

## **Wet Weather Team Data Request and Monitoring Suggestions List Working Draft – October 12, 2007**

The following is a list of data requests and monitoring suggestions made by Wet Weather Team (WWT) members for consideration for the Wet Weather Program. This includes requests for information to support the WWT's deliberations and suggestions for the research, monitoring, and evaluation efforts associated with MSD's Wet Weather Program. These ideas were identified both at WWT meetings and through individual communications with WWT members (e.g., via e-mail). This list will remain "live" throughout the remainder of the WWT effort, and WWT members are encouraged to send additional suggestions to the facilitation team. Requests that have been responded to will be kept on this list, but marked as "Addressed." New ideas will be listed under a "What's New" section at the beginning of the document for easy reference, as well as under the appropriate section later in the document.

Note: For monitoring and evaluation suggestions related to the Wet Weather Program public education and outreach plan, please see the Wet Weather Team Education and Outreach Idea List.

### **What's New (September/October 2007)**

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Please note that we have reorganized the list into two major sections:

- Section I, "Requests for Information to Support WWT Deliberations," is organized into three sub-categories: Requests for Information on Current Conditions, Requests for Information on the Effectiveness of Potential Solutions, and Process Suggestions. Items under each sub-category are marked by the status of the request (addressed, not addressed, or ongoing).
- Section II, "Suggestions Related to the Wet Weather Program Monitoring, Evaluation, and Research Plan," is organized into four sub-categories: Suggestions Related to Water Quality and Public Health Monitoring, Suggestions Related to the Effectiveness of Green Infrastructure Projects, Suggestions Related to the Effectiveness of Behavior Change Efforts, and Other Suggestions.

Specific requests added to the list this month are as follows:

1. (I-C-2) – Conduct additional analysis of the potential effects of behavior change and green infrastructure strategies at reducing flows into MSD's sewer systems.
2. (I-B) – Additional information on the benefits and challenges of different control approaches (e.g., why a storage solution might be preferable to a transport solution for a particular area).
3. (II-A-4) – Involve the research community (e.g., students at the University of Louisville's School of Public Health) in water quality monitoring and data analysis.
4. (II-A-5) – Consider whether to use EPA's quality control protocols for water quality monitoring efforts.
5. (II-C-1) – Conduct separate research and data analysis to supplement any data collected through surveys about people's behavior.

## **I. Requests for Information to Support WWT Deliberations**

### ***A. Requests for Information on Current Conditions***

1. Data on how fecal coliform levels change with flow volumes.
2. Data on where water quality sampling is currently done in relation to recreational areas.
3. Current data MSD has on water quality in stream reaches (as aquatic health is an issue in some, but not all, stream reaches).
4. How MSD's development fees compare to development fees in other places.
5. Specific information on the percentage of backups that are the result of MSD's activities as opposed to private property issues.
6. Cincinnati's rates before the community started to respond to its consent decree.
7. Information on the "root causes" of wet weather CSO and SSO problems (e.g., the CSO volume attributable to residential downspouts) to assist with Wet Weather Program decision making.  
*[Note: This is an ongoing request.]*

### ***B. Requests for Information of the Effectiveness of Potential Solutions***

1. Information on the long-term effectiveness of strategies that rely on source prevention (e.g., rain gardens).
2. Quantitative information on the benefits and/or effectiveness of eco-friendly solutions currently used by MSD.
3. Additional information on the benefits and challenges of different control approaches (e.g., why a storage solution might be preferable to a transport solution for a particular area). *[Note: This is an ongoing request.]*

### ***C. Process Suggestions***

1. Conduct assessments of different watersheds to find the best opportunities for green infrastructure.
2. Conduct additional analysis of the potential effects of behavior change and green infrastructure strategies at reducing flows into MSD's sewer systems.

## **II. Suggestions Related to the Wet Weather Program Monitoring, Evaluation, and Research Plan**

### ***A. Suggestions Related to Water Quality and Public Health Monitoring***

1. Consider monitoring water quality and flow at additional locations, based upon the Wet Weather Program's objectives and the performance measures developed for the program. Potential new monitoring locations to consider include:
  - a. Intensely used public access sites within Beargrass Creek
  - b. Stream segments MSD does not monitor currently, such as Buechel Branch and upper South Fork of Beargrass Creek
  - c. Additional locations within the Floyds Fork watershed
2. Environmental performance data such as biological indexes of aquatic health (fish counts, macro-invertebrate sampling, etc.), nutrient sampling, downstream pollutant load, and tree cover or other measures of habitat restoration efforts.

3. Data on the public health impacts of polluted water (collected by the School of Public Health or the Health Department and included in an annual report).
4. Involve the research community (e.g., students at the University of Louisville's School of Public Health) in water quality monitoring and data analysis.
5. Consider whether to use EPA's quality control protocols for water quality monitoring efforts.

***B. Suggestions Related to the Effectiveness of Green Infrastructure Projects***

1. Build monitoring components into green infrastructure projects to help demonstrate the overall effectiveness of green infrastructure solutions.
2. Pick a CSO catchment area and study the effects of rain barrels and rain gardens.
3. In order to gain information on the long-term effectiveness of strategies that rely on source prevention, conduct a demonstration project in a small area, and compare the changes in pollutant loading and stormwater flows to those of other areas.

***C. Suggestions Related to the Effectiveness of Behavior Change Efforts***

1. Conduct separate research and data analysis to supplement any data collected through surveys about people's behavior.

***D. Other Suggestions***

1. Monitor customer satisfaction data (e.g., number of hits on MSD's website, number of requests for information, customer satisfaction surveys).