

Project ID Number: 99-04 Project Director: Monica Ostrand

Project Title: Watershed Planning and Implementation for the Sandusky River Watershed  
WSOS Community Action Commission, Inc.

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Final Technical Report for:

## WATERSHED PLANNING AND IMPLEMENTATION FOR THE SANDUSKY RIVER WATERSHED

Prepared by Monica Ostrand

Sandusky River Watershed Coordinator

January 31, 2002

**Summary:** *Success of addressing the problem,  
benefits and information dissemination*

The proposal for this project identified a myriad of problems from non-point source pollution and hydrological modification, to lack of a diversity of participation and non-Federal funding for match that pointed to a definite need for support from the Lake Erie Protection Fund. While changes in water quality are not measured and documented in the two-year life of this project, there are other indicators of a growing ability to address water quality concerns in the Sandusky Watershed because of the efforts of this project: state attention with TMDL and 319 programs, Coalition Participation, and recognition regionally of the contributions the project has to offer.

The Coalition has been successful in attracting OEPA Priority Rating for 319 funding and for TMDL work because of the presence of a strong watershed group *and* management plan. By moving the Sandusky up in the TMDL schedule by 6 years, there will be better data to evaluate the status of the watershed and to direct remediation efforts to the right places.

In addition to attracting State attention, the Coalition is more diverse, has greater participation, is much more active and has funding for a full-time Watershed Coordinator for years to come. The Coordinator has presented at several conferences and on public-participation techniques detailed in section 3 and has helped train Watershed Coordinators throughout the region.

## Report: *Achieving our Objectives*

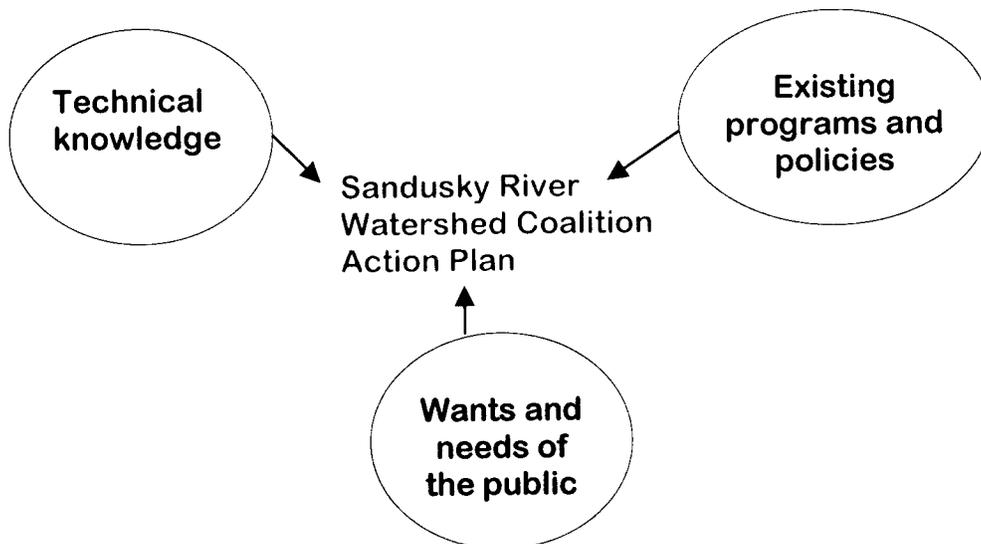
Objectives for the project *Watershed Planning and Implementation for the Sandusky River Watershed* included **1) to develop a watershed management plan pp 3-6, 2) to implement the plan pp 6-12, 3) to build public involvement and education pp 12-14, 4) to create a clearinghouse for watershed related activities p 14, 5) to continue to develop and maintain a Geographical Information System (GIS) for the river p 14, 6) to create a permanent legal entity for the Coalition pp 14-15, and 7) to obtain resources for water quality improvement projects and Coalition activities p 15.** Detailed descriptions of what component of each objective was achieved during the life of the grant are described in this report.

### 1) Develop a Watershed Management Plan

Exhibit A is the most recent edition of the *Sandusky River Watershed Resource Inventory and Management Plan* and one set of updates to the first edition submitted with the interim report. The complete document includes the following chapters: introduction, land resources, water resources, biological resources, aquatic life use attainment, water supply use attainment, recreational use attainment, pollutant loading to Lake Erie, management plan, and appendices with detailed information about all 14 11-diget subwatershed within the Sandusky Hydrological Unit. Chapter 11, titled “Management Plan,” includes causes of water resource problems in the Sandusky

Watershed, tools for improving water resources, TMDL program description, action plans, evaluation procedures for the Management Plan, adaptive management, and the role of research.

Most of the chapters of the document were developed with extensive technical assistance from the Heidelberg Water Quality Laboratory, ODNR Scenic River's Program, and other organizations with professional expertise on water quality issues. The action strategies of the management plan however, were created through a public involvement process that has already proven useful in its successful implementation. That public involvement process is detailed in Exhibit B. This process is being used as an example of how Watershed Coordinators can work with a citizen stakeholder group to get substantive public involvement. It can be found on the Ohio Watershed Network Ohio Watershed Academy Instructional Module: Identifying and Prioritizing Critical Issues & Resources. The staff of the Sandusky River Watershed Coalition did not generate the action plan herself. The ideas for the plan were identified through a process that allowed for the blending of technical knowledge of the water resources, the programs and policies existing in the area and the wants and needs of the public.



Writing and maintaining a management plan is a critical step for watershed groups and partners to garner financial support for watershed improvement projects. Already, the production of the management plan has been instrumental in bringing over \$500,000 319 non-point source pollution abatement dollars to the Sandusky Watershed. Similarly, without the Resource Inventory and Management Plan, it very likely would not have been possible to apply for the “Link Deposit Program” which process was recently completed by NRCS in the for the Watershed.

Bringing additional grant and loan dollars into the Watershed is not the only, or even the primary gain from the production of the management plan. While funding for implementation projects is crucial, having motivated stakeholders to implement the plan, could be argued to be even more important. Even if the money is available to do the projects, the projects do not get put in place by themselves. Individuals do, and our plan has particularly good chances at being fully implemented because of the efforts that were directed toward the other objectives in this grant: namely fundraising, clearinghouse and *especially* public involvement which I will discuss in more detail in those objectives’ sections.

Our proposal stated, “The effectiveness of the plan will be in the success of its implementation.” While we are only a short time into the implementation of our action plan, it has already been revised and reprinted once, many of the objectives have been achieved, the Coalition maintains volunteer led and directed committees committed to implementing their plans, and long term (relatively) funding has been secured helping to ensure ongoing attention to the plan. These elements combined should help us to

continue to find success in implementation, the result being improved conditions of the water ecosystem for years to come.

2) Implement the Plan

At the time of drafting the proposal, the project aimed to “begin implementation of at least two water quality improvement projects by the end of year two.” Below are those projects identified in subcommittee action plans that have been started by the end of the grant period.

*Agriculture committee action plan achievements:*

**Goal 1: Reduce sediment, nutrient, and pesticide loading in the watershed.**

**Goal 1a: General actions to reduce agricultural pollutant loading in the watershed.**

| Action  | Who                             | Funding                      | Success                  | Progress*                              |
|---|---------------------------------|------------------------------|--------------------------|--|
| Promote establishment Of buffers (trees or grass)   | Landowners, NRCS/SWCD, FSA      | CRP, CREP, EQIP other grants | 1,200 acres over 3 years | 1,243 ac in '01 (1171 grass, 72 trees) |
| Promote establishment Of wetlands                   | Landowners, ODNR NRCS/SWCD, FSA | CRP, CREP, WRP, ODNR         | 50 acres over 3 years    | 42 ac. In '01                          |
| Encourage enforcement Of Current Laws & Regulations | EPA, ODA, Coalition             | EPA, ODA                     |                          | Trial at Croton 19.7 m. to Plaintiffs  |

**Goal 1b: Specific actions to reduce sediment loading in the watershed.**

| Action                                    | Who                                | Funding                       | Success               | Progress*  |
|---|------------------------------------|-------------------------------|-----------------------|------------|
| Promote installation Of grassed Waterways | Landowners NRCS/SWCD               | CRP                           | 90 acres over 3 years | 69 ac. '01 |
| Encourage Maintenance of Tile outlets     | Landowners, SWCD, County Engineers | Landowners, Ditch Maintenance |                       | Yes        |

|                                     |                             |                 |                              |                                   |
|-------------------------------------|-----------------------------|-----------------|------------------------------|-----------------------------------|
| Promote Establishment of Windbreaks | Landowners, NRCS/SWCD, ODNR | CRP, CREP, ODNR | 30,000 row feet over 3 years | 73,135 row feet in '01 (13.9 mi.) |
|-------------------------------------|-----------------------------|-----------------|------------------------------|-----------------------------------|

**Goal 1c: Specific actions to reduce nutrient loading in the watershed.**

| Action  | Who                                      | Funding                | Success  | Progress*         |
|---|--|------------------------|--|-------------------|
| Encourage adoption Of manure nutrient Management plans              | SWCD/NRCS ODNR , OSUE, Consultants       | EQIP, SWCD, 319 grants | 45 nutrient management plans signed over 3 years | 2 in '01          |
| Encourage manure Storage facilities to Contain min. 6 mos. Storage. | Landowners, NRCS/SWCD ODNR, OSUE         | EQIP, ODNR 319 grants  | 12 improved or installed over 3 years            | 2 in '01          |
| Encourage use of BMP's with Commercial fertilizer Application       | Landowners, NRCS/SWCD, OSUE, Consultants | EQIP, 319 grants       |  | 15,536 ac. in '01 |

**Goal 1d: Specific actions to reduce pesticide loading in the watershed.**

| Action                                      | Who                                      | Funding          | Success | Progress*         |
|---|--|------------------|---------|-------------------|
| Encourage use of Integrated Pest Management | Landowners, OSUE, Consultants, NRCS/SWCD | OSUE, 319 grants |         | 17,877 ac. in '01 |

**Goal 2: Provide opportunities for education in the watershed.**

| Action                                | Who                             | Funding          | Success | Progress*  |
|---------------------------------------|---------------------------------|------------------|---------|--|
| Promote BMP's                         | Coalition, agencies Individuals | Grants, agencies |         | 319 grant submitted and Received by SWCD's                 |
| Interpret and Distribute new Research | Coalition, agencies             | Grants, agencies |         | Strip Till plots checking on potential for Manure movement |
| Encourage soil & Plant tissue tests   | Coalition, OSUE, NRCS/SWCD      | Grants, agencies |         | Soil. tissue & manure tests                                |
| Promote Ag. Ed.                       | Coalition, agencies             | Grants, agencies |         | Watershed  |

In schools and  
Student groups

Festival &  
Heritage Fest

\*Progress is given for Crawford, Sandusky, Seneca and Wyandot Counties, which collectively have a total land area only 80 square miles less than the land area of the entire Sandusky Hydrologic Unit.

*Wastewater committee action plan achievements:*

The wastewater committee has distributed soaker hoses at the Watershed Festival last summer, have done some storm-drain stenciling and have received a grant to replace failing septic systems with alternative systems. They are now planning on applying for 319 grant funding to get information to new homeowners on maintaining their home septic systems properly.

*Water supply committee action plan achievements:*

**Goal:** Perform a SWAP analysis of the Sandusky River and its tributaries

**Action Plan:** This analysis will be performed in conjunction with OEPA

**Goal 1: Inform Water Committee of requirements for SWAP**

| Action item                                   | Time frame      | Person/agency responsible | Resources needed/cost                                    | Funding sources | Success indicator                  |
|---|-----------------|---------------------------|--|-----------------|------------------------------------|
| Conduct seminar to explain the extent of SWAP | October 5, 2000 | Dave Little               | Facility for meeting;<br>OEPA representative<br>- \$0.00 | N/A             | Meeting is scheduled and completed |

**Goal 2: Perform SWAP of the Sandusky River & its tributaries**

| Action item | Time frame | Person/agency responsible | Resources needed/cost | Funding sources | Success indicator |
|-------------|------------|---------------------------|-----------------------|-----------------|-------------------|
|-------------|------------|---------------------------|-----------------------|-----------------|-------------------|

Exchange information with OEPA as they conduct SWAP

December 31, 2003

Entire Committee

Unknown at this time

Ohio EPA Division of Surface Water is working out the details of how the Coalition can help with the Surface Water SWAPs in the Watershed.

*The stream flow and habitat committee action plan achievements:*

A number of implementation projects have been started. Efforts during the first year centered on working out the tensions between drainage demands and habitat requirements as they relate to logjam removal. Currently, the committee is organizing a workshop to examine the issues in detail and is coordinating a grant proposal to conduct a research project on the impacts of logjam removal on flooding and in-stream habitat.

*Education committee action plan achievements*

**Education & Special Events  
Action Plan**

**Problem Statement:** General Public lacking in understanding the importance of the river and the opportunities it holds.

**Goal :** Have annual events to promote the importance of river, its problems, and its opportunities.

| Action Item  | Time Frame    | Person/agency Responsible                          | Resources Needed cost    | Funding Sources       | Success Indicators  | Progress   |
|--|---------------|--|--------------------------|-----------------------|---|--|
| Have a Sandusky River wide Clean-Sweep for the 4 major counties. | July 31, 2001 | Recycling and Litter Prevention, in the 4 counties | \$3,000-5,000 per county | Grants, Fund Raisers, | Participation and reduced amounts of trash collected each year. | Held a 4-county clean sweep August 11, 2001. 300+ volunteers |

|  |  |   |   |         |  |   |
|--|--|---|---|---------|--|---|
|  |  |   |   |         |  | and 12.4 tons of trash collected  |
| Have Sandusky River Watershed Festival Weekend.                            | July 1, 2001. (tentative date June 23, 2001) | County Park Districts & Education Committee | Unknown until scope of the festival developed | Unknown | Attendance   | Approx. 200 individuals attended the first ever Sandusky River Watershed Festival |
| Include Scenic Rivers Program in all events and public awareness campaigns | Ongoing                                      | Scenic Rivers staff                         | None  | None    | Participation in Scenic Rivers Events, At least one Scenic River item in each newsletter | Yes, see attached newsletters. Exhibit C.   |

**Problem Statement:** Work/Goals of Sandusky River Watershed Coalition are not known by majority of general public.

**Goal :** Public Awareness campaign development

| Action Item                              | Time Frame   | Person/agency Responsible     | Resources Needed cost  | Funding Sources | Success Indicators                               | Progress                                      |
|--|--|-------------------------------|--|-----------------|--|---|
| Fair Display in all 4 major county fairs | Have updated display by June 30, 2001. Have in all county fairs By October 1, 2001 | Education committee secretary | Display, new pictures of yearly events, volunteers to set up booth and cost of booth | LEPF/OEEF       | Successful booth at each county fair during 2001 | Planned and funding available for 2002 fairs. |
| Monthly (or as needed) media             | October 1, 2000  | Monica Ostrand or Intern      | \$0  | NA              | Coalitions mission known to at least             | See exhibit D - attached press                |

|   |  |  |  |  |                 |           |
|---|--|--|--|--|-----------------|-----------|
| releases of Coalition activities to all on media list |  |  |  |  | local officials | releases. |
|---|--|--|--|--|-----------------|-----------|

**Problem Statement:** No “generic/canned” programs available at this time that can be used by local educators

**Goal 1:** Develop several programs for various ages that can be used by coalition members to locally promote our goals.

| Action Item  | Time Frame     | Person/agency Responsible                 | Resources Needed cost | Funding Sources   | Success Indicators                                      | Progress                         |
|--|----------------|---|-----------------------|-------------------|---|----------------------------------|
| Develop a general River Coalition video explaining our goals, etc. | Within 3 Years | Monica Ostrand, Coalition, All committees | \$5000-20,000         | Grants, Donations | Getting it aired on Local Public Broadcasting Stations. | Started process with a producer. |

*Development committee action plan achievements:*

The Development Committee formed after the other 5 committees, however it has also made tremendous progress toward implementing its goals. One goal is to develop recreational opportunity guidebooks for the River and its Watershed. The county convention and visitor’s bureaus, mayors and others have assembled the information on the opportunities locally and are working currently on prioritizing the information and assembling it into a publication. Goal two was to have traffic signs developed and put up so passerby’s could identify when they are “entering the Sandusky River Watershed” to

raise awareness of the mere existence of the watershed. So far, the committee has submitted a letter of request to ODOT and is pursuing other options as well.

### 3) Public Involvement and Education Strategies:

The outcome of this objective is measured by: a) there has been a tremendous increase in public involvement, measured by the number of new Coalition members, b) a display was developed and exhibited throughout the Sandusky River Watershed, and c) presentations were conducted to more than 8 civic groups.

#### *A) Membership Numbers*

During the two-year span of this Contract the public involvement with the Coalition increased dramatically. The Coalition moved from having

- 64 individuals on its mailing list with
- forty of the members from state/federal/local government and nonprofit educational and service organizations and
- 63% of the members from two out of the twelve counties

*to*

- 2,700 individuals on its mailing list with
- a dominance from the private and corporate sector.

The Coalition has maintained excellent support from the state/federal/local government and nonprofit educational and service organizations while developing active participation from the private and corporate sector. Approximately 500 individuals have

attended Coalition meetings, and quarterly meetings regularly have attendance exceeding 50 individuals. The four main counties in the watershed (Crawford, Wyandot, Seneca and Sandusky) have representation on our Steering Committee, and the Steering Committee is actively seeking participation from the other counties represented with smaller percentages in the watershed. In addition, 85 organizations, families, and individuals hold paid memberships with the Coalition.



*B) Display Developed*

*C) Educational Presentations in 2001 (only reporting activity since the Interim Report)*

- 1/31/01** Radio Interview - Community Spotlight about the SRWC
- 2/15/01** Fremont City Council on SRWC (TV broadcast locally)
- 3/8/01** Presentation to Fremont citizens on SRWC & how to get involved
- 3/12-3/14** *Rural Voices Sharing our Stories* conference speaker on Watershed Planning & SWAP
- 4/21/01** Crawford County Earth Day set up SRWC display
- 4/26-4/27/01** *Making TMDLs Work in Rural Watersheds* SRWC -Case Study
- 5/03/01** Sustainable Watershed Planning in Ohio - SRWC -Case Study
- 6/07/01** Fremont City Council on water/watershed issues in Fremont –nitrates, Ballville Dam, etc. (TV broadcast)
- 6/23-6/24** Miller Farm Field Days - SRWC Display
- Various dates** *broadcast* 5 Radio interviews promoting the Watershed Festival & River Benefit
- 8/04/01** (200) Sandusky River Watershed Festival
- 8/04/01** (150) Sandusky River Benefit
- 8/07/01** (10) Optimist’s Club
- 8/11/01** (300) Sandusky River Clean Sweep
- 10/11/01** *broadcast* Radio Interview
- 10/17/01** (50) AWWA Meeting presentation about watersheds/substitute for Water Supply meeting
- 12/6/01** (15+ *broadcast* ) Fremont City Council presentation (broadcasted locally) – focus on stormwater (NEMO presentation) and agricultural BMPS (Steve Davis’ presentation on Lake Erie Buffers)

Other opportunities utilized to raise awareness of the watershed was press releases. See Exhibit D for a sampling of newspaper press on the Coalition and the Watershed.

#### 4) Create a Sandusky River Watershed Clearinghouse:

*Clearinghouse: a central agency for the collection, classification, and distribution especially of information; broadly: an informal channel for distribution information or assistance.*

Technically, the Clearinghouse was up on the Coalition website [www.riverwatershed.org](http://www.riverwatershed.org). The website clearinghouse is a fine start, however it needs several areas of improvement: comprehensiveness of the content, good contact information and methods and organization. Just how to accomplish this objective eluded me throughout the life of this grant program. However, now that I have had more experience with the partners in the watershed and the SRWC has become a more established community organization the Coalition itself is naturally becoming that clearinghouse.

#### 5) Continue to Develop and Maintain a GIS for the Sandusky River:

The GIS work is evidenced in the Resource Inventory and Management Plan. See Exhibit A.

#### 6) Create a Legal Entity for the Coalition:

We did not meet the goal of this objective; the Coalition is not yet its own legal entity. However, some important organizational hurdles were overcome that has readied

the group for legal status. Additionally, the by-laws (Exhibit E) have been extensively reworked and a Memorandum of Agreement (Exhibit F) has been developed between WSOS and the Sandusky River Watershed Coalition. WSOS has offered to assist the Coalition with developing legal status; the membership has not yet indicated a desire to formalize the organization as of yet.

7) Obtain Resources

In addition to grants and donations made to the Sandusky River Watershed Coalition to support the Coalition as an organization and the implementation of its educational objectives:

|                  |   |
|------------------|---|
| <b>192,000</b>   | ODNR Watershed Coordinator Grant to help fund a full-time Watershed Coordinator for six years.  |
| <hr/>            |   |
| <b>32,010</b>    | EPA 319 grant to the Coalition.   |
| <hr/>            |   |
| <b>12,187</b>    | Local donations garnered through a diversity of fundraising efforts including canoe tour, watershed festival, membership dues, donations and many other sources. Exhibit G shows fundraising materials. |
| <hr/>            |   |
| <b>5,000</b>     | Ohio Environmental Education Fund Grant to help cover the expenses of the Watershed Festival.   |
| <hr/>            |   |
| <b>\$241,197</b> | <i>Total secured to date</i>  |

many other grants have been awarded to Coalition partners to help address water quality impairments throughout the watershed. As the Coordinator of the Coalition, I am actively serving on advisory boards of a number of these grants.

## **Exhibits**

- A – One complete copy of the *Sandusky River Watershed Resource Inventory* and one set of updates to previous publication.
- B - Subwatershed public meetings process.
- C – Newsletters
- D – Press Releases
- E – Bylaws
- F – Memorandum of Agreement

# *Chapter 11. Management Plan*

## **Introduction and Background**

In order to promote the protection and enhancement of water resources within the Sandusky River Watershed, the Sandusky River Watershed Coalition (SRWC) has prepared this *Management Plan*. This plan includes descriptions of the many programs and projects that are already underway within the watershed to improve and protect our water resources. The plan describes activities planned by the SRWC to support, promote, and accelerate those programs and projects. New initiatives for the protection and enhancement of water resources are also described.

The SRWC was formed in 1997 with the general mission of providing information and opportunities for public participation in the stewardship of the Sandusky River Watershed. The SRWC received a grant from the Ohio Environmental Protection Agency (OEPA) to develop a local watershed action plan using the OEPA's *Guide to Developing Local Watershed Action Plans in Ohio*. With the support of that grant, the Coalition produced *The Sandusky River Watershed Resource Inventory*. The *Resource Inventory*, which was published in February 2000, is available in printed form from the SRWC. Most of the *Inventory* is also available on the SRWC web site at [www.riverwatershed.org](http://www.riverwatershed.org).

The *Resource Inventory* includes chapters that describe the land, water, and biological resources of the watershed. These are followed by Chapters describing the causes and sources of use impairments relative to biological communities, drinking water, and recreational uses, as well as watershed export of pollutants to Lake Erie. An appendix to the inventory contains detailed GIS generated maps of land use, roads and highways, aquatic life use attainment by stream segment, and location of point sources for each of the eleven major subwatersheds that make up the Sandusky River Watershed.

Following publication of the *Resource Inventory*, the coalition hosted public meetings in each of the eleven sub-watersheds during March 2000. These meetings provided an opportunity for concerned citizens in each sub-watershed to review the contents of the *Resource Inventory*, to comment on local water resource concerns, and to suggest methods to address those concerns. Invitations were sent to 3,500 identified "stakeholders." The news media also helped to spread the word about the meetings to the rest of the community. One hundred and twenty people attended the public meetings and contributed 500 comments about their water issues of concern. About 32% of those attending were from the general public, 25% from local government, 20% represented business, 5% from agencies, and 8% from education and environmental groups.

These data were summarized by the watershed coordinator and grouped into various topics. At the SRWC general meeting of April 27, 2000, five subcommittees were formed -- (1) agriculture, (2) wastewater, (3) drinking water, (4) stream flow and habitat, and (5) education and special events. A sixth subcommittee, addressing issues of development, was subsequently

formed. The water quality concerns summarized in the Resource Inventory and/or raised in the public meetings were divided among the subcommittees for the development of specific action plans. A general format was developed for the action plans and consensus procedures were to be used in the development of the plan.

Draft action plans for each subcommittee were reviewed at a Strategic Planning Meeting on September 11, 2000. At that meeting presentations were also made regarding other planning efforts underway in the Lake Erie Basin and Ohio. These included the Lake Erie Buffer Team, The Lake Erie Coastal Management Plan, the Lake Erie Protection and Restoration Plan, the Lakewide Management Plan (LAMP) & Statewide Streams and Rivers Plan, and the Karst Source Water Assessment and Protection Plan. Gaps in the action plans and opportunities for plan integration were also discussed.

The action plans for the original five subcommittees were revised as needed and the subcommittee action plans were approved at the SRWC annual meeting on October 26, 2000. The action plan for the Development Subcommittee was approved at the annual meeting of October 18, 2001. In addition to the action plans developed by each subcommittee, this *Management Plan* contains the following information/topics:

1. A review of the OEPA's terminology for water quality management plans.
2. A summary of the causes of water resource problems in the Sandusky Watershed (including a description of the adverse effects and the "sources" of the causes).
3. A summary of the various tools available for improving water resources.
4. A summary of the action plan, including a matrix showing the effectiveness of various tools for reducing the various causes of water resource problems.
5. The detailed action plans of each subcommittee.
6. The evaluation approaches scheduled for use by the SRWC.
7. A brief description of current and potential water research programs in the Sandusky Watershed.

Since the *Resource Inventory* and the *Management Plan* are integrally related, we are packaging them together. The *Management Plan* is added as Chapter 11 of the *Sandusky River Watershed Resource Inventory*. The combined publication is entitled *The Sandusky River Watershed Resource Inventory and Management Plan*. To facilitate addition of sections and updates, the original *Sandusky River Watershed Resource Inventory* was published in a three-ring binder. Copies of the Chapter 11 and associated changes to the title page, table of contents, preface and credits will be distributed to those who have previously received copies of the *Resource Inventory*. The SRWC's web page will also be updated to include the management plan.

Development of this management plan was supported by a grant to the SRWC by the Lake Erie Protection Fund. A January 2001 draft of the Management Plan was reviewed extensively by the SRWC steering committee as well as by various OEPA and ODNR staff. The suggestions of the reviewers have been very helpful in the development of the final draft of this document. David Baker, chairman of the Stream Flow and Habitat subcommittee, served as the main compiler and author of this Chapter. W.S.O.S. Community Action Commission, Inc. of Fremont, Ohio serves as the fiscal agent for the SRWC.

## A Review of Terminology Used in the Management Plan

The terminology used in both the *Resource Inventory* and the *Management Plan* follows that used by the Ohio EPA in their many reports and publications and is shown in Figure 11.1. The waters of the state are given a set of designated uses, such as support of aquatic life, suitability for drinking water supplies and suitability for recreational use. Where pollutants, habitat degradation or other factors interfere with those designated uses, the uses are said to be impaired. Thus water resource problems are referred to as **impairments**. Wherever possible, the Ohio EPA attempts to identify the “**causes**” of the impairments. These “causes” may be specific pollutants, habitat alterations, hydrologic alterations, or other factors. While often there can be a chain of cause-effect events that lead to water quality impairments, the term “cause” is generally restricted to the factor that directly results in the impairment. Thus “causes” generally operate within the aquatic environment.

The Ohio EPA then attempts to identify the “**sources**” of the various causes of water resource impairments. Where pollutants are the causes of impairments, sources are further subdivided into nonpoint sources (associated with land uses) and point sources (associated with municipal and industrial water uses). Sources of habitat and hydrological alterations in stream systems often originate from alterations of land surfaces. Efforts to reduce water resource impairments generally focus on adoption of **treatment practices** or **best management practices (BMPs)** to reduce the sources.

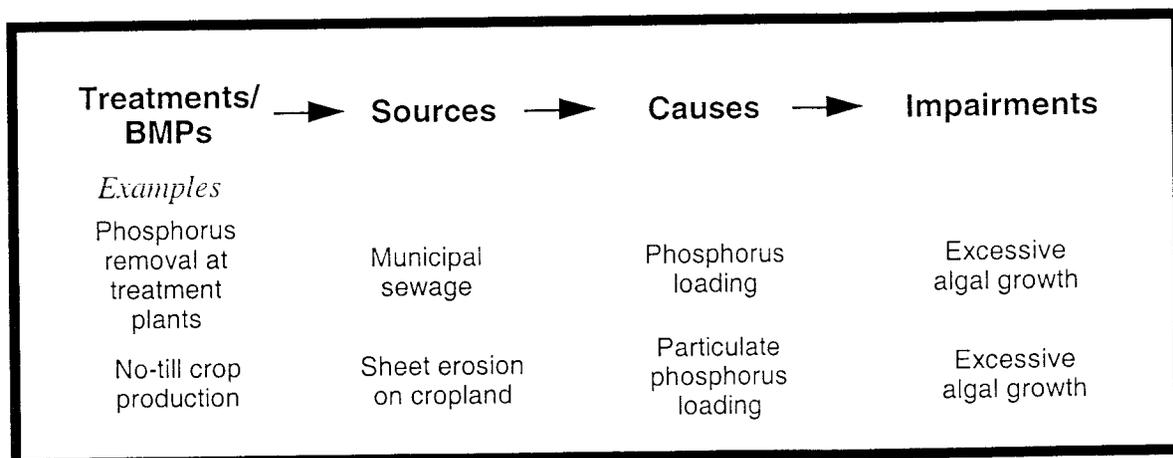


Figure 11.1. Terminology used in water resource assessment and protection by the Ohio EPA and in this Management Plan.

## Causes of Water Resource Problems in the Sandusky Watershed

In the *Resource Inventory*, water resource problems in the Sandusky River Watershed were presented in terms of impairments to biological communities (Chapter 5), water supply (Chapter 6), recreational use (Chapter 7), and Lake Erie, through pollutant loading (Chapter 8). In general, these problems reflect unintended consequences of human land and water uses within the watershed. Conversion of land from pre-development conditions to agricultural, urban, industrial, and suburban land uses resulted in major changes to the pathways of water movement to streams and to the chemical quality of the water moving in surface runoff pathways. These land use changes accelerated surface runoff to streams and decreased infiltration into ground water, resulting in higher flood peaks and lower base flows. Additionally, the surface runoff water picked up chemicals characteristic of those land uses. For example, surface runoff from cropland picks up soil particles, phosphorus and pesticides and carries these substances into streams. The extensive use of tile drainage to support timely field operations by farmers in this region further alters the pathways and timing of water movement into streams, and increases delivery of soluble agricultural chemicals, such as nitrates, to streams. Pollutants carried into streams via surface water (and to a lesser extent, groundwater) pathways are said to be derived from nonpoint sources (see Chapter 1).

A major use of water is to remove wastes from our homes, businesses and industries and discharge them into streams that carry the wastes away. As populations increased in the watershed, these waste disposal practices soon resulted in intolerable conditions in streams. Consequently, sewer lines, often referred to as interceptor sewers, were installed to convey the wastes to sewage treatment plants where treatment reduces the concentrations of pollutants in waters discharged into streams. Industrial water users also added water treatment to reduce pollutant concentrations in their discharges. Over the years, the degree of treatment provided by municipal and industrial waste treatment plants has increased, greatly diminishing pollutant discharges into streams. The Ohio Environmental Protection Agency now regulates the discharge of pollutants from both municipal and industrial sources through the National Pollutant Discharge Elimination System (NPDES). However, untreated sewage still reaches streams through combined sewer overflows and treatment plant bypasses. Some smaller towns have yet to install sewer lines and treatment plants. Even where treatment plants are meeting current treatment requirements, pollutants may still be entering streams at levels which, together with other sources of that pollutant, may result in impairments to water resources. The above are referred to as point sources of pollutants (see Resource Inventory, Chapter 1).

The major causes of water resource impairments resulting from land and water use activities in the Sandusky Watershed are listed in Table 11.1. For each cause, the water resource problem or effect it causes is summarized. Also, the sources or conditions that lead to the cause are summarized. These sources or conditions are the specific land or water uses that contribute to the cause. Note that many of the “causes” have both multiple “effects” and multiple “sources.”

**Table 11.1. Summary of causes of water resource impairments, their effects on water resources, and the sources or conditions that lead to the causes.**

| Cause of problem   | Water Resource Problem  | Sources and conditions leading to causes   |
|--|---|--|
| Sediment   | Excessive sediment deposition in stream systems adversely affects aquatic habitats and increases flooding; suspended sediment in streams increases water treatment costs, adversely affects aquatic life, and decreases recreational values; excessive sediment loading into Lake Erie causes similar problems in the lake, and contributes to high dredging costs. | Sheet erosion of cropland; gully erosion on farmland; stream bank erosion; sheet and gully erosion at construction sites; movement of deposited sediments through drainage networks; down-cutting of streams; higher peak flow increases erosion and lower base flow allows increased deposition in stream channels. |
| Phosphorus   | Can stimulate excessive growth of aquatic plants, giving rise to oxygen problems, taste and odor problems, nuisance conditions, and possible release of toxins from blue-green algae. Historically responsible for many of the above problems in Lake Erie.   | Attached to eroding sediments, especially from cropland; fertilizer; manure; human wastes, through sewage, combined sewer overflows, and failed septic tanks; urban storm runoff.  |
| Nitrate  | Drinking water contaminant in surface and in some ground water; Can stimulate excessive growth of aquatic plants, but this effect is more likely in marine than in fresh water environments.  | Fertilizer; nitrogen fixation, especially by legumes; manure; human wastes; rainfall; delivery of nitrate from cropland to streams is enhanced by tile drainage systems.   |
| Ammonia  | Direct toxicity to aquatic life; contributes to oxygen deficiencies in streams.   | Manure; human wastes via failed septic tanks and inadequate sewage treatment; spills of concentrated animal wastes, fertilizers, and industrial chemicals.   |
| Pesticides   | Some drinking water risk in surface water supplies and, to a lesser extent, ground water supplies in the Sandusky Watershed. Some risk to aquatic life.   | Herbicides, primarily from agricultural uses; some herbicides from urban land uses; insecticides, primarily from urban uses  |
| Organic wastes   | Can deplete oxygen concentrations in streams and lakes; can result in sludge beds on stream bottom.   | Untreated sewage from bypasses and combined sewer overflows; septic tank effluents; manure runoff; food processing wastes; industrial wastes; spills; biomass decomposition.   |
| Fecal bacteria, as indicated by presence of fecal coliform bacteria. | Health risks to recreational users; drinking water contaminants, especially private water supplies.   | Failed septic tanks; combined sewer overflows; cross connections between water and sewer lines; loss of pressure in water lines, often due to broken water mains, allows infiltration of contaminated water; animal wastes/manure; wildlife.   |
| Other toxic chemicals (metals and organic chemicals)                 | Wildlife kills; drinking water contamination; fish consumption advisories.  | Sewage effluents; industrial effluents; spills; fires; pipeline breaks; leaking hazardous waste sites; atmospheric deposition.   |

**Table 11.1. Causes of water resource impairments ... continued.**

| Cause of problem                                | Water Resource Problem  | Sources and conditions leading to causes   |
|---|---|--|
| Higher peak flows than for natural stream flows | Flood damages to crops, housing, businesses, bridges and roads; increased stream bank erosion; habitat and channel modifications.   | Agricultural land use increases surface runoff; agricultural drainage projects and ditch maintenance speed delivery of water to downstream sites resulting in higher peak flows; impervious surfaces associated with urban and industrial land uses increase surface runoff; urban storm runoff.   |
| Lower base flows than for natural stream flows  | Inadequate public water supplies during dry weather flows; limits aquatic habitats; less dilution of point sources; slow water movement facilitates growth of algae in streams; higher water temperatures.  | Agricultural land use; agricultural drainage projects, including tile drainage and surface drainage; wetland conversions to cropland or urban uses; impervious surfaces associated with urban and industrial land uses. All of above reduce ground water recharge, lowering water tables and diminishing spring water discharges that provide dry weather (base) flows in streams. |
| Lack of forested riparian corridors             | Increases water temperatures; reduces source of large woody debris, root masses, and log jams, all of which enhance stream habitat; breaks continuum of forest habitat that benefits wildlife; adverse aesthetic effects for stream users; increases erosion and downstream flooding. | Agricultural, suburban, urban and industrial land uses which encroach on stream banks.   |
| Channel modifications                           | Simplify stream habitats; alter stream substrates; decrease local flooding/increases downstream flooding. Reduces flood plain function.   | Constructed to support local agricultural or urban land uses; reduce local flooding; provide stream bank protection.   |
| Natural habitat limitations                     | Stream gradients affect distribution of pools and riffles; local soils and bedrock affect stream substrates (bedrock, fine sediments, sand, gravel, etc.); affects ecoregional aquatic life standards.  | Natural geographical features that predated human impacts.   |
| Logjams (+/-)                                   | (+ ) Provide habitat diversity in streams, reduce downstream flooding; (-) can aggravate local flooding and bank erosion.   | Logjams are natural features of streams having forested riparian corridors. Logjam removal is common to reduce local flooding that can adversely affect land uses.   |
| Trash and debris                                | Reduce aesthetic values of streams; can pose hazards to recreational users of water resources.  | Careless human behavior.   |
| Exotic species                                  | Reduce diversity of native flora and fauna: direct economic damages.  | Globalization of commerce and travel; deliberate human introductions (carp, multiflora rose)   |
| Dams (+/-)                                      | (-) Alter stream habitat; often prevent longitudinal migration of fish; (+) Provides sources of drinking water and/or industrial supplies; power generation (historical); flood prevention/reduction; recreational uses.  | Often dams no longer serve the purposes for which they were originally constructed. In the mean time, developments upstream from dams benefit from the ponded conditions created by the dam.   |

## **Tools for Improving Water Resources**

### **Point Source Controls**

A wide variety of tools have been developed to reduce the adverse effects of land and water uses on water resources. Because the adverse impacts of point sources of pollutants were so obvious, initial efforts to improve water quality focused on the collection and treatment of domestic and industrial wastes. It is beyond the scope of this plan to describe in any detail the various techniques of municipal and industrial waste treatment. However, these treatment programs are so important to maintaining water quality in our streams and rivers that they require noting. Furthermore, the continuing regulation of treated effluents from these point sources, through NPDES permits, may offer opportunities for additional improvements in water quality. Chapter 9 (unfinished) of the Resource Inventory describes point sources of pollutants in the Sandusky Watershed.

At present, opportunities for improvements in water quality in the Sandusky Watershed, relative to point sources, occur within the category of improved collection of wastewater. Many of the sewer lines in our communities receive both sanitary (household) and storm runoff water. During rainfall events, the combined flows from these sources often exceed the flow capacity of the interceptor sewers. Rather than have the mixed wastes back up into basements, overflow structures are built into the interceptor sewers, so that portions of the combined wastes overflow directly into streams. Combined flows reaching the treatment plants may also exceed the capacity of the treatment plants for waste treatment, and must be bypassed with minimal treatment into the receiving streams or rivers. Various tools are available to reduce the adverse effects of combined sewers on water quality.

In areas not served by sewer lines, septic tanks and infiltration beds provide treatment of domestic sewage. Often these systems fail, resulting in untreated or poorly treated sewage directly entering streams. Replacement of failed septic tanks, extension of sewer lines into unsewered areas, and installation of sewage collection and treatment systems in communities previously lacking such systems are all important tools in water quality management in the Sandusky Watershed.

A listing and brief description of the major tools in the reduction of pollutants derived from point sources is shown in Table 11.2.

**Table 11.2. Tools for the control of point sources of pollutants.**

| Tools   | Description  |
|---|--|
| Municipal waste treatment plants                    | Includes primary and secondary treatment of domestic sewage and some industrial wastes. These greatly reduce organic waste content of the sewage. Various chemicals can be added to improve treatment and remove additional phosphorus. Ammonia may be oxidized to nitrate. Effluents are chlorinated, or otherwise disinfected, to kill fecal bacteria, and de-chlorinated to reduce toxicity of effluent. Tertiary treatment is also possible to further clean up effluents. A variety of other treatment systems are used in smaller communities. (See Resource Inventory – Chapter 9). Effluents must meet standards set in NPDES permits that are specific for each waste treatment plant and receiving stream. |
| Industrial waste treatment plants                   | Treatment systems are specific to each industry. Effluents must meet standards set in NPDES permits that are specific for each discharger and receiving stream.  |
| Combined sewer separation, remediation.             | This involves construction of storm sewers in areas previously served by combined sewers. This reduces storm water movement into the sewer lines and thereby reduces combined sewer overflows. This is very expensive, but nevertheless is being required in most communities.   |
| Reduction of combined sewer overflows.              | This involves sets of practices that reduce the volume of storm runoff water reaching combined sewer lines. Discharging run gutters onto lawns rather than driveways would be an example. Stenciling storm drains so that people don't discard wastes directly into the drains can also reduce pollutant entrance into streams.  |
| Sewer line extension/rural sewer district formation | Often developments at the edges of cities may lack sewer lines, resulting in treatment via septic tanks or package plants. These treatment systems are less effective than municipal sewage treatment plants. Extension of sewers into these developing areas provides a permanent solution.   |
| Septic tank replacement/repair                      | Septic tanks and leach fields, if not properly maintained, can fail to effectively treat household wastes, resulting in off-lot movement of wastes. Replacing these systems and requiring maintenance can reduce these problems.   |
| Pollution Prevention                                | Substitution of hazardous raw materials in manufacturing processes; reuse of wastes or discarded goods (sludge, used tires, etc.); proper use, storage, and disposal of household chemicals (not down the drain), substitution with non-toxic household cleaners.  |

**Nonpoint Source Controls**

In the 1970s, as it became apparent that controls of point sources of pollutants were insufficient to achieve water quality goals, attention broadened to include efforts to control nonpoint sources of pollution. Since the land use activities within a watershed reflect essential human activities (food production, industrial production, living space, commerce, transportation, forestry, recreation, etc.), improving water quality by changing land uses has only limited applicability. Instead, attention has focussed on improving the management practices associated with existing land uses. These improvements support continuation of existing land uses while reducing adverse impacts on water resources. In general these practices are referred to as best management practices (BMPs).

Because of the complexity of the interaction between rainfall, runoff, and conditions on the land surface, BMPs are often site specific. What works in one place, may not work in another.

Because agricultural land use is a major source of nonpoint source pollutants, extensive research has been conducted to develop site specific agricultural BMPs. Numerous technical handbooks and computerized decision aids are available to help farmers and their advisors select appropriate BMPs. County soil and water districts and the cooperative extension service of The Ohio State University can provide detailed information on locally appropriate BMPs.

Some of the common agricultural BMPs are listed and briefly described in Table 11.3. The list also indicates that BMPs are available for construction sites and urban storm runoff, although these are not described in any detail.

**Table 11.3. Summary of some of the tools used to reduce nonpoint sources of pollution and water resource impairment in the Sandusky Watershed.**

| Tool/BMP   | Description   |
|--|---|
| Filter strips  | Strips of grass or other vegetation used to intercept or trap sediment, nutrients, pesticides or other pollutants before they reach a water body. <sup>1</sup>  |
| Riparian corridors                                   | Streamside vegetation consisting of trees, shrubs, and grasses that can intercept pollutants from both surface and ground waters before they reach a stream. <sup>1</sup>   |
| Flow through wetlands                                | Tracts of land either temporarily or permanently covered by shallow water. Wetlands serve as sinks to trap water, sediment and other pollutants. <sup>1</sup>   |
| Conservation tillage                                 | Crop production procedures that retain at least 30% soil cover so as to reduce erosion.   |
| Grassed waterway                                     | Strips of grass on areas where water concentrates as it runs off of a field; primarily used to prevent gully erosion; can be combined with filter strips to filter contaminants.                                      |
| Wildlife habitat establishment                       | Conversion of cropland to grass, shrub and /or tree habitats. Usually applied to portions of fields difficult to access with large equipment or to very small parcels.  |
| Windbreak establishment                              | Rows of trees planted along the edges of fields to reduce wind erosion; can also function as filter strips.   |
| Land set-a-sides; Conservation Reserve Program (CRP) | Conversion of highly erodable cropland to fallow land with adequate cover; can include rental payments through CRP  |
| Tile outlet maintenance                              | Methods of reducing erosion and back cutting at tile outlet sites.  |
| Agricultural water management                        | Improvements in traditional surface and tile drainage systems to reduce adverse water quality impacts and improve production; can include wetland reservoir subirrigation systems and water table management systems. |
| Nutrient management plans                            | Programs to increase the efficiency of crop production and reduce water quality impairments through careful nutrient management; includes soil and/or plant tissue testing.   |
| Integrated pest management                           | Programs to increase the efficiency of pest (insects and weeds) control through scouting, economic threshold analysis, and careful selection of pesticides.   |
| Agrochemical storage and handling                    | Programs to reduce accidental spills during the storage and handling of pesticides and fertilizers.   |
| Manure nutrient management                           | Plans to assure appropriate utilization of manure nutrients so as to avoid nutrient buildup in local areas and avoid manure runoff into surface waters.   |
| Manure storage facilities                            | Provide safe storage for sufficient quantities of manure to facilitate appropriate manure nutrient management.  |
| Livestock exclusions                                 | Provide fencing to exclude livestock from direct access to streams.   |
| Stream bank protection                               | Various techniques to protect stream banks from erosion; primarily used where such erosion threatens adjacent land uses.  |
| Ditch maintenance                                    | Sets of practices which maintain channel capacity and provide for tile outlets; can include dredging, control of woody vegetation through use of herbicides, and maintenance and shaping of grass banks.              |

**Table 11.3. Summary of some of the tools used to reduce nonpoint sources ... continued.**

| Tool/BMP                     | Description  |
|------------------------------|--|
| Construction site BMPs       | Sets of practices used to reduce erosion and off-site sediment transport from construction sites of various types.   |
| Urban storm water management | Sets of practices to reduce the quantity and improve the quality of surface runoff from urban, industrial and suburban areas. Can include treatment of urban storm runoff.       |
| Cover crop establishment     | Planting a fall/winter cover crop, especially on fields where "specialty crops" are grown (sugar beets, tomatoes, cabbage pickles, etc.) to reduce erosion and retain nutrients. |
| Sinkhole management          | Planting grass or vegetated buffers around sinkholes. Sinkholes in towns/public areas should be "stenciled" similar to storm sewer drains.                                       |

<sup>1</sup> Definition for the Ohio Lake Erie Buffer Program, Strategic Plan 2000-2004

### **Other Tools for Water Resource Management**

There are important additional approaches to water resource management applicable to this area. These include Source Water Assessment and Protection Programs, regional planning, zoning, farmland protection, park system expansion, flow augmentation, waste site remediation, enforcement of existing regulations and future legislation/regulations. The relevance of these issues to water quality management is briefly described in Table 11.4.

**Table 11.4. Some additional approaches to water resource protection and management.**

| Approach   | Relevance to water resource management  |
|--|---|
| Source Water Assessment and Protection Programs (SWAP) | This is a specific program required of all public water supplies. It involves detailed identification of the risks posed to both surface water and ground water based supplies. Source waters are to be protected such that conventional treatment can bring the finished water into compliance with drinking water standards. These risks may come from point sources, nonpoint sources, or from accidental spills associated with the storage and transport of various chemicals. Following identification of these risk factors plans for addressing the risks must be developed. These plans will intersect with more comprehensive watershed management plans. The SRWC Drinking Water Committee is working on the SWAP programs for the Sandusky Watershed. |
| Regional Planning                                      | Regional planning is aimed at guiding and fostering development in a particular area. There is increasing recognition that the course of development, and the resulting pattern of land use, has important implications for the environmental quality in an area, including its water resources. Terms such as "smart" development and "sustainable" development reflect the incorporation of long-term environmental considerations into regional planning.  |
| Zoning   | Zoning, particularly as it applies to flood plains, is very important for water resource management. Flood plains are natural parts of streams and rivers. Construction of homes, businesses and industries on flood plains increases the potential damages from floods. Such construction also results in calls for flood protection efforts that are costly, can increase downstream flood magnitudes, and have other undesirable effects on stream systems.  |

**Table 11.4. Some additional approaches ... continued.**

| Approach                                | Relevance to water resource management   |
|---|--|
| Farm Land Protection                    | Much of the growth of communities in this region occurs at the expense of farmland. Loss of farmland, especially of prime farmland, reduces the capacity for future food production. This can lead to farming of increased acreage of less suitable land, which is often accompanied by increased erosion problems. Since the "unit area" adverse impacts of farmland on water resources are generally less than the "unit area" adverse impacts of developed land, development generally is accompanied by increased pressure on water resources. |
| Parklands, Natural Areas, and easements | Transfer of existing forest lands and flood plain areas into parklands, natural areas or natural easements achieves long-term protection of these areas, and their generally beneficial functions relative to water resources.   |
| Flow Augmentation                       | Because of the exceptionally low base flows of the Sandusky River and some of its major tributaries, release of water from up-ground storage reservoirs can significantly increase base flows in the streams. This capacity could be incorporated into low-flow water quality management. Many of the existing up-ground reservoirs in the watershed were constructed with capacity of flow augmentation included in their design and funding.   |
| Waste Site Remediation                  | There are numerous closed land fills and waste disposal sites in the watershed (See Resource Inventory, Chapter 9). Some of these may be leaking into the streams or rivers. Where such leakage represents a significant threat to aquatic life or humans through fish consumption or drinking water, remediation of the sites may be warranted.   |
| Enforcement of Existing Regulations     | There are numerous regulations pertaining to large livestock producers, littering, point sources and some nonpoint sources, that, if more strongly enforced, would improve water resources.  |
| New legislation/regulations             | In Ohio, new regulations regarding large livestock operations are being developed. These have the potential to protect and improve water resources.  |

**Total Maximum Daily Load (TMDL) programs**

An important component of the *Federal Clean Water Act* is the Total Maximum Daily Load program (Section 303(d)). This program applies to stream segments that will not achieve use attainment goals through application of normal point source controls. For these stream segments, the causes of impairments must be identified and plans developed to bring the stream segment into compliance. These plans often involve a combination of point source and nonpoint source controls. Where the effectiveness of the plans is uncertain, the plans must include a margin of safety. The plans also allow for trading of pollutant load reductions between point and nonpoint sources so as to achieve water quality goals in the most economic manner. Generally modeling techniques are used to estimate the nonpoint source components of the loads and to calculate the assimilative capacity of the streams (i.e. the maximum loading of a pollutant that a stream can receive and still maintain water quality goals). In Ohio, the TMDL program is primarily aimed at reducing impairments to biological communities of Ohio's streams and rivers.

The timetables for Ohio EPA's biological monitoring efforts are now tied to the state's schedule for developing TMDLs for Ohio's streams and rivers (see <http://www.epa.state.oh.us/dsw/tmdl/303dnotc.html>). At the onset of the preparation of the *Resource Inventory* and this *Management Plan*, the upper portions of the Sandusky River were

scheduled for TMDL completion in 2006, with monitoring starting in 2004, and the lower portions of the Sandusky River in 2011, with monitoring starting in 2009. However, early in 2001, the OEPA decided to advance the TMDL program by three years for both the entire upper portion of the Sandusky River Watershed and by six years for a portion of the lower Sandusky River Watershed. Intensive biological sampling of these areas will occur during 2001. The resulting data will help set priorities for remedial programs and provide baseline biological data upon which to evaluate the effectiveness of future programs. The SRWC will play an important role in the development of the nonpoint source control portions of the TMDL plan.

### **Role of Education**

Because the reduction of nonpoint source pollution involves such a large number of watershed residents, education will be particularly important in its control. This education must address two major topics. First of all, residents must understand the importance of water resources within the watershed, the extent of the water resource impairment, and the causes of those impairments. Secondly, residents must know the steps they can take to reduce the causes of water resource impairments, as well as the programs and people that can help them take those steps. A primary role of the SRWC is to mount educational efforts within the watershed to help accomplish the above. This will involve the Education Subcommittee, working in cooperation with the other SRWC subcommittees.

### **Summary of the Action Plans**

Improvements in water resources in the Sandusky Watershed will come from applying the relevant tools to the causes of the water quality problems in this watershed. The general applicability of these tools to the causes of the problems is summarized in Table 11.5. The major intent of Table 11.5 is to illustrate the following two points:

1. Many of the individual tools are effective in addressing multiple causes of water resource degradation.
2. Many of the individual causes of water resource problems can be addressed by a variety of tools.

Table 11.5 does attempt to indicate the general effectiveness (large, medium or small) of various tools in addressing individual causes of degradation. There were differences of opinion both within and among subcommittees regarding the effectiveness of some of the practices. In part, these differences are due to the site-specific nature of BMPs. A particular BMP may be very effective in one landscape but much less effective in another. For example, buffer strips may be very effective in reducing sediment transport into streams where large portions of runoff water move by sheet flow from fields, over buffers and into streams. Where large portions of

Table 11.5. Matrix summarizing the applicability of various tools for improving water resources to the important causes of water resource degradation in the Sandusky River Watershed.

| Treatments/<br>BMPs                   | Sources  |            |         | Causes  |            |                |                |                       |                          |                |                            |                      |                           | Impairments          |                |                  |                |            |                 |
|---------------------------------------|----------|------------|---------|---------|------------|----------------|----------------|-----------------------|--------------------------|----------------|----------------------------|----------------------|---------------------------|----------------------|----------------|------------------|----------------|------------|-----------------|
|                                       | sediment | phosphorus | nitrate | ammonia | pesticides | organic wastes | fecal bacteria | other toxic chemicals | high peak flows/flooding | low base flows | lack of riparian corridors | channel modification | natural habitat corridors | insufficient habitat | log jams (+/-) | trash and debris | exotic species | dams (+/-) | future problems |
| buffer strips (grass)                 | L        | L          | M       |         | M          | S?             |                | M                     | S                        |                |                            |                      |                           |                      |                |                  |                |            |                 |
| woody riparian corridor establishment | L        | L          | M       |         | M          | M              |                | M                     | M                        | L              |                            |                      | L                         | M                    |                |                  |                |            |                 |
| flow-through wetland establishment    | M        | M          | M       |         | M          | M              |                | L                     | L                        |                |                            |                      | L                         |                      |                |                  |                |            |                 |
| conservation tillage                  | L        | L          | N?      |         | S          | N?             |                | S                     | S                        |                |                            |                      |                           |                      |                |                  |                |            |                 |
| grassed water ways                    | L        | M          |         |         | S          |                |                |                       |                          |                |                            |                      |                           |                      |                |                  |                |            |                 |
| wildlife habitat improvement          | M        | M          | M       |         | S          |                |                | M                     | M                        | M              |                            |                      |                           | S                    |                |                  |                |            |                 |
| windbreak establishment               | M        | M          |         |         |            |                |                | M                     | M                        |                |                            |                      |                           |                      |                |                  |                |            |                 |
| land retirement (CRP)                 | L        | L          | S       |         | S          | S?             |                | M                     | M                        |                |                            |                      |                           |                      |                |                  |                |            |                 |
| tile outlet maintenance               | S        | S          |         |         |            |                |                |                       |                          |                |                            |                      |                           |                      |                |                  |                |            |                 |
| agricultural water management         | S        | S          | N?      |         |            |                |                | L                     | L                        |                | M                          |                      |                           | M                    |                |                  |                |            |                 |
| fertilizer nutrient management plans  |          | L          | L       | M       |            |                |                |                       |                          |                |                            |                      |                           |                      |                |                  |                |            |                 |
| integrated pest management            |          |            |         |         | L          |                |                |                       |                          |                |                            |                      |                           |                      |                |                  |                |            |                 |
| pesticide storage and handling        |          |            |         |         | L          |                |                |                       |                          |                |                            |                      |                           |                      |                |                  |                |            |                 |
| manure nutrient management            |          | L          | L       | L       |            | L              | M              |                       |                          |                |                            |                      |                           |                      |                |                  |                |            |                 |
| manure storage facilities             |          | L          | L       | L       |            | L              | L              |                       |                          |                |                            |                      |                           |                      |                |                  |                |            |                 |
| livestock exclusions                  | L        | M          | M       | M       |            | M              | L              |                       |                          |                |                            |                      |                           |                      |                |                  |                |            |                 |
| stream bank protection                | L        |            |         |         |            |                |                |                       |                          |                |                            |                      |                           |                      |                |                  |                |            |                 |
| construction site BMPs                | L        | S          |         |         |            |                |                |                       |                          |                |                            |                      |                           |                      |                |                  |                |            |                 |
| urban storm water management          | S        | M          |         |         | S          | S              |                | L                     | L                        | L              |                            | M?                   |                           |                      | M              |                  |                |            |                 |
| improved waste treatment (NPDES)      |          | L          | L       | L       | M          | L              | L              | L                     |                          |                |                            |                      |                           |                      |                |                  |                |            |                 |
| storm/sanitary sewer separation       |          | L          | L       | L       | N          | L              | L              | L                     |                          |                |                            |                      |                           |                      |                |                  |                |            |                 |
| sewer extension/rural sewer district  |          | L          | L       | L       |            | L              | L              |                       |                          |                |                            |                      |                           |                      |                |                  |                |            |                 |
| septic tank replacement/repair        |          | M          | M       | M       |            | L              | L              |                       |                          |                |                            |                      |                           |                      |                |                  |                |            |                 |
| source water assessment & protection  | S        |            | S       |         | S          |                |                | L                     |                          |                |                            |                      |                           |                      |                |                  |                |            |                 |
| park system expansion                 | S        |            |         |         |            |                |                | L                     | L                        | L              |                            |                      | L                         |                      |                |                  |                |            |                 |
| regional planning                     |          |            |         |         |            |                |                | L                     | L                        | L              |                            |                      |                           |                      |                |                  |                |            | L               |
| zoning                                |          |            |         |         |            |                |                | L                     | L                        | L              |                            |                      |                           |                      |                |                  |                |            |                 |
| farmland protection                   |          |            |         |         |            |                |                | L                     | L                        | L              |                            |                      |                           | S                    |                |                  |                |            |                 |
| flow augmentation/upground reservoirs |          |            |         |         |            |                |                |                       | L                        |                |                            |                      |                           |                      |                |                  |                |            | M               |
| constructed ditch maintenance         | M        |            |         |         |            |                |                |                       | +/-                      | N              | N                          | N                    |                           | +/-                  | +/-            |                  |                |            |                 |
| enforcement of existing regulations   | L        | L          | L       |         |            |                |                | L                     |                          |                |                            |                      |                           |                      |                |                  |                | L          |                 |
| stream clean-ups                      |          |            |         |         |            |                |                |                       |                          |                |                            |                      |                           |                      |                |                  |                | L          |                 |
| education                             | L        | L          | L       | L       | L          | L              | L              | L                     | L                        | L              | L                          | L                    | L                         | L                    | L              | L                | L              | L          |                 |
| research                              | L        |            | L       |         | L          |                |                |                       | L                        | L              |                            |                      |                           |                      |                |                  | M              | M          |                 |
| waste site remediation                |          |            |         |         |            |                |                |                       |                          |                |                            |                      |                           |                      |                |                  |                |            | L               |

L = tool has a **large** effect in reducing that cause of impairment from the applicable source  
M = tool has a **medium** effect in reducing that cause of impairment from the applicable source  
S = tool has a **small** effect in reducing that cause of impairment from the applicable source  
N = tool has a **negative** effect in reducing that cause of impairment from the applicable source  
? = effect of tool is **uncertain** relative to that cause from the applicable source  
+/- = effect of tool may be positive or negative depending on site specific conditions

water move by concentrated flow, such as by grassed waterways, from fields to streams, buffer strips are much less effective in reducing sediment loading.

Furthermore, the tools are source specific. The effectiveness of the tools was judged relative to the source it was addressing, irrespective of the importance of that source in the watershed. For example, sewage treatment is very effective in reducing phosphorus loading from sewage treatment plants and thus has a large effect of phosphorus from that source. Municipal sewage treatment plants are responsible for only about 3.5% phosphorus export from the Sandusky River to Lake Erie. Nonpoint sources are the major source of phosphorus loading to Lake Erie (Chapter 8). Thus, although sewage treatment is very effective in reducing phosphorus loading from sewage treatment plants, its potential for reducing phosphorus loading to Lake Erie is very limited. This aspect of water management planning is not included in the matrix of Table 11.5.

The matrix of Table 11.5 also indicates that that some tools have positive effects relative to some causes and negative effects relative to others. Use of these tools involves trade-offs that must again be evaluated on a site-specific basis. Tile drainage, an essential agricultural water management practice, tends to reduce surface runoff and associated sediment and phosphorus export, but it increases nitrate export into streams and decreases groundwater recharge. Blank spaces in the matrix of Figure 5 indicate no relationship between the tool and a particular cause of water resource degradation. Some tools and causes are marked +/- . These indicate that the environmental effects of a particular tool relative to a particular cause of problems varies from positive to negative on a site specific basis. For example, logjams may increase erosion adjacent to the logjam but decrease downstream erosion by reducing peak flows.

Often, application of an individual tool for a particular problem in a particular location may seem to be a fruitless endeavor relative to the scope of the problem at the watershed level. Yet the nature of the water resource problems we are facing is such that it is unlikely that we will identify many single actions at single sites that will result in measurable improvements in water quality. Instead, we must recognize that significant improvements will generally occur only through the collective effects of many small steps and actions at local sites.

This Management Plan represents an effort to accelerate and integrate implementation of water resource protection activities in this watershed. We recognize that such efforts have a long history in the watershed, and that many individuals, agencies, and organizations are currently using the various tools listed in Table 11.5 to improve water resources in this watershed. We believe that by calling attention to the breadth of activities currently underway, and supporting both existing and new programs through a watershed approach, we can help usher in a new level of effort toward improving and protecting the water resources in the Sandusky Watershed. We further believe that all watershed residents will benefit from such improvements.

This Action Plan for the Sandusky River Watershed, as well as similar plans for adjacent watersheds, complement action plans that have been developed for Lake Erie (Lake Erie Protection and Restoration Plan, Ohio Lake Erie Commission, 2000) and the Ohio Coastal Management Program (<http://www.dnr.state.oh.us/odnr/re/m/coastal/cmp.htm>).

Various subcommittees of the SRWC have developed detailed action plans related to the responsibilities of each committee. These subcommittee action plans, taken together, represent the current Action Plan for the SRWC. Some of the tools listed in Table 11.5 do not fall within the areas of responsibility of the existing subcommittees. The relevance of these tools, such as zoning and regional planning, have been briefly discussed by the SRWC steering committee. A new subcommittee will be formed to develop an action plan related to these tools for water resource management.

## The Action Plans

### Agricultural Committee Action Plan (approved October 26, 2000)

**Problem Statement:** Sediment, nutrients and pesticide loading in the Sandusky River Watershed reduces overall water quality.

**Overall Goal:** To improve water quality in the Sandusky River Watershed.

**Resources Needed:** Funding for water testing, promotions and/or incentive payments. NRCS Best Management Practices Standards and Specifications. OSUE guidelines, bulletins and fact sheets. Assistance from NRCS, SWCD, FSA, OSUE, ODNR, and others.

**Funding Sources:** Utilize existing sources and programs (CRP, CREP, and EQIP). Watershed Grants (319's or others). Explore funding from EPA from fines, etc.?

**Success Indicators:** Water testing/monitoring as documented by the Water Quality Laboratory at Heidelberg College through their Tributary Monitoring Program and by public water suppliers.

**Time Frame:** Variable

**Goal 1: Reduce sediment, nutrient, and pesticide loading from agricultural lands into streams of the Sandusky Watershed.**

**Goal 1a: General actions to reduce agricultural pollutant loading into streams.**

| Action   | Who                              | Funding                       | Success                      |
|--|----------------------------------|-------------------------------|------------------------------|
| Promote establishment of buffers (trees or grass)                          | Landowners, NRCS/SWCD, FSA       | CRP, CREP, EQIP, Other grants | 1,200 acres over 3 years     |
| Promote establishment of wetlands  | Landowners, ODNR, NRCS/SWCD, FSA | CRP, CREP, WRP, ODNR          | 50 acres over 3 years        |
| Encourage use of conservation tillage                                      | Landowners, OSU, NRCS/SWCD       | EQIP, 319 grants              | Increase over current levels |
| Encourage enforcement of current laws and regulations (animal agriculture) | EPA, ODA, SRWC                   | OEPA, ODA                     |                              |

**Goal 1b: Specific actions to reduce sediment loading in the watershed.**

| <b>Action</b>                             | <b>Who</b>  | <b>Funding</b>                 | <b>Success</b>               |
|---|---|--------------------------------|------------------------------|
| Promote installation of grassed waterways | Landowners, NRCS/SWCD                               | CRP, CREP, EQIP                | 90 acres over 3 years        |
| Encourage maintenance of tile outlets     | Landowners, SWCD, county engineers                  | Land owners, ditch maintenance |                              |
| Promote establishment of windbreaks       | Landowners, NRCS/SWCD, ODNR                         | CRP, CREP, ODNR                | 30,000 row feet over 3 years |
| Encourage construction site BMPs          | (See Stream Flow and Habitat Committee Action Plan) |                                |                              |

**Goal 1c: Specific actions to reduce nutrient loading in the watershed.**

| <b>Action</b>   | <b>Who</b>                                | <b>Funding</b>         | <b>Success</b>                                   |
|---|---|------------------------|--|
| Encourage adoption of manure nutrient management plans                              | SWCD/NRCS, ODNR, OSUE, consultants        | EQIP, SWCD, 319 grants | 45 nutrient management plans signed over 3 years |
| Encourage manure storage facilities to contain minimum of 6 months storage capacity | Landowners, NRCS/SWCD, ODNR, OSUE         | EQIP, ODNR, 319 grants | 12 improved or installed over 3 years.           |
| Encourage use of BMPs with commercial fertilizer application                        | Landowners, NRCS/SWCD, OSUE, consultants  | EQIP, 319 grants       |  |
| Failing septic system and wastewater treatment improvements                         | (See Wastewater Subcommittee Action Plan) |                        |  |

**Goal 1d: Specific actions to reduce pesticide loading in the watershed.**

| <b>Action</b>   | <b>Who</b>                               | <b>Funding</b>   | <b>Success</b>                               |
|---|--|------------------|--|
| Encourage use of proper storage and containment systems | Landowners, OSUE, ODA, NRCS/SWCD         | 319 grants, EQIP |  |
| Encourage use of Integrated Pest Management             | Landowners, OSUE, consultants, NRCS/SWCD | OSUE, 319 grants | Reduced pesticide concentrations in streams. |

**Goal 2: Provide opportunities for education in the watershed.**

| <b>Action</b>  | <b>Who</b>                  | <b>Funding</b>   | <b>Success</b>                           |
|--|-----------------------------|------------------|--|
| Promote BMPs   | SRWC, agencies, individuals | Grants, agencies | (see Education Subcommittee Action Plan) |
| Interpret and distribute results of new research             | SRWC, agencies              | Grants, agencies |  |
| Encourage soil and plant tissue tests                        | SRWC, OSUE, NRCS/SWCD       | Grants, agencies |  |
| Promote Agricultural Education in schools and student groups |                             |                  |  |

**List of Abbreviations:**

- BMP – Best Management Practice
- CREP – Conservation Reserve Enhancement Program
- CRP – Conservation Reserve Program
- EQIP – Environmental Quality Incentives Program
- FSA – United States Department of Agriculture, Farm Service Agency
- NRCS – United States Department of Agriculture, Natural Resources Conservation Service
- ODA – Ohio Department of Agriculture
- ODNR – Ohio Department of Natural Resources
- OEPA – Ohio Environmental Protection Agency
- OSUE – The Ohio State University Extension
- SRWC – Sandusky River Watershed Coalition
- SWCD – Soil and Water Conservation District(s)

**Wastewater Subcommittee Action Plan (approved October 26, 2000)**

**Problem Statement #1:** Pathogenic contamination and nutrients escaping from improperly operating septic systems resulting in ground and surface water contamination.

**Goal:** Upgrade and/or repair failed septic systems.

**Action Plan:** Pursue alternative system while repairing 100+ conventional systems. Using rural hardship grant funds provided by the county commissioners and Ohio EPA 319 Grant funds.

| Action Item           | Time Frame  | Responsible               | Resources Needed/Cost  | Success Indicator  |
|-----------------------|---|---------------------------|--|--|
| Failed septic systems | Annually (3 years for rural hardship grant funding) | county health departments | 319 Grant (a non-point source grant through Ohio EPA). Estimated \$6500 - \$9000 per site. Rural Hardship Grant estimated 5000 – 10000 per site. | Minimum of 100+ systems to be replaced using rural hardship funds and obtaining 319 grant funding for alternative systems installations. |

**Problem Statement #2:** In the public perception of wastewater and its effects, wastewater awareness needs to be elevated.

**Goal:** Increase awareness and appreciation of the affects of wastewater on ground and surface water quality.

**Action Plan:** Three-fold plan, beginning with assisting teachers with proficiency in the wastewater subject of offering presentations and working with the education subcommittee. This will be geared towards 4-6 grades. Second, a manual would be developed to assist package plant operators and on-site system owners with understanding their system. Third, homeowners would be targeted, by township, for educating them on their systems through community visits and information dissemination.

| Action Item             | Time Frame                         | Responsible                        | Resources Needed/Cost  | Success Indicator   |
|-------------------------|------------------------------------|------------------------------------|--|---|
| Education of the public | Phase in over a three-year period. | Sandusky River Watershed Coalition | \$5000 annually (funded by Ohio Environmental Education Fund through Ohio EPA) | Teachers give before and after quizzes to monitor retention and feedback. Attendance at presentations |

**Problem Statement #3:** Pathogenic and fecal contamination to receiving streams, especially recreational waters, poses a health hazard to communities and degrades water quality.

**Goals:** Raise public awareness of contributing factors to combined sewer overflows, as well as encouraging the reduction and/or elimination of abuse water (downspouts, sump pumps, etc.).

**Action Plan:** Work through children’s groups and organizations (i.e. church projects, Boy and Girl Scouts, 4-H, high school clubs) to promote awareness through stenciling of storm water drains and other pollution prevention activities. Groups will have to be solicited and affected cities contacted for final approval. “Soaker hoses” would be displayed with other information material at booths during county fairs and Earth Day events.

| Action Item   | Time Frame                           | Responsible                        | Resources Needed/Cost  | Success Indicator  |
|---|--------------------------------------|------------------------------------|--|--|
| Combined Sewer Overflows and bypasses from wastewater treatment plant | Earth Day in April and county fairs. | Sandusky River Watershed Coalition | Approx. \$3000 (funded by Solid Waste District?; Cities?; OWEA?; Safety Council?) for stencils and paint. Distributors of “soaker hoses” will be contacted and request free demonstrator models for use at events. | Participation of groups wishing to become involved, as well as amount of educational material distributed. |

**Water Supply Subcommittee Action Plan (approved October 26, 2000)**

The Water Supply Subcommittee is concerned with both public and private drinking water supplies within the Sandusky River Watershed.

**Problem Statement #1:** Agricultural runoff has a negative impact on operating costs, increased risk to public health, and results in a negative image of the utility by the consumer.

**Goal:** Work to reduce agricultural runoff in the Sandusky River and its tributaries.

**Action Plan:** Water purveyors are not regulatory agencies. Therefore, they cannot directly control the introduction of contaminants into the water supply. They can increase public awareness and encourage Best Management Practices. The actions of this committee will work to increase awareness of this issue.

**Goal 1:** Become actively involved in the reduction of agricultural runoff in the Sandusky River and its tributaries

| Action item   | Time frame                                    | Person/agency responsible | Resources needed/cost               | Funding sources | Success indicator                          |
|---|---|---------------------------|-------------------------------------|-----------------|--|
| Letters to our legislators encouraging them to address water quality issues | Complete letter campaign by December 31, 2002 | Entire committee          | Stationery & postage (approx. \$50) | unknown         | Response from 10% of legislators contacted |

**Goal 2:** Provide feedback on changes in raw water quality to the Agriculture Committee

| Action item   | Time frame | Person/agency responsible | Resources needed/cost                     | Funding sources         | Success indicator |
|---|------------|---------------------------|---|-------------------------|-------------------|
| Compile information and note trends on pesticides, herbicides, nitrates, and turbidity; provide to the Ag Committee | Annually   | Entire committee          | Stationery & postage (approx. \$10/annum) | Ohio-American Water Co. | Annual Report     |

**Problem Statement 2:** There are numerous sources of pollution/contamination existing within the watershed, many of which have not been readily identified and/or controlled. Industrial sites, agricultural bulk tanks, poorly maintained and installed septic systems, and many other sources of pollution adversely affect water treatment.

**Goal:** Perform a Source Water Assessment and Protection (SWAP) analysis of the Sandusky River and its tributaries

**Action Plan:** This analysis will be performed in conjunction with OEPA

**Goal 1: Inform Water Committee of requirements for SWAP.**

| Action item                                   | Time frame      | Person or agency responsible | Resources needed/cost                              | Funding sources | Success indicator                  |
|---|-----------------|------------------------------|--|-----------------|------------------------------------|
| Conduct seminar to explain the extent of SWAP | October 5, 2000 | Dave Little                  | Facility for meeting; OEPA representative - \$0.00 | N/A             | Meeting is scheduled and completed |

**Goal 2: Perform SWAP of the Sandusky River & its tributaries.**

| Action item   | Time frame        | Person or agency responsible | Resources needed/cost | Funding sources | Success indicator                 |
|---|-------------------|------------------------------|-----------------------|-----------------|-----------------------------------|
| Exchange information with OEPA as they conduct SWAP | December 31, 2003 | Entire Committee             | Unknown at this time  |                 | Affirmation by OEPA of completion |

**Problem Statement #3:** There has been limited communication between water utilities within the watershed. The sharing of information can only enhance the operation of each water district.

**Goal:** Develop a formal communications process for water purveyors, regulatory agencies, and emergency response representatives within the Watershed area

**Action Plan:** A compilation of all water purveyors, regulatory agencies, law enforcement agencies, and regional emergency planning committees in the watershed will be developed and distributed.

**Goal 1: Create & distribute a formal line of communication among water utilities and emergency planning committees.**

| Action item  | Time frame        | Person or agency responsible | Resources needed/cost           | Funding sources         | Success indicator                        |
|--|-------------------|------------------------------|---------------------------------|-------------------------|--|
| Compile complete list of all water purveyors, regulatory agencies, emergency response personnel, and health departments within the watershed | December 31, 2000 | Dave Little                  | Stationery & postage - \$100.00 | Ohio-American Water Co. | Distribution of list to all stakeholders |

## Acronyms used and program descriptions

**OEPA** – Ohio Environmental Protection Agency ([www.epa.state.oh.us](http://www.epa.state.oh.us))

The Ohio Environmental Protection Agency (Ohio EPA) was created on October 23, 1972. It combined under a single agency the functions that previously had been scattered throughout a number of State departments.

Ohio EPA has authority to implement laws and regulations regarding air and water quality standards; solid, hazardous and infectious waste disposal standards; water quality planning; supervision of sewage treatment and public drinking water supplies; and cleanup of unregulated hazardous waste sites.

Ohio EPA cooperates with government and private agencies, manages some federally funded pollution control projects, obtains technical and laboratory services, establishes advisory boards, investigates environmental problems, and disseminates information on environmental programs. The director also authorizes enforcement actions against violators of pollution laws and regulations.

Ohio EPA's central office is located in Columbus. To manage the Agency's programs at the local level, the state is served by five Ohio EPA district offices.

**SWAP** – Source Water Assessment and Protection Program

To help ensure adequate supplies of safe drinking water, the 1996 amendments to the Safe Drinking Water Act require all states to adopt a Source Water Assessment and Protection (SWAP) program. This program will apply to Ohio's approximately 6,200 public water systems that provide drinking water to homes, businesses, schools and industry using both surface water and ground water sources. Source Water Assessment involves determining an area that contributes drinking water to the public water supply well or intake and evaluating the potential threats to the safety of that water supply. Source Water Protection safeguards the public health by preventing contamination of the drinking water supply. Source water protection for public water supply systems using ground water has in the past been referred to as wellhead protection.

Ohio's SWAP Program document was originally submitted to the United States Environmental Protection Agency on February 8, 1999, with a Revised Version submitted in May 1999. On May 27, 1999, U.S. EPA approved Ohio's Source Water Assessment and Protection Program. U.S. EPA commented that Ohio's program strongly ties an ambitious assessment program to protection activities that further protect Ohio's drinking water resources, making it one of the best source water programs in the country.

**Stream Flow and Habitat Subcommittee Action Plan (approved October 26, 2000)**

**Problem Statement #1: Stream Sedimentation**

Accumulation of silts and clays on stream bottoms represents the major cause of aquatic life impairment in the Sandusky Watershed. This conclusion is based on habitat surveys conducted by the Ohio Environmental Protection Agency in connection with their biological assessments of streams in the watershed (Figure 5.7). These sediments destroy spawning habitat for fish and reduce habitat volume and diversity for macroinvertebrates. In addition stream sedimentation reduces channel capacity causing local flooding, interferes with tile drainage outlets, and necessitates costly ditch dredging. Major sources of the sediment include sheet erosion from cropland, stream bank erosion, and construction activities.

**Related Problems:** High suspended sediment concentrations during storm runoff events and associated high turbidity affect aquatic life and increase drinking water treatment costs. Loading of suspended sediments from the watershed to Lake Erie causes a variety of damages within the Lake.

**Goal: To reduce the number of stream miles in the Sandusky Watershed where deposition of fine-grained sediments adversely impacts aquatic life.**

| Action Item                               | Time Frame   | Person/Agency Responsible                                  | Resources Needed/Cost | Funding Sources      | Success Indicator |
|---|--|--|-----------------------|----------------------|-------------------|
| Construction BMPs                         | 3 years  | Construction Companies, Zoning Boards, Building inspectors |                       | Cost of construction |                   |
| Install buffer strips along channel banks | (See Goals 1a and 1b of agricultural management plan.) |  |                       |                      |                   |
| Establish riparian corridors              | (See Goals 1a and 1b of agricultural management plan.) |  |                       |                      |                   |
| Establish wetlands                        | (See Goals 1a and 1b of agricultural management plan.) |  |                       |                      |                   |
| Conservation Tillage                      | (See Goals 1a and 1b of agricultural management plan.) |  |                       |                      |                   |
| Grassed Waterways                         | (See Goals 1a and 1b of agricultural management plan.) |  |                       |                      |                   |
| Windbreaks                                | (See Goals 1a and 1b of agricultural management plan.) |  |                       |                      |                   |
| Stream flow                               | (See action items for stream flow)                     |  |                       |                      |                   |

**Problem Statement #2: Need for Natural Stream Flow Restoration.**

Historical land use changes, including land clearing for agriculture, surface and subsurface agricultural drainage, increased urbanization, dam construction, stream channelization, and flood protection structures have greatly altered the natural stream flow regimes in the Sandusky River and its tributaries. In particular, peak flood flows are higher and base flows are lower as a result of the above land use changes. Dams alter longitudinal connectivity and flood protection structures separate portions of the streams from their floodplains. These altered flow regimes have major adverse impacts on stream habitat and aquatic communities.

**Related Problems:** The high peak discharges increase erosion of stream banks and channels. The low base flows contribute to sedimentation within stream channels

**Goal:** To restore more natural stream flow regimes in the Sandusky Watershed

| Action Item   | Time Frame | Person/Agency Responsible                                 | Resources Needed/Cost     | Funding Sources  | Success Indicator   |
|---|------------|---|---------------------------|--|---|
| Model and characterize the natural flow regime in the Sandusky Watershed                              | 2 years    | Ohio Geological Survey (Scudder Mackey)                   | Currently funded research | Great Lakes Protection Fund  | Annual Progress Reports                                     |
| Identify areas in watershed w/ natural infiltration & storage capacity                                | 2 years    | Heidelberg College (Sabine Grunwald)                      | Currently funded research | Lake Erie Protection Fund  | GIS Base maps   |
| Promote Controlled Drainage/ WRSIS (demonstration projects)   | ?          | OSU E, USDA ODNR - Div. of Water                          |                           | OSUE USDA-NRCS CRP   | # acres in controlled drainage (# of demo. projects)        |
| Increase acreage in county park systems, nature preserves and/or other public areas                   | 3 years    | County park districts, Sandusky River Watershed Coalition |                           | County park districts, state and federal grants for corridor development | # acres in parkland, local preserves, and corridors         |
| Promote work w/ natural channel processes to allow the stream to efficiently manage flow and sediment |            | OSU Ag-Extension  |                           |  |   |
| Information & Education to explain water quantity issues  |            | SRW Coalition (Education committee)                       |                           |  |   |
| Implement biological monitoring strategy to assess long-term benefits of improved flow regimes        | 10 years   | OEPA  |                           | State  | Biological monitoring reports for the Sandusky Watershed    |
| Establish recommended minimum base flow requirement (based on model)                                  |            | ODNR - Division of Water                                  |                           |  |   |
| Continue to monitor the flow regime to track possible changes   |            | Heidelberg College; USGS                                  |                           | Continue existing state/federal funding sources                          | Maintenance of current monitoring and hydrological stations |

### Problem Statement #3: Logjams

Logjams on streams can result in localized erosion and flooding problems. Bank erosion undercuts trees, which subsequently fall into the streams, often spanning the entire stream. The trees subsequently trap other debris moving downstream during floods, resulting in logjams. While logjams may be a natural part of the landscape, high rates of bank erosion increase their frequency and associated damage (e.g. crops). During public meetings for subwatersheds, logjams were the second most frequently cited problem in the watershed.

**Related Problems:** High peak flows aggravate stream bank erosion problems, resulting in more undercutting of banks and the formation of more logjams.

**Goal:** To reduce flooding and other damages connected to logjams.

| Action Item   | Time Frame  | Person or Agency Responsible              | Resources Needed/Cost     | Funding Sources      | Success Indicator  |
|---|---|---|---------------------------|----------------------|--|
| Map via GIS locations of logjams; Frequency; Area of damage or flooding                           | One year for county, subwatershed, and whole watershed GIS maps | SWCDs, SRWC, Heidelberg, Volunteers, ODNR | SRWC<br>People-volunteers | SRWC, SWCDs?         | GIS products showing locations of problems                       |
| Research to explain distribution of logjams in the watershed                                      | 1.5 years   | Same as above                             |                           |                      | Determine the problem areas and educate the public of the causes |
| Reduce peak flows via filter strips, riparian areas, wetlands, and tile removal in marginal lands | (see Agricultural Action Plan)                                  | SWCDs, Wildlife official, ODNR, Ag groups |                           | CREP<br>USDA         | # acres in programs  |
| Logjam Removal Demonstration Project  | Years 2 and 3   | SWCD Coalition contractor                 | ?                         | Demonstration Grants | Number of logjams removed  |
| Produce educational materials on how to deal with problem logjams                                 | Year 3  | SRW Coalition                             | ?                         | Demonstration Grant  | Educational materials distributed                                |
| Evaluate and consider alternatives to Senate Bill 160 Projects                                    | Three Years   | Sandusky Watershed coalition              | ?                         | ?                    |  |

### Problem Statement 4: Selective Dam Removal

Historically, dams have been constructed on rivers for a variety of purposes including flood control, water supply, power generation and recreation. Shorelines along the waters backed up by the dams have often been the sites of substantial commercial and private development. With increasing awareness of the detrimental impacts of dams on aquatic biota and ecosystems, coupled with changing sources of power and water supplies, movements to remove dams are gaining momentum. Continuing dam maintenance costs also tend to support dam removal, especially where original functions are no longer operative. The commercial and private

developments historically associated with the water backed up by the dams are generally opposed to dam removal. There are five dams across the Sandusky River between Upper Sandusky and Fremont. Discussions are underway regarding possible removal of two of these, the Ballville Dam above Fremont and nearest to Lake Erie and the St. Johns Dam near the Seneca County/Wyandot County line.

**Goal: To study the impacts of dam removal on aquatic ecosystems and people at selected sites in the Sandusky Watershed.**

| <b>Action Item<br/>(Ballville Dam)</b>   | <b>Time Frame</b>   | <b>Person or Agency<br/>Responsible</b>   | <b>Resources<br/>Needed/Cost</b> | <b>Funding<br/>Sources</b> | <b>Success<br/>Indicator</b> |
|--|---|---|----------------------------------|----------------------------|------------------------------|
| Provide a forum for discussions among stakeholders concerned with issues of dam removal. | Tied to water supply planning and ecological impact assessment of dam removal by EPA and ODNR | Sandusky River Watershed Coalition, Corps of Engineers<br>ODNR<br>OEPA<br>Fremont |                                  | OEPA<br>ODNR<br>Fremont    |                              |
| Summarize current research assessing environmental and social impacts of dam removal.    | 2 years   | Sandusky River Watershed Coalition,<br>ODNR                                       |                                  |                            |                              |
| <b>Action Item<br/>(St. John's Dam)</b>  | <b>Time Frame</b>   | <b>Person or Agency<br/>Responsible</b>   | <b>Resources<br/>Needed/Cost</b> | <b>Funding<br/>Sources</b> | <b>Success<br/>Indicator</b> |
| Provide forum for discussions  | As needed   | SRWC  |                                  |                            |                              |

**Acronyms used in the Stream Flow and Habitat Subcommittee Action Plan**

- BMPs – Best Management Practices**
- CREP – Conservation Reserve Enhancement Program**
- NRCS – Natural Resource Conservation Service**
- ODNR – Ohio Department of Natural Resources**
- OEPA – Ohio Environmental Protection Agency**
- OSUE – Ohio State University Extension Service**
- SRWC- Sandusky River Watershed Coalition**
- SWCD – Soil and Water Conservation District**
- USDA – United States Department of Agriculture**
- WRSIS – Wetland Reservoir Subirrigation System**

**Education Subcommittee Action Plan (approved October 26, 2000)**

The subcommittee has decided upon four problems, each defined in the charts below, that we would like to address. Along with each problem statement, a goal is listed with action items (steps) to define our solutions to each problem. All of our action items will be started within three years. The committee will meet regularly to review progress of this plan and make adjustments to the time frames by either adding more goals or reducing them accordingly. A limiting factor for many of the time frames is that, at the present time, funds are only available through grants. Funding will ultimately drive the education committee's priorities for each of these action items, although they are currently listed in order of importance.

**Problem Statement #1:** General public lacks understanding of the importance of the river and the opportunities it holds.

**Goal 1:** Have annual events to promote the importance of river, its problems, and its opportunities.

| Action Item  | Time Frame      | Person or Agency Responsible                       | Resources Needed cost    | Funding Sources                            | Success Indicators   |
|--|-----------------|--|--------------------------|--|--|
| Have a river tour for community Leaders.                                   | October 1, 2001 | Scenic Rivers, Coalition, and Community leaders.   | \$1,000                  | Continue with current fund raising source. | Good Press & Attendance  |
| Have a Sandusky River wide Clean-Sweep for the 4 major counties.           | August 30, 2001 | Recycling and Litter Prevention, in the 4 counties | \$3,000-5,000 per county | Grants, Fund Raisers,                      | Participation and reduced amounts of trash collected each year.                          |
| Have Sandusky River Watershed Festival Weekend.                            | August 4, 2001  | County Park Districts & Education Committee        | \$6,000-\$8,000          | Unknown                                    | Attendance   |
| Include Scenic Rivers Program in all events and public awareness campaigns | Ongoing         | Scenic Rivers staff                                | None                     | None                                       | Participation in Scenic Rivers Events, At least one Scenic River item in each newsletter |

**Problem Statement #2:** Lack of communication between coalition sub-committees.

**Goal 2:** Develop information distribution processes among committees and develop education request process.

| Action Item   | Time Frame   | Person or Agency Responsible                      | Resources Needed cost                  | Funding Sources | Success Indicators  |
|---|--------------|---|--|-----------------|---|
| Set up email/fax list serve of all committee officers, and in time all full coalition members | January 2002 | Clark Hutson<br>OSU Ext. & Ann Keefe, Seneca SWCD | \$0                                    | NA              | All members receiving memos effectively.                            |
| Develop education request form, and vote on priorities requested.                             | January 2002 | Education Vice Chair, (Scott Grenerth             | \$0                                    | NA              | Prioritize 2 request to work on during 2001 year                    |
| Training all committee officers on how to update websites                                     | January 2002 | WSOS Intern, & Clark Hutson OSU Ext.              | Computer Lab Instructor, costs unknown | ?               | By August 31, 2001 website being updated monthly by all committees. |

**Problem Statement #3:** Work/Goals of Sandusky River Watershed Coalition are not known by majority of general public.

**Goal 3: Public Awareness campaign development.**

| Action Item   | Time Frame  | Person or Agency Responsible                  | Resources Needed cost  | Funding Sources     | Success Indicators  |
|---|---|---|--|---------------------|---|
| Fair Display in all 4 major county fairs  | Have in all county fairs By October 1, 2001<br>Have updated display by June 30, 2002. | Education committee secretary                 | Display, new pictures of yearly events, volunteers to set up booth and cost of booth | LEPF/OEEF           | Successful booth at each county fair during 2001                            |
| Develop a media strategy  | January 2002  | Education Committee w/coordinator             | 20 hours   | Current Grants      | Implementable plan developed  |
| Action Item   | Time Frame  | Person or Agency Responsible                  | Resources Needed cost  | Funding Sources     | Success Indicators  |
| Present Sandusky River Watershed Management Plan to at least 20 organizations or communities throughout the watershed | September –December 2001  | SRWC coordinator and volunteer spokes-persons | 120 hours plus cost of printing the management plan                                  | Current SRWC grants | Evaluation forms following the meetings. Increased participation with SRWC. |

**Problem Statement #4:** No “generic/canned” programs available at this time that can be used by local educators.

**Goal 1: Develop several programs for various ages that can be used by coalition members to locally promote our goals.**

| Action Item  | Time Frame        | Person/agency Responsible                                       | Resources Needed cost                | Funding Sources      | Success Indicators  |
|--|-------------------|---|--------------------------------------|----------------------|---|
| Develop one adult slide show “canned” program focusing on the Watershed Coalition in General | December 31, 2000 | Ann Keefe (Chair Educ. Committee), Scott Grenerth, (Vice chair) | \$200 for slides, slide trays etc.   | LEPF Grant           | Two copies available for use, and an increase in number of programs requested |
| Develop one school “canned” program per year.  | March 31, 2001    | Scott Grenerth Earth Literacy Center                            | Cost for displays, kits, models etc. | Grants, (ODNR, OEPA) | Written evaluations, Increase in number of programs requested.                |
| Develop on adult education “canned” program using other committees topics                    | December 31, 2001 | Clark Hutson, OSU Ext. & Scott Grenerth, Earth Literacy Center  | \$0                                  | NA                   | Written evaluations, and increase in the number of programs requested.        |
| Develop a general River Coalition video explaining our goals, etc.                           | Within 3 Years    | Monica Ostrand, Coalition, All committees                       | \$5000-20,000                        | Grants, Donations    | Getting it aired on Local Public Broadcasting Stations.                       |

**ABBREVIATIONS LIST FOR EDUCATION ACTION PLAN:**

- SWCD = Soil & Water Conservation District
- ODNR = Ohio Department of Natural Resources
- OSU Ext.= Ohio State University Extension
- WSOS RCAP = Wyandot Sandusky Ottawa Seneca Rural Community Assistance Program
- LEPF = Lake Erie Protection Fund
- OEEF = Ohio Environmental Education Fund
- OEPA = Ohio Environmental Protection Agency

**Development Subcommittee Action Plan (approved October 18, 2001)**

**Problem Statement #1:** There is a need to identify and promote the numerous resources that are found along the Sandusky River and its tributaries, by incorporating resource inventory information into a map and separate publication.

**Goal:** Produce public information guides of watershed.

**Action Plan:** Create an easy to use map and a detailed publication that would be used by the public to identify resources along the watershed.

| Action Item    | Time Frame                                   | Person/Agency Responsible       | Resources Needed/Cost | Funding Sources    | Success Indicator                                 |
|----------------|--|---------------------------------|-----------------------|--------------------|---|
| 1. Map         | Spring 2002                                  | Entire development subcommittee | Unknown at this time  | Grant, fund raiser | An increased use of river                         |
| 2. Publication | Winter 2003, in time for Ohio's bicentennial |                                 |                       |                    | A need for additional republication of materials. |

**Problem Statement #2:** There is a need to identify and inform the public of the boundaries of the Sandusky River Watershed.

**Goal:** "You are entering the Sandusky River Watershed" signs.

**Action Plan:** To place watershed signs along major state highways delineating the boundaries of the Sandusky River Watershed.

| Action Item                            | Time Frame  | Person/Agency Responsible              | Resources Needed/Cost               | Funding Sources | Success Indicator           |
|--|-------------|--|-------------------------------------|-----------------|-----------------------------|
| Place signs along major state highways | Spring 2002 | ODOT, Bob Vargo, Development Committee | 0 dollars (funds already available) | ODOT            | Signs placed along highways |

**Problem Statement #3:** There is a need to further develop and protect the Sandusky River.

**Goal:** Establish a 130-mile long greenbelt corridor.

**Action Plan:** To establish a greenbelt corridor encompassing the entire length of the Sandusky River. This corridor could encompass a bike or walking path enabling travel from the headwater to the mouth of the river.

| Action Item  | Time Frame         | Person/Agency Responsible          | Resources Needed/Cost | Funding Sources    | Success Indicator   |
|--|--------------------|------------------------------------|-----------------------|--------------------|---|
| Establish a greenbelt (Ave 50') along the Sandusky River | 10 miles per year. | Sandusky River Watershed Coalition | unknown               | CREP, other grants | An uninterrupted 130 mile greenbelt corridor along the Sandusky River |

## Evaluation Procedures for the Management Plan

The Action Plan described in the previous section will do nothing, by itself, to improve water resources in the Sandusky Watershed. Those improvements will come only to the extent that the plans are implemented and that the implementation has the anticipated benefits on water resources. Thus, our overall Management Plan includes an evaluation plan that addresses both of the above needs – **tracking** the implementation of the action plans and **monitoring** the status of water resources in the watershed.

### Tracking Implementation of the Action Plan

As noted in the Summary of the Action Plan, many agencies, organizations and individuals are already involved in applying the tools currently used to maintain and improve water resources in this watershed. The individual action plans list those who are involved in applying the action items. The funding sources for these many programs generally require reporting of the extent of implementation. Thus under CREP and CRP programs, acres of buffer strips, wetlands, and windbreaks installed must be reported annually. Likewise, the numbers of manure nutrient management plans developed must be recorded annually, as well as other management programs supported by government programs. Annual reports of the county SWCDs provide another source of information for tracking water-related projects. NRCS/SWCD staff conduct annual tillage surveys to track the status of conservation tillage. These conservation tillage surveys include information regarding the subwatershed location (11.digit level).

Information for tracking changes in agriculture is also available in the Ohio Department of Agriculture Annual Report and Statistics. These reports include data on acres of crops, average crop yields, fertilizer sales and animal numbers for each county. Such data can support the calculation of watershed nutrient budgets.

Efforts to control point sources of pollution can also be tracked by project. Numbers of septic tanks replaced or improved are available from county health departments. Major sewer extension projects, combined sewer separations, and treatment plant improvements will be tracked by the wastewater committee.

Many of the action plan items of the SRWC involve supporting and encouraging implementation programs of other agencies and groups through educational efforts. The specific educational programs mounted by the SRWC through its subcommittees will be noted on an annual basis. Annual reports required by grants supporting the efforts of the SRWC will also provide a way a tracking implementation of those portions of the action plans undertaken by SRWC subcommittees.

### **Monitoring Water Resource Responses to Implementation**

The fundamental goals of the action plans are to protect and enhance the water resources of the Sandusky Watershed. Thus continued and enhanced monitoring of those resources is essential to know whether the current action plan is effective.

Of central importance is the question of whether or not biological use impairments within the Sandusky Watershed are being reduced. Answers to this question will be based on the biological monitoring programs of the OEPA. As noted in Chapter 5 of the Resource Inventory, OEPA monitoring within the Sandusky Watershed has not been fully implemented during the past 10 years. For most the main stem of the Sandusky River, the most recent OEPA monitoring was done in 1990. Consequently, current information regarding the status of biological communities in this watershed is largely unavailable. Data developed by the Ohio Chapter of the American Fisheries Society and published under the title "A Guide to Ohio Streams" confirm that the Sandusky Watershed has had the least amount of "current" monitoring of any of the other ten major watersheds in Ohio.

Monitoring of the upper portions of the Sandusky Watershed by the Ohio EPA were not scheduled to begin until 2004 and, for the lower portions of the watershed, until 2009. This would have represented gaps in monitoring of 14 to 19 years for the main stem and even longer for most tributaries. As noted earlier, the OEPA advanced the TMDL assessments for the Sandusky Watershed and major biological monitoring efforts will be initiated in the summer of 2001. This monitoring will provide current data to support detailed planning for water resource protection programs in the watershed and baseline data upon which to judge the effectiveness of the programs.

To evaluate the effectiveness of implementation directed toward reducing sediment loading, the SRWC will rely on the ongoing tributary monitoring programs operated by the Water Quality Laboratory of Heidelberg College. This program is described in detail in Chapter 8 of the Resource Inventory. At present, the laboratory is monitoring watershed export for the Sandusky Watershed at the USGS gauging station near Fremont, for the Honey Creek Watershed at the gauging station at Melmore, and for Rock Creek at the gauging station in Tiffin. Because of the long-term sediment export data now available for these stations, ongoing data collection at these stations supports trend analysis.

The above tributary loading data also provides information on the concentrations and export of phosphorus, nitrates and pesticides. As noted in Chapter 6 of the Resource Inventory, nitrates and pesticides represent a source water concern for drinking water supplies in the Sandusky Watershed. The ongoing programs of the laboratory will also support trend analysis for nitrate

and pesticide concentrations at the above stations. In addition, data collected by the water treatment plants will also be used to monitor trends in water quality.

The Water Quality Laboratory of Heidelberg College plans to conduct a repeat testing of nitrate contamination in private water supplies of Ohio. Between 1987 and 1989 the laboratory analyzed more than 17,000 private wells across Ohio. Plans to retest as many of those same wells as possible are now being developed. Such a study would evaluate whether there have been changes in water quality during the intervening 12-14 years, as well as possibly identify new problems.

A variety of volunteer and student monitoring projects are also underway within the Sandusky Watershed. These include ODNR's Stream Quality Monitoring program for Scenic Rivers. In this program, volunteers use techniques developed by ODNR's Division of Natural Areas and Preserves to collect and analyze aquatic invertebrate communities at seven stations along the Sandusky between Upper Sandusky and Fremont. This program started in 1988 and has been conducted annually since that time.

Students within the Water Resources Program at Heidelberg College conduct a variety of studies as part of their class work and as independent research projects. These include a synoptic survey at six stations during low flow conditions with the Water Chemistry class, studies of stream invertebrates within the Limnology class, and studies of fish communities in the Ichthyology course.

Tiffin Columbian and Calvert high schools in Tiffin received a grant in 2000 to conduct studies of urban storm runoff within their science curriculum. In addition to their educational value, these studies may serve to identify problem areas. Other schools within the Sandusky Watershed may have similar programs. The SRWC stands ready to work with school groups so that data produced in these efforts can be integrated into the information base supporting water resource management in the watershed.

## **Adaptive Management**

As noted in the Summary of the Action Plan, many of the improvements in water resources in this watershed will result from the cumulative effects of multiple local applications of BMPs. The diffuse nature of BMP application makes it difficult to both predict and measure the water resource benefits of these programs. By developing a monitoring strategy designed to look for early signs of improvements in water resources, it should be possible to determine whether or not current implementation programs are on the right track. By providing feedback from monitoring and research programs to those planning and implementing actions aimed at improving water resources, it may be possible to incorporate some "mid-course corrections" into the management plans. Such feedback between monitoring, research, planning and implementation is referred to as **adaptive management**. The SRWC looks to incorporate adaptive management into its long-term stewardship of the water resources of the Sandusky Watershed.

## Role of Research

There is both a need for – and opportunities for – water resource research programs within the Sandusky Watershed. Several research opportunities are described below.

1. Within the Sandusky Watershed, not all farmland contributes equally to the sediment, nutrient and pesticide loading into stream systems. If best management practices could be targeted to those portions of the landscape that represent critical pollutant source areas, investments in agricultural nonpoint source pollution control could be more efficient. Some computer models offer the potential to identify critical source areas. Such research is currently underway through a grant from the Lake Erie Protection Fund to Dr. Sabine Grunwald of the Heidelberg College Water Quality Laboratory. This research should continue and the results should be linked into agricultural nonpoint pollution management programs.
2. There is considerable uncertainty regarding the effectiveness of filter strips in reducing nitrate and pesticide runoff from fields into streams. Nitrates largely enter streams through tile drainage, which normally is conveyed directly into stream systems. Pesticides, especially major herbicides, are transported as dissolved substances in water. While it can be expected that filter strips will trap suspended sediments and sediment associated pollutants such as phosphorus, their effectiveness for these substances may also be limited where concentrated flows, such as those conducted by grassed waterways, discharge directly into streams. The extensive background data on watershed export of suspended sediments, phosphorus, nitrate and herbicides available within the Sandusky Watershed can allow evaluation of the combination of practices adopted by farmers to reduce the export of these materials.
3. The extent to which selective log jam removal could more economically minimize local flooding problems, in comparison with complete log jam removal, such as accomplished through Senate Bill 160 projects, needs evaluation. A hydrological study of the Sandusky River and its tributaries is needed to identify stream reaches where log jams do significantly aggravate local flooding and reaches where flooding induced by log jams is inconsequential, relative to the habitat and hydrological benefits of log jams. In some areas, logjams are constructed in streams because of their benefits. Logjam removal projects are currently under consideration on two major tributaries of the Sandusky Watershed – Broken Sword Creek and Green Creek.
4. While it is recognized that historical land use changes have greatly altered the hydrological characteristic of the Sandusky River and its tributaries, strategies for restoring more natural stream flow regimes need to be developed. Use of models to more accurately characterize historical hydrological conditions in area streams and rivers would be useful. The Ohio Geological Survey is involved in some research addressing these issues.
5. While sedimentation within streams represents the habitat modification most often cited as limiting to aquatic life in the Sandusky watershed, the effectiveness of programs aimed at

reducing sheet erosion and sediment delivery into stream systems (e.g. filter strips) in actually improving stream habitat, relative to sedimentation, is uncertain. Possibly, hydrological modification is more important in causing sedimentation than the amounts of sediment reaching the stream. Research to address these issues could also be launched within the Sandusky Watershed.

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## **Case Study: Methods Used in Problem Identification for the Sandusky River Watershed Coalition**

Monica Ostrand, Sandusky River Watershed Coalition,  
WSOS Community Action Commission, Inc.  
David Baker, Water Quality Laboratory, Heidelberg College

The Sandusky River Watershed Coalition formed in 1997 when Heidelberg College's Water Quality Laboratory assembled a group of water resources professionals (OSU extension agents, Soil and Water Conservation District staff, Natural Resources Conservation District staff, ODNR's Scenic Rivers Program staff, Ohio EPA division of surface water staff, etc.), and received a 319 mini-grant to test the "Guide to Developing Local Watershed Action Plans" on the Sandusky Hydrological Unit. This watershed is approximately 1,200,000 square miles and reaches into portions of 12 counties in northwest Ohio. 83% of the watershed is farmed, and it is home to approximately 200,000 citizens in mostly rural communities. While developing the management plan, the coalition has grown to over 240 members, formed six committees and printed a *Sandusky Watershed Resource Inventory*. The experience of the Sandusky River Watershed Coalition of identifying problems is noteworthy due to 25 years of ambient water quality data collection from the Water Quality Laboratory, and dual approach of, 1) professional assemblage and identification of problems common throughout the watershed 2) gaining localized subwatershed public input through facilitated public meetings.

### **RESOURCE INVENTORY**

The coalition spent a year and a half assembling information for a resource inventory. This effort was led by the former director of Heidelberg Water Quality Lab and can be viewed on the world wide web at [www.riverwatershed.org](http://www.riverwatershed.org). A description of how some of this information was gathered and compiled is described.

### **Biological Use Attainment**

Biological use attainment was based on the information from the Ohio EPA's Know Your Watershed web site (<http://www.epa.state.oh.us/dsw/watershed/index.html>). Information from the OEPA site was reorganized using a geographical information system (ARC View) with layers containing stream reach files and boundaries of 11-digit hydrological units. Specific tasks included the following:

1. The hydrological group maps from the OEPA web were divided into their component 11-digit hydrological units. For example, OEPA Hydrological Group 81, the Middle Sandusky River, was divided into Hydrological Unit 04100011-080 (Honey Creek) and Hydrological Unit 04100011-090 (Sandusky River Below Honey Creek to above Wolf Creek).
2. The following information was added to the stream reach files:

- a. The OEPA stream segment number, as deduced from stream segment descriptions at the OEPA web site (Use Attainment Statistics>Segment Data>Water Quality Monitoring Data (305B reports)), was added to the stream reach files.
  - b. Information on whether a given segment was monitored, designated but not monitored, or undesignated/unmonitored/intermittent.
  - c. For monitored segments, the dominant results of the monitoring, i.e. whether the most miles fell into the fully attaining, threatened, partially attaining or not attaining category.
3. From the above, maps were generated for each hydrological unit that displayed the stream network with streams coded into six categories – fully attaining, threatened, partially attaining, not attaining, designated/not monitored, and not designated.
  4. For each 11-digit hydrological unit, a table was constructed that duplicated the stream segment data from the OEPA web site. The table included the water quality monitoring data as well as the use classification and the causes and sources of impairment by stream segment. The causes and sources of impairment were then aggregated by stream miles affected for the entire Sandusky River Watershed (eleven 11-digit watersheds).

Outputs and summaries of biological use attainment, as developed from the above procedures, are shown in Chapter 5 of The Sandusky River Watershed Resource Inventory (<http://www.RiverWatershed.org/chap5.html>). The biological use attainment maps for each 11-digit watershed as well as the tabular summaries are currently only available in the printed versions of the Resource Inventory. They will be added to the Sandusky River Watershed Coalition web page in the near future. All GIS work described above was done at the Water Quality Laboratory of Heidelberg College.

### **Water Supply Use Attainment**

Information on violations of drinking water standards by public water supplies within the Sandusky River Watershed were based on data available at a web site maintained by the US EPA Office of Water (<http://www.epa.gov/safewater/dwinfo/oh.htm>). That site contains a list of all community, non-transient non-community, and transient non-community public water supplies by county for all states. For each site, records of violations over the past 10 years are listed. Data on violations for public water supplies located within the Sandusky River watershed were summarized from this source.

Data on nitrate and herbicide concentrations in private wells within the watershed were obtained from the Cooperative Private Well Testing Program operated by the Water Quality Laboratory (WQL) of Heidelberg College. Portions of the data were from a report entitled “Nitrate and Pesticides in Private Wells of Ohio: A State Atlas” as published and distributed by the WQL. County and township summaries of testing

results subsequent to 1989 were provided directly by the WQL. The WQL has readily accessible nitrate data for more than 20,000 private wells across Ohio.

Information on source water quality for seven major rivers in Ohio is also available from the WQL's Ohio Tributary Loading Program. These rivers include the Maumee, Sandusky, Cuyahoga, Grand, Muskingum, Scioto and Great Miami rivers. This program provides daily measurements of nitrate and suspended sediment on a year-round basis and daily measurements of herbicides on a seasonal basis. Examples of the use of these data in source water assessment are provided in Chapter 6 of the Sandusky River Watershed Resource Inventory (<http://www.RiverWatershed.org/chap6.html>). These include samples of nitrate and herbicide chemographs and concentration exceedency curves. More information on the Ohio Tributary Loading Program is available at the WQL's web site (<http://www.heidelberg.edu/offices/wql/>). Arrangements to receive data from the program can be made through contacting the WQL Director, Dr. Peter Richards ([prichard@mail.heidelberg.edu](mailto:prichard@mail.heidelberg.edu))

## **FACILITATED PUBLIC INPUT**

### **I. Create a mailing list of stakeholders in the watershed**

A direct mailing was developed for 3,500 businesses, citizens, local officials, service groups, schools, and agencies throughout the watershed. An attempt was made to get addresses for as many stakeholders as possible. To create the mailing list, local officials contact information were found through the counties, and business and industry were found through the chambers. Some county soil and water districts supplied lists of producers. The search for schools, environmental groups and service groups were conducted as time allowed. In addition, local newspapers ran articles advertising the upcoming meetings. The result, over 120 people participated in the meetings, which were comprised of 32% general public, 25 % local government, 20% business, 15% agencies and 8% education and environmental groups.

### **II. Schedule meetings in each subwatershed**

A location was found in each subwatershed to host the meetings. Some were scheduled for the evening and some during the day. The daytime meetings received better attendance overall. The watershed was broken into 11 subwatersheds in an attempt to acquire as much public input as possible.

### **III. Create an agenda and invitations for the meetings. Develop a slate of presenters and materials to hand out at the meetings**

The Coordinator worked with the Steering Committee to develop an agenda and invitation for the meetings. Steering Committee members were asked to assist with the public meetings by giving some presentations, assisting with registration, set-up and clean-up. In addition, while scheduling meetings, the coordinator asked local professionals to present about water quality issues pertinent to the respective subwatershed.

The coordinator asked coalition members to write up problem statements to utilize at the meetings. Only two groups submitted problems and these were synthesized and typed up for prioritization at the public meetings along with the three main use attainment categories for water quality and loading.

#### IV. Host the meetings

The meetings were set up when possible in a u-shape with the presentation screen at the front of the U. A large Sandusky River Watershed Coalition Display was set-up. Folders were produced with sub-watershed information and brochures. *Sandusky Watershed Resource Inventories* were available as well. Pens and pencils were given out and refreshments were provided. The meetings were scheduled to take two hours.

##### AGENDA

1. Registration – all meeting participants signed in at each meeting.
2. Introduction of watershed concept and the Sandusky River Watershed Coalition – the Coordinator gave a five-minute introduction to the group.
3. Resource inventory findings – the problems found while completing the resource inventory were summarized for participants at the meetings and presented in four general categories:

*Summary of Problems Common Throughout the Sandusky Watershed (Prepared by the Sandusky River Watershed Coalition, March 2000)*

1. ***Impaired Biological Communities***

*Extent – many stretches of the Sandusky River and its tributaries do not contain biological communities that could be present in streams in this region.*

*Causes – Siltation; poor stream habitat (lack of riparian vegetation and in-stream cover); organic pollution from various point sources; nutrient enrichment under low flow conditions (primarily from unsewered human sources); hydrological modification (dams and channelization); natural limitations due to geological factors (low stream gradients); and other more local factors.*

2. ***Source water problems for drinking water supplies***

*Public and private drinking water supplies generally meet all drinking water standards. Occasional problems with nitrate and coliform bacteria.*

*Source Water Problems – elevated concentrations of nitrates and herbicides during runoff events in area streams and rivers. High suspended solids concentrations increases treatment costs.*

*Causes – tile lines from agricultural drainage facilitate export of nitrates not taken up by crops; surface runoff water seasonally contains herbicides applied to cropland.*

3. ***Bacterial counts sometimes exceed safe levels for recreational use.***

*Extent – widespread elevated coliform bacteria (sewage indicators) during high flow conditions; localized high bacterial counts under low flow conditions.*

*Causes – during high flows, combined sewer overflows and general land runoff; during low flows, septic tank runoff, unconnected sewers; and some animal agriculture problems.*

4. ***High nutrient and sediment loading to Sandusky Bay and Lake Erie.***

*Extent – in spite of reductions in sediment and phosphorous loading from agriculture, unit area (pounds per acre) losses of sediment, phosphorus and nitrates for the Sandusky River is still among the highest for major rivers in Ohio, as well as for rivers nationally.*

*Causes – extensive row crop agriculture on clay-rich soils with high phosphorus content and tile under-drainage.*

The first three of the categories, biological use attainment, drinking water standards, and recreational use attainment were used because they are the use attainment categories identified by Ohio EPA. The fourth category, loading, is a concern of special interest to the Sandusky Watershed because it is in the Lake Erie Basin, and loading is a rising area of attention for EPA with the TMDL process. These categories were identified by Dr. Dave Baker as a summary of work completed in the *Sandusky Watershed Resource Inventory*. Overhead transparencies were produced that helped to answer the four questions: “1. Do the streams and rivers support appropriate aquatic life? 2. Is the water safe to drink? 3. Are the rivers and streams safe for recreational use? and 4. Do pollutant loads from the Sandusky Watershed adversely affect Sandusky Bay and Lake Erie?”

4. Brainstorming participants concerns – following the presentation of findings from the *Resource Inventory*, they were asked to add to these concerns. The coordinator presented ground rules for the brainstorming session, which were: 1. try to be specific, 2. use brief “headline” statements, 3. hold questions and discussion for future meetings. The problems identified prior to the meetings were summarized on flip chart and participants were asked to identify *additional* concerns. The coordinator facilitated their input by circling the room and asking each person to state a concern or concerns. If a comment was raised that was the same as one already raised, a check was marked next to that issue. Their statements were recorded on flip charts with the assistance of additional staff. As each page filled up, they were taped around the meeting room. After circling the group several times, and all comments were exhausted, brainstorming solutions began.
5. Brainstorm solutions – post-it notes were passed out along with pens and participants were asked to write down any solutions to ideas generated while brainstorming concerns. Once they had finished posting solutions,
6. Local watershed related issues and projects presentations were made. Soil and water conservation staff or natural resources conservation service staff often conducted these brief presentations to give participants a background on what practices are available to address many of the problems identified during the first part of the meeting (EQUIP, buffer programs, etc).
7. Issues/ concerns prioritization exercise – one prioritization form per person was passed out. Nine problems were listed in layman’s terms and additional space was offered to write in any issues raised during the brainstorming sessions. The participants were asked to rank the issues in order of importance to them.
8. Conclusion – the coordinator thanked everyone for attending, and informed them of the next steps. (To present findings at next Coalition meeting, develop committees to address issues raised during public meetings, and write management plan)

## **V. Tally data**

The coordinator typed in all of the comments made on flip chart paper into one major document. She included subwatershed ID numbers with each comment. The comments were then grouped comments by subject. They were consolidated into like categories and

summarized. 460 comments were recorded by the 120 participants. When comments were counted and organized, the top concerns were

1. non-point source pollution from agricultural lands (132 comments),
2. water quantity and drainage (114 comments)
3. need for information and monitoring (72 comments),
4. contamination from septic systems, combined sewer overflows, etc. (65 comments)

Based on the ranking exercise, the top issues were:

1. Contamination from septic systems, combined sewer overflows, etc.
2. non-point source pollution from agricultural lands
3. need for information and monitoring
4. and urban and rural development.

## **Conclusion**

The four main areas of concern for water quality: aquatic life use attainment, drinking water standards, recreational use attainment, and loading, do not completely represent the concerns identified during the meetings. One major concern, based on number of comments raised involved hydrology (although hydrology ranked next to last during the prioritization exercise.) The number of comments raised about issues is a better indication of what people are concerned than the survey completed. Participants were not given an opportunity to evaluate the process, although this could be incorporated when the Coalition returns to the subwatersheds to present the draft management plan to them less than one year from the date of their problem identification meetings.

This process was overall, successful. The meetings generated a lot of participation, and by being facilitated rigidly, many controversial issues were identified, but did not cause problems for the meeting itself. Also, it was extremely helpful to have the meetings in each subwatershed and to send out a lot of invitations.

Overall, the Sandusky River Watershed Coalition is in a unique position at this point to identify broad, general problems and concerns because of its large size and the extensive research that has been conducted by Heidelberg College. However, the procedure for identifying specific problems outlined in The Guide to Developing Local Watershed Action Plans in Ohio (1997) did not fit well for this group mainly because of its large size.

*News-Messenger Dec 8, 2001*

# River Watershed Coalition holds annual meeting

News-Messenger reports

At the recent annual meeting of the Sandusky River Watershed Coalition, Jeff Hohman of the Wyandot County Soil and Water Conservation District was elected chairman of the steering committee.

Dan Moyer of the Sandusky County Soil and Water Conservation District was named secretary, and David Wolfe of the Wyandot Dolomite was named vice chairman. David Baker of the Heidelberg College Water Quality Laboratory is a new member of the steering committee.

The agriculture committee continues to be led by John Molyet of the Sandusky County Farm Bu-

reau; the development and water committees by Wolfe; the stream flow and habitat committee by David Davies of Bellevue; and the wastewater committee by Scott Rabun of the Seneca County Health Department.

Also at the meeting, contributors who donated more than \$1,000 to the coalition were recognized: Heinz USA of Fremont, Wyandot Dolomite Wyandot County and the cities of Tiffin and Bucyrus.

The group meets once per quarter. The next meeting will be Jan. 24. And Ward, a hydrologist with Ohio State University, will be the guest speaker and will share research on ditches in Northwest Ohio

Tom B.

# Firm plans to demolish weak dam near Tiffin

By JIM SIELICKI

BLADE STAFF WRITER

*Blade 10/23*

**TIFFIN** — Ohio-American Water Co. has given up trying to find a new owner for a decrepit dam it owns on the Sandusky River and has announced plans to demolish it.

St. John's dam was built in 1935 as a backup water supply for Tiffin but never was used.

Though it serves no useful function in providing a source of drinking water, the 7-foot-high dam has a recreational purpose, widening the river south of Tiffin for boaters and swimmers. It holds water in a deep, meandering river pond for 14 miles.

The Ohio Department of Natural Resources had given Ohio-American until month's end to find a new owner or begin steps to remove it.

Matthew McCoppin, project engineer with the natural resources department's dam safety program, said now that the decision has been made to remove it, the water company must submit an outline of its plans by Nov. 30. "They've told us they don't need the dam anymore," he said.

Leo Tracy, operations supervisor for the water company, said no one stepped forward to buy the dam during nearly a year of debating its future.

"We even tried to give it away," Mr. Tracy said. "We told [potential buyers] they could pretty much just have it."

The main stumbling block appears to be the cost of repairs, which would have to be paid by the dam's new owners, Mr. Tracy said. For the water company to repair it would be cost-prohibitive, he said.

"It's been weakened because it's covered with flooding debris that makes it unsafe to be near," Mr. Tracy said. "It's not really in a safe condition. That [removal] is what ODNR wants to take place."

The company estimates it will cost \$300,000 to repair it. Replacing it would cost even more, Mr. Tracy said. Ohio-American estimates it will cost about \$50,000 to remove it.

Mr. McCoppin said the state will have 30 days to review Ohio-American's timetable, which will outline how they intend to go about the process.

Though the dam is deemed unsafe, it poses no danger to people downstream should it be breached, he said. "There's not going to be some huge flood," Mr. McCoppin said.

Most state and environmental agencies favor leveling the dam and returning the river to its natural state, which would reduce the deep river behind the dam to the more shallow state of other parts of the river.

The state has expressed its preference to see the river go back to its natural state to restore its biology and quality of aquatic life.

Residents and other people who depend on the deep water for business do not want the dam removed, saying they would be hurt because they operate recreation businesses.

Walnut Grove Campground has 75 lots it rents, while Camp Glen, run by the Camp Fire Boys and Girls Northwest Council, uses the river for recreational activities. During public hearings sponsored by the ODNR, all said they oppose its removal.

"There are a lot of people gaining benefits from it," Mr. Tracy conceded.

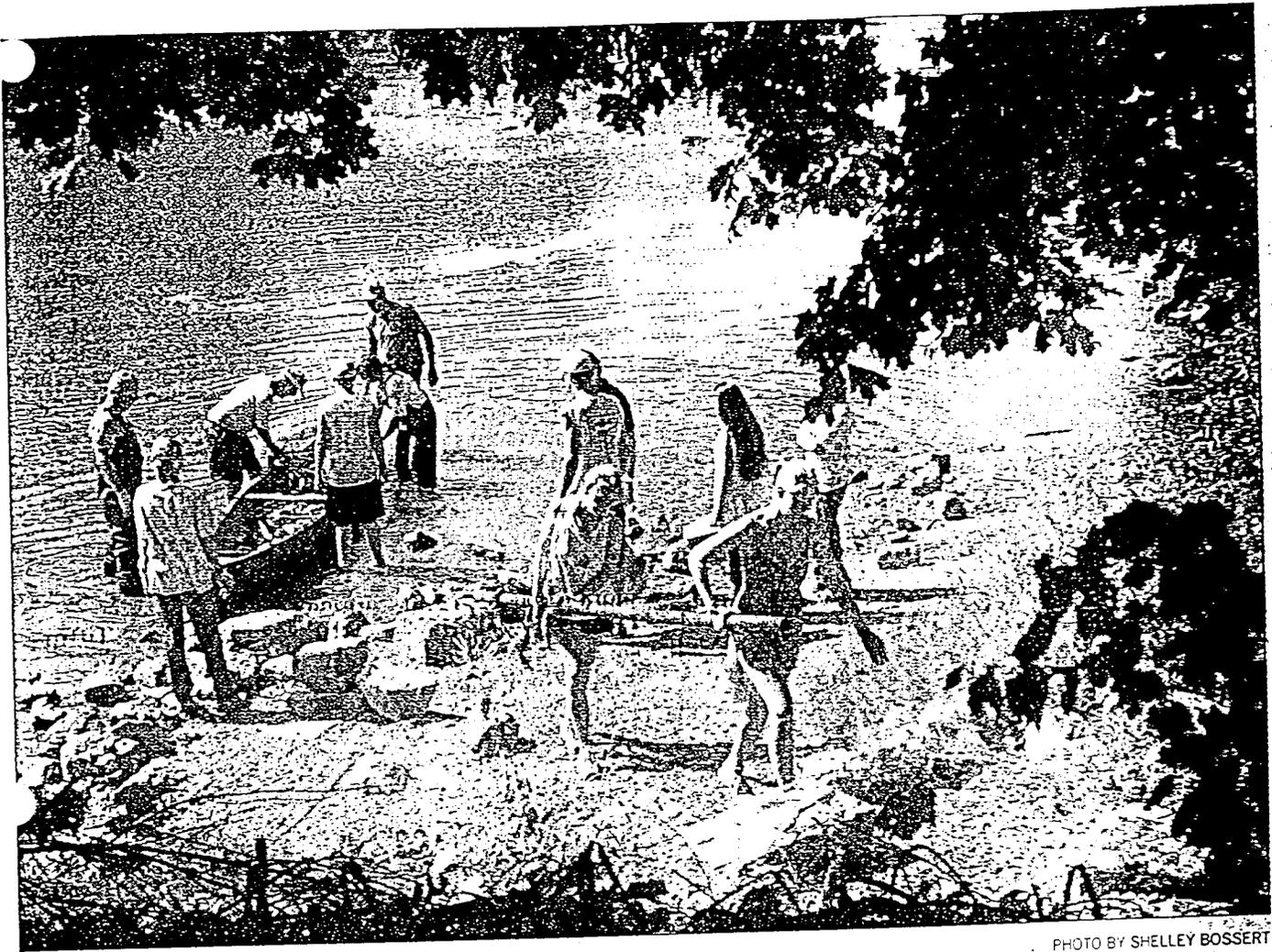


PHOTO BY SHELLEY BOSSERT

## Clean Sweep helps beautify Sandusky River

Volunteers unload metal piping and other garbage items pulled out of the river from a canoe loaned by the Ohio Department of Natural Resources to a site at the end of Elwood Street during the Sandusky River Clean Sweep on Saturday morning. Groups of volunteers spent the morning at several sites along the river in Tiffin pulling trash from the river and had a free lunch in the park afterward.

A-T 8-12-01

News Messenger Friday Aug. 10 2001

# Focus: Water woes



News-Messenger/Drew Kashmer

MANY QUESTIONS related to the Ballville Dam issue have not yet been answered, although it is clear the reservoir's holding capacity has been greatly reduced by sedimentation. Story, A7.

## Fremont mayor says upground reservoir is city's best option for future water needs

By SHAWN GAINER  
Staff writer

The Fremont city administration appears to have a plan for addressing future water needs, though action is still a few years away.

In a recent interview with The News-Messenger, Mayor Terry Overmyer said he thought the city's best option would be to construct a small upground reservoir that could hold a 60- to 90-day emergency supply.

Such a reservoir would be the most affordable for the city and it could be used as

a source of raw water in the event of a drought, high nitrate levels or a contaminate spill in the Sandusky River. He said he would like to see the project start within five years.

Overmyer said in a second interview Tuesday that the incoming Calpine electric generation plant, which is projected to use three to six million gallons a day, might be the city's way to pay for an upground reservoir.

"If they use the water they've projected, that will

give us a revenue source to build a small reservoir.

"The game plan is to get Calpine constructed, let them operate a couple of years and get the revenue to supply the debt load," he said.

At this time, the city is not considering dredging the Ballville Dam reservoir, though city officials are aware of the silt buildup. The main reason is lack of information about what's in the sediment, he said.

See FREMONT, A7

### First in a series

This is the first of a two-day project on water issues facing Fremont and Sandusky County.

■ **Today:** Issues facing Fremont.

■ **Saturday:** Issues facing Sandusky County.

8-10-01

# Ohio EPA clears way for Calpine

By RICK NEALE  
Staff writer

The Ohio EPA issued a mandatory air emissions permit Thursday to allow construction of the Fremont Energy Center.

Calpine officials have said the EPA air permit represents the final major hurdle before they can break ground on the \$355 million natural gas-fired power plant, to be built just northwest of Fremont in Sandusky Township.

"We've issued a permit effective 8-9-2001, which allows them to construct the proposed emission unit they want to install," Ohio EPA Environmental Specialist Alan Lloyd said from Columbus this morning.

Contacted this morning at his Boston, Mass., office, Calpine Project Manager George Bacon said he had not yet received word of the air permit. He said he will withhold comment on the matter.

"We'll wait till we get the call today," Bacon said. "There's been a lot of effort

put into this project to achieve this milestone."

The Ohio EPA issued a draft version of the air permit June 12 and accepted public comments on the matter for the next 30 days. Lloyd said, "for all intents and purposes," there were no comments submitted by local residents to the EPA.

After receiving the air permit, Bacon said Calpine will tell the Ohio Power Siting Board that it has secured its mandatory permits for the project. The OPSB will review them, then — barring unforeseen problems — grant final approval to begin building the power plant.

The company wants to build the Fremont Energy Center on an 80-acre soybean field owned by Shannon Smith on Sandusky County Road 138, or Miarer Road. Calpine holds a purchase option on the property, and Bacon said the sale will be completed after EPA and OPSB matters are finalized.

See CALPINE, A7

# Citizens group forms to protect Minnow Creek

By RICK NEALE  
Staff writer

A newly formed citizens group named Friends of Minnow Creek wants local officials to ditch any construction projects that might sterilize the waterway.

Fremont Melanie White organized an inaugural rally Friday afternoon at the Minnow Creek bridge on Whittlesey

## To join

For more information about joining Friends of Minnow Creek, call Melanie White at 332-7353.

Organizers plan to attend a public hearing on the Minnow Creek reconstruction project at 11:30 a.m. Tuesday on the second floor of the Sandusky County Courthouse.

Street. Spurred by a wave of fliers White circulated throughout area neighborhoods, about a dozen adults and various children attended the event.

"The city gave us letters that said they will clean, deepen and widen the creek. But this is what that means," White said, displaying a photo of a sterile-looking ditch cov-

See CITY, A6

If you drive it



spike it



run it



# FALL SPORTS PREV

News  
Messenger 8-4-01

# VIEWPOINT

The News-Messenger, Fremont, Ohio

Editorial Page Editor Roy Wilhelm, 334-1044

Friday, August 3, 2001

A4

## River fest fun and educational

Living so near the Great Lakes, we can easily forget how precious water is. Join in the fun with the Sandusky River Watershed Festival and River Benefit and be reminded of the incredible resource we have in our own neighborhood, the Sandusky River.

With a combined area of 94,850 square miles, the Great Lakes represent the largest fresh water area on earth. Our actions within the 1,884-square-mile drainage basin of the Sandusky River Watershed impact the lakes both positively and negatively. About 242 billion gallons of water flow past Fremont to the Sandusky Bay each year. That water picks up and transports all kinds of chemicals, sediment and debris from parts of the 12 counties that drain into the Sandusky River.

In the past 25 years,



**Monica Ostrand**  
Guest column

the Sandusky River and the Great Lakes cleaner and healthier, it is important to participate in the joys of our natural treasures. So, this weekend, we are celebrating what we have, beautiful waterways, Ohio's largest population of bald eagles, exceptional fisheries and a bright future with residents who care about the water in their community.

On Saturday, the Sandusky River Watershed Festival and Sandusky River Benefit will provide a great opportunity for you to come out with your family, spouse or on your own to celebrate the heritage, wildlife and tremendous resource of the Sandusky River. With COSI, river seining, lots of hands-on environmental displays and live entertainment from 10 a.m. to 4 p.m., the daytime activities are de-

Besides working to make

### If you go

**What:** The Sandusky River Watershed Festival and River Benefit

**When:** Festival is from 10 a.m. to 4 p.m. Saturday. The benefit is from 6 p.m. to 1 a.m.

**Where:** Pioneer Mill Restaurant, Tiffin

**Admission:** Festival is free; benefit is \$5 in advance or \$10 at the door.

Advance tickets are available at The Depot Tavern, the Tacklebox or the WSOS Community Action Commission.

**For more information:** Monica Ostrand, Sandusky River Watershed coordinator, 334-5016.

signed to help kids learn to be good stewards while having fun on the river. From 6 p.m. to 1 a.m., there is the "party with a purpose," the Sandusky River Benefit with all pro-

ceeds going to help support the Sandusky River Watershed Coalition. The nighttime's events are geared toward adults with music bands, food, dancing and a silent auction. You can get tickets at The Depot, Tackle Box and WSOS Community Action Commission Inc., 109 S. Front St.

We ought to do our part to take care of one of the earth's greatest jewels. Join us for a celebration of our river and help us do a better job at protecting our fresh water supply. Because it is your water, your environment and your responsibility. Because, if you don't take care of it, who will?

Monica Ostrand is the Sandusky River Watershed coordinator for the Wood Seneca Ottawa Sandusky Community Action Commission Inc.

C

# Outdoors

FIN, OHIO THURSDAY, AUGUST 2, 2001

The Advertiser-Tribune

## River Clean Sweep, picnic Aug. 11

BY VICKI HUNKER

Staff Writer

**M**ore than 140 Seneca County volunteers have signed up for this year's fourth annual Sandusky River Clean Sweep.

"It's going to run the same as last year, except the picnic will be a quite a bit bigger," said Mike Darling, coordinator of Seneca County Recycling and Litter Prevention. "We have more people involved this year than we ever have."

He's including both volunteers and sponsors. The number of businesses donating food, door prizes or money is 25-30 this year, compared to about 10 last year.

"We have different ones this year," he said. "Andria Marquis (assistant recycling coordinator) has done a great job getting people involved and getting everything ready to go."

Volunteers will have more variety of donated food to choose from for lunch this year, including hot dogs, pizza, subs, chips, orange drink, Gatorade and water.

There will be live entertainment by Patchwork Nancy and educational displays set up by area organizations.

"We'll have a ton of door prizes and stuff out there," Darling said.

Many new donors are fast-

### Cleanup expands into 3 more counties

BY VICKI HUNKER

Staff Writer

**W**hat will be the fourth Sandusky River Clean Sweep in Seneca County on Aug. 11 will be the first for the other three main counties in the Sandusky River watershed — Crawford, Sandusky and Wyandot.

The cleanup was expanded this year to include all four counties under the auspices of the Sandusky River Watershed Coalition.

Jim Darr, coordinator in Sandusky County, said he has 15 volunteers signed up so far and he's hoping there will be 30-40 participants.

Volunteers will meet at 8:50 a.m. at Misty Meadows, 2100 Baker Road, and carpool to cleanup sites. At 11 a.m., they will meet back at Misty Meadows for a picnic lunch.

"We could use some more volunteers," Darr said.

Julie Wells, coordinator in Crawford

County, said she also could use a few more people. She has 10 volunteers signed up so far, but there are a few scout troops interested in participating.

"I'm hoping for at least 30-50 for the first year," she said.

The Crawford County cleanup will be 9-11 a.m. at Unger Park and the picnic will be at Aumiller Park, Bucyrus.

Jeff Hohman, the coordinator in Wyandot County, said there are 60 people signed up so far and he's hoping there will be 100 participants. They'll be cleaning up two areas of the river from 9 a.m.-noon.

Instead of a picnic lunch, the Wyandot County crew will receive coupons for lunch on their own.

T-shirts will be given to volunteers in all three counties. To register, call Sandusky County, (419) 334-6228; Wyandot, (419) 294-2311; and Crawford, (419) 562-4169.

food or pizza restaurants that donated food coupons. Other items include hardware and a variety of miscellaneous.

"There's still more stuff coming in," he added.

Darling invited everybody who wants to participate to meet at 8:15 a.m. Aug. 11 at the lower shelter near the YMCA at Hedges-Boyer Park.

"We'll get everybody registered then disperse them to their spots," Darling said. Cleanup will take place from 9-11 a.m.

"Then they can cleanup up for lunch," he said.

The same sites will be cleaned this year as in the past few years — near Kiwanis Manor, Little Hedges Park and Nature Trails Park.

In addition, Seneca County Pheasants Forever members will be cleaning up near St. John's Dam.

The Ohio Department of Natural Resources Scenic Rivers program again will be donating the use of its canoes.

"We'll have those at every site," he said.

And Tiffin's Public Works Department will take care of hauling away the trash.

The first 200 people to sign up will get a free T-shirt made from recycled plastic bottles. The T-shirt design is new this year.

Anybody who registers after the first 200 will get a free item also, he said.

To volunteer, call the recycling office at 443-7922. In

*Continued on next page*

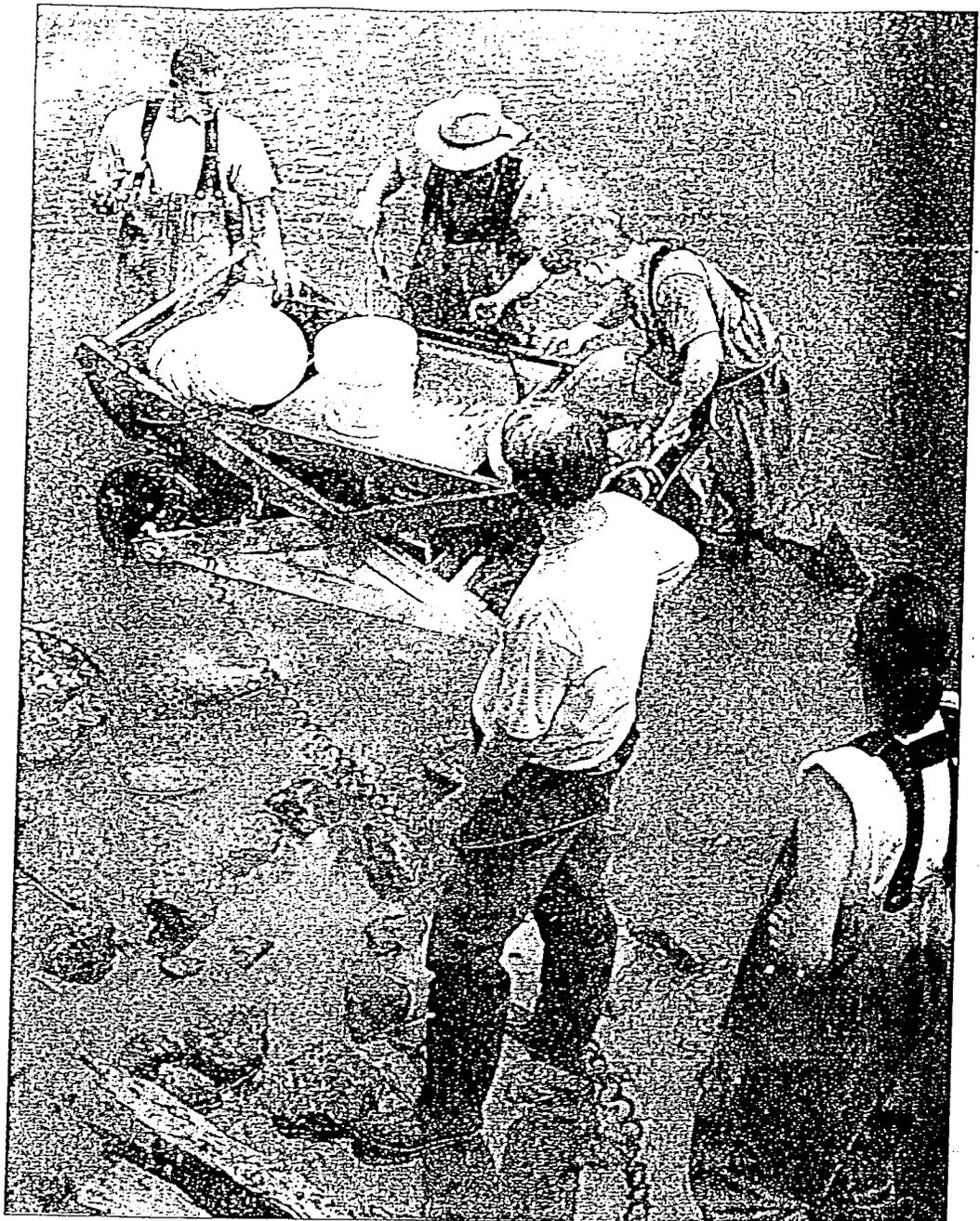


PHOTO BY JIM SHOBE

## What a shock!

EPA workers stop to look at fish they took from the water by shocking at Stepping Stones Park, Upper Sandusky. Shocking is a method of taking fish samples by introducing an electrical current into the water. The fish will be part of a comprehensive study of the Sandusky River being done this summer. EPA workers were demonstrating their biological testing methods for members of the Sandusky River Watershed Coalition at its meeting Monday.



# Keeping it on the Land

Information for the  
soil erosion and sediment control  
community in the Great Lakes Region

Volume 3  
Number 2  
July, 2001

A publication of the  
Great Lakes Commission  
@ <http://www.glc.org/>

## Ohio Tackles Watershed Planning at the Local Level

by Rosida Porter, Watershed Specialist, Ohio Department of Soil and Water Conservation

The Ohio Department of Natural Resources (ODNR) is addressing a significant unmet need in local watershed management in the state of Ohio. The lack of professional watershed coordinators has inhibited the development of effective watershed management plans and long-term efforts directed toward improving surface water quality. Most of Ohio's water quality degradation comes from non-point source pollution, generated by poor land use practices and the physical alteration of streams. Dealing with these problems requires the development of local support and well-informed land-use and riparian management decisions.

In order to address this need, ODNR Division of Soil & Water Conservation announced a watershed coordinator grant program that awards up to \$40,000 a year to hire or retain a coordinator for developing and implementing surface water quality improvements in local watersheds. The first round of grants was awarded this spring to 20 watershed groups around the state and is the first in a total of more than \$4 million to be awarded over the next six years.

ODNR Director Sam Speck said, "This first round of grants will allow local organizations to hire coordinators to sustain and direct work toward improving surface water quality."

The ODNR grant program is designed to build capacity among local governments, non-profit organizations and other non-governmental entities to create permanent watershed coordinator positions. Coordinators will plan and implement watershed programs to restore and protect water

resources within their watershed. ODNR's Division of Soil and Water Conservation recently hired a watershed coordinator to work with these new programs and to help existing programs expand into new areas.

In northwest Ohio's Lake Erie watershed, the non-profit Wood-Sandusky-Ottawa-Seneca Community Action Commission, Inc. received a watershed coordinator grant to lead a diverse partnership of farmers, landowners, industry and the Heidelberg Water Quality Lab. Last year, the project generated considerable support with a half-time coordinator paid through a Lake Erie Protection Fund grant, and this year Watershed Coordinator Monica Ostrand is working with the Sandusky Watershed Coalition on a nearly completed watershed action plan.



ODNR awarded the two-year-old Grand Lake St. Marys Watershed Project, located in Mercer and Auglaize counties, a coordinator grant. The project has tremendous local support and is showing success under newly-hired coordinator Heather Buck. It is administered by a Soil and Water Conservation District Joint Board.

The City of Oregon received a watershed coordinator grant for the Duck and Otter Creeks Partnership in Lucas County, which has recently filed paperwork to become a non-profit corporation. Duck and Otter Creeks are highly industrialized watersheds that rank near the bottom of the Ohio Environmental Protection

See "Ohio Tackles Watershed Planning" on page 3



C

# Outdoors

OHIO THURSDAY, JULY 26, 2001

The Advertiser-Tribune

## Watershed festival, benefit calling attention to the Sandusky River

BY VICKI HUNKER

Staff Writer

**T**he first Sandusky River Watershed Festival is being planned for Aug. 4 as a fun way to call attention to the importance of the river.

The event at Pioneer Mill Island will be divided into a day of "Summer Fun on the River" and an evening benefit.

"The watershed festival is a way to try to reach people who normally wouldn't attend a meeting, but really like the river and enjoy the river," said Monica Ostrand, Sandusky River Watershed Coalition coordinator.

It's a way to get the word out about the river. It's a beautiful location to get together and celebrate. It's really a celebration," she added.

Family outdoor activities are planned for 10 a.m.-4 p.m., including hands-on children's activities, a COSI exhibit, wildlife shows, canoe floats, bug catching and educational displays by various organizations.

On the stage, local singer, songwriter and storyteller Patchwork Nancy will be playing and nature-singer Foster Brown will entertain.

"The target audience is really the general public," Ostrand said. "They can learn about the river, see the fish and animals, talk to people who have experience working on the river and playing in the river.

"It's not just fun and games, but a chance to really learn something about it," she added.

Ostrand said the festival will be the debut of Riverworks, the coalition's juried fine art exhibition. Artwork will be on display all day and there will be a reception for artists at the evening benefit.

The exhibit is open to residents of the watershed and should depict some aspect of river life. Photos, paintings, drawings and sculptures will be accepted. Entry forms are due Friday at WSOS Community Action Commission, 219 Front St., Fremont, and artwork is due noon-6 p.m. Aug. 1-2.

*"The watershed festival is a way to try to reach people who normally wouldn't attend a meeting, but really like the river and enjoy the river."*

**MONICA OSTRAND**

Coordinator

Sandusky River

Watershed Coalition

In the evening, Ostrand said the day's focus will shift to a benefit.

"That night, it's more a party atmosphere with food and dancing and music," she said.

Money raised will help fund next year's watershed festival and other river-related activities.

Funding will be needed for next year's festival.

Ostrand said the festival is made possible by a \$5,000 grant from the Ohio Environmental Education Fund, with \$1,000 assistance from Seneca County CVB and \$500 from the National Machinery Foundation.

"This year we got a grant to get it started," she said. "Next year we'll have to support it ourselves."

Other examples of uses for the money include helping to buy T-shirts for Sandusky River Clean Sweep volunteers and a tree planting in the future.

"The first thing we've targeted is to support the volunteers," she said.

Tickets are required to attend the benefit. Advance tickets are \$5 each and they will be \$10 at the bridge.

From 6-7 p.m. there will be a silent

auction and a reception for artists exhibiting in Riverworks.

Russ Gibson, musician and former Scenic Rivers coordinator for the Sandusky River, will play 7-8 p.m.

The rock and blues sound of Rude Mood will fill the island 9 p.m.-1 a.m.

"This is a party with a purpose," Ostrand said. "This will benefit every resident who has contact with the Sandusky River."

Benefit tickets are available at Pioneer Mill Restaurant, Tiffin; The Depo, the Tackle Box and WSOS Community Action Commission, Fremont; Upper Sandusky Chamber of Commerce and First Citizens National Bank main office, Upper Sandusky; and Bucyrus Area Chamber of Commerce and Crawford Park District, Bucyrus.

The Holiday Inn of Tiffin is offering rooms at the reduced rate of \$60 for people attending the event, but reservations must be made by today.

The festival is sponsored by the Seneca County Convention and Visitors Bureau and the Sandusky River Watershed Coalition Education Committee. The benefit is sponsored by WSOS of Fremont, and National Machinery Foundation and Pioneer Mill, both of Tiffin.

The watershed includes parts of 12 counties, but the majority is in Seneca, Sandusky, Crawford and Wyandot counties.

"We'd like to do this every year and take the watershed to a different city on the river," Ostrand said.

Next year, it will be at Lowe-Volk Park in Crawford County.

"That's where the Sandusky River starts," she said.

For this year, Ostrand said the committee is seeking donations for the silent auction. So far, there's a list of items that includes jewelry and \$500 toward classes at Terra Community College, Fremont.

She said anybody interested in volunteering to help set up for the festival is welcome. For more information, call (419) 334-5016.

## EPA demo planned for watershed coalition meeting Monday

Ohio EPA will demonstrate its biological monitoring methods at the Sandusky River Watershed Coalition meeting 4 p.m. Monday at Stepping Stones Park, Upper Sandusky.

The demonstration will show interested people how EPA is measuring the numbers and quality of fish and macroinvertebrates — small organisms that live in the river.

"We're going to have a pretty in-depth demonstration," said Monica Ostrand, coordinator of the watershed coalition.

Following the demonstration there will be a bratwurst and potluck supper from 5:30-6:30 p.m. and the coalition's quarterly meeting 6:30-8 p.m. after the potluck in the park gazebo.

7-26-01



PHOTO BY JIM SHOBE

A line of canoes went under Heck's bridge to put into the Sandusky River Tuesday morning for a tour of the Sandusky River.

## Officials go to the resource

### Canoe tour allows close look at the Sandusky River

BY VICKI HUNKER

*Staff Writer*

A canoe trip Tuesday gave state, city and county officials a chance to view the Sandusky River up close and see for themselves some of the positives and negatives of the waterway.

State Rep. Rex Damschroder, one of the trip's initiators, said the many issues pertaining to the river were the reasons he set the idea in motion.

The former landfills on CR 90 and another on the other side of Fremont, in addition to the Kirby Tire fire last August, have put the river in the news.

"If you live in Tiffin or Fremont, this is where the water comes from for drinking," Damschroder said.

Also, controversies over tearing down or repairing St. John's Dam on CR 6 south of Tiffin and Ballville Dam in Fremont have been in the forefront during the past few years.

Canoeists traveled from Heck's Bridge near

Howard Collier State Nature Preserve to St. John's Dam on the first leg of the journey. After lunch, they got back in the canoes and went to the Boy Scout camp at the CR 90 landfill.

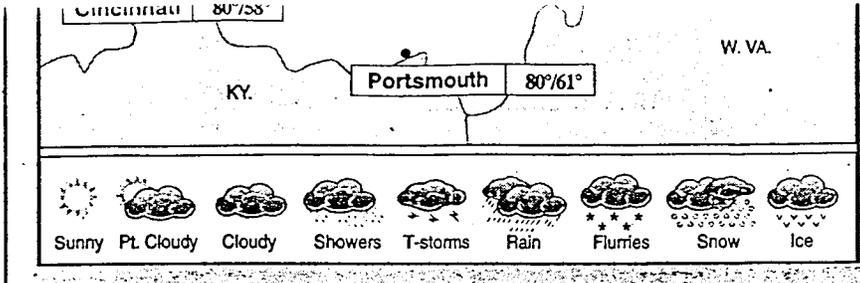
Damschroder said the river and its tributaries impact the Great Lakes and people must be aware of the importance of caring for fresh water now and for future generations.

"We have the largest supply of fresh water in the entire world right in our back yard," he said. "We have to get the word out not just in Seneca County but in all of Ohio."

He cited the wish of people in Japan recently to buy fresh water from Lake Superior to sell in Japan.

Stu Lewis, chief of the Ohio Department of Natural Resources Division of Natural Areas and Preserves, said preserving the few remaining high-quality streams in the state is the goal of DNAP. In 1970, he said the Sandusky River was

▶ please see RIVER, page 2A



**Records**  
 High: 96/1942  
 Low: 48/1999  
**Averages**  
 High: 86  
 Low: 63  
 Sunrise: 6:19 a.m.  
 Sunset: 8:58 p.m.

Tia Day Hope  
 Tia Day, grade 4, ...

# River

■ from page 1A

the second river in the state to be designated a state scenic river.

"There are negatives, but there's a lot more good stuff going on on the river than bad," Lewis said.

Also during lunchtime discussions at Ruffing Family Care Center near St. John's Dam, a variety of issues concerning the river were brought up.

"My first observation about the river is that the water's so silty," said Mayor Bernard Hohman. "We tend to think of it as more polluted than it is."

He said the river's appearance might be part of the reason the public doesn't use it more often recreationally.

The need for more public access to the river was another observation.

"There's no place to pull over and rest or swim," said John Bing of Tiffin Park and Recreation Board. "It tends to be a private waterway for people who live there and the campgrounds."

Pete Richards of Heidelberg

College's Water Quality Lab said main use for recreation is fishing.

"It's good," he said. "I don't think it's spectacular, but it's good."

Bing suggested that more public access might become of project of the Seneca County Park District.

Hohman said the city of Tiffin recently refurbished Frost Parkway, making the river more visible. And city officials are considering creating a river access from Frost Parkway.

"The opportunity for public participation is a good thing because it gives people a chance to look at the river," said Tiffin City Administrator Wayne Stephens.

Dave Little of Ohio-American Water Co. said his group discussed runoff from agricultural fields and the impact it has on the water treatment process at the water plant.

Among the other issues discussed were water runoff from the campgrounds and houses directly into the river, the importance of educating the public about failing septic systems and encouraging farmers to put land in the Conservation Reserve Program.

water to customers in the first phase. The completion target is May 2003, with the second phase scheduled to be ready two years later.

Olson recommended using a multi-jurisdictional approach to improve funding chances. He said Seneca and Crawford County commissioners could jointly apply for money, then transfer any repayment obligation to the new district.

Olson said the funding agencies would look more favorably on a project serving more than one jurisdiction.

Another possibility would be for city or village officials in the two counties to use the same approach.

"That's simply a mechanism — as long as it's multiple jurisdictions." "You do everything

# House bill puts rest

WASHINGTON (AP) — Legislation passed by the House Tuesday would make it easier for consumers to keep unsolicited junk e-mail off their computers.

The legislation, which passed 427-1, also gives Internet service providers, or ISPs, new legal weapons to combat junk e-mail, or "spam" messages, that clog their networks.

"The most annoying thing about the Internet is junk e-mail," said Rep. Heather Wilson, R-N.M., sponsor of the bill. In addition to deluging consumers with often false or pornographic messages, she said it costs ISPs an estimated \$1 billion a year to cope with the added traffic of millions of spam messages.

"It's a tool that can now be used to filter and stop unwanted intrusions into our homes and offices," Rep. Gene Green, D-Texas, said of the legislation.

The bill requires those sending unsolicited commercial electronic (UCE) mail messages to provide a valid return electronic mail address so recipients can serve notice that they want to be taken off the mailing list.

The Federal Trade Commission is given the authority to bring action against spam senders who violate the provi-

sions of the legislation. IS can also sue spammers in federal court for \$500 per message up to \$50,000, if a spammer willfully breaks anti-spamming law.

Rich D'Amato, a spokesman for America Online, the nation's largest Internet provider, said AOL appreciates the way the bill focuses on enforcement of spamming rules. "We've tried to eliminate it as a nuisance for our members," he said, noting that the company had sued more than 40 junk e-mail companies and individuals over the past three years.

A survey conducted last year by the Gartner Group found that 90 percent of e-mail users receive spam at least once a week and almost 50 percent were spammed six or more times a week.

Wilson said her bill had been crafted to answer the question of civil liberties groups about possible curbs on free speech rights. She stressed that spammers "have no right to force us to listen to or force us to pay the cost of junk e-mail."

The single no vote was cast by Rep. Ron Paul, R-Texas.

**On the Net:**  
 Congressional summary:  
<http://thomas.loc.gov>

# Water

■ from page 1A

can get this down to feasibility, assuming they sign up," Wright said.

Current plans are for the committee's study report to be ready by the next meeting, 7 p.m. Aug. 15. Committee representatives are to report to their individual boards and councils, and return next month with suggestions for presenting the water district plan to customers. A petition sign-up by customers would lead to filing for district formation in November. This would take about six months, with the district being officially ready in May 2001.

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 THE PERFECT STORM (PG-13) (12:40 3:55) 6:50 9:45  
 THE PATRIOT (R) (12:30 3:45) 7:40  
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# Testing the waters



News-Messenger/Ben French

DAN GLOMSKI, environmental specialist, and Yvette Phillips, an Ohio EPA intern from the University of Toledo, take water samples out of the Sandusky River and check the temperature and acidity of the water last Thursday.

## Ohio EPA specialists looking for contaminants in Sandusky River

By SHAWN GAINER  
Staff writer

Dan Glomski and Yvette Phillips walked out on a rock shelf that juts into the channel of the Sandusky River just north of Tiffin last Thursday and dipped an electronic probe and plastic jugs into the brown water.

Phillips, a senior biology major at the University of Toledo and an Ohio Environmental Protection Agency intern, used the probe to

record the water temperature, pH (acidity or alkalinity) and level of dissolved oxygen in the water.

The plastic jugs of Glomski, a state EPA environmental specialist, were destined for an EPA laboratory in Columbus or a contract lab in Toledo, where technicians will test the samples for levels of metals, organic matter and nutrients such as ammonia, nitrates and phosphorous.

"Ammonia is toxic to aquatic life

at high levels," said Glomski. "At lower levels, it can stunt fish growth or affect reproductive capabilities."

Their tasks were all part of an effort to figure out what's in the Sandusky River and its tributaries between the river's origin in Crestline to just north of Tiffin. Officials want to know whether there are contaminants in the river in amounts large enough to cause a

See OHIO, A6

## Ohio EPA taking samples from river

Continued From A1

problem, and if there are, how water quality can be improved.

The sampling should be complete by mid-October. Once data is analyzed, the Ohio EPA will create a management plan with recommendations for addressing any problems. The process is expected to take two years, said Tom Balduf, water quality supervisor for the agency's Northwest District Office in Bowling Green.

Statewide, the Ohio EPA has \$6 million in Federal Clean Water Act funds to assist landowners and communities with voluntary conservation projects, said EPA Spokeswoman Heather Lauer.

Within a few years, the Ohio EPA will also conduct a comprehensive study of the watershed from Tiffin north to Sandusky Bay, which includes the stretch that flows through Sandusky County. This summer's tests were originally scheduled for 2004 but were moved up because of interest from the Sandusky River Watershed Coalition, Balduf said.

During Thursday's testing, Glomski took a large sample, about a gallon, that he said would have to be in a laboratory within 48 hours. There, technicians will measure how much oxygen is consumed by decaying organic matter over a five-day period.

Every stream will have organic material from decaying leaves and branches. The crux is how much is there, he said.

"What we're looking for is an abnormal organic level from a human source, whether it be effluent from a sewage treatment plant, manure or whatever."

EPA crews taking biological samples will use electroshock to stun fish, measure and weigh them, and examine them for tumors. They will also drop masonite slabs in the water, then



News-Messenger/Ben French

DAN GLOMSKI, right, and Yvette Phillips take water samples out of Morrison Creek Thursday.

pick them up six weeks later to see what organisms have made a home there, Balduf said.

The sampling, which will continue through mid-October, will keep Glomski, Phillips and others busy. Crews will take chemical samples from 118 locations and biological samples from 40 locations, Glomski said.

"Today, we're going to go to 15 locations," he said. "Usually, 15 to 20 locations is all we can do in a day."

The sampling locations are not just on the river, but streams and even ditches that flow into it.

"We're looking at streams with at least a four square-mile drainage area," he said. "We will cover a lot of small streams."

Moreover, Balduf said crews will go to each site for chemical samples six times during the summer to get an idea of what chemical content is under varying conditions, such as high or low water.

Yet all this work is just the beginning of the process, Balduf said.

After the samples are finished, the data will be analyzed and plugged into a computer modeling program. Then, the EPA will issue the management plan, he said.

"An example is if we find a tributary affected by a high sediment level from erosion, modeling can predict how much sediment would have to be reduced for a stream to support a good population of insects," Balduf said.

He also said federal money would be available for distribution from the Ohio EPA to help address problems. EPA spokeswoman Heather Lauer said the agency is not looking for problems from any particular activity, for example, farming. Rather, the goal is to get an overall picture of the health of the watershed. Contaminants could come from sources as wide ranging as septic tank overflows to lawn chemicals to road salt. Solutions could be deceptively simple, such as planting trees along banks to absorb agricultural nutrients before they get into the water, Lauer said.

Balduf said other contaminants, such as untreated sewer from a housing development, could be more difficult to deal with.

He said he believes everyone in the watershed has a stake in it.

"Everybody that lives in the watershed is responsible for the watershed," he said.

Meanwhile, Glomski and Phillips appeared to be enjoying their work as they quickly moved to collect samples from a small, slow-flowing section of Morrison Creek. Glomski slipped while trying to carry his jugs up a steep, muddy bank, but took the mishap in stride.

"It's all part of a daily adventure," he said.

Contact staff writer Shawn Gainer at 334-1049 or sgainer@fremont.gannett.com.

# Searching for sewer solution

## Combined collection systems can cause troublesome overflows

By SHAWN GAINER  
Staff writer

Combined sewer and water collection systems are an expensive concern for communities along the Sandusky River, though the extent of environmental problems they cause is not clear.

In combined systems, some of the same pipes are used to collect storm water and to take wastewater to treatment plants. During heavy rains, the pipes can back up and the overflow is discharged into rivers and streams.

Overflows increase bacteria levels in waterways. While elevated bacteria levels are not a major source of harm to aquatic life, they can be a health concern for humans who come into

physical contact with the water, said Tom Balduf, water quality supervisor at the Ohio Environmental Protection Agency office in Bowling Green.

Overflows are not a high-profile issue along the Sandusky River, where there are no public swimming areas that would make it mandatory to issue public health advisories when bacteria levels are high, said Rick Stokes, an environmental health worker with the Sandusky County Health Department.

Stokes said, however, that there are people jet skiing, waterskiing and tubing in the river.

While combined storm water and sewer overflows



News-Messenger/Ben French

RICK WILLIAMSON, front, tamps the dirt around the new water line as Rey Moreno fills in the hole with more at the intersection of High and Vine streets on Friday morning.

See FREMONT, A8

*Article continued on next page.*

# Fremont has been separating combined sewers for decade

Continued From A1

are not a glaring issue for municipalities on the Sandusky River, they are expensive ones. The U.S. Environmental Protection Agency has required them to separate the lines.

The city of Fremont has been separating combined sewers for the last 10 years, at a cost of about \$4 million, Safety-Service Director Ken Myers said Thursday.

Myers said the city began separating before it was mandated by the U.S. EPA, yet has received no financial assistance.

"A lot of times, it's the ones who put it off who end up getting the grants," he said. "You actually get points (toward a grant) for being in violation."

Combined sewers have been separated in many sections of the city, but storm and waste water from an area including sections of Garrison Street, Hayes Avenue and Croghan Street still go into a single combined line on South Front Street, said Myron Swaisgood, water and sewer maintenance supervisor.

"In the future, I'm sure we'll be doing something with that," Swaisgood said.

The city of Tiffin is working on a 20-year plan for combined storm water and sewer separation. According to a study performed by a Toledo engineering firm, it will be a very costly plan, said Brad Borer, the city's water pollution control supervisor.

"I believe we are talking in the neighborhood of \$18 million to take care of 80 percent of the

combined overflows," Borer said. One financing option for the city would be to create a separate storm water utility. Another is seeking federal grants.

"We're hoping that grants will become available," he said. "It seems financial need draws the federal money. Since we're a fairly prosperous community, it makes it harder to get them."

Last fall, the city of Bucyrus created a separate storm water utility to help pay for separation. Billing is based on the footage of property belonging to the owner. It is billed separately from sewer and water service and has an average residential cost of \$3 to \$4 a month, said Terry Spiegel, city water pollution control supervisor.

While revenues from the storm water utility are set aside for separation, there is no quick fix, Spiegel said.

"We'll be doing this for years and years down the road," he said.

Stokes said that while municipalities along the Sandusky River are actively working to address overflows, wastewater from some villages and subdivisions

eventually ends up in the river.

"We don't routinely test for bacteria levels in the river, but from the samples we've taken, it appears the levels are higher than recommended, regardless of whether there are overflows at the time," Stokes said.

The Sandusky River Watershed Coalition, formed in 1997, has developed a management plan for addressing water quality issues. Because of expense, combined storm water and wastewater overflows are not part of that plan, though the coalition considers them to be a water quality problem, said Monica Ostrand, coordinator of the coalition.

Ostrand said that in the future, however, she hopes the coalition will be able to help communities seek grants to help pay for separation.

"I hope that's something we can do down the road as we get more established," she said. "But we'd need the communities to approach us."

Contact staff writer Shawn Gainer at 334-1049 or sgainer@fremont.gannett.com.

Fremont News Messenger 6-25-01

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# Water-related resources available for rural area

Safe drinking water and sanitary wastewater treatment are privileges that rural citizens have living in the City of Fremont, but not in the rural areas. Contamination, groundwater depletion, tap in water, lack of funding, needs for upgrading fail-water and septic systems are words and phrases that are common in rural America. Water and wastewater treatment inadequacies continue to be a burden to small towns and rural areas affecting low-income households in rural areas. Utilities without access to clean and affordable drinking water face higher health risks, a lower standard of living, and less economic opportunity than the majority of Americans. It wasn't until I started working for the non-profit Seneca Ottawa San-



**Alice Martinez**  
Guest column

Sandusky Community Action Commission under the program called "The Great Lakes Rural Community Assistance Program" that I became aware what the citizens of rural areas are faced with and the types of These services available to them, which could aid in improving some of these conditions. RCAP has been serving rural communities since 1980 providing on-site training and technical assistance on safe drinking water and sanitary wastewater treatment to small communities, and rural areas throughout a seven

state network.

In Ohio, there are eight RCAP technical assistance providers whose work primarily consists of helping rural citizens and small systems find affordable solutions to their water and wastewater development needs, but public funding alone will not meet the investment needs for water and wastewater infrastructure.

The Safe Water Fund (revolving loan fund) is available to rural communities to serve as a source of capital, including direct lending to low-income rural communities, and leveraging other creative financing mechanisms including pooling projects for bonding, linked deposit programs, etc. The agency also provides on-site technical assistance to loan applicants in determining the lowest cost solutions and fi-

nancial feasibility to incur debt. Types of loans may include: pre-development costs (planning & design), gap construction financing, interim financing, equipment replacement and repair, land acquisition and new water source development.

Now let's shift gears a little bit and talk local issues, such as the Sandusky River. The Sandusky River Watershed Coalition was formed to address water quality issues, protect wildlife habitat, increase recreational opportunities for the river, and protect drinking water.

Five committees were formed to address these concerns: Water Supply, Wastewater, Agriculture, Stream Flow & Habitat and Education & Special Events.

The mission of the Sandusky River Watershed

Coalition is "to provide information and opportunities for public participation in the stewardship of the Sandusky River Watershed." In addition to organizing river education and special events, The Sandusky River Watershed Coalition is developing and implementing a Watershed Management Plan.

These are just a few resources available to citizens of rural America. Become involved by joining the Sandusky River Watershed Coalition and similar projects and see what impact you will make!

*Alice Martinez is the assistant director of Great Lakes RCAP for the W.S.O.S. Community Action Commission, Inc. and a member of the Leadership Sandusky County Decennial Class of 2001.*

## LETTERS POLICY

We welcome your letters of 300 words

## EDITORIAL BOARD: All editorials are opinions of the editorial board.

W. Wilhelm, associate editor

# Sandusky River part of Tiffin's charm

Some of our world-famous cities were built on our river. London, Rome, Paris, the New Orleans, Old Cairo, the Nile, or the Tiber. Also in the Sandusky.

They come from miles away to our lively town to see Sandusky. Ask me. Not a day goes by without someone asking about our river. It is such a stream is part of our charm.

When you assume you are driving toward Tiffin south. Before you know it, you are on Main Street and traveling through what is called The Old Town; you are about to see the fairly new concrete bridge over the



**A.R. SWINNERTON**

You have been instructed to turn right at this bridge for a better, more prolonged view of the river.

You pass the County Commission on Aging, up the slight rise you spot the Eagles Home building, but so far, no river. You stop the car, go to the railing thinking you somehow missed the river.

You peer through the trees and brush and sure enough, there is the river. It's not surprising you almost missed it.

Why is the river screened away from us? Why don't we take full advantage of a genuine river flowing through the very center of our town? Those cities I've visited in one way or another — none of them hide the river from visitors.

In a small town in Germany where our soldiers made camp for a few months after the war in 1945, the banks of the river there were grassy; people gathered for accordion music and singing on a Sunday afternoon. The river

there was the Danube, more celebrated and bluer than our Sandusky. Here, even the minor scenic value of our river is largely ignored.

It took several phone calls before I found out that the street and public dwelling department in Tiffin is responsible for clearing out the river banks. They promised they would make out a work order and get the job done. I hope so. Besides the growth and clutter, there is a long way to go before we have found the best we can for the river and Tiffin.

Postscript: I realize it's much too late now, yet I can't help wonder what help it would have been if the naming committee had suggested something else beside Tiffin. Maria would have been inspired. Maria, Ohio, on the Sandusky ... say it softly and it almost sounds like music, or even a lovely summer resort for the big ticket crowd.

A.R. Swinnerton is an A-T columnist

6-25-01

*Recopy*

# Editorial

OUR VIEW REPRESENTS THE CONSENSUS  
OF THE NEWS MESSENGER EDITORIAL BOARD.

## Dike at landfill a good step, but shouldn't be last

The completion of a dike to contain contaminated runoff from the old Countyline Landfill is a tribute to dedication by local health officials.

But we hope it is not the end of the effort to have the landfill cleaned up to eliminate its threat to nearby waterways which feed into the Sandusky Bay and Lake Erie.

### OUR VIEW

The completion of the dike blocking runoff from the Countyline Landfill is testimony to efforts by local officials.

### YOUR VIEW

Let us know what you think. Information about getting your opinions published appears at the bottom of this page.

The dike was erected to block a variety of pollutants from making their way out of the landfill and into Muddy Creek and Muddy Creek Bay. It was erected after county health officials were notified that money from an Ohio Environmental Protection Agency trust fund would be available to help meet the expenses. Despite some weather problems, the project moved forward and was completed last week.

It was welcome.

Leachate from the landfill was fouling the nearby bay which is part of a wetlands area that serves as habitat to

a wide variety of fish and animals.

The 30-acre landfill is located off Ohio 53 in Sandusky County just south of the Ottawa County line. It opened in 1969 and was closed by the Sandusky County Health Department in 1984. For years, leachate containing various chemicals, including lead and mercury, leaked from the landfill into Muddy Creek.

Local officials have been trying to address the leachate problem since the 1980s, but lack of funding was a continuous road block.

In 1994, local health officials approached the U.S. Environmental Protection Agency in an attempt to secure Superfund money to clean up the site. The EPA declined, saying the landfill posed little risk to human health because there were few residential wells nearby.

EPA officials also cited lack of complaints from residents in the area as well as a thick layer of clay that prevents most of the leachate from entering the groundwater.

But the leachate created an ugly film of chemicals that spread through the bay and into the Sandusky River.

That should be stopped — at least for now.

The dike is not a permanent solution, but it is a valuable first step.

"It gives us some time to look at other options, long term. We're pleased at this point we got this done," said Tim Wasserman director of the Ottawa-Sandusky-Seneca Solid Waste District.

We hope that officials continue to look at more permanent options and find a way to have the site permanently cleaned.

10-25-01  
Argument News Messenger

# A dip in the river wasn't exactly planned, but it was refreshing

The sun was shining. There was a soft breeze blowing.

Temperatures were in the high 70s.

Even the water temperature was nice. (Believe me. I should know.)

It was a great day to canoe on the Sandusky River.

I took part Tuesday in a canoe float sponsored by State Rep. Rex Damschroder; Robert Vargo, coordinator of the State Scenic Rivers program; and Monica Ostrand, coordinator of the Sandusky River Watershed Coalition.

The idea of the trip was to get people on the river so they can learn to appreciate the resource and see up close the beauty of the river — and some of the visible problems.

Damschroder said Tuesday was the first time he was in a canoe. He was paired with veteran canoeist Stu Lewis, chief of the Ohio Department of Natural Resources Division of Natural Areas and Preserves, during the first part of the day.

He said he enjoyed it so much that he might suggest political canoe outings instead of golf outings.

Mayor Bernie Hohman and Park and Recreation board member John Bing seemed to be enjoying the trip. They took their time floating along.

Those are just some of the people I happened to be next to while we were on the river. There were others we chatted with along the way, but I didn't know all of their names.

I was sharing a canoe with Clark Hutson, one of Seneca County's Ohio State University Extension agents.

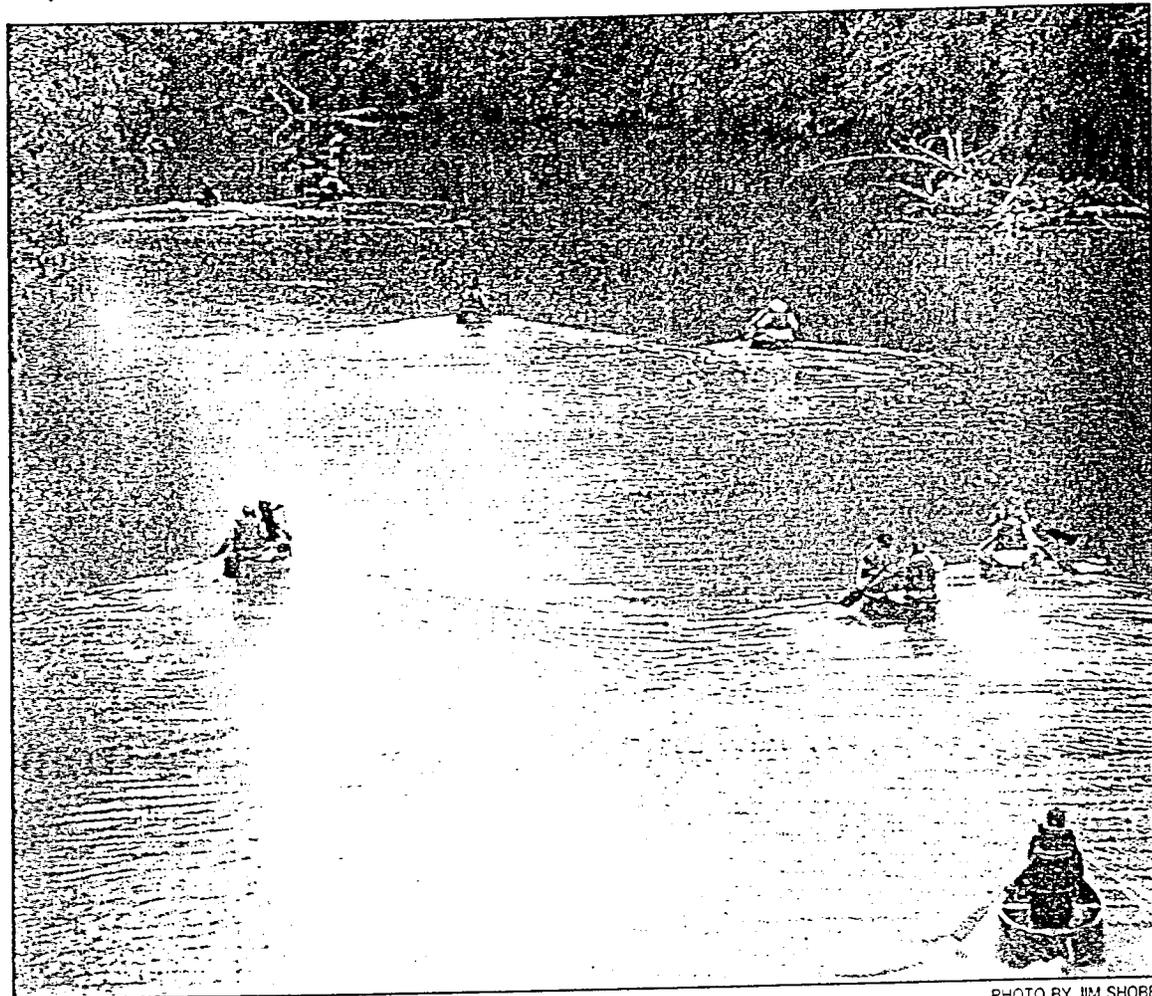


PHOTO BY JIM SHOBE

Canoes float down the Sandusky River during Tuesday's outing.

enjoying the scenery when all of a sudden I was in the river!

Our little "swim" a few miles downstream from Heck's Bridge added some excitement to the day. Afterwards, neither of us was sure what happened.

That's canoeing for you.

(I think Clark just wanted to try out his life jacket. He said he'd had it for years and had never had a chance to try it out.)

A big thank you to the people who helped us right our canoe. In all the excitement, I don't remember who you are.

For me, the tip-over wasn't a big deal. I'd been there before. When you take chil-

interest seems to be spending as much time in the river as possible.

I'm not sure of Clark's opinion of the adventure, but I'm sure he'll remember it well into the future.

After lunch in the yard of the Ruffing Family Care Center on CR 6 near St. John's Dam, the trip continued below the dam.

In the afternoon, I shared a canoe with my daughter, Sarah. We had a beautiful, uneventful float to the Boy



VICKI HUNKER

we had to get out.

I personally enjoy the more scenic area below the dam because it's a more natural setting.

One of the afternoon's highlights was a bald eagle soaring high over the river. I wouldn't have noticed it, except Monica Ostrand pointed it out. Thanks, Monica.

Plans are for the canoe trip to make its rounds in Sandusky, Wyandot and Crawford counties. The next time you get the chance, take time to spend a day on the river.

Thursday, October 12, 2000

## Voice of the People Participants in Sandusky River Tour focused on preserving the river

As a state representative, I am fortunate to meet individuals on a daily basis who strive through their work or volunteering to make Seneca and Sandusky counties a better place to live.

This past July, I was involved with the Sandusky River Tour 2000 and had the opportunity to work with a number of such individuals.

The tour brought together state agents, elected officials and private individuals and organizations for the purpose of raising the public's awareness of the issues affecting the river. We had approximately 35 people participate in the canoe float down the river, while over 60 people attended the lunch session.

We discussed the impact of the Kirby tire fire, questions surrounding the County Road 90 Landfill, the future of St. John's Dam, and how to preserve the river as a raw-water source. We also focused on benefits the river provides to the region, such as the large bald eagle population, diversity of fish and other aquatic life and the recreational opportunities available.

Everyone had a wonderful time and I have received nothing but positive feedback. To this we owe quite a bit to Bob Vargo, Northwest Ohio Scenic River coordinator, and Monica Ostrand, Sandusky River Watershed Coalition director.

However, as with all events, its success is due to everyone involved: The local businesses and organizations, who donated to the event; Steven Scherger, my administrative aide who publicized it; the Heidelberg Water Quality Lab and the Smallmouth Bass Alliance, which shared their knowledge; and officials and residents who participated.

The Sandusky River is one of Northwest Ohio's most valuable resources and everyone must work together to preserve the clean drinking water it provides and the wonderful habitat it offers to a diverse population of species. It was encouraging to see so many people take an interest in the river and I look forward to next year's tour.

Rex Damschroder  
State Representative  
89th House District

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BELLEVUE GAZETTE  
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PM-CIRC. 3,114

SEPT-19-00

## Water monitoring is event focus

<sup>264</sup>  
SANDUSKY — Residents in the Sandusky River Watershed Coalition area are invited to participate in a water monitoring workshop at 5:30 p.m. on Wednesday, Sept. 20, at the Radisson Harbour Inn, 2001 Cleveland Ave., Sandusky.

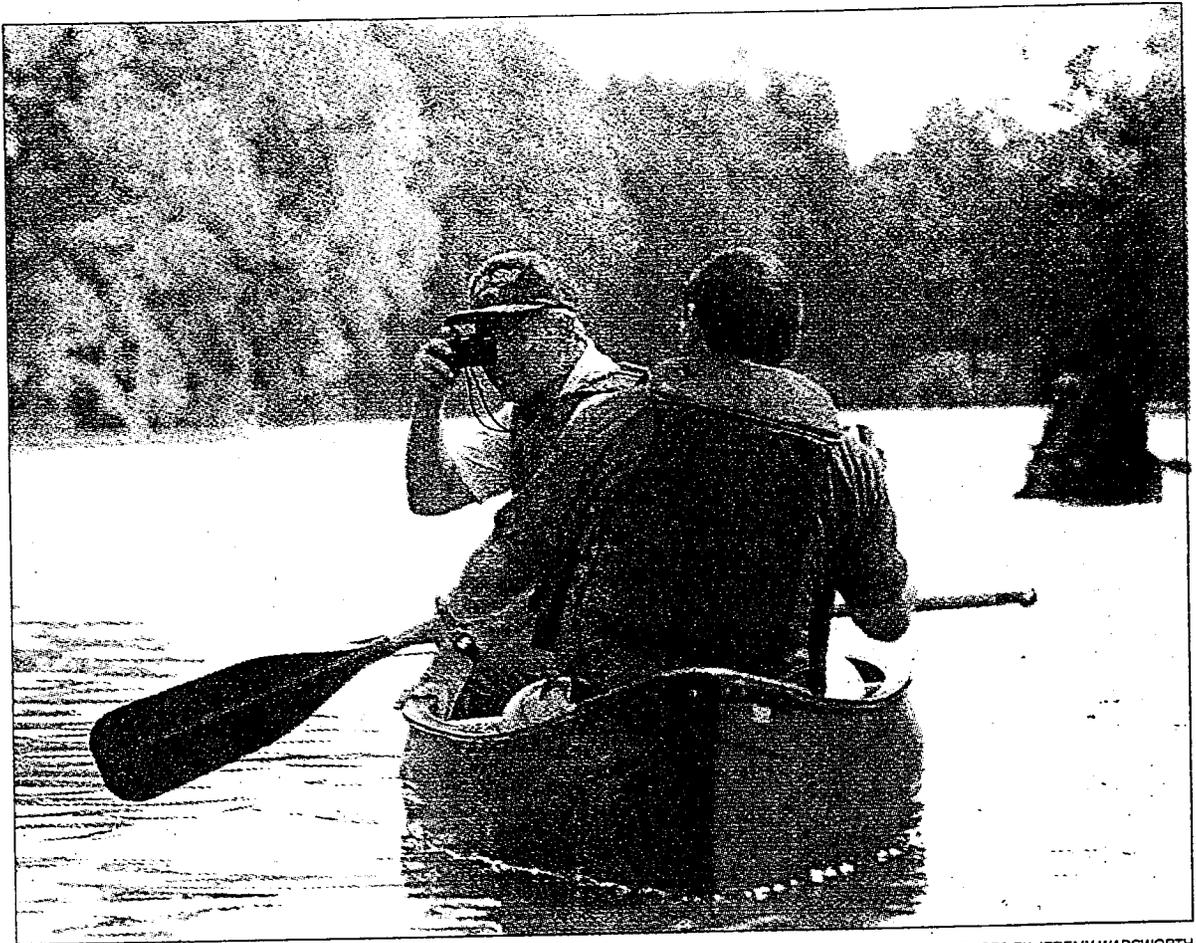
The Citizens Lake Awareness & Monitoring (CLAM) program, which is sponsored by the Ohio Lake Management Society (OLMS), is offering the workshop to encourage residents to take an active role in learning about aquatic ecology, lake and stream quality, and watershed management. CLAM receives and monitors information on Ohio's lakes and watersheds, provides interested citizens with opportunities to meet other concerned citizens, as well as skills to monitor water quality and mentor other participants. It also produces a newsletter with informative water-related articles and an annual report on the lake and/or stream in the area. OLMS assesses the health of Ohio's waterways and provides water quality data to state agencies, lake managers, and interested organizations.

WSOS Community Action Commission Inc. administrators line Sandusky River Watershed Coalition through its Great Lakes Rural Community Assistance Program (GLRCAP). The watershed coalition works in collaboration with other organizations in Ohio such as CLAM the deal with the state's water-related issues.

CLAM encourages residents to become involved in monitoring water in the Sandusky River watershed. Residents can volunteer and/or participate in the workshop on Sept. 20. Attending the workshop does not obligate participants in any way.

To register for the workshop and for directions to the location, call Oleskewcz at (440) 708-2439.

*'For me, it's important to see the issues firsthand. It's the same as when I fly in a plane — I can see it from a different angle.'*



BLADE PHOTO BY JEREMY WADSWORTH

State Rep. Rex Damschroder stops to take a photograph while riding down the Sandusky River in a canoe.

# Canoes give officials a gander at the Sandusky

**BY KIM BATES**  
BLADE STAFF WRITER

TIFFIN — State Rep. Rex Damschroder left his airplane at home yesterday to paddle a canoe along a seven-mile stretch of the Sandusky River.

About 30 other officials joined Mr. Damschroder (R., Fremont) and residents on the canoe tour, which stopped near the St. John's Dam and the defunct Tiffin landfill.

The visit was prompted because of increasing environmental concerns and public disputes involving the wa-

terway, a Lake Erie tributary.

Officials wanted to showcase the river's attributes, namely a highly visible bald eagle population along its banks.

"We would hate to be remembered as the people who killed the river in 1999," Mr. Damschroder said.

"Over the last year, we've had so many river issues. I thought it would be nice to take a canoe out. For me, it's important to see the issues firsthand. It's the same as when I fly in a plane — I can see it from a different angle, a different perspective."

The river's latest troubles began

nearly a year ago when a fire at Kirby Tire Recycling, Inc., burned at least five million tires, spewing smoke in the air and polluting a nearby creek.

The fire, which was intentionally set on Aug. 21, produced runoff that killed thousands of fish in Sycamore Creek, which runs into the Sandusky River.

Tests of the river, the main source of drinking water for the cities of Fremont and Tiffin, have shown no contamination.

But Mr. Damschroder said the Kirby fire should serve as a warning of

See CANOE, Page 2 ▶

7-19-00

Toledo Blade

# Canoe

► *Continued from Page 1*

future environmental disasters. He said officials should continue monitoring Tiffin's abandoned landfill, which is near the river.

That landfill has not affected the regional water supply, but a major cleanup is needed, Tiffin Administrator Wayne Stephens said.

He said the city has submitted draft plans to the Ohio Environmental Protection Agency on ways it will clean up leachate, remove water in trenches, and cap the dump, which was closed in 1972.

Even as those issues were being discussed yesterday, local officials were promoting the river — a valuable asset to many northwest Ohio communities.

Robert Vargo, northwest Ohio scenic river coordinator for the state, said the Sandusky River has the highest number of bald eagles found along any Ohio waterway.

In addition, the river is home to six varieties of red horse suckers,

two of which are considered endangered species, he said.

Much of the river south of Tiffin remains undeveloped because it's partially surrounded by a 250-acre state nature preserve, he said.

"It's not all doom and gloom," Mr. Vargo said. "There are a lot of recreational activities here."

But even recreational matters have caused problems on the river.

Late last year, a group was formed to help save St. John's Dam, which is owned by the Ohio-American Water Co. The company, which provides drinking water to the city of Tiffin, wants to distance itself from the leaking dam rather than pay \$300,000 to repair it.

Most state and environmental agencies favor removing the dam and returning the river to its natural state. But residents and other people who depend on the deep water for business do not want the dam removed.

A similar dispute erupted earlier this year over the possible removal of the river's Ballville Dam near Fremont.

No decisions have been made about either dam.

A-T 7/11/00

## Public invited to attend the Sandusky River Tour 2000

Participants are being sought for Sandusky River Tour 2000. Organized to raise awareness regarding the importance of the Sandusky River to the area, the event will bring state and local agencies, elected officials and the public together to discuss the impact the river has on Seneca County and what role the resource will play in the future.

The July 18 tour will be a canoe float from the Howard Collier Scenic River Area near Heck's Bridge on TR 28 to the Boy Scout Camp located near

the closed CR 90 landfill, according to a statement from State Rep. Rex Damschroder, R-Fremont, the Ohio Department of Natural Resources-Division of Natural Area and Preserves' Scenic Rivers Program and the Sandusky River Watershed Coalition.

The canoe float will launch around 9 a.m. and is expected to last until 4 p.m. A complimentary lunch will be provided around noon at the Ruffing Family Center beside the St. John's Dam on CR 6. During the two-hour lunch break, par-

ticipants will partake in one of several roundtable discussions regarding issues such as the future of St. John's Dam, the environmental and health impact the Kirby Tire Fire and CR 90 landfill have had on the river, and the future of the river as a source of raw water.

Interested persons are welcome to participate in any portion of the Sandusky River Tour 2000. However, those wishing to take part in the canoe float will have to provide their own canoes and equipment. Participants should bring rain gear,

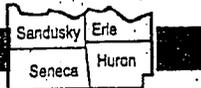
appropriate footwear, insect repellent, suntan lotion, and other clothing and equipment fitting for the day's weather. Should the canoe float be cancelled due to rain or the water level of the river being dangerously high, the lunch and discussion session will still be from noon to 2 p.m.

Participants must RSVP by Friday to Robert Vargo, the Northwest Ohio Scenic River coordinator. He can be contacted at 419-981-6319 or by e-mail at bobvargo@bright.net.

SATURDAY, JULY 15, 2000

334-8943

LOCAL



## Sandusky River Tour is Tuesday

TIFFIN — State Rep. Rex Damschroder (R-Fremont), the Ohio Department of Natural Resources Division of Natural Areas and Preserves' Scenic Rivers Program and the Sandusky River Watershed Coalition will host the Sandusky River Tour 2000 on Tuesday, July 18.

Organized to raise awareness regarding the importance of the Sandusky River to the local area, the event will bring state and local agencies, elected officials and the general public together to discuss the impact the river has on Seneca County and what role the resource will play in the future.

The tour will be comprised of a canoe float in southern Seneca County from the Howard Collier Scenic River Area near Heck's Bridge on Township Road 28 to the Boy Scout Camp located near the closed County Road 90 landfill. The canoe float will launch around 9 a.m. and is expected to last until 4 p.m.

A complementary lunch will be provided around noon at the Ruffing Family Center beside the St. John's Dam on County Road 6. During the two-hour break, participants and officials will partake in several discussions regarding issues such as the future of the St. John's Dam, the environmental and health impact the Kirby tire fire and the County Road 90 landfill have had on the river, and the future of the river as a source of raw water.

Should the canoe float be cancelled due to rain or the water level of the river being dangerously high, the lunch and discussion session will still be conducted from noon until 2 p.m.

For information, contact Steven Scherger, 614-466-1374, in the office of Rep. Damschroder.

ADVERTISER TRIBUNE  
TIFFIN, OH  
PM-CIRC. 11,760

# Watershed coalition gets grant

384  
BY VICKI HUNKER

Staff Writer

The Sandusky River Watershed Coalition has received a \$192,000 grant to make coordinator Monica Ostrand's job full time. The total will be distributed during the next six years.

The grant was awarded by the Ohio Department of Natural Resources Division of Soil and Water Conservation through WSOS Community Action Commission, which the watershed coalition is a part.

"The non-profit organization successfully applied for a watershed coordinator grant to lead a diverse partnership of farmers, landowners, industry and the Heidelberg Water Quality Lab," according to an announcement from the Division of Soil and Water Conservation.

“  
The project has  
laid a lot of  
groundwork  
with a half-time  
coordinator ...  
(It's) expected to  
accomplish  
significant work.”

”  
ODNR  
Division of Soil  
and Water  
Conservation

“The project has laid a lot of groundwork with a half-time coordinator paid through a Lake Erie Protection Fund grant. With the right implementation partners on board, this project is expected to accomplish significant work.”

The local watershed coalition's grant was

one of 21 similar grants awarded by the division totaling \$800,000 for the first year. They are the first in more than \$4 million to be awarded over the next six years. Funding will come from the Division of Soil and Water Conservation, the Division of Mineral Resources Management and the Ohio Environmental Protection Agency.

The overall goal of the grant program is to create permanent positions in local governments, non-profit organizations or other non-governmental organizations to plan and implement watershed programs to restore or protect water sources.

As part of the program, the Division of Soil and Water Conservation has hired a watershed coordinator to work with coordinators of local programs.

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NEWS MESSENGER  
FREMONT, OH  
PM CIRC. - 14,684

## JUNE-10-00 Heinz supports river coalition

384 Heinz USA recently became the first corporate contributor to the Sandusky River Watershed Coalition.

On May 15, Heinz awarded WSOS with \$1,000 toward the coalition which looks to ensure the long-term economic viability of water resources in the Sandusky River, including sufficient quantity and quality.

While many watersheds in Ohio have seen water quality improvements related to point source reductions of pollution, water quality in northwest Ohio has not experienced the same recovery. Though drinking water quality is good in most cases, the City of Fremont has noted violations of nitrates that exceed the maximum contaminant level for regulated pollutants.

The Sandusky River Watershed Coalition is a collaborative group working to improve the water quality of the watershed.

## Watershed Coalition meetings scheduled

The Sandusky River Watershed Coalition will hold a series of meetings to give residents an opportunity to voice concerns over water issues.

"The priorities set at these meetings will be the building blocks for the watershed management plan," said coalition coordinator Monica Ostrand. "This is your chance to shape the direction of voluntary compliance verses being a victim of regulatory enforcement."

The Sandusky River watershed lies on 12 counties, and the coalition will hold 11 meetings.

Residents in Sandusky County are asked to attend the meetings in Green Springs or Fremont.

The meeting in Green Springs will be from 1 to 3 p.m. March 28 at the Green Springs Village hall, 120 Catherine St. The meeting in Fremont will be from 6 to 8 p.m. March 28 at the Brady Building, 219 S. Front St.

For more information on the meetings or the coalition, call 334-5016.

MAR-12-00

# Watershed meetings start Tuesday to collect information and ideas

BY VICKI HUNKER  
Staff Writer

A series of meetings to collect information and ideas from residents about the Sandusky River will start Tuesday and continue through March.

"We want everyone with an opinion to have an opportunity to contribute to the discussion and brainstorming session," said Sandusky River Watershed Coalition Coordinator Monica Ostrand. "The priorities set at these meetings will be the building blocks for the watershed management plan. This is your chance to shape the direction of voluntary compliance versus being a victim of regulatory enforcement."

Ostrand said the Sandusky River watershed lies within 12 counties. To address local

issues within each area, 11 meetings are scheduled to cover all the land area draining into the river.

Here's a list of meeting times and places:

- 1-3 p.m. Tuesday, Bareis Science Hall/Frost Lecture Hall (B101), 310 E. Market St., Tiffin, for Fosteria, Bettsville, New Riegel and Bascom.
- 6-8 p.m. Tuesday, same place, for Tiffin, Republic and Old Fort.
- 6-8 p.m. Wednesday, Golfed Nature Center, 9783 CR 330, Upper Sandusky, for Upper Sandusky.
- 1-3 p.m. Thursday, Marcellles United Methodist Church, 20273 Walnut St., Upper Sandusky, for Marcellles and Harpster.
- 1-3 p.m. March 20, Carey

Building basement conference room, 219 S. Front St., Fremont, for Burgoon and Fremont. Residents from the listed communities and surrounding areas are encouraged to attend and participate in discussion. A representative will be chosen from among people attending each meeting to participate in the full coalition meeting this spring.

"By offering meetings at 11 different locations around the watershed, we will be better able to address local issues than if trying to tackle all at once. With input from you and other concerned residents, we will develop a plan for local action to solve local problems," Ostrand said.

The coalition was initiated in 1997 by Dave Baker, retired

director of Heidelberg College Water Quality Laboratory.

Since then, the coalition has produced a Sandusky River Watershed Resource Inventory, which contains detailed information about water quality. Copies of the inventory will be available at the meetings and some will be available for distribution. Call ahead to reserve a copy. The goals of the coalition are: to provide leadership in educational efforts on water related issues; identify water related resources and resource materials currently available; expand public awareness and knowledge of the important role of the river, past, present and future development of our area.

Coalition partners are Heidelberg College, Ohio State University Extension, Soil and

# Water Conservation Districts, Natural Resources Conservation Service, Erie Basin RC&D, Ohio Department of Natural Resources Division of Wildlife and Scenic Rivers, Sandusky County Park District, Ohio American Water Co., Ohio EPA and the administering agency, WSOS Community Action Commission Inc.

Water Conservation Districts, Natural Resources Conservation Service, Erie Basin RC&D, Ohio Department of Natural Resources Division of Wildlife and Scenic Rivers, Sandusky County Park District, Ohio American Water Co., Ohio EPA and the administering agency, WSOS Community Action Commission Inc.

Guest speakers for the meetings include Baker; Robert Vargo, Scenic Rivers; Cory Hohnman, Seneca County SWCD; Becky Duncan and John Crumrine, NRCS; Julie Ward, WSOS; Kurt Erichsen, TMACOG; and Becky Kibler, Concerned Citizens for Central Ohio. For more information on the watershed coalition or any of the meetings, call Ostrand at (419) 334-5016.

Coalition partners are Heidelberg College, Ohio State University Extension, Soil and

its other articles

The AFS students are available for speaking to service clubs and organizations in the area. For more information, call Jeff or Theresa, co-presidents at 334-8088.

### Watershed Coalition Gets Coordinator

With funding from the Lake Erie Protection Fund, the Sandusky River Watershed Coalition has hired Monica Ostrand of Bowling Green as its coordinator.



Watershed Coalition Coordinator  
Monica Ostrand

Ostrand is a graduate of Knox College, Illinois, with a bachelor's degree in ecology. Before her appointment as Watershed Coalition Coordinator, she worked as a Northwest Ohio quality monitoring coordinator of the Ohio Scenic Rivers Program at the Howard Collier Nature Preserve in McCutchenville; and as a naturalist for the City of Bowling Green.

"I'm really excited to get a position with a nonprofit organization, especially one that's community oriented," said Ostrand.

One of her first goals as coordinator is to increase participation in the stewardship of the river, she said. Then, she plans to begin programs that will make real improvements in the health of the Sandusky River, which in turn will help Lake Erie.

The Watershed Coalition has existed for the past two years, but before the Lake Protection grant, it did so on a voluntary basis. Ostrand said she was a member of the volunteer committee and is familiar with the work of the coalition. The coalition received funding effective November 1.

The objectives of the coalition are to develop a watershed management plan that includes education and involvement of the public and to create a clearinghouse for watershed related activities.

The watershed management plan is to reduce and abate pollution from the Sandusky Watershed to Lake Erie with the hope of restoring natural hydrologic functions to Lake Erie coastal waters, watershed wetlands, tributaries and mainstreams.

There are 63 participants in the coalition representing 38 organizations in Sandusky, Seneca and Wyandot Counties.

For more information on the Coalition, call 334-5016, or toll free 1-800-775-9767.

### River Watershed Coalition to Solicit Input From Communities

In March, the Sandusky River Watershed Coalition will conduct a series of 9 meetings in the smaller communities of each of the Sandusky River watershed area in order to hear residents' concerns about preserving the quality of the Sandusky River.

The coalition, which was established in August 1997, has taken the first steps toward solidifying its goals with the help of a \$122,000 grant from the Lake Erie Protection Fund. It has been developing a resource inventory, which will be shared at a coalition meeting scheduled for 7 p.m. on January 27 at the Seneca County Fairgrounds, Tiffin. The grant also allows the coalition to move forward with identifying problems, finding solutions, and assisting with the developing abatement programs.

Monica Ostrand, Coordinator of Sandusky River Watershed Coalition said she would like area residents, the agricultural community, government officials, health department representatives,

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conservation organizations, the educational community and any other interested people to get involved in the planning process in their area. Specific dates and times of the meetings will be announced later.

"Each community's section of watershed is affected in a different way by what takes place on their land," said Osterand. "So, the people in each region need to get involved to voice their concerns and opinions."

Made up of a diverse group of citizens and organizations, the coalition is dedicated to the preservation and enhancement of the quality of the Sandusky River and its watershed while keeping people's needs in the forefront. Its goals are to develop a watershed management plan that includes education and involvement of the public and create a clearing house for watershed activities. It also hopes to generate an increased awareness of the river and the vital role it plays in the economic, social and environmental well-being of the area. The watershed management plan is to reduce and abate pollution from the Sandusky River watershed to Lake Erie with the hope of restoring natural hydrologic functions to Lake Erie coastal waters, watershed wetlands, tributaries and mainstreams.

Sandusky River Watershed extends over 384 square miles covering 12 counties and 218,000 people. The counties included in the watershed area are: Crawford, Erie, Hancock, Hardin, Huron, Marion, Ottawa, Richland, Sandusky, Seneca, Wood and Wyandot. The river itself is 130 miles long and there are 1,177 miles

of perennial rivers and streams. All rivers and streams total 2,575 miles. Agriculture occupies 83 percent of the land in the watershed area while only 2 percent is urban, 2 percent is water/wetlands, 12 percent is woodland and 1 percent is used for other purposes.

For more information on the coalition, call 334-5016 or, toll free, 1-800-775-9767.

## Funds Available to Aid the Homeless

WSOS Community Action Commission Inc. has been awarded a \$871,738 Homeless Assistance Continuum of Care grant from the U.S. Department of Housing and Urban Development. The grant will allow the organization to serve 208 homeless individuals and families in its four-county service area of Wood, Sandusky, Ottawa, and Seneca Counties.

"Thanks to a number of community partners, we were successful in being funded," said Family Services Director, Cheryl Moreno-Denny.

Those partners are the Ottawa County Housing Collaborative, the Home-Aid Coalition of Wood County, the Seneca County Housing Coalition and the Sandusky County Homeless Coalition, in addition to the Ottawa County Transitional Housing Inc., which applied for funding for its domestic violence programs under the WSOS umbrella. WSOS actively participates in each of these collaboratives and/or coalitions by having staff members

serve on the boards of each of these groups.

Those served with funds from this grant are served through WSOS's Homenet Program. The collaborative and coalitions refer participants to the Homenet Program.

"We are only one piece of the comprehensive web of services provided to the homeless," said Moreno-Denny. "These funds will help fill the gaps where other services might not be available."

The funding, which is a three-year grant, will allow WSOS to continue to provide services to those who find themselves homeless. WSOS has operated the Homenet Program since 1997. The program provides transitional housing, rental assistance, and supportive services for individuals, couples, and families who meet the government's definition of homeless. Those served by this program in the past are those who were living in the streets, the local homeless shelter, their car, motel, campground, or any other transitional housing.

Homenet works with a homeless person to find housing, a job, and acquire the skills necessary to avoid repeating the homeless situation. The program provides flexible support. Homeless families receive help in the community of their choice. This allows children to stay in school, and if parents are employed, it helps them to keep their jobs. Emphasis is on long term housing and employment solutions, which can permanently remove families from homelessness. Participants must be willing to be a partner in the effort to improve their living conditions.

"We help them to develop a road map to self-sufficiency," said Moreno-Denny.

The grant includes \$201,230 that is earmarked for the Ottawa County Transitional Housing Inc. to serve women, and women with children who are homeless due to domestic violence. This project is designed to promote self-sufficiency also.

For more information on the Homenet Program or any of WSOS's services, call 334-8911, or toll free at 1-800-775-9767.

## FOUR COUNTY BELLEVUE BRIDAL FAIR 2000

This year, the Bellevue Bridal Fair is being held at the VFW hall on Route 20 east of Bellevue. The show will run from 11:00 a.m. to 2:00 p.m. on Sunday, January 16.

The Bridal Room from Elyria will be handling the fashion show. The Bridal Room is an outlet store for their Parma

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Saturday, January 22, 2000

A3

## Watershed Coalition seeking public input

By MICHAEL BRICE

Staff writer

The Sandusky River Watershed Coalition is seeking public input in an effort to preserve the quality of the Sandusky River.

The coalition will meet at 7 p.m. Jan. 27 at the public safety building at the Seneca County Fairgrounds in Tiffin to present highlights from the Resource Inventory.

The Resource Inventory is a detailed publication de-

scribing the land, water and biological resources, aquatic life, water supply, recreation use and pollution.

In addition to next week's meeting, the coalition will hold a series of 11 meetings in March with specific times, dates and locations announced later.

The coalition, which was established in August 1997, received a \$15,000 grant from the Ohio Environmental Protection Agency to publish the

Resource Inventory, said Monica Ostrand, coalition coordinator.

And with the help of a \$122,000 grant from the Lake Erie Protection Fund, the coalition hopes to take the next step in forming its goals.

The Lake Erie Protection Fund grant allows the coalition to identify problems, search for solutions and assist with developing abatement programs, Ostrand said.

Ostrand said she hopes area residents, the agricultural community, government officials, conservation organizations and residents get involved in the planning process.

"Each community's section of watershed is affected in a different way by what takes place on their land," she said. "The people in each region need to get involved to voice their concerns and opinions."

### About the watershed

The Sandusky River Watershed extends over 1,884 square miles covering 12 counties and 218,000 people. Counties included in the watershed are Sandusky, Ottawa, Crawford, Erie, Hancock, Hardin, Huron, Marion, Richland, Seneca, Wood and Wyandot.

The river is 130 miles long, with 1,177 miles of tributaries rivers and streams.

Agriculture occupies 83 percent of the land in the watershed area while 2 percent is urban, 2 percent wetlands, 12 percent woodlands and 1 percent for various other uses.

For more information on the Sandusky River Watershed Coalition, call (419) 334-5016 or 1-800-775-9767.

# It was a singing good time



## Morse Code classes offered; FCC changes licensing structure

News-Messenger reports

The Sandusky Valley Amateur Radio Club is sponsoring C.W. Morse Code classes from 7 to 8 p.m. Mondays beginning next week.

The classes will run through March in the lower level of the Sandusky County Jail complex. Classes are for

words per minute for two of the three license classes.

An entry level or "Technician" class license does not require a Morse code test. In the previous license structure, Morse code requirements for the upper license class had been 13 and 20 words per minute.

The Sandusky River Watershed Coalition, which has members from nine counties, is working to preserve the beauty and usefulness of the river.

# River watershed coalition plans to hear public input on Sandusky

BY VICKI HUNKER

Staff Writer

**A**fter 2 1/2 years of gathering information, the Sandusky River Watershed Coalition is getting ready to set some specific goals to improve the river's quality.

"We're all affected by the water quality, but not all of us have a say in decision making," said Monica Ostrand, coalition coordinator. However, at meetings scheduled for March 2000, she said everybody will have

## Sandusky River watershed facts:

- The river is 130 miles long.
- There are 2,575 miles of rivers and streams that drain into the river.
- The watershed includes 1,884 square miles or 1.2 million acres.
- 218,000 people live within it.
- Land use includes: 83 percent agriculture; 12 percent woodland; 2 percent urban; 2 percent wetlands; and 1 percent other.
- Seneca County has the greatest percentage of the watershed within its bounds at 28.5 percent. Second is Wyandot with almost 20 percent, followed by Sandusky County with 17.4 percent and Crawford with 16.6 percent.
- Other counties in the watershed are Erie, Hancock, Hardin, Huron, Marion, Ottawa, Richland and Wood.

chance to voice their opinions and let the coalition know what they feel are the most important aspects to preserving the Sandusky.

Ostrand said a few examples of issues concerning the river are safe drinking water, recreation and ecology.

"There's a whole living community," she said. "A river is made of living things."

The coalition received a \$122,000 grant in November from the Lake Erie Protection Fund to hire a coordinator and provide project funding.

"(The money) is really to help the objectives and goals of the coalition," Ostrand said.

As the new coordinator, she said she's spent her first month familiarizing herself with the coalition and its purpose.

At a meeting tentatively scheduled for Jan. 27, the coalition will unveil its resource inventory, which members have been working on since the coalition was formed in August 1997.

After coalition members review the inventory, Ostrand said 11 meetings will be conducted in March — one in each of the "sub-watersheds" within the larger Sandusky River watershed. Regional meetings have been scheduled because each area might have different concerns.

The meetings will include nine counties, but the main four counties are Seneca, Sandusky, Wyandot and Crawford.

"We want to have (the meetings) before planting season because we want the agriculture community there," she said. "And we wanted to have them after winter so people are ready to get out and we have a good turnout."

Ostrand said she would like landowners, the agricultural community, government officials, health department representatives, conservation

## Coalition goals:

1. Provide leadership in educational efforts on water-related issues.
2. Identify water-related resources and resource materials currently available.
3. Expand public awareness and knowledge of the important role of the river: past, present and future development of our area.
4. Write a watershed management plan for the Sandusky River.

organizations, the educational community and any other interested people to attend.

"I'd like to get a lot of participation at the sub-watershed groups," she added. "This is a pretty big deal, I think. We're going to the places where the problems are occurring to find solutions.

"It's what the community wants, all the people together," she said.

"A lot of it is coming up with ideas and deciding how to do it."

On a personal note, Ostrand said her vision is to provide clean, clear water in the river and all its tributaries.

"I remember growing up we had a creek behind our house and a creek in front of our house," she said.

She remembers sitting on a rock bridge overlooking the clear water meandering down the stream.

"That was a special spot," she said. "I think about how lucky I was to have that where I lived.

"I wish that for every child — to be able to play in the creek around their house and be safe. It's part of growing up, part of being a child."

# Study to give EPA 'a real good look' at the northern Sandusky River

By VICKI HUNKER

Staff Writer

The Ohio Environmental Protection Agency began testing last week for a comprehensive study of the northern part of the Sandusky River.

The study begins in the area of the CR 38 bridge and extends northward to the source.

The total maximum daily load study — also known as a TMDL — will study water, sediment, fish and insect larvae to determine the overall quality of the river and its major streams to identify problem areas.

Tom Balduf, supervisor of the EPA's Division of Surface Water, Water Quality Unit, at the Bowling Green office, said TMDL is a technical term.

"It's a real good look at the upper Sandusky River," he said.

Balduf said the Sandusky River was moved ahead on EPA's TMDL schedule because the Sandusky River Watershed Coalition is in place and interested in using the information after it's completed.

"It's a much better use of our resources if we have a group such as theirs to work with," Balduf said.

After the study is complete, the watershed becomes eligible to apply for grant money to alleviate any problems found.

The upper Sandusky River is the second Ohio river to be studied in this manner, he said. The upper Auglaize River, studied last summer, was the first.

Balduf said the point of the study is to look at all parts of the watershed.

He said most point sources — specific places where pollution is known to originate such as wastewater treatment plants and industrial plants — are being controlled for the most part.

However, most non-point sources — which are farm fields, general urban areas, parking lots — are more difficult to pinpoint.

"The TMDL is a way of doing that," he said.

The study will include 118 sites where the river or tributaries will be tested for chemical contamination.

In addition to the 118 chemical sites, there are 40 additional sites to test biological factors such as macroinvertebrates and fish.

Each site will be tested six times this summer, once every two weeks.

"They should be done by



PHOTO BY VICKI HUNKER

EPA environmental specialist Daniel Glomski pulls up a bucketful of water from Rock Creek, while intern Yvette Phillips waits to test it for oxygen levels and acidity.

the end of August or early September," Balduf said.

Chemical testing includes sampling for metals like iron, chromium, calcium and strontium to name a few, as well as arsenic, cadmium, lead and selenium. Chemical testing also includes nitrites, phosphorus, acidity and other factors.

"At the end of the summer, we'll have a baseline of river quality and how much of certain substances the river can handle safely," Balduf said.

After the actual river sampling is finished, he said a computer model will be created. The model will add flow data and other information.

"It will predict what the conditions in the river would be at any given time," he said. "The model will be able to tell how much the river can hold and still be a healthy river."

During testing, teams of two or three people collect samples at 12-15 sites each day.

For example, during last Thursday's chemical study, a team of two people — environmental specialist Daniel Glomski and summer intern Yvette Phillips — worked together taking water samples.

“  
At the end of the summer, we'll have a baseline of river quality and how much of certain substances the river can handle safely.”

Tom Balduf  
EPA

After samples are collected, they are placed in plastic bottles, preservatives are added to some of them and they are all placed on ice in plastic coolers.

Each sample is marked with the location, date and whether or not a preservative was added. A preservative is needed to test for some contaminants, while it hinders the testing for others, Glomski said.

After the day's sampling is complete, Glomski said the samples are shipped overnight to EPA's lab.

Although samples are being taken this summer, a report on the results isn't expected until this winter.

"It'll take longer to get back the biological results," Balduf said, because it takes the lab longer to conduct tests. "It takes two years from the preliminary stage until we have the final report. We're just getting started."

The final report will include actual information from the study, information from computer modeling and information collected from the watershed coalition and individuals who live in the watershed.

"We can't do it without local people," Balduf said.

Anyone with information or concerns that might be helpful to the study is invited to call Susan Aman at (614) 644-2160.

Balduf said EPA depends on local people to report on such topics as areas that flood in the spring or dry up in the summer.

# Coalition favors new city reservoir City Council hears report

By SHAWN GAINER  
Staff writer

Building a reservoir is Fremont's best option for guaranteeing a safe and reliable water supply, a representative of the Sandusky River Watershed Coalition told a City Council committee Thursday night.

In a presentation to the Environmental-Citizen Service Committee about water supply and water quality issues, SRWC Coordinator Monica Ostrand said silt buildup has reduced the water-holding capacity of the Ballville Dam reservoir by 78 percent.

"There are droughts that happen," Ostrand said before City Council's regular meeting. "It's then that Fremont has concerns about water quantity."

Ostrand said she sees building a new reservoir as an additional water source as the city's best option, although dredging is another. She said another reservoir could be used during times of elevated nitrate levels and sediment levels in the river are high enough to increase water treatment costs. Also, it could create recreation opportunities.

Ostrand did not advocate removing the Ballville Dam, a move that has been favored by the Ohio Department of Natural Resources

in order to restore walleye spawning grounds further upstream.

Fremont Mayor Terry Overmyer has said the city needs a reservoir to protect the water, but removing the dam and building a new reservoir would likely be too expensive without state and federal assistance. A more feasible option, Overmyer said, would be to keep the dam and build a small up-ground reservoir so the city would have two sources.

Under federal legislation passed last year, the U.S. Army Corps of Engineers was authorized to study the feasibility of carrying out projects for water supply and environmental restoration at the Ballville Dam.

At this point, the only information from the study that has reached the city concerns the sedimentation in the Ballville Dam reservoir, Overmyer said after the meeting.

In other City Council action:

- Members approved an Enterprise Zone agreement with Calpine Inc., which plans to build a natural-gas fired electric generation plant. Calpine would receive a 100 percent real and personal property tax abatement for 10 years. In exchange, the company would create a minimum of 20 full-

time jobs within two years of plant construction.

Also, Calpine will make annual payments for 10 years as follows: \$676,000 to Fremont City Schools, \$24,000 to Vanguard Career Center and \$120,000 to the city.

- Members approved an agreement with the Sandusky Township Sewer District that provides for two additional tie-ins to transport waste from the district to the city sewer treatment plant.

- Members adopted an ordinance to accept a design-review committee recommendation for the boundaries of the Downtown Historical District.

The district is part of the city's fledgling Main Street Fremont program, which is designed to rehabilitate the downtown area and enhance marketing, business recruiting and appearance. The historical district incorporates new rules governing future changes to colors, awnings, signs and landscaping of downtown buildings.

The district includes 250 parcels of property in the downtown area.

Contact staff writer Shawn Gainer at 334-1049 or [sgainer@fremont.gannett.com](mailto:sgainer@fremont.gannett.com).

# City's nitrate advisory lifted

News-Messenger June 19, '01

News-Messenger reports

The City of Fremont today ended a nitrate advisory for city drinking water.

Federal regulations require the city to issue an advisory when nitrate levels in city water exceed 10 milligrams per liter on consecutive days.

The city issued the advisory after average levels of 17.3 milligrams per liter were recorded May 23 and May 24.

Nitrate levels have been below 10 milligrams per liter since Friday, Safety-Service Director Ken Myers said this morning.

"We felt safe in lifting the alert," Myers said.

As part of the advisory, residents were cautioned to use bottled water rather than tap water for making formula for infants or as a

source of drinking water for infants.

Nitrates are found in fertilizer and animal waste. They often enter waterways through agricultural activity. They can pose a health risk to infants less than six months old, as their bodies convert the nitrates to nitrites, which can impair the oxygen carrying capacity of blood.

Recent dry weather has probably contributed to a decrease in nitrate levels, which spiked in late May as a result of heavy rains to the south of Fremont, Myers said.

"Hopefully we'll be all right for a while," he said. "Sometimes it's hard to tell when we'll get it because it depends on where (farmers) are at in the fertilizing cycle."

basins within an agricultural watershed would tend to reduce flow amounts and decrease peak flows.

In similar fashion, channel modifications also can alter stream energies. Since channel length through any particular reach is a function of channel grade or slope, flow volumes and debris or sediment load, a change in any one of these influences available stream energy.

For example, if you straighten a meandering channel, the channel becomes shorter, the grade steepens, water moving through it has more energy and the resulting energy is expended on the stream-bank and streamed until sufficient debris or sediment is moved to regain equilibrium. In the long term, the stream will expend energy until it once again "feels comfortable" with its length, slope, and sediment balance.

With a knowledge of these processes, we can better understand how and why logjams form in channels and how their removal relates to the overall stream dynamic equilibrium. First, logjams have always occurred as streams flow back and forth across the landscape, naturally seeking channel equilibrium in response to varying storm events through the centuries.

A bank erodes, a large tree falls into the channel and subsequent storms flush the channel of other limbs, logs or sediment, which all collect in or around the fallen tree. The logjam then functions as a small dam which stores stream energy above it, energy which is slowly released or used to ultimately overtop the jam or, in many cases, scour a new channel around the jam.

Second, the frequency

tions only force energy further downstream.

To minimize their formation, we must encourage practices within the watershed which reduce the number and size of peak runoff events.

What then about the impact of logjam removal on stream dynamics? Generally, their removal would prohibit the temporary storage of energy above the jam, allowing that energy to move downstream at a quickened pace. The channel would then adjust length of slope to accommodate sediment load and flow.

While this would add somewhat to the rate of new logjam formation, the major determinant of their formation and the major source of stream energy remains the frequency and size of runoff events.

Thus, logjams might be removed where the risk to property damage is high, but each removal should be evaluated for downstream channel impacts. Once the logjam is removed, the stream will once again achieve dynamic equilibrium with its watershed and channel.

We just don't always know exactly how the stream will do it.

*John P. Crumrine is district conservationist with the Natural Resources Conservation Service*

5-31-01 A-T

# How stream dynamics effect "logjam management"

All streams are in ever-changing equilibrium with their channel and their watersheds. As a result, any changes or modifications within the watershed or within the channel can result in alteration of streamflows, the measure of the energy water has to transport sediment and erode stream-banks.

While rainfall amounts are the prime determinant of available stream energy, changes of land use within the watershed can significantly add or detract from stream energy. Conversion of a wooded watershed to one that is urbanized would measurably increase stream energies by causing both larger amounts of total runoff and higher peak flows.

On the other hand, the planting of trees, restoration of wetlands or construction of runoff control

and number of logjam formations increase directly with the number and size of peak stormflows routed down the channel. All that energy must go somewhere, so energy not dissipated within the floodplain is used to erode the channel downward or laterally into

the banks. This results in accelerated erosion of banks, the toppling of trees and the flushing of debris, thus more logjams.

In final analysis, what can be said about "logjam management"?

To minimize their formation, we must encourage practices within the watershed which reduce the number and size of peak runoff events.

(That's easier said than done in Northwest Ohio watersheds.)

The installation of runoff control basins in urbanizing areas would be one example of this approach. Eliminating encroachment of floodplains would be another option. Floodplains allow the release of stream energy by allowing water to spread laterally. Constric-



JOHN CRUMRINE

Handwritten signature or mark at the bottom of the page.

## Directors' Corner

### Housing & Energy - The state of gas prices

Many of you have had the opportunity to participate in the Gas Choice program, which gives Columbia Gas customers the option to buy gas from an approved supplier who participates in the Choice program.

Last year, natural gas prices reached an all-time high. Currently, prices have leveled out. As of August 17, the Columbia Gas rate is \$.79784 per CCf (one hundred cubic feet of gas). Other providers are close to this rate, and some offer fixed-price, one-year contracts a little lower. For example, Dominion East Ohio Energy offers a one-year fixed rate of \$.73668/Ccf plus sales tax. This offers marginal savings per year. The Public Utilities Commission's Apples-to-Apples chart estimates an average residential customer would pay \$924 from Columbia and \$897 from Dominion, at current rates.

The so-called experts cannot agree on the direction rates will go. Some feel prices will rise as the heating season approaches - and that's not far off. Others think recent increases in exploratory gas-well drilling will increase supplies, pushing rates down. Unfortunately, no one knows exactly what will happen.

To lock in the cheapest rate now (I recommend a fixed rate due to the volatile market in the past year), several companies provide modest savings compared to Columbia Gas. Note: if rates fall further, you will stay at the current rate. The advantage is if rates go up, you will be protected.

A new company, Midwest Energy Research Council (MERC), will be available to customers in the fall. MERC, of which WSOS is a board member, is in the process of setting up a gasbuyers co-op. It will be modeled after an existing co-op which averages 10 to 30 percent below prevailing gas rates in the past two years. That co-op price will be variable, but will be capped so that it never rises above the current gas cost recovery (GCR), which is a rate approved by the PUCO.

*This column appears in each issue of the newsletter, featuring a different program each time. Next will be Great Lakes RCAP.*



Director Don Corley

## Briefly ...

**New Directions Summer/After School Program** (ASP) will participate in a national campaign titled "Lights on" in October. Stay tuned for more information.

**The Annual Agency Fair** will take place Oct. 26 at PK's Banquet Hall, Fremont. This is always a great opportunity to learn more about all the services that WSOS provides. Make sure you attend. It could be helpful in your job.

**Make a Difference Day** is Saturday, October 27. Participating in this volunteer opportunity has earned WSOS \$100 in the past. This year we are seeking donations of children's books. Please call PR Director Joyce Huntley, 333-6017, for more information.

On **Grandparents Day** in September, Child Development and Senior Programs will collaborate to observe this event.

**Ottawa County Senior Programs** manned a booth at the Ottawa County Fair in July. It was the first time in the last 16 years that seniors had participated in the fair. Way to go, guys!

**Sandusky County Senior Programs** also did their usual stint at the Sandusky County Fair. The Country Steppin' linedancers entertained in the midway on Aug. 23. The seniors also sold baked goods and crafts at the fair.

## Phil Rutan honored for volunteerism

Eighty-eight-year-old Senior Programs Volunteer Phil Rutan was the guest of honor twice in one month for his volunteer work. Rutan, a 25-year volunteer, who has volunteered at the WSOS Fremont Senior Center since 1976, received the President's Award from the Area Office on Aging of Northwest Ohio Inc. in June. Three weeks earlier, he'd received the Medical Mutual of Ohio Outstanding Senior Volunteer Award at an awards ceremony in Toledo.

As a volunteer at the Fremont Senior Center, Rutan has served on almost every volunteer committee the center has. He has served meals to the seniors who eat at the center, he says the prayer and gives the patriotic salute at every event, he plays pool when the seniors visit with the School of Hope, and many other activities.

In the past, he has received the Hixson Award from the Fremont Kiwanis for his dedicated service toward the elimination of iodine deficiency, the Masonic Knights of York Cross Honors Award, and he is a member of the Sandusky County Senior Citizens Hall of Fame.

He and his wife live in Fremont.



PHIL RUTAN

### WSOS Mission Statement

We dedicate ourselves to creating opportunities that will help our community and all its members build a better future. We help individuals and families build skills to become self-sufficient and more fully participate in our community. We achieve this by developing projects and partnerships that allow people to help themselves.

money.

But that would have been the case if the problem had been addressed in the 1960s. And it still would be the case if action were to be postponed, something the Environmental Protection Agency would not be apt to allow.

It's a wonder that the EPA has not been tougher about forcing Tiffin to end the rainwater-induced overflows of its combined sewers into the Sandusky River.

Councilman Jim Boroff Tuesday night presented for discussion the possibility of an 18-percent rise in sewer rates to the needed improvements during the next 20-25 years. His concept would be to avoid millions of dollars in interest payments during that period that would result from borrowing to finance the projects.

His is an excellent notion.

Such ideas have been proposed before. If there had been action at the time, we might be witnessing the end of the sewer projects instead of the beginning.

Whether Boroff's idea is used, or another approach is chosen, it's time for a commitment to the task — from start to finish.

The council has put aside money for the engineering for one of the recommended projects. That should lead to action on the \$2.1-million new sanitary sewers in the North Sandusky-Tomb streets area.

Members of the council also should establish a long-term schedule for the rest of the recommendations, and develop a funding method.

And residents of the city should rally behind such actions.

It's time we all take responsibility for the ongoing water pollution and make sure it comes to an end.

531-01

EDITORIAL

A-7

# Pollution by sewers must be concluded

If you live or work in Tiffin, you're part of an organized pollution effort.

Harsh as that sounds, it's true.

And it will continue to be until many of the city's sanitary and storm sewers — in too many instances now one and the same — are replaced, upgraded and/or separated.

The shortcomings of the Tiffin sewer system have been known for years. They have been documented in eight comprehensive engineering studies prior to the new one that was completed this year.

Little was done — besides the commissioning of studies — until the Gibson Run sewer replacement in 1998.

Now the new study confronts the City Council, offering members an opportunity to establish a systematic solving of the sewer problems.

That's going to cost money ... big

↑  
Continued

# Sandusky River water quality scrutinized by state specialists

BY JIM SIELICKI  
BLADE STAFF WRITER

*Blade 5/21*

**TIFFIN** — The state is examining a section of the Sandusky River as part of its long-term study of water quality in Ohio.

Dan Glomski, an environmental specialist with the Ohio Environmental Protection Agency, said the study will help determine the source and quantity of pollutants, the effect on water quality, and ways to reduce the amount of pollutants flowing into

the river.

EPA specialists will look at chemical content, the diversity of fish and insects, and how the river is being used by the communities — as a source of drinking water or for recreation, for example.

The Sandusky River is one of 10 projects being undertaken in Ohio as part of a nationwide study of river water quality, said Katie McKibben, an EPA environmental specialist.

"The state has been doing this for

many years," Ms. McKibben said. "We are entering the process for a (total maximum daily load) study to assess whether the stream has impairments."

Beginning at the head waters near Bucyrus, EPA specialists will sample sites along the river and tributaries until reaching Abbott's Island north of Tiffin.

The project, expected to begin next month, involves monitoring through

See WATER, Page 2 ▶

## Water

▶ Continued from Page 1

the fall, followed by assessment of the data and publication two years from now, Mr. Glomski said.

"This is a long-term project," he said.

Heather Lauer, an Ohio EPA spokeswoman, said public education is an important component.

Because the agency does not regulate the runoff caused by small farms, education is necessary to convince landowners of the need to reduce runoff of farm chemicals or other pollutants.

"We really need to get local buy-in into this project," Ms. Lauer said. "We have chosen to involve local people from the beginning."

These include the county commissioners, soil and water conservation districts, and natural resource and watershed groups, she said.

Ultimately, property owners will be given the information and instructed on ways to mitigate or reduce pollution coming from their land, Ms. McKibben said.

"We want the landowners to take this information from us and put it to use," she said.

The EPA has available this year about \$6 million for education and direct aid to landowners.

The money, which comes from a federal appropriation under the Clean Water Act, can be used to match the money spent by the landowner on such things as no-till machinery or plantings that help reduce erosion and runoff.

## Sandusky River target of state study

### Ohio EPA plans to test water quality

By SHAWN GAINER  
Staff writer

An extensive Ohio EPA study of water quality in the Sandusky River will begin

this summer. The primary focus of the study is to assess pollutants, identify problem areas, then propose solutions in cooperation with landowners and communities. The process usually takes about two years from start to finish, said Heather Lauer, spokeswoman for the Ohio EPA.

"The ultimate goal is to improve the quality of the

streams," Lauer said. Tests for the lower (northern) portion of the watershed are not scheduled until 2009 but they may be moved up. Tests that will start in early June on the upper reaches of the river, from the headwaters to Abbott's Island north of Tiffin, were originally scheduled for 2004 but were moved up because of interest from the

Sandusky River Watershed Coalition, said Tom Balduf, water quality supervisor at the EPA Northwest District Office in Bowling Green. "We'd like to do it all at once but it's such a huge watershed, it's impossible to do it all in one season," Balduf said.

The tests in the upper reaches of the river and its tributaries, which should be

complete in spring 2002, will include the "full garnut," from water and sediment sampling to the distribution of fish and other aquatic species.

"They pretty well reflect the health of the river," he said.

Lauer said the study will include urban areas, roads and parking lots as well as agricultural land.

If problem areas are identified, the agency will try a cooperative rather than coercive approach with landowners and communities, she said. The agency has \$6 million in federal Clean Water Act funds to be used statewide to assist landowners and communities with conservation projects such

See OHIO, A6

## Ohio EPA will test water quality of Sandusky River

Continued From A1

as erosion prevention or separating combined sewer and storm water overflows.

"If we come in and say 'This is what you need to do, people aren't going to like that,' Lauer said. "Instead, we'll say 'This is what we see and here are some of the things that can be done to improve them.'"

The studies will fit well with the goals of the Sandusky River Watershed Coalition, which has the goal of writing a management plan to maintain the health of the river and its tributaries.

The coalition is also a forum for voluntary measures to improve water quality, said Monica Ostrand, coordinator of the coalition.

That is important, Ostrand said, because the Ohio EPA only has regulatory authority over pollution caused by municipalities and industries, when the majority of pollutants in state watersways come from other sources. Ostrand also said improvements to water quality in the upper reaches would benefit Fremont and other areas downstream.

"We will work with people who want to make improvements," she

said. "If a problem is identified, we can apply for grants to help."

Also, writing a management plan has been tough for the coalition because of spotty monitoring of the river in the past, Ostrand said. Coalition members had sent a letter to Ohio EPA requesting more monitoring and were pleasantly surprised to hear an extensive study will be done.

"We see it as a really good opportunity to discover more specific information on what's happening," she said.

Contact staff writer Shawn Gainer at 334-1049 or [sgainer@fremont.gannett.com](mailto:sgainer@fremont.gannett.com).

# The Advertiser-Tribune

TIFFIN, OHIO, FRIDAY, MAY 18, 2001

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## EPA to begin testing Sandusky River in June

By VICKI HUNKER

Staff Writer

In early June, Ohio Environmental Protection Agency plans to begin testing the Sandusky River and its major tributaries for a comprehensive study of river quality.

The total maximum daily load study would study water, sediment, fish and insect larvae to determine the overall

quality of the river and its major streams and identify problem areas.

Jeff Hohman, district technician for Wyandot Soil and Water Conservation District, coordinated a meeting this week at which the EPA explained the study to local officials and received input on the best sites for testing.

"Did (the plan) cover all the major concerns of the watershed? Are we getting a good look at it? Those are the

questions EPA wanted to find out," Hohman said.

Agencies and government offices included the county commissioners, health departments, engineers, Soil and Water Conservation Districts from Seneca, Wyandot, Marion, Huron, Hardin and Richland counties; the Natural Resources Conservation Service; the Sandusky River Watershed Coalition; and the Ohio Scenic Rivers Program.

"We didn't have everybody represented, but we did have a few from each county," Hohman said.

Plans are to test 150-180 sites on the river and streams from Abbott's Island north of Tiffin southward. Tributaries to be tested include Honey Creek, Brokensword Creek, Sycamore Creek and Tymochotee Creek.

■ please see STUDY, 2A

## Study

■ from page 1A

Northwest Ohio Scenic Rivers Coordinator Bob Vargo, who attended the meeting, said EPA will conduct chemical testing for water and sediment quality, electroshock testing for fish quality and stream quality monitoring for macroinvertebrates.

Vargo said EPA will be testing between early summer and late fall.

"They'll be sampling them each six times," he added. "It's

going to rather intensive," Vargo said. He said selected sites again will be tested next spring.

"The fish counts will a big one to determine the (quality of) the habitat," Hohman said.

Hohman said a map detailing test sites will be available, probably by next week.

Although many samples will be taken from bridges and public areas, he said EPA personnel might at times be walking along river and stream banks on private property.

"EPA said they will try to contact property owners and inform them about activity," he said.

# City, county officials plan construction to combat flooding

Continued From A1

ered in and surrounded by grass. "I confess, I've lived here all my life and I didn't know the importance of this watershed."

City and county officials plan to combat flooding problems by reconstructing portions of the debris- and vegetation-choked stream, perhaps as soon as next summer. Minnow Creek originates in Ballville Township and flows eastward through southern Fremont, emptying into the Sandusky River at a pumping station adjacent to the city maintenance yard on South Front Street.

The preliminary cost estimate for the project is \$200,000.

And here's the plan: The city of Fremont will pay \$100,000 for the stream modifications, with the rest of the tab picked up by property assessments on about 1,700 parcels of land in the Minnow Creek watershed.

That sounds like a bad idea to South Street resident Barbara White, who fears backhoes and bulldozers might create areas like the rebuilt stretches of nearby Bark Creek.

"It's a large V-channel, and the sides are just covered in white stone all the way to the top," she said. "It was no longer a creek. It was a ditch."

The Friends of Minnow Creek waved colorful homemade signs during Friday's gathering, bearing messages like "Save Minnow Creek!" and "We Don't Want No Ditch." Participants discussed project costs and environmental impacts, and some questioned whether the work would have much impact on abating floods.

Behind them, the brook bubbled through a cloak of green foliage, populated by chirping insects. Children with rolled-up jeans waded through the shallow water, searching for tadpoles.

"This is an impacted stream because it's in an urban setting, but it still has some of its natural character," said Monica Ostrand,

the integrity of the stream while also providing good drainage. We're looking for a balance between the two."

Ostrand said more study is needed before Minnow Creek construction proceeds — and other drainage options should be considered to combat flooding.

The Sandusky County commissioners will conduct a public hearing on the project at 11:30 a.m. Tuesday on the second floor of the county courthouse. There, they will hear testimony from officials and residents.

Afterward, they will probably vote to draft a detailed engineering study to pinpoint exact stream modifications and calculate more-accurate estimates for project costs and property assessments.

At the end of construction, Minnow Creek would become Fremont's last major drainage waterway added to the county ditch maintenance program. Therefore, crews would perform annual inspections and supply weed control and debris removal services.

Sandusky County Engineer Jim Moyer said he is receptive to neighbors' opinions on the Minnow Creek project — but his options may be limited.

"As far as alternatives to construction are concerned, I don't know," Moyer said. "When you have to lower the channel's high spots because of ponding water behind them, what are your alternatives?"

"I'm not sure what your options are there."

Ballville Township resident Josie Setzler said Minnow Creek floods into her Cleveland Avenue yard during periods of heavy rain. And she doesn't mind at all.

"It's not proven that (the construction plan) will stop the flooding," Setzler said. "We could remove one of the last natural streams in the city. The money could be spent, the work could be done and the same thing could

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CITY, A6



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APR-29-00

# Action plan being hammered out for Sandusky Valley Watershed

BY CAROL BOGART

Staff Writer

Residents and others interested in the fate of surface and groundwater in four counties met last night at the Seneca Izaak Walton League headquarters on River Road.

The Sandusky Valley Watershed Coalition, formed in 1997 to address various pollutants impacting water above and below ground draining into the Sandusky River, learned it has grown more than three-fold since its inception.

Coordinator Monica Ostrand told those assembled the mailing list had just 64 names on it in November. Today, more than 200 people in Seneca, Sandusky, Wyandot and Crawford counties have asked to be kept updated on progress the Coalition makes in maintaining and improving water quality in the Sandusky Valley.

Ostrand said, roughly, a third of the diverse group is made up of heads of agencies and two-thirds farmers, trustees and residents of the four counties. Last night, the group split up into assorted committees to begin forming a plan designed to solve problems identified within the watershed.

Those problems include: combined sewer overflows, failing septic systems, rural sprawl, nitrates and herbicides in drinking water, spills like the ammonium spill in Morrow, livestock planning, industrial threats like the Tiffin landfill "and other older landfills that may be leaking," funding, enforcement and monitoring.

Subwatershed meetings earlier this year asked those attending to voice their concerns. Ostrand said, "The Kirby Tire

Fire was brought up several times."

Several residents who said they live within 800 feet to a mile of Buckeye Egg's facility in Marseilles were present at last night's meeting. Most meetings of the full coalition have been attended by people upset by manure problems and flies associated with Buckeye Egg.

Representatives of the Ohio Department of Natural Resources and the Ohio Division of Wildlife also attended the meeting. Some traveled from as far away as Marblehead and Sandusky. Three trustees from Wyandot County attended. Ohio American Water superintendent Dave Little attends regularly, as do representatives of Heidelberg's Water Quality Lab. Various Soil and Water districts were represented as were federal conservation agencies. At last night's meeting, there was no representative from Ohio EPA.

The full committee meets just twice a year. Last night was its spring meeting.

Committees formed will forward recommendations to a steering committee. The steering committee will review the recommendations, then present decisions made to the entire coalition which next meets in the fall.

It's estimated implementation of the plan will take about a year. Setting "attainable" goals given available funding was one ground rule set for the committees. Ostrand said the action plan, once in effect, would not be "revisited" for five to 10 years.

Other ground rules adopted:

■ people are to speak freely and completely

■ and they are to listen as completely as possible

■ decisions will be by "consensus." Unlike a democracy where majority rules, Ostrand explained that decision — by consensus — means, "Everybody can live with the decision."

Ostrand and others said such an approach encourages committee members to put personal agendas aside, and instead, make decisions "for the good of the whole."

Types of issues to be hammered out are: drainage needs of farmers and habitat needs of wildlife. Ostrand said the coalition might, for instance, pursue grants for the establishment of wetlands and for building miles of buffer strips along streams.

Other issues would include: the pros and cons of removing the St. John's and Ballville dams; and hydrology concerns like log jams, low stream flows and karst features. Karsts, like the Thompson Township sinkholes, form a link between surface and groundwater, Ostrand said.

One committee will focus on raising community awareness about potential impacts to the watershed, interagency cooperation and the need for more frequent monitoring to track the effects of the pollutants. Lack of knowledge about watershed issues was identified as a problem needing to be addressed

# Festival to bring attention to Sandusky watershed

BY VICKI HUNKER

*Staff Writer*

The first Sandusky River Watershed Festival is being planned for Aug. 4 in the Pioneer Mill-Nature Trails Park area along the river.

"Our goal is to attract people's attention to the river and attract people to the river in a cultural and recreational way," said Ann Keefe, chair of the Sandusky River Watershed Coalition's education committee.

"We want to show how we can be better stewards of the river," she said. "We want people to take ownership and stewardship and think about the pollution effects and how we can clean it up."

The day-long event will feature family-related activities during the day and a concert atmosphere in the evening with several bands playing a variety of music ranging from rock to folk music.

A nature-related arts festival and an amateur photo contest are planned during the daytime hours, along with children's games, educational displays, canoe trips and nature walks.

Keefe said the five different coalition committees will have educational displays to inform the public about the diverse uses of the river. There also will be displays by companies that are

■ please see FESTIVAL, 2A

## Festival

■ from page 1A

coalition members in a fair-type atmosphere.

"We're trying to target a wide audience," Keefe said.

When trying to find ideas to call attention to the river, she said committee members first thought about canoe trips and hikes along the river banks.

However, she said those ideas left out young children.

"Plus, not everyone is physically able or interested in canoeing," she said.

The committee decided to incorporate those ideas into a broader range of activities that would include the entire coalition and all members of the community.

"There's so many viewpoints

(about the river) and we want to make sure they're all heard and we thought this was the best way of doing it," she said.

Businesses or individuals interested in providing activities at the festival should contact Clark Hutson at 447-9722 or (800) 448-9722 or Scott Greneth at 448-7485.

Keefe said Crawford County will be the site of next year's festival and each year it will move to another county within the river's watershed.

"We're hoping to attract at least 500 people — optimum would be 1,000," she said.

The festival will take place rain or shine. It is being partially funded by a \$5,000 grant from the Ohio Environmental Education Fund. Keefe said the committee has applied for other grants but hasn't heard the results.

# Ohio EPA to study Sandusky River this summer

BY VICKI HUNKER

Staff Writer

The Sandusky River is to be the subject of a detailed total maximum daily load study by Ohio Environmental Protection Agency this summer.

Members of the Sandusky River Watershed Coalition heard about the plans at their spring meeting Thursday night.

Jeff Hohman, chair of the coalition, said the study will be conducted on the section of the river north of Tiffin south to the river's beginnings near Upper Sandusky.

He said aquatic life, sediment and other aspects of the river will be studied, as well as each major tributary and in many smaller tributaries where water flows into the

river.

"We've actually being moved up four years," Hohman said.

The Sandusky River replaced the Vermilion River this year in EPA's plans because the coalition is in place to make use of the information found in the studies, said David Baker, chair of the coalition's stream flow and habitat committee.

"Our coalition is in a strong position to help them in the process," Baker said. "This is by far the most intensive study that has been done."

He said more than 150 sites are to be tested.

Along EPA has performed similar studies on other Ohio rivers, Baker said the Sandusky River will be largest.

Information found during the study will help identify problems. The coalition then will develop practices to correct the problems and bring them to public attention.

The entire process from sampling to the final report is expected to take 2 1/2 to three years.

More information will be available at the coalition's summer meeting July 30.

Also Thursday, William Smith presented a program about historical sites along the river between Fremont and Lake Erie.

"What people don't realize is that the Sandusky River has an incredible history," he said. As a high school history teacher for 40 years in Fremont, Smith has studied areas ranging from prehistoric sites to Indian burial grounds to battle sites.

A-T 420-01

page 19

# Ohio EPA to study Sandusky River this summer

By Vicki HUNKER

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A-7 4-20-01

# LITTER HURTS OHIO'S WATERS

River Clean Up Day Sat., August 11, 2001 at Hedges Boyer Park 9 a.m. - 11:30 a.m.

Call Seneca County recycling and Litter Prevention

at 419-443-7922 to register

Live Entertainment Educational Programs

The First 200 To Register Get FREE T-shirts

A-T 4-19-01



# LITTER HURTS OHIO'S WATERS



River Clean Up Day Sat., August 11, 2001 at Hedges Boyer Park 9 a.m.-11:30 a.m.

**Live Entertainment  
Educational Programs**

Call Seneca County recycling and Litter Prevention  
at 419-443-7922 to register

**The First 200 To  
Register Get FREE  
T-shirts**

A-T 4-19-01

## Watershed coalition to meet tonight

The Sandusky River Watershed Coalition will meet 7-9 p.m. today at the Franciscan Earth Literacy Center, St. Francis Ave.

William Smith of the Fremont will present a program about the history of the river from Fremont to Lake Erie and Greg Negeotte will speak about the Ohio Coastal Nonpoint Pollution Control Program.

Members will plan spring and summer events and continue working on the river management plan.

A-T 4-19-01



State of Ohio Environmental Protection Agency

**PUBLIC INTEREST CENTER**

P.O. Box 1049, 122 South Front Street

Columbus, OH 43216-1019

Tele: (614) 644-2160 Fax: (614) 644-2737

## NEWS RELEASE

**For Release:** April 2, 2001

**Contact:** Heather Lauer, (614) 644-2160

### Ohio EPA Awards Environmental Education Grant to WSOS Community Action Commission

Under a program to provide funding for small environmental education projects, Ohio EPA recently awarded \$5,000 to WSOS Community Action Commission, Inc. to be used for the Sandusky River Watershed Coalition's festival. A total of 13 projects throughout the state were funded during this grant round for \$50,000.

The group received the grant to help sponsor an event to educate at least 1,000 people about how watersheds work. The festival will be held in August and will offer information about pollutants in the Sandusky watershed, the need to restore physical habitat and chemical water quality; and drainage problems. It also will encourage recreation opportunities in the river and Sandusky Bay.

The Ohio Environmental Education Fund general grant program gives out approximately \$1 million each year in funding for environmental education projects targeting kindergarten through university students, the general public and the regulated community. Funding comes from civil penalties paid for violations of Ohio's air and water pollution control laws. General grants are given for projects lasting up to two years and costing up to \$50,000.

Mini-grants are available for projects lasting up to 12 months and costing between \$500 and \$5,000. Proposals for classroom projects, conference speakers and other activities that are eligible under the general grant program are eligible under the mini-grant program, but the application process is streamlined. Ohio EPA's Office of Environmental Education will reserve up to \$50,000 each grant round to fund projects submitted under this program. Just like the general grant program, there are two mini-grant rounds each year, with applications due on July 16, 2001, and January 16, 2002.

For more information or a grant application, contact Ohio EPA's Office of Environmental Education at (614) 644-2873. Staff are available to assist potential grant applicants who contact the office before the submission deadlines. Information is also available on Ohio EPA's Web page at [www.epa.state.oh.us/other/oeef/oeemain.html](http://www.epa.state.oh.us/other/oeef/oeemain.html).

- 30 -

*More information about Ohio EPA, including Agency news releases,  
can be found on the World Wide Web at <http://www.epa.state.oh.us>.*

January 27 2001

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here and it was for a good cause," she said.

"It's important to not just believe in something," added senior Natallie Jones. "But to do something about it too."

Ben Stover, a junior, said that he learned that there were many people that also supported life.

"Of all the things I've done, including Boy Scouts, this is the only thing I've actually done that can make a difference: at least so far," added Mileski.

The use of the word sodomy is way out of bounds," he said. "We do not believe it happened at this point."

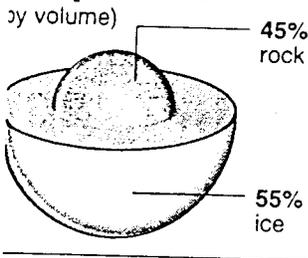
A tampon was involved in the incident, Chamberlain said. However, after speaking to the people who were there, it was determined that the victim was not sodomized, he said.

■ please see MOHAWK, 2A

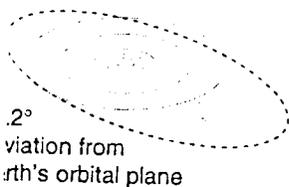
## Planetary controversy

When the American Museum of Natural History in New York opened its Rose Center for Earth and Space nearly a year ago, it stunned many people by dropping Pluto's status as a planet. Long recognized as the smallest and farthest flung of the planets orbiting the sun, Pluto was stripped of its distinction as a planet, identified instead simply as one of the chunks of rock and ice that make up the region of space known as the Kuiper Belt.

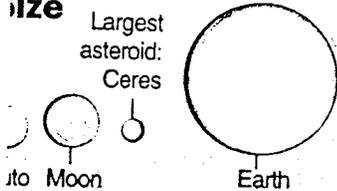
### Composition



### Orbit



### Size



Source: Hayden Planetarium

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# Ohio EPA official says Sycamore Creek recovering

BY VICKI HUNKER

Staff Writer

Considering the heavy damage done to Sycamore Creek by the Kirby Tire fire in August 1999, the creek has recovered remarkably well, according to Dave Altfater of Ohio EPA.

Altfater Thursday recounted testing he did after the fire for the Sandusky River Watershed Coalition.

"The Sandusky River was not impacted by the spill," Altfater said. After testing the river, he said he found no signs of chemical contamination in the river resulting from the fire.

However, in Sycamore Creek, Altfater said he found plenty of problems.

He sampled fish, macroinvertebrates — such as crayfish and aquatic insects.

"Aquatic insects are really a very good indicator of water quality," he said.

In addition, he said he checked the physical habitat of the stream, water quality and fish flesh contamination.

"We looked at the bottom of the stream as far as chemical contamination," he said.

"By far the most sampling we did was for dissolved oxygen," he added. "(The lack of)

dissolved oxygen was a large problem after the fire.

"When we sampled there in '99, there was a definite impact because there were dead fish found on the bank," he said. Almost 20,000 fish died.

Altfater reported there were several miles of significant chemical damage after the fire. He said he'd never before seen as high levels of some chemicals as he'd seen in Sycamore Creek after the fire.

"There was almost no dissolved oxygen in the stream," he said. "Those levels are lethal. They just couldn't live in that."

However, Altfater said testing last summer showed that the only chemicals related to the fire were found in sediment and sediment levels were much less than they had been the year before.

"It seems to have cleared up remarkably well, which is nice to see," Altfater said. "Sometimes when you have a spill go through, you don't get recovery for four to seven years."

He said he found 20 species of fish and 400-500 individual fish during his testing.

However, he noted that the stream has a long way to go

■ please see CREEK, page 2A

ADVERTISER-TRIBUNE

1-27-01

their parents are concerned about it," Chamberlain said.

There was one victim in the more serious incident, he said. Several other students were given "pink belly," a condition resulting from being slapped in the stomach. Wrestlers have hazed each other with "pink belly" for some time, although it is not allowed, Chamberlain

All of the young wrestlers are still attending classes. Since it happened after classes, the matter is being treated as an athletic situation, Chamberlain said.

The school has a strict attendance policy, and a suspension hurts a student's academic performance. If a student misses

After the initial hazing report, the entire wrestling team was forced to write a letter of apology to the victim of the hazing and six of the wrestlers were punished through loss of participation in sports and being required to perform community service.

nutrients to cross-resistant to drug both conventional and genetic engineering. Identifying their function provide research knowledge to i Steve Briggs. Mesa Research Switzerland-based project was a joint Myriad Gene

# Creek

from page 1A

before it's back to pre-fire condition. It will take a few more years before game fish return to the stream.

The coalition heard a report from Mike Wilkerson, a fisheries biologist with the Ohio Department of Natural Resources Division of Wildlife District 2 office in Findlay.

"The fishery in the Sandusky overall are in real good shape," he said. There's a good population of game fish, such as small-mouth bass.

Fish communities are somewhat impaired in the river headwaters to Upper Sandusky because of large amounts of silt, he said, but there's less silt between Upper Sandusky and Tiffin. Wilkerson also noted that macroinvertebrates show that the river is in good condition outside of the urban areas.

He said walleye is still a

popular game fish, which could become more plentiful farther upstream if Ballville Dam near Fremont was removed.

"It completely blocks the migration of walleye and other fish up the river," he said. He noted that there has been a 78 percent decline in walleye spawning on the river during the past 20 years.

Coalition members were asked to review draft copies of the Sandusky River management plan and send comments to coordinator Monica Ostrand.

Religion briefs submitted by

**REGAL TIFFIN MOVIE**  
THE WEDDING PLANNERS  
SAVE THE LAST DANCE  
THIRTEEN DAYS (PG)  
DUDE, WHERE'S MY CAR?  
No Passes Times Valid For Saturday

## Students in front page photo listed

Calvert students pictured on page 1A are (from left, front) Danielle Legron, Katherine Engle, Rebeka Shook, Katie Chówlic, Allison Kelbley, Paul Panuto, Peter Lucius, Jessica Weber, Keven Rinaman and Marcus Huss; (second row) Kendra Vogel, Anthony Panuto, Emily Lonsway, Amber Hedrick, Dana Panuto, Laura Shock, Heath Rosenburger, Kim Roessner, Kasey Vogel, Katie Horn, Michelle Hess, Laura Steiverson, Sara Sackst-

eder, Natallie Jones, Elizabeth Kizer and Tiffany Newland; (third row) Kevin Schumm, Jess Maiberger, Allison Sendelbach, Katie Lonsway, Melody Pirc and Megan Warnement; (fourth row) Adrian Williams, Carrisa Carpenter, Crystal Lantz, Joline Lay, Andy Elchert, Ben Stover and Chris Mileski (holding a portrait of Our Lady of Guadalupe), Sara Krupp, Josh Brickner and Elena Casillas; (back) Jon Perry and Adam Reinhart.

Rain or Shine Today's the Last Day MARK is 29!



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Thursday, October 12, 2000

## Voice of the People Participants in Sandusky River Tour focused on preserving the river

As a state representative, I am fortunate to meet individuals on a daily basis who strive through their work or volunteering to make Seneca and Sandusky counties a better place to live.

This past July, I was involved with the Sandusky River Tour 2000 and had the opportunity to work with a number of such individuals.

The tour brought together state agents, elected officials and private individuals and organizations for the purpose of raising the public's awareness of the issues affecting the river. We had approximately 35 people participate in the canoe float down the river, while over 60 people attended the lunch session.

We discussed the impact of the Kirby tire fire, questions surrounding the County Road 90 Landfill, the future of St. John's Dam, and how to preserve the river as a raw-water source. We also focused on benefits the river provides to the region, such as the large bald eagle population, diversity of fish and other aquatic life and the recreational opportunities available.

Everyone had a wonderful time and I have received nothing but positive feedback. To this we owe quite a bit to Bob Vargo, Northwest Ohio Scenic River coordinator, and Monica Ostrand, Sandusky River Watershed Coalition director.

However, as with all events, its success is due to everyone involved: The local businesses and organizations, who donated to the event; Steven Scherger, my administrative aide who publicized it; the Heidelberg Water Quality Lab and the Smallmouth Bass Alliance, which shared their knowledge; and officials and residents who participated.

The Sandusky River is one of Northwest Ohio's most valuable resources and everyone must work together to preserve the clean drinking water it provides and the wonderful habitat it offers to a diverse population of species. It was encouraging to see so many people take an interest in the river and I look forward to next year's tour.

**Rex Damschroder**  
State Representative  
89th House District

**OHIO**  
**NEWS BUREAU INC.**  
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SEPT-19-00

## Water monitoring is event focus

**SANDUSKY** — Residents in the Sandusky River Watershed Coalition area are invited to participate in a water monitoring workshop at 5:30 p.m. on Wednesday, Sept. 20, at the Radisson Harbour Inn, 2001 Cleveland Ave., Sandusky.

The Citizens Lake Awareness & Monitoring (CLAM) program, which is sponsored by the Ohio Lake Management Society (OLMS), is offering the workshop to encourage residents to take an active role in learning about aquatic ecology, lake and stream quality, and watershed management. CLAM receives and monitors information on Ohio's lakes and watersheds, provides interested citizens with opportunities to meet other concerned citizens, as well as skills to monitor water quality and mentor other participants. It also produces a newsletter with informative water-related articles and an annual report on the lake and/or stream in the area. OLMS assesses the health of Ohio's waterways and provides water quality data to state agencies, lake managers, and interested organizations.

WSOS Community Action Commission Inc. administers the Sandusky River Watershed Coalition through its Great Lakes Rural Community Assistance Program (GLRCAP). The watershed coalition works in collaboration with other organizations in Ohio such as CLAM the deal with the state's water-related issues.

CLAM encourages residents to become involved in monitoring water in the Sandusky River watershed. Residents can volunteer and/or participate in the workshop on Sept. 20. Attending the workshop does not obligate participants in any way.

To register for the workshop and for directions to the location, call Oleskiewicz at (440) 708-2439.

# SUNDAY Register

Vol. 178 No. 174 46 pages \$1

Sunday, September 24, 2000

## WATERSHED

■ FROM PAGE A1

The ODNR grant enables her to expand her role to full time and help the coalition raise more awareness about what the Sandusky River watershed is and issues related to it.

The watershed is the portion of the landscape with surface water that flows off and drains into the Sandusky River, according to David Baker, retired director of the Heidelberg College Water Quality Lab in Tiffin and a founder of the coalition.

"The Sandusky River is the second largest tributary to Lake Erie, with a watershed covering 1.2 million acres," Olstrand said.

Of that, 28.5 percent of the watershed is in Seneca County, 17.4 percent in Sandusky County, 6.5 percent in Erie County and 5.1 percent in Huron County. Wyandot County makes up 19.9 percent of the watershed, Crawford County 16.6, and Marion, Richland and Wood counties less than 5 percent each.

Formed in 1997 in conjunction with the Heidelberg lab, the coalition researched areas of concern regarding the watershed. Earlier this year, the group had several meetings for area residents to give their input about the river and water quality.

With 83 percent of the land in the watershed used for agriculture, a top concern by the coalition and residents is agricultural pollution, with agrochemicals, nutrients and fertilizer flowing into the river, Olstrand said.

Protecting the flood plains and proper drainage is another top concern of both residents and the coalition.

Olstrand said she believes the grant will help the coalition focus more on these issues and also educate people about the watershed.

"A third concern is that there is a lack of knowledge on what the watershed is and what can be done to improve water quality," she said. "This has been one of our big goals from the beginning — to get the

right information out there."

Education will be a major role of the coalition, Baker said.

"It is nice to have a coalition looking at the watershed as a whole because it covers a lot of territories — about 12 counties," he said. "It also is important to address the local needs as well ... and the coalition has the opportunity to make real progress."

One of the requirements of the ODNR grant, which will provide funding for six years, is for the coalition to write a management plan.

"This will give us an actual document for people in our coalition to follow to make improvements to water quality," Olstrand said.

ODNR also wants the coalition and other grant recipients to focus on community outreach and fund-raising, to implement watershed plans, to develop the organization formally by having a board of directors, and to evaluate its progress.

"We definitely will be held accountable, and six years allow for stability and long-term planning," said Olstrand, who has been involved in the group from its early stages.

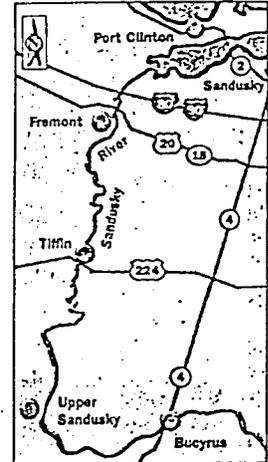
She said she is optimistic that with the funding from ODNR and other sources, as well as the growing interest in the group, the coalition will be able to improve the quality of the river and educate people about it.

"I think if people work together we can make improvements so the river and streams are safe to swim and fish in always," Olstrand said.

While the river is only unsafe during high water when there are sewer overflows because of the high bacteria count, she said the group could work to improve that.

"My main concern is that we learn that water moves from high to low and that what we do to land impacts the water," she said, noting urban sprawl in surrounding areas and its impact on rivers and streams concerns her. "We all are responsible because we all live here."

## Where the Sandusky River flows



Register graphic/ART PRICE

## ODNR grant to aid in watershed education

By JULIE PAVELICH

juliepavelich@sanduskyregister.com

A grant from the Ohio Department of Natural Resources will be used to help educate residents in the Firelands about the Sandusky River and ways to protect it and care for it.

The Sandusky River Watershed Coalition, a group formed under the Wood-Sandusky-Ottawa-Seneca Community Action Commission Inc., was one of 21 watershed groups to receive money earlier this month from ODNR.

In the next year, each group will receive up to \$40,000 to hire a full-time coordinator to develop and implement water quality improvements on their local watershed, according to ODNR Director Sam Speck.

The goal of the program is to create permanent positions in local governments and non-profit organizations to create programs to protect water sources.

Monica Olstrand, coordinator for the Sandusky River coalition, was hired in November on a part-time basis with funding from a Lake Erie Protection Fund grant.

■ See WATERSHED, Page A4

E

Effective January 25, 2002

**BY-LAWS  
OF  
THE SANDUSKY RIVER WATERSHED COALITION**

**ARTICLE I: NAME AND GEOGRAPHIC EXTENT**

Section 1. - Name. The name of the association is the Sandusky River Watershed Coalition, hereinafter referred to as “the Coalition”.

Section 2. - Geographic Extent. For the purpose of this document, the geographic extent of the Sandusky River Watershed shall include all of the land that drains into Sandusky Bay (United States Geological Survey Hydrologic Unit: 04100011).

**ARTICLE II: MISSION AND GOALS**

Section 1. - Mission. The mission of the Coalition is to provide information and opportunities for public participation in the stewardship of the Sandusky River Watershed. The Coalition is a diverse group of citizens and organizations dedicated to the preservation and enhancement of the quality of the Sandusky River, Sandusky Bay, and their watersheds.

Section 2. - Goals. The goals of the Coalition include: to provide leadership in educational efforts on water related issues; to identify water related resources and resource materials currently available; to expand public awareness and knowledge of the important role of the river for the watershed’s past, present and future; and to write and maintain a management plan for the river and support its implementation.

**ARTICLE III: MEMBERSHIP**

Section 1. - Eligibility. Any individual or organization that subscribes to the mission and goals of the Coalition is eligible for membership.

Section 2. - Types of Membership.

- A. Individual Membership – Eligible individuals may become voting members by paying annual dues in the amount set by the Coalition at its annual meetings. Dues shall be payable on the first day of the anniversary month of the individual’s membership. Individuals may contribute one hour of volunteer service for each dollar of dues in lieu of cash payments.
- B. Organization Membership – Eligible organizations may become members by paying annual dues in the amount set by the Coalition at its annual meetings. Dues shall be payable on the first day of the anniversary month of the organization’s membership. Organizations may appoint one person to represent them as a voting member.

- C. Cooperating Affiliates. – Organizations that are unable to pay membership dues who nevertheless support the mission and goals of the Coalition may become cooperating affiliates by submitting a letter of support to the Coalition. They will be invited to send representatives to all Coalition events and will be listed as Cooperating Affiliates. Cooperating Affiliates do not have voting privileges.

Section 3. - Role of Members. Members are responsible for electing the Steering Committee and voting on: any proposed changes to the By-Laws; other items as referenced in subsequent sections of the By-Laws; and other items that are presented at Coalition meetings. Members also are invited to participate in Coalition activities and will receive a subscription to the newsletter. Members are encouraged to become active on one or more committees and give input on watershed related issues, projects and activities.

Section 4. - Membership Diversity. The Coalition actively seeks a diverse membership including representatives of agriculture, business and industry, public agencies, elected officials, public water/wastewater purveyors, nonprofit organizations, educational institutions, civic groups, recreational interests, wildlife organizations, environmental groups, interested citizens and others.

#### **ARTICLE IV: COMMITTEES**

Section 1. - Steering Committee. The Steering Committee shall consist of:

- A. One voting member from each of the following counties: Crawford, Erie, Hardin/Marion, Sandusky, Seneca and Wyandot.
- B. Four at-large voting members either living, working or owning property within the watershed.
- C. The chair of each standing committee.
- D. Ex-officio members may be appointed by the steering committee as deemed appropriate. Ex-officio members do not have voting privileges.

Section 2. - General Role of the Steering Committee. The general role of the Steering Committee is to provide overall direction to the Coalition in fulfilling its mission and goals.

Section 3. - Responsibilities of the Steering Committee. Responsibilities of the Steering Committee include:

- A. Support the implementation of the watershed Management Plan and propose to the membership changes to the Management Plan as needed.
- B. Review and recommend for membership approval the annual budget of the Coalition.

- C. Approve all grants and memoranda of agreement to be submitted on behalf of the Coalition. Grants may be submitted prior to membership approval. However, all grants and memoranda of agreement will be presented for final approval by the membership.
- D. Track progress of targeted goals and finances as stated in grants received on behalf of the Coalition.
- E. Support programs of cooperating organizations that advance the mission and goals of the Coalition.
- F. Facilitate the development of consensus positions on issues arising within the watershed. Where consensus cannot be reached offer majority and minority reports on the issue.
- G. Where position statements, letters of support, and/or advocacy letters are proposed by members or committees, they must be approved by a unanimous vote of a quorum of the Steering Committee and, if time permits, by the 2/3 vote of the members present at a regularly scheduled Coalition meeting.
- H. Develop agenda and programs for general meetings of the Coalition.
- I. Promote a growing active membership.

Section 4. - Standing Committees. The Coalition shall have the following Standing Committees: Agriculture, Wastewater, Drinking Water Supply, Education and Special Events, Stream Flow and Habitat, and Development.

Section 5. - Participation on Standing Committees. Participation on Standing Committees is not limited to Coalition members. Individuals may serve on more than one standing committee.

Section 6. - Responsibilities of Standing Committees. The responsibilities of the Standing Committees are to:

- A. Develop and support implementation of their section of the Management Plan.
- B. Propose revisions and updates to their section of the Resource Inventory and Management Plan to the Steering Committee and the membership.
- C. Investigate all sides of issues that are under their consideration.
- D. Keep the Steering Committee and the Coalition informed regarding new issues and opportunities in their field of expertise.

Section 7. - Special Committees. The Steering Committee may, from time to time, form special committees as deemed appropriate to fulfill specific needs and tasks for the Coalition. These committees will remain active until dissolved by the Steering Committee.

## **ARTICLE V: MEETINGS**

Section 1. - Coalition Meetings. There shall be a minimum of four regularly scheduled meetings per year of the Coalition. The fall meeting will be known as the annual meeting at which time elections will be held. Special meetings of the Coalition can be called as needed by the Steering Committee. The time and location of each meeting shall be determined by the Steering Committee. Members will be notified a minimum of two-weeks prior to any meeting. Pending prior notification, a quorum shall consist of those members present.

Section 2. - Steering Committee Meetings. The Steering Committee shall meet at least eight times a year. The Chair may call additional meetings as needed. The time and location of each meeting shall be determined by the Steering Committee. Members will be notified a minimum of one-week prior to any meeting. A quorum shall consist of one more than half of the Steering Committee membership.

Section 3. - Standing Committee Meetings. Standing Committees shall meet no fewer than four times per year. Standing Committees can meet via conferencing at the discretion of their Chair. Members will be notified a minimum of one-week prior to any meeting. Pending prior notification, a quorum shall consist of those members present.

## **ARTICLE VI: ELECTIONS AND OFFICERS**

Section 1. - Election of County and At-large Members of the Steering Committee.

- A. The Chair of the Coalition will appoint a Nominating Committee consisting of at least three members to compile a slate of candidates for county and at-large representatives to the Steering Committee.
- B. Nominations will also be taken from the floor at the annual meeting.
- C. Members will be elected at the Annual Meeting of the Coalition.
- D. Members may serve no more than three consecutive two-year terms.
- E. Where members resign, their terms of office will be completed by appointments from the steering committee.
- F. Elected positions to the Steering Committee shall be filled as follows:

In even numbered years

Sandusky County Rep  
Seneca County Rep  
Hardin/Marion County Rep  
At-large Rep # 1  
At-large Rep # 2

In odd numbered years

Crawford County Rep  
Wyandot County Rep  
Erie County Rep  
At-large Rep # 3  
At-large Rep # 4

Section 2. - Election of Standing Committee Officers. The standing Committee officers shall be Chair and Secretary. The term of office shall be two years. Each committee will elect officers as per the election schedule. Committee officers must be members of the Coalition.

- A. Officers will be elected by their committees at the meeting immediately prior to the Annual Meeting.
- B. Officers will serve no more than two consecutive two-year terms.
- C. Where Officers resign, their terms of office will be completed by election from the standing committee.
- D. Election Schedule of Committee Officers:

|                               |                              |
|-------------------------------|------------------------------|
| <u>In even numbered years</u> | <u>In odd numbered years</u> |
| Stream Flow & Habitat         | Education & Special Events   |
| Waste Water                   | Agriculture                  |
| Development                   | Water Supply                 |

Section 3. - Election of Coalition and Steering Committee Officers. The Steering Committee officers shall be Chair, Vice Chair, Treasurer and Secretary. The term of office shall be one year. The Vice Chair will automatically become Chair at the end of the one-year term as Vice Chair. The Steering Committee shall elect the Vice Chair, Treasurer and Secretary at their first meeting following annual meeting of the Coalition. These officers will also serve as the respective officers of the Coalition. Any vacancies shall be filled by election of the Steering Committee at the next scheduled Steering Committee meeting.

## **ARTICLE VII: OFFICER RESPONSIBILITIES**

Section 1. - Responsibilities of the Steering Committee Officers. The responsibilities of the Steering Committee Officers are:

- A. Chair –
  - 1. Preside at all meetings of the Steering Committee and Coalition.
  - 2. Develop in conjunction with the Coordinator and Secretary the agenda for Steering Committee meetings.
  - 3. Sign correspondence and other Coalition documents as needed.
- B. Vice Chair-
  - 1. Assume the above duties in the Chair’s absence.
- C. Treasurer-
  - 1. Assist the Coordinator in developing the Coalition budget and report on said budget to Steering Committee and Coalition quarterly.
- D. Secretary –
  - 1. Record the minutes of Steering Committee and Coalition meeting and submit to coordinator within one week.
  - 2. Circulate attendance and mileage sheets at each meeting and submit them to the coordinator for recording within one week.

Section 2. - Responsibilities of the Standing Committee Officers. The responsibilities of the Standing Committee officers are:

A. Chair -

1. Chairs will be their committees designated representative to the Steering Committee.
2. Preside at all meetings of the committee.
3. Develop in conjunction with the Secretary the agenda for all committee meetings.
4. Provide quarterly written reports on committee activities, minutes and attendance sheets to the Coordinator.
5. Report on committee activities to the Steering Committee and Coalition.

B. Secretary –

1. Record the minutes of committee meetings and submit to coordinator and committee chair within one week.
2. Circulate attendance and mileage sheets at each meeting and submit them to the coordinator for recording within one week.
3. Maintain membership list and/or work with coordinator to ensure all committee members are kept informed of committee activities.

## **ARTICLE VIII: STAFF**

Section 1. - Watershed Coordinator. In order to fulfill the Mission and Goals of the Coalition every effort will be made to support a fulltime Watershed Coordinator.

Section 2. - The Responsibilities of the Coordinator. The responsibilities of the Coordinator are to:

- A. Assist in carrying out the Management Plan of the Coalition.
- B. Aid the Membership and Committees in fulfilling their responsibilities.
- C. Complete and submit all documentation required for grants and other reports submitted on behalf of the Coalition.
- D. Seek out and coordinate the preparation of grant applications that further the implementation of the Management Plan and Coalition objectives.
- E. Oversee the day-to-day operations of the Coalition.
- F. Organize fundraising efforts for the Coalition.
- G. Promote membership growth.

- H. Supervise other staff, interns and volunteers.
- I. Coordinate education and outreach efforts:
  - 1. Prepare newsletters and maintain website.
  - 2. Public relations.
- J. Network with other watershed professionals and groups.

## **ARTICLE IX: MEMORANDA OF AGREEMENT**

Section 1. - Memoranda of Agreement. The Coalition may enter into Memoranda of Agreements with other organizations to fulfill its mission and goals. Where appropriate these memoranda will be incorporated in grant applications.

- A. The Steering Committee will approve all memoranda written on behalf of the Coalition. However, all Memoranda of Agreement will be presented for final approval by the membership.

## **ARTICLE X: PARLIMENTARY AUTHORITY**

Section 1. - Parliamentary Authority. Except where otherwise specified these By-Laws are adopted by a majority vote of the voting members present at an annual meeting. The rules contained in the most recent edition of Robert's Rules of Order shall govern Coalition proceedings.

## **ARTICLE XI: AMENDMENTS TO BY-LAWS**

Section 1. - Amendments to By-Laws. These By-Laws may be amended by a 2/3 vote of members present at the annual meeting of the Coalition or at a meeting specifically called for this purpose.

**MEMORANDUM OF AGREEMENT**  
**Between WSOS Community Action Commission, Inc. &**  
**The Sandusky River Watershed Coalition**

This Memorandum of Agreement (MOA) is between WSOS (Wood, Sandusky, Ottawa, Seneca) Community Action Commission, Inc., hereinafter referred to as WSOS, and the Sandusky River Watershed Coalition, hereinafter referred to as the Coalition. It is effective on the \_\_\_\_\_ day of \_\_\_\_\_, 2002, and establishes a basic agreement between the two parties. Terms of this agreement, unless extended by mutual consent, will be in effect through June 30, 2003.

**Statement of Purpose**

The mission of WSOS Community Action Commission, Inc. is as follows: We dedicate ourselves to creating opportunities that will help our community and all of its members build a better future. We help individuals and families build skills to become self-sufficient and more fully participate in our community. We achieve this by developing projects and partnerships that allow people to help themselves. The mission of the Great Lakes Rural Community Assistance Program (RCAP), a program of WSOS, is to assist rural low-income individuals and underserved populations in developing and maintaining community infrastructure to improve rural quality of life through a network of community action agencies.

The stated goals of the Coalition include: 1) to provide leadership in educational efforts on water related issues, 2) to identify water related resources and resource materials currently available, 3) to extend public awareness and knowledge of the important role of the river for the watershed's past, present, and future, and 4) to write and maintain a management plan for the river and support its implementation.

**Memorandum Purpose**

This MOA is put forth for the purpose of defining the arrangement under which WSOS will: 1) employ and support the activities of the Sandusky River Watershed Coordinator, and 2) will serve as the grantee for grants made to support the activities of the Coalition and the Coordinator position unless otherwise specified by the Steering Committee and the membership of the Coalition.

## **Roles and Responsibilities**

### **A. WSOS Agrees To:**

- 1) Serve as a 501 (c)(3) corporation to receive grants on behalf of the Coalition.
- 2) Employ the coordinator as a member of the staff of WSOS, accepting the duties and responsibilities as employer.
- 3) Fulfill other responsibilities as outlined in the Coalition by-laws, Article VIII-Section 2.
- 4) Handle fiscal responsibilities pursuant to the grants, i.e. receive income and make disbursements.
- 5) Provide accounting services, including maintenance of an accounting system for the grants consistent with generally accepted accounting practices and Office of Management and Budget (OMB) circulars.
- 6) Make available administrative support services, office space, and the use of a computer and office equipment for the Coordinator position. It will be specified what portions are covered by the grant or direct cash contributions.
- 7) Make financial reports and records available upon request to the Coalition Steering Committee and membership.

### **B. The Coalition Agrees To:**

- 1) Pursue activities to implement the Management Plan approved by the membership.
- 2) Develop and/or approve grant applications to support the Coordinator position and/or the Management Plan for submission to funding agencies.
- 3) Provide in-kind support for grants through the volunteer efforts of members.
- 4) Develop and prioritize an annual work plan for the Coordinator.
- 5) Fulfill other activities as outlined in the by-laws of the Coalition (Article III-Section 3, Article IV-Sections 3 and 6, and Article VII-Sections 1 and 2).

### **C. Both WSOS and The Coalition Agree That:**

- 1) WSOS agrees to respect the by-laws and established processes of the Coalition; however, WSOS retains the right to approve recommendations of the Coalition on actions pertaining to any grants on which WSOS bears the sole responsibility with the grantor agency.
- 2) It is the joint responsibility of both parties to develop resources through grant writing and fundraising to support the activities of the Coalition.
- 3) Vacancies in the Coordinator position will be filled through a joint committee consisting of not less than two members of each organization and including the Presidents of both Organizations, or their designees. WSOS will be responsible

for posting the position and accepting applications, and the joint committee will be responsible for interviewing and selection of candidates.

**Signing of Project Plan:**

This Memorandum shall be effective when signed by both parties. It may be terminated or modified at any time by agreement of the parties, and may be terminated by either party alone by giving sixty (60) days' notice in writing to the other, or terminated by either party without notice for cause.

**WSOS Community Action Commission, Inc.**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
President

**Sandusky River Watershed Coalition**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Chair

This agreement was officially approved at a meeting of the Coalition Steering Committee on \_\_\_\_\_, 2002, and by the full membership at a meeting on \_\_\_\_\_, 2002.