15.9 tons applied per event.
 - i. *Ohio Township:* During the 2006 calendar year, there were several application events in which an estimated 50 tons of salt were applied. During each application, Ohio Township treats 7.5 miles of roadways.
 - j. *Village of Owensville:* Owensville contracts with Stonelick Township for roadway deicing.
 - k. *Pierce Township:* During the 2006-07, the Township used 673 tons of road salt during 12 application events. The Township treats a total of 466.74 miles of roadways.
 - l. *Stonelick Township:* During the 2006-07 season, the Township applied 302.5 tons of salt during 13 events (average 23.3 tons/event). During each storm, the Township treats 26.75 miles in Owensville and Stonelick Township.

m. *Union Township*: During the 2006-07 season, the Township applied 1800 tons of salt during 12 events (average 150 tons/event).

8. *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 2007.

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 cleaned catch basins in the village on three occasions during the year (May 26, June 26, July 26). Street sweeping was conducted by either the Village or County Municipal Court trustees a total of four times during 2006. The Village's annual junk day resulted in 50.07 tons of junk collected via curbside pickup.
2. Batavia Village cleaned 400 catch basins and manholes for 12,435 linear feet of storm sewer. A total of 77 miles of streets were swept throughout 2006. With the purchase of a new street sweeper, the Village was able to improve the total miles of street swept annually from 12 in 2005 to 77 in 2006.
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 235 gallons of motor oil collected and recycled from township vehicles and the general public.
5. The City of Milford swept a total of 75 miles of city streets, cleaned 426 catch basins, and 70 drywells throughout 2006.
6. Miami Township accepts used motor oil from township residents throughout the year. The number of gallons accepted in 2006 is not available. The township inspected 4,813 linear feet of storm sewer.

7. Ohio Township stores oil and transmission fluid from township vehicles on site and contracts with Grubb Oil Co for hauling and disposal. Motor oil is salvaged once a year and transmission fluid about once every two years. In 2006, Grubb Oil took about 35 gallons from the township.
8. Stonelick Township reported recycling 100 gallons of motor oil from township vehicles and the general public.
9. Storm Water staff also participated in an Ohio EPA webcast training on December 6, 2006. The two-hour training program was titled: "Killing Two Birds with One Stone: Building a Local Program to Maintain Your Stormwater Practices and Prevent Pollution from Municipal Operations".