

Visitors' Business:

Buffalo Creek Clean Water Partnership - Presentation

Jeff Weiss

Marcy Kynsz

Ted Lazakis

Buffalo Creek Clean Water Partnership
Stakeholder Meeting #4 Agenda
Wednesday January 16, 2013 7:00 PM – 9:00 PM

Location: Long Grove Village Hall
3110 RFD
Long Grove, IL 60047

The purpose of this meeting is to bring stakeholders in the Buffalo Creek Watershed together to review the draft vision statement and to begin development of the goals and objectives for the watershed plan.

1. Introductions
2. Watershed Planning Process – Where are we?
3. Water Quality Monitoring Data Collection Summary
4. Presentation on Pollutant Load Reductions
5. Review and Discussion of Vision Statement
6. Goals and Objectives
7. Wrap Up

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Marcy Knysz mknysz@gha-engineers.com (847) 732-5172
www.buffalocreekcleanwater.org

**Buffalo Creek Clean Water Partnership
Coordinated Pollutant Monitoring Program
MS4 Community Participation Agreement**

The Buffalo Creek Clean Water Partnership (BCCWP) has developed a Coordinated Pollutant Monitoring Program that consists of on-going data collection as follows:

1. **Sediment Sampling at the three largest lakes in the watershed** (funded with Watershed Management Assistance Grant): Lake Albert, Buffalo Grove Reservoir – Upper Basin, and Buffalo Grove Reservoir – Lower Basin
2. **Upstream Reservoir Monitoring** - Water quality testing at two locations located immediately upstream of the reservoir (funded by Watershed Management Assistance Grant)
3. **Downstream Reservoir Monitoring** - MWRD - Water quality testing at one downstream location (to be conducted by the Metropolitan Water Reclamation District of Greater Chicago (MWRD)). This portion of the program is not included for funding by the Watershed Management Assistance Grant.
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The proposed Coordinated Pollutant Monitoring Program will enable experts to pinpoint sources of pollutants and support cleanup initiatives and Best Management Practices. The outcome of this project will be a coordinated, efficient monitoring program that makes the most of community and agency investment in assessing water quality trends over time, sufficient to be used to optimize Best Management Practice locations and address water quality impairments across the Buffalo Creek watershed. This program will enable water quality issues to be addressed across community and county borders, and build the spirit of cooperation needed to address other watershed issues, such as flooding, erosion and habitat quality. This is one of the first steps to be taken to develop a Watershed-Based Plan.

By being part of the Coordinated Pollutant Monitoring Program, your community will not only benefit as noted above, but you will also be able to utilize all the watershed data to support grant applications and for inclusion in your MS4 program. In addition, by being part of the Coordinated Pollutant Monitoring Program, you can reduce your annual water quality sampling costs by teaming up with other communities in the watershed.

If you would like your community to support and be a part of the Coordinated Pollutant Monitoring Program, please indicate your support by signing and returning this document to Marcy Knysz (Watershed Coordinator) or Jeff Weiss (Founder).

Community/Agency Name: _____

Authorized Representative: _____

Signature: _____

Date: _____

David Lothspeich

From: Marcy Knysz [mknysz@gha-engineers.com]
Sent: Wednesday, December 19, 2012 11:19 AM
To: undisclosed-recipients
Subject: BCCWP Working Group Meeting Notice!
Attachments: Buffalo Creek Water Quality Testing Map with WMAG points.pdf; Coordinated Pollutant Monitoring Program Protocol 12.16.12.pdf; MS4 Community Participation Agreement 12.17.12.pdf

The Buffalo Creek Clean Water Partnership's (BCCWP) first grant is pending final approval to assist with a Coordinated Pollutant Monitoring Program!

The BCCWP has been recommended by the Lake County Stormwater Management Commission and the Watershed Management Board for a grant to conduct sediment sampling and water quality testing in the watershed to better identify sources of impairments. We expect final approval in the coming weeks. The BCCWP has already compiled monitoring data from MS4 communities across the watershed and from the Metropolitan Water Reclamation District of Greater Chicago (MWRD), which has been collecting water quality data for more than 25 years.

The goal of the Coordinated Pollutant Monitoring Program is to pinpoint sources of impairments identified in the IEPA's recent Total Maximum Daily Load Study. Five communities - Wheeling, Buffalo Grove, Arlington Heights, Deer Park and Kildeer - have already joined our water quality working group and shared their MS4 water quality monitoring data.

Join us at our next working group meeting on January 16th and learn how we can all benefit from pooling existing data and expanding collection and analysis in order to target projects to remove impairments.

Meeting Information

Date: January 16, 2013

Time: 5:45 PM to 6:45 PM

(Before the Stakeholder Meeting at 7 PM)

Location: Long Grove Village Hall

3110 RFD

847-634-9440

Attached is a description of the program, a map of the watershed showing sampling locations and a draft participation agreement. Please contact us if you have any questions and plan to join us on the 16th.

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mknysz@gha-engineers.com

Jeff Weiss (Founder)

[847-224-0965](tel:847-224-0965)

marieff@aol.com

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Date: _____

DRAFT Coordinated Pollutant Monitoring Program

Prepared by: Marcy R. Knysz, Watershed Coordinator & Jeff Weiss, Founder
Buffalo Creek Clean Water Partnership
November 11, 2012 (rev. December 16, 2012)

Purpose

The proposed project will develop Buffalo Creek Clean Water Partnership's (BCCWP) capacity through engagement of local communities, partner agencies and volunteers in an efficient and Coordinated Pollutant Monitoring Program for the Buffalo Creek sub-watershed. At present, infrequent and uncoordinated water quality monitoring efforts result in limited usefulness of the water quality data to identify sources or assess trends in watershed water quality. For example, there is currently no monitoring at key points in the watershed. There is also a lack of frequent monitoring to identify seasonal trends and pollutants at different flow rates. There is no analysis available for lake sediments, which contribute to problems of eutrophication, suspended solids and low dissolved oxygen. Finally, current monitoring is conducted using inconsistent testing regimes, at different times by MS4 communities, making it impossible to compare these data across the watershed.

The proposed Coordinated Pollutant Monitoring Program will enable experts to pinpoint sources of pollutants and support cleanup initiatives and Best Management Practices. The outcome of this project will be a coordinated, efficient monitoring program that makes the most of community and agency investment in assessing water quality trends over time, sufficient to be used to optimize Best Management Practice locations and address water quality impairments across the Buffalo Creek watershed. This program will enable water quality issues to be addressed across community and county borders, and build the spirit of cooperation needed to address other watershed issues, such as flooding, erosion and habitat quality.

Protocol

I. Sediment Sampling (funded with Watershed Management Assistance Grant)

Sediment sampling is proposed at three locations:

1. Lake Albert
2. Buffalo Grove Reservoir – Upper Basin
3. Buffalo Grove Reservoir – Lower Basin

One sediment analysis will be run for each basin. Each test sample will be comprised of multiple soil samples collected throughout each basin (inflow, outflow, deeper spots, etc.). Sediment will be tested for the following parameters:

- Volatile Organic Compounds
- Semi-Volatile Organic Compounds (includes PNAs)
- Organochlorine Pesticides
- Polychlorinated Biphenyls (PCBs)
- Metals- Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, Zinc
- Total Kjeldahl Nitrogen
- Total Phosphorus
- Cyanide
- Herbicides (2,4, D, 2,4,5 TP)

II. Water Quality Monitoring

There are three components to the Water Quality Monitoring portion of the Coordinated Pollutant Monitoring Program as follows:

1. **Upstream Reservoir Monitoring** - Water quality testing at two locations located immediately upstream of the reservoir (funded by Watershed Management Assistance Grant)
2. **Downstream Reservoir Monitoring - MWRD** - Water quality testing at one downstream location (to be conducted by the Metropolitan Water Reclamation District of Greater Chicago (MWRD)). This portion of the program is not included for funding by the Watershed Management Assistance Grant.
3. **MS4 Water Quality Monitoring** - Water quality testing conducted by MS4 communities. This portion of the program is not included for funding by the Watershed Management Assistance Grant.

1. Upstream Reservoir Monitoring

Upstream reservoir monitoring will consist of both dry weather and wet weather water quality sampling at two locations. BCCWP will collect and analyze the samples for the parameters outlined below. The dry weather sampling will be conducted using grab samples while the wet weather sampling will be conducted using two continuous samplers (6700 series). The two samplers will be on loan to the BCCWP by the Lake County Health Department – Lakes Management Division for the duration of the project. Both upstream reservoir monitoring locations will be upstream of the Buffalo Creek Reservoir. One will be located near Checker Road (“Upstream North”) and the second will be located near Lake Cook Road (“Upstream South”). The exact locations will be determined in the field in coordination with the Lake County Health Department. A watershed map showing the locations of existing MS4 test sites and these two additional proposed test sites is attached. Sampling at these two locations will give us the best information as to the types of pollutants that are entering the reservoir via storm water from the two main tributaries that make up Buffalo Creek.

2. Downstream Reservoir Monitoring – MWRD

The BCCWP plans to utilize the MWRD’s existing test site (WW-12) as the downstream sampling point for this project. The use of the data collected by MWRD at this downstream test site is imperative to the success of the water quality monitoring program. MWRD staff will collect and analyze the samples for the parameters outlined below. The combined results of this monitoring will be used to develop a more intensive monitoring and surveillance program to identify and target specific sources of pollutants entering Buffalo Creek. If the monitoring program can be established for the long term, it can be used to determine the post-construction effectiveness of green infrastructure projects and restoration efforts in the watershed.

3. MS4 Water Quality Monitoring

The BCCWP is trying to engage each MS4 in the watershed to coordinate the timing of their annual water quality testing with the BCCWP Coordinated Pollutant Monitoring Program. We are proposing that each MS4 test their sites twice per year, once in May and once in October (on the first Monday of those months – to coincide with the MWRD and BCCWP testing dates). The BCCWP can assist communities in determining which locations they can share with their neighbors to minimize the cost of the water quality sampling. The attached map shows all the locations that have been submitted to the BCCWP for inclusion in the analysis. If MS4’s can share some of their sites that are on the edge of their communities, it may allow for the second test to be completed each year with minimal additional cost.

Water Quality Monitoring Schedule

The Coordinated Pollutant Monitoring Program proposes multiple water quality samples to be collected during dry and wet weather events from April through October over a two year period (see table below).

Water Quality Testing Schedule 2013-2014				
1st Monday of Each Month April-October	BCCWP Upstream North	BCCWP Upstream North	MWRD Downstream (WW-12)	MS4 Communities (various sites)
April 1, 2013	1	1	1	
May 6, 2013	1	1	1	x
June 3, 2013	1	1	1	
July 1, 2013	1	1	1	
August 5, 2013	1	1	1	
September 2, 2013	1	1	1	
October 7, 2013	1	1	1	x
April 7, 2014	1	1	1	
May 5, 2014	1	1	1	x
June 2, 2014	1	1	1	
July 7, 2014	1	1	1	
August 4, 2014	1	1	1	
September 1, 2014	1	1	1	
October 6, 2014	1	1	1	x
Unscheduled Wet Weather Events	6	6	N/A	N/A
Total Number of Samples	20	20	14	
	40 samples total for BCCWP		14 Samples total for MWRD	Sampling twice per year

Water Quality Monitoring Parameters

All water quality monitoring samples will be tested for the following parameters:

Parameter	Estimated Lab Fee
Fecal Coliform	\$16.00
Chloride	\$11.00
Dissolved Oxygen	\$15.00
Total Dissolved Solids	\$15.00
Total Kjeldahl Nitrogen	\$23.00
Calcium	\$12.00
Conductivity	\$12.00
Biochemical Oxygen Demand	\$21.00
Total Phosphorus	\$16.00
Total Suspended Solids	\$15.00
Temperature (will be taken on-site)	N/A
pH (will be taken on-site)	N/A
Estimated Total Per Sample Cost (Lab fee only)	\$156.00

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