

MILLERS CREEK WATERSHED IMPROVEMENT PLAN

2004 IMPLEMENTATION HIGHLIGHTS

This report is organized by the Watershed Management Objectives identified on page 62 of the Millers Creek Watershed Improvement Plan (MCWIP).

WATERSHED LAND USE AND MANAGEMENT

Objective 1. Maximize land preservation and minimize directly connected impervious area while directing unavoidable development in ways that protect important watershed processes and water resource functional values.

- a) In March 2004, MCAT began implementing the MCWIP by sending letters to stakeholders identified in the MCWIP to generate awareness that improvement opportunities exist on the property they either own or manage. MCAT followed up by meeting with these stakeholders to discuss the opportunities. The landowners contacted by letter included the University of Michigan, Altarum, Pfizer, the Ann Arbor Public Schools, Orchard Hills / Maplewood subdivision, Ave Maria Law School, First United Methodist Church, Highlands Homeowners Association, Geddes Lake Cooperative Homes, Michigan Municipal League, Thurston Pond Group, Huron Hills Baptist Church, Washtenaw County Drain Commissioner, and the City of Ann Arbor. A copy of one of the letters is in **Attachment A**.
- b) MCAT met with the people responsible for planning decisions at the University of Michigan, the Ann Arbor Public Schools, Ave Maria Law School (by phone only), the Geddes Lake Cooperative Homes, Altarum, the Thurston Nature Center Committee (TNCC), Washtenaw County Drain Commissioner, and the City of Ann Arbor. The commitments and actions discussed will be incorporated into the Millers Creek Report and some of them will appear in Success Stories on the website.
- c) Millers Creek watershed resident Linda Cody has been building support for the City of Ann Arbor to purchase land in the Narrow Gauge Glen, where a high quality tributary of Millers Creek originates. MCAT submitted a letter to the Parks Advisory Committee (PAC) supporting the purchase of the property based in part on the macroinvertebrate study results, see **Attachment B**. HRWC attended a meeting of PAC to support purchase and provide details on the recommendation in the MCWIP, of which they were unaware. HRWC has continued to work with a Linda to find effective ways for the neighborhood to promote the purchase.
- d) MCAT commented on proposed development on the Ave Maria site, located on the northwest corner of Plymouth Road and Green Road, see **Attachment C**.

Objective 2. Improve land cover where possible by reducing impervious surfaces, establishing forests and prairies, reducing turf grass, and planting trees.

- e) MCAT initiated a tree-planting project in 2004. The original plan was to have a planting event (with awards) in which residents would purchase trees through MCAT, assisted by the City Forestry department. After several planning meetings, we realized that this would unrealistically stretch the resources of both the City of Ann Arbor and MCAT. The event was replaced by a plan for residents to receive discounts for purchase directly from area vendors between April 1 and June 30, 2005. The City would provide mulch and Baskin Robbins would honor coupons (validated by tree vendors) for free ice cream. Pfizer staff created a flier and a poster. Pfizer will print the fliers and posters. HRWC created the coupons, obtained signed agreements with six vendors, placed a description of the opportunity on the website, and will provide tree-nurturing advice and follow-up with the participants. HRWC will mail the coupons to all landowners in the watershed in March, 2005.

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- f) Ann Arbor Public Schools: Trees have recently been planted on the grounds of Clague and Huron High Schools. Randy Trent, the AAPS Environmental Services Manager, is committed to finding methods to manage storm water whenever maintenance or construction is planned at the schools.
- g) Pfizer: Hundreds of trees and several acres of prairie and wildflower meadows were planted on the property.
- h) Altarum seeded about an acre from which the lawn had been removed with a mixture of native wildflowers and grasses in August. This is featured as a success story on the website.
- i) During the past 40 years neighbors have planted 98 species of trees (68 are native) in the Thurston Nature Center.

HYDROLOGY

Objective 1. Maximize the amount of storm water captured, detained, and treated.

- j) MCAT provided advice for development proposals – see (d) above, recommending changes to capture detain, and treat stormwater.
- k) The tree-planting actions listed under Watershed Land Use and Management, Objective 2, will contribute towards an overall decrease in the volume of runoff and provide some water treatment as well.

Objective 2. Reduce bankfull peak flows, the channel forming flows, by at least 50%.

Measurements of flow and channel shape are necessary to establish the current flow situation and to measure the effects of improvement actions. As the MCWIP recommendations are implemented, flow measurements will evaluate the effects.

- l) Extended the MDEQ monitoring permits for staff gauges and transducers for five years (the maximum).
- m) Monitored flow and water temperature (continuously) at Glazier and Plymouth sites. The Glazier site has particularly dynamic storm flow; indicative of the hydrological state of the entire creek and the flow downstream of Plymouth Road. Flow is no longer monitored at Meadows due to the complications caused by influences of the Huron River. A report on flows and water temperatures in Millers Creek is in **Attachment D**.
- n) Surveyed the elevations of the transducers to ensure their accuracy since the high flows in the creek could move the transducers.
- o) Re-surveyed channel shape at the Huron site. In only two years it has changed dramatically. A report is being developed.

WATER QUALITY

Objective 1. Decrease overall pollutant loading to Millers Creek as much as possible.

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- p) The University of Michigan discovered and corrected cross connections in its print shop. The cross connections, which were discharging to Millers Creek, were shutdown and rerouted to the sanitary sewer.

Objective 2. Decrease total phosphorous loading by 50% from existing conditions (per Ford and Belleville Lakes TMDL).

No information available for 2004.

Objective 3. Reduce E. coli numbers in surface waters to the state water quality standard of a summer (May to October) 30-day geometric mean of 130/100 ml (per Geddes Pond TMDL).

No information available for 2004.

FISH AND WILDLIFE HABITAT

Objective 1. Increase biological diversity of terrestrial and aquatic wildlife by improving habitat, reducing or eliminating habitat impacts, and conserving critical habitats. Habitat shall be rated good by the standard GLEAS procedure.

- q) Sampled benthic macroinvertebrates in eight Millers Creek sites to measure changes in stream conditions based on the fact that the invertebrates living on the bottom of the stream respond to changes in their environment. This provided sufficient data for the first time since measurements began in 2002 to see changes in the creek. The three downstream sites on the mainstem are currently declining in both macroinvertebrate and insect diversity. Two of them (Glazier and Huron) are also declining in diversity of the more sensitive insects; the third (Meadows) appears to be stable in that indicator, perhaps because it receives backflow from the Huron River. The only site that showed an increase in diversity was the Lakehaven tributary. Unfortunately, the fourth site that is declining in diversity is the refuge site upstream of Green Road. See **Attachment E** for the 2004 report on biological diversity in Millers Creek.
- r) Terrestrial habitat was improved by the tree- and prairie-planting actions in b, c, d and e of Goal 1) Objective 2.

PUBLIC UNDERSTANDING AND SUPPORT

Objective 1. Develop and maintain project support by promoting public awareness, understanding, and stewardship.

- s) Provided a document of facts to the reporter (Tracy Davis) to inform a major article (**Attachment F**) in the Ann Arbor News on the MCWIP.
- t) HRWC obtained the logos of all organizations in MCAT in formats suitable for printing.
- u) Altarum Institute maintained the website and corrected a problem that had prevented viewing the MCWIP.
- v) Altarum printed nine copies of the MCWIP in color for distribution to locations accessible by the public.
- w) Altarum placed interpretive signs about Millers Creek in their new prairie.

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- x) HRWC obtained photos by a professional photographer and wrote a success story (placed on the website) about the actions of a pair of residents to enhance the watershed.
- y) Altarum Institute featured the planting of native wildflowers and grasses by their staff check as a success story on the website.
- z) The 2005 tree planting project described under (e) also addresses this objective.
- aa) Ran a discussion group with residents from diverse locations in the watershed to improve the tree-planting project and promote actions for Millers Creek. The residents were interested in the creek and some are likely to be part of a citizen's creek group.
- bb) Involved several other watershed residents in reviewing and contributing to the Millers Creek Report. Some of them have developed an interest in the creek and will be invited to be part of a citizen's creek group.
- cc) Discussed opportunities for two neighborhood Creek-Aware parties in the spring 2005: on southern Green Road and in the Goss house on West Dobson Place (Woodlands).
- dd) HRWC made a plan with a resident to create a children's book about Millers Creek.
- ee) Garnering local support to preserve the Narrow Gauge glen.
- ff) HRWC distributed a report of the aquatic population monitoring results (2004 Gazette, **Attachment G**) to 91 Millers Creek residents.

Objective 2. Offer effective opportunities for public education, training, input, and participation.

- gg) HRWC sent invitations to visit the creek and find benthic macroinvertebrates to 96 watershed residents and teachers. Fliers and invitations were posted in neighborhood gathering places and in places of business and corporate newsletters in the Millers Creek watershed by Dora Reader (USGS); Barb Chamness; M A Wiland (Altarum); K. Wells; Marc Chesney (Ave Maria); Larry Peterson (Veridian); M. Edington; Margaret Steiner; Margaret Doub (Pfizer); Elton Grieg (Editor of the Pfizer Pipeline); Cathy Behrendt (Editor of neighborhood newsletter); Dee Drake (Huron High). Invitations also appeared in the Happenings section of the Ann Arbor News; on WEMU and on CTN.
- hh) Trained people to lead teams of people to study the creek. Small teams experience the creek by monitoring the aquatic population or the flow of the creek. Trained eight people to download the transducers in Millers Creek every month.
- ii) Organized 3 events in which 110-160 worked on small teams to sample bugs in two creeks in order to have a comparison with a creek in good condition.
- jj) Created a map for publicity of Millers Creek that corrects errors in the watershed boundaries shown in the map used in the Public Pieces and on the website.
- kk) HRWC talked to Dave Szczygiel, the AAPS environmental education coordinator, about increasing public school education in the Millers Creek watershed.
- ll) HRWC wrote an article encouraging people to plant trees and discusses the tree project in Millers Creek. It will appear in the spring edition of the Huron River Report.
- mm) HRWC composed, printed and mailed the fourth brochure of information about the study for the public to 4,500 renters, homeowners and businesses.

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Objective 3. Provide readily available technical and information-based resources.

nn) HRWC wrote an engaging, accessible, illustrated report on the creek, the history of land use in the watershed, and the MCWIP, titled the Millers Creek Report. It will be printed and mailed to all landowners, renters and businesses in the watershed (**Attachment H**).

Expenses: Altarum supported Nancy French and the website while Pfizer supported both Steve Kapeller and HRWC to spend time on implementing the MCWIP.

Attachments (To see the attachments, please ask Joan Martin: jmartin@hrwc.org)

Attachment A: A copy of one of the letters about the Plan sent to large landowners.

Attachment B: MCAT letter to City of Ann Arbor Parks Advisory Committee

Attachment C: MCAT letter to James D'Amour commenting on the proposed development on the corner of Plymouth and Green Roads.

Attachment D: A report on flow and water temperature in Millers Creek

Attachment E: The 2004 report on biological diversity in Millers Creek

Attachment F: The document of facts provided to the Ann Arbor News to inform a major article

Attachment G: 2004 Monitoring Gazette

Attachment H: Final brochure of information about the study for the public