Wet Weather Team Project Meeting Materials

Summer 2006–Spring 2007

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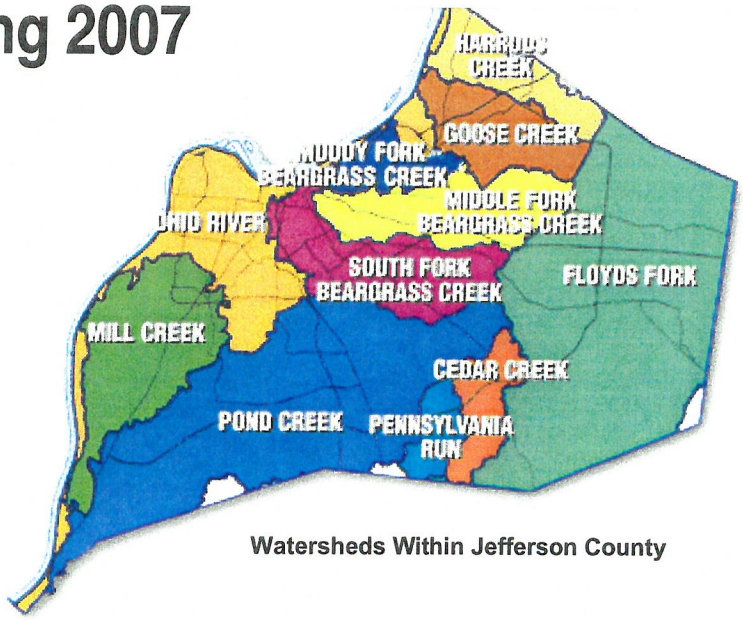
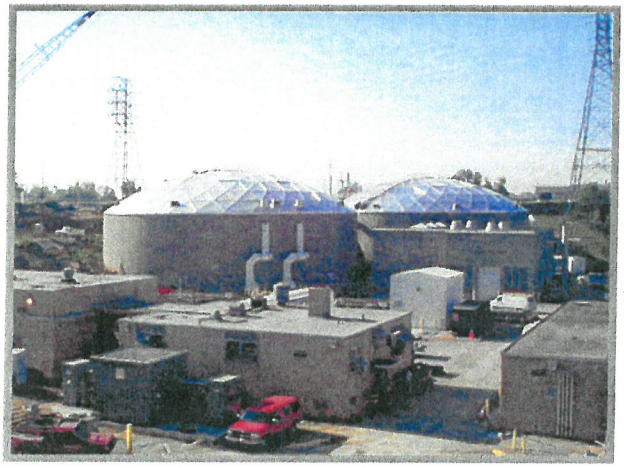
WWT Stakeholders Meeting # 8 4/19/2007

MSD

Louisville and Jefferson County
Metropolitan Sewer District



Watersheds Within Jefferson County



Agenda

Draft Agenda
Louisville and Jefferson County Metropolitan Sewer District (MSD)
Wet Weather Team Meeting #8
Thursday, April 19, 2007, 4:20-8:00 PM
MSD Main Office, Board Room
700 West Liberty St., Louisville

Meeting Objectives:

- Review and provide feedback on the draft performance measure matrices for environmental enhancement, asset protection, and eco-friendly solutions values.
- Review and discuss a proposed approach for the programmatic evaluation of Wet Weather Program alternatives, including analysis of education needs, equity, and financial values.
- Discuss potential weights for Wet Weather Team's community values.
- Identify next steps and expectations for the next meeting of the Wet Weather Team.

4:20 PM **Participants Arrive and Get Settled**

4:30 PM **Introductions, Review Agenda and Ground Rules (10 minutes)**

- Review meeting objectives and ground rules.

4:40 PM **Wet Weather Project Updates (20 minutes)**

- Updates on MSD wet weather activities and follow-up items from the last Wet Weather Team meeting, including:
  - Public meetings and ongoing education, outreach, and public relations efforts. (Comments from the public meetings will be discussed at the May 22nd Wet Weather Team meeting.)
  - Development of a running list of "solution ideas" identified by Wet Weather Team members for consideration in the design of the Wet Weather Program.

5:00 PM **Discussion of Draft Performance Measures (60 minutes)**

- Review and provide feedback on the draft performance measure matrices for the following values:
  - Environmental enhancement
  - Asset protection (draft matrix was distributed for the March 15th meeting)
  - Eco-friendly solutions (draft matrix was distributed for the March 15th meeting)

  (The technical team will also accept comments on all the draft performance measure matrices, including those for public health enhancement and regulatory compliance, for two weeks following this meeting, through May 3, 2007.)

6:00 PM **Dinner Break (20 minutes)**

Dinner will be provided for Wet Weather Team members.

6:20 PM **Discussion of Evaluation Process for Programmatic Values (40 minutes)**

- Review and discuss a proposed process for the evaluation of programmatic values (education, environmental justice and equity, financial equity, and economic vitality) in the design of MSD's Wet Weather Program.

7:00 PM **Values Weighting Discussion (40 minutes)**

- Review examples of how the weighting of values could influence the outcomes of the evaluation of Wet Weather Program alternatives.
- Discuss potential weights for the Wet Weather Team's community values, including programmatic values as well as values evaluated at the project level.

7:40 PM **Opportunity for Observer Comments (10 minutes)**

7:50 PM **Wrap Up and Next Steps (10 minutes)**

- Review plans and expectations for the May 22, 2007 Wet Weather Team meeting.

8:00 PM **Adjourn**

Final Meeting Summary
Wet Weather Team Meeting #8
Thursday, April 19, 2007
MSD Main Office, Louisville

The Wet Weather Team (WWT), chartered by the Louisville and Jefferson County Metropolitan Sewer District (MSD), met on April 19, 2007 at MSD's main office in Louisville. The objectives of the meeting were to:

- Review and provide feedback on the draft performance measure matrices for the environmental enhancement, asset protection, and eco-friendly solutions values;
- Review and discuss a proposed approach for considering and evaluating the programmatic values—including economic vitality, education, environmental justice, financial equity, and financial stewardship—during the development of the Wet Weather Program; and
- Discuss potential weights for Wet Weather Team's community values.

Wet Weather Project Updates

Brian Bingham of MSD provided several updates regarding MSD's wet weather activities, as follows.

- Public Meetings: MSD will host a series of public meetings about Project WIN (Waterway Improvements Now) and the Wet Weather Program in April and May 2007. Many aspects of MSD's public meeting plans reflect suggestions made by the WWT (e.g., additional meeting locations, use of maps/visuals, advertising in the newspaper, and a shorter meeting duration).
- Project WIN Newspaper Insert: MSD distributed and gave an overview of a newspaper insert about Project WIN and the Wet Weather Program that would be included in the April 29, 2007, issue of the Louisville *Courier-Journal.*
- Watershed Exhibit: MSD is one of the main sponsors of a 20,000 square foot exhibit at the State Fair. This exhibit, which is focused on watersheds and biodiversity, is much broader in scope than the Wet Weather Program that WWT stakeholders are helping MSD to design.
- Non-Point Source and Green Alternatives Consultant Team: MSD is in the process of contracting with another technical consultant team to assist with the analysis and development of MSD's Wet Weather Program. This new team will focus on strategies to prevent and reduce the amount of non-point source pollution and excess stormwater entering the sewer system and local waterways, as well as "green" options for achieving water quality improvements, as alternatives to traditional combined sewer overflow (CSO) and sanitary sewer overflow (SSO) controls. This work will include "softer" solutions such as using landscaping to reduce runoff and other stormwater best management practices. MSD also plans to invite a guest speaker to present on this topic at the June WWT meeting, since many WWT stakeholders have expressed interest in this topic.

MSD Executive Director Bud Schardein also noted that a proposal to increase wastewater rates would be presented to the Metro Council for consideration in the near future. This rate increase includes volume-based charges as well as rebates for elderly people with low incomes. It will appear on customer bills as a separate line item for "Project WIN."

Jennifer Tice and Rob Greenwood of Ross & Associates also described the content and organization of the WWT "Solution Ideas" list included with the meeting materials. This document is intended to record and show responsiveness to the ideas that WWT stakeholders have brought up during the course of the

process (in meetings and through separate communications); it will be updated for each WWT meeting with a "what's new" section that WWT members can quickly scan.

Performance Measures Discussion

Gary Swanson of CH2M HILL reviewed the range of performance measures that had been presented previously for the public health enhancement, regulatory compliance, asset protection, and eco-friendly solutions values, and then explained in detail the structure and content of the environmental enhancement performance measure matrix. He also walked through several examples of how different alternatives might score using the environmental enhancement matrix. The performance matrices provide an overall framework for the analytic evaluation of project alternatives, but the technical team will still rely on some professional judgment in developing the benefit scores for each project alternative.

Wet Weather Team members asked several clarifying questions about the performance measures, as well as provided suggestions for improving them. Highlights of this discussion are as follows.

- Several participants suggested that the range of scores for each aspect (e.g., habitat protection, dissolved oxygen impacts, etc.) should be balanced in terms of positive and negative impacts.
    - Activities that score +2 should have the same (but opposite) level of impact as activities that score -2 on the habitat protection scale (e.g., if +2 refers to "significant enhancement of existing habitat," then -2 should be "significant degradation of existing habitat").
    - The full range of negative impacts (-1 to -5) should be included in the environmental enhancement matrix to ensure that the range of potential scores is balanced.
    - A few WWT members suggested that the extreme negative scores in the matrix could be shaded to show any limits on the type of project alternatives that would be considered.
- Some participants asked for definitions of terms used in the matrix, including recreation and customers. Mr. Swanson said that recreation was meant to be interpreted broadly, and that "customers" could refer to property owners or residents.
- A few participants questioned whether effects on stream flows could be double counted in the matrix (i.e., base flows could be counted under both habitat protection and stream flow impacts in the matrix). Participants also suggested that additional aspects of habitat quality (including shade from trees) should be considered as part of habitat protection.
- WWT stakeholders questioned whether the technical team would look at the proportion of a park or other recreational area that could be affected by an alternative. It could be useful to consider the sensitivity of small parks to changes, along with the total area of recreational land affected.

In addition to the discussion about the environmental enhancement performance matrix, participants had a brief discussion about the customer satisfaction value. Mr. Swanson of CH2M HILL noted that customer satisfaction includes issues such as the continuity and reliability of service, as well as the construction impacts of projects. The performance evaluation framework for the customer satisfaction value will be presented and discussed at the WWT meeting on May 22, 2007.

- WWT members suggested that the technical team consider evaluating customer satisfaction as a programmatic value, or through a parallel process that MSD would conduct, since the value is relevant to the Wet Weather Program as a whole and is integrated with other solutions.

Programmatic Values Evaluation Approach

Reggie Rowe of CH2M HILL gave a presentation on how the technical team proposes to consider and evaluate the programmatic values—including economic vitality, education, environmental justice,

financial equity, and financial stewardship—during the development of the Wet Weather Program. Financial stewardship is both a project-specific value (considered when choosing between project alternatives) and a programmatic value (considered when ranking all projects and determining when there is a diminishing level of returns, at the "knee of the curve"). The evaluation of the programmatic values is an iterative process that will be conducted concurrently with and following the project-level analysis of the costs and benefits of project alternatives. The project-level cost-benefit analysis involves developing quantitative benefit scores using the performance measure matrices. This allows for a mathematical and systematic evaluation of tradeoffs between project alternatives. The evaluation of programmatic values is, on the other hand, less quantitative in nature (e.g., there won't be numerical scores for education). Instead of a quantitative analysis, the technical team envisions having a general analytic framework to guide the WWT's discussions about programmatic aspects of the Wet Weather Program.

Highlights from the Wet Weather Team's discussion of the programmatic values include the following.

Education

- WWT members suggested conducting a baseline survey and follow-up surveys of residents to determine whether education and outreach efforts are effective in changing people's behaviors and perceptions on issues related to MSD's Wet Weather Program.
- A few participants noted that it could be useful to focus the proposed literature review of behavior change efforts on those that are likely to be the most relevant, since different types of behavior change (e.g., losing weight vs. encouraging recycling) may require different strategies.

Economic Vitality

- WWT participants noted that there could be costs to the community (e.g., in terms of economic development) of *not* undertaking projects.

Values Weighting Discussion

Rob Greenwood described a couple of examples of how the weighting of the WWT's community values could influence the analysis of alternatives for MSD's Wet Weather Program. With the values weighting, there will be a preference built into the analytical model towards alternatives that deliver the greatest benefits for values that the WWT rates as most important for the Wet Weather Program. The weighting of project-specific values will affect which alternatives are selected to address a given problem (e.g., CSO 140), and after the best alternative has been selected for each project, the values weighting will influence how those projects (representing the "best" alternatives) would be ranked when they are compared to each other. Even with this preference, the Wet Weather Program will still deliver benefits across the values. For the project-specific values, the technical team will be able to conduct sensitivity analyses to examine how the weighting affects the results, including showing the results with equal weighting for the values.

Mr. Greenwood also outlined a potential "story" that could emerge if the WWT chooses to weight the values in a similar way to the results of the straw poll voting exercise conducted earlier in the year, with the modification that environmental justice and equity be considered more important. (Several WWT members had expressed discomfort with the relatively low weighting the environmental justice value received in the straw poll.) The potential story included the following observations:

- With the project-specific values, there would be a preference for delivering results to the public health enhancement, environmental enhancement, and regulatory compliance values.
- WWT stakeholders would be willing to go past the "knee of the curve" (the financial stewardship cost-effectiveness level) for projects that deliver benefits to the most highly rated values—public health enhancement, environmental enhancement, and regulatory compliance.

- In the environmental justice and equity analysis, if there is an imbalance found in the distribution of benefits and costs/burden across different socioeconomic groups and minority populations in the community, the projects contributing to this imbalance will be evaluated more closely.
    - If those projects deliver significant public health and environmental benefits (potentially the most highly rated values), the WWT would be reluctant to change the project mix, or to choose different alternatives for given projects, to improve the balance.
    - Other options could include mitigating any adverse impacts and/or adding projects to provide greater benefits to certain segments of the population.
- With the relatively high weighting of the education value, WWT stakeholders have expressed a strong willingness and interest in investing in education as part of the Wet Weather Program.
- Since the economic vitality value was rated relatively low in comparison to the other values, it indicates a potential willingness among WWT stakeholders to take on additional projects/costs beyond the knee of the curve.
    - If the economic vitality value had instead been rated much higher, it would indicate that the WWT had no tolerance for going beyond the knee of the curve.

Comments from WWT members about weighting the values included the following.

- Participants repeated concerns that it might be better to consider customer satisfaction to be a programmatic value, or to remove it as a separate value since it relates to all the other values and is a critical, overarching issue for MSD.
    - A few WWT members said it would be difficult to evaluate the importance of customer satisfaction relative to the other values without knowing the performance metrics for it.
    - Some participants expressed surprise that the customer satisfaction value had received a relatively low weight in the straw poll.
    - Participants said customer satisfaction was built into other values, including education, because it relates to people's perceptions of the impacts and benefits of MSD's activities.
- A few participants indicated that regulatory compliance shouldn't be considered as a value, because it is a requirement of the program. Mr. Greenwood and Brian Bingham of MSD responded that there are few "bright lines" with Clean Water Act compliance (e.g., in determining a design event for sanitary sewer overflows), and the performance measure matrix reflects that.
- Several WWT participants were uncomfortable with having to choose between the values, and with placing too much emphasis on the results of the straw poll voting exercise.
- Some participants commented on the difficulty of comparing the importance of the project-specific values to the programmatic values, since they would be used in different ways. Mr. Greenwood responded that the values need to be weighted together; it would be less effective to weight the project-specific and programmatic values separately.
- In addition, participants requested examples of how placing the values into three categories based on their importance would work in practice to influence the results of the analysis.
- WWT members noted that it will be important to get input from all stakeholders on the Wet Weather Team on the weighting of the values.

Observer Comments

There were no comments from observers at this meeting.

Wrap Up and Next Steps

- The technical team will develop a draft performance evaluation framework (programmatic or project-specific) for the customer satisfaction value, as well as revise the performance measure matrices for other project-specific values as appropriate based on feedback from WWT members.
    - The technical team will accept additional comments from WWT members on the draft performance measure matrices (asset protection, eco-friendly solutions, environmental enhancement, public health enhancement, and regulatory compliance) through May 3, 2007.
    - Feedback on the technical team's proposed approach to addressing the programmatic values (economic vitality, education, environmental justice, financial equity, and financial stewardship) in the design of the Wet Weather Program was also requested.
- MSD will hold a series of open-house style public meetings about Project WIN and the Wet Weather Program in late April and May at different locations across Jefferson County.
    - WWT stakeholders were encouraged to attend at least one of the public meetings to listen to feedback from community members firsthand.
- The next WWT meeting will be on Tuesday, May 22, 2007, at the Floyds Fork Wastewater Treatment Plant. Potential meeting topics include:
    - Optional tour of Floyds Fork Wastewater Treatment Plant;
    - Discussion of feedback from the Project WIN public meetings in April and May;
    - Review and provide feedback on the draft performance evaluation framework for the customer satisfaction value;
    - Discussion of potential weights for the Wet Weather Team's community values based on their relative importance for the Wet Weather Program; and
    - Preview of the upcoming solution alternatives identification and analysis process.

Meeting Participants

Wet Weather Team Stakeholders

Susan Barto, Mayor of Lyndon
Stuart Benson, Metro Council, District 20
Charles Cash, City of Louisville, Planning & Design Services Department
Faye Ellerkamp, City of Windy Hills
Arnita Gadson, West Jefferson County Community Task Force
Mike Heitz, City of Louisville, Metro Parks
Tom Herman, Zeon Chemicals
Rick Johnstone, Deputy Mayor, Mayor's Office
Bob Marrett, CMB Development Company
Judy Nielsen, Louisville Metro Health Department
Lisa Santos, Irish Hill Neighborhood Association
Bruce Scott, Kentucky Waterways Alliance
David Tollerud, University of Louisville, School of Public Health & Information Sciences
Tina Ward-Pugh, Metro Council, District 9
David Wicks, Jefferson County Public Schools

MSD Personnel

Angela Akridge, MSD Regulatory Policy Manager
Brian Bingham, MSD Regulatory Management Services Director
Derek Guthrie, MSD Director of Engineering/Operations & Chief Engineer
Bud Schardein, MSD Executive Director

Facilitation and Technical Support

Rob Greenwood, Ross & Associates Environmental Consulting
Reggie Rowe, CH2M HILL
Gary Swanson, CH2M HILL
Jennifer Tice, Ross & Associates Environmental Consulting

Meeting Observers

Julie Buckler, MSD
Vicki Coombs, MSD
Phillis Croce, MSD
Marion Gee, MSD
Tim Kraus, O'Brien & Gere
Wesley Sydnor, O'Brien & Gere

Meeting Materials

- April 19, 2007 Meeting Agenda
- WWT Meeting Schedule (Updated April 2007)
- Summary of the 3/15/07 Wet Weather Team Meeting
- Solution Ideas List (4/11/07 Version)
- Community Events and Public Meetings in April-May 2007 Handout
- Project WIN Newspaper Insert
- Draft Performance Measure Matrix for Environmental Enhancement
- Programmatic Values Evaluation Process Presentation
- Update on Approach to Weighting the Wet Weather Team's Values (Updated 3/20/07)

Handouts

Wet Weather Team Solution Ideas
Working Draft – April 11, 2007

The following is a list of potential "solution ideas" identified by Wet Weather Team (WWT) members that will be considered in the design of the Wet Weather Program. The list will act as a "punch list" for the technical team as they consider project and program alternatives. These ideas were identified both at WWT meetings and through individual communications with WWT members (e.g., via email). This list will remain "live" throughout the remainder of the WWT effort to capture ideas as they are shared. WWT members are encouraged to send additional ideas to the facilitation team for inclusion in this list.

This list is organized into two sections. Section I, "Project Alternatives," is organized into five sub-categories: Stormwater Best Management Practices (Non-Structural), Stormwater Best Management Practices (Structural), CSO and SSO Point Source Controls, General/Other Solutions, and Site-Specific Solutions. Section II, "Funding Ideas," is organized into three sub-categories: Cost Allocation Strategies, Financial Incentives, and Funding Sources/Options.

I. Project Alternatives

A. Stormwater Best Management Practices (Non-Structural)

1. Influence behavior of residential and commercial landowners through education
    a. Promote water conservation practices: rain gardens, rain barrels, and responsible alternatives for sump pumps and downspout connections
    b. Encourage stewardship: removing invasive vegetation from riparian zones, planting wetlands, litter cleanups, etc.
2. Regularly distribute billing inserts (like LG&E's) to MSD customers with facts and tips to encourage certain behaviors (e.g., lawn chemical management, pet waste management, landscaping practices)

B. Stormwater Best Management Practices (Structural)

1. Use landscaped areas to control stormwater runoff
2. Encourage homeowners to construct rain gardens
3. Install French drains along roads to accept stormwater runoff (see also detailed suggestions listed for Beechwood Village below)
4. Develop specific design parameters or standards for stormwater best management practices and include in MSD Design Manual. guidance for the following approaches:
    a. Pervious pavement
    b. Level spreaders
    c. Riparian buffers
    d. Vegetated swales
    e. Wet ponds

f. Wet ponds with forebays

g. Wetlands

C. CSO and SSO Point Source Controls

1. Disconnect downspouts and/or sump pumps (e.g., by developing educational initiatives aimed at landowners)

D. General/Other Solutions

1. Leverage and coordinate the Wet Weather Program efforts with MSD's MS4 stormwater management permitting responsibilities

E. Site-Specific Solutions

Beechwood Village

1. Construct a park-like wet detention area in the wooded area of St. Matthews Park
2. Install new sanitary lines and laterals to homes, and pumps for basement facilities when requested by the homeowner
3. Install French drains on either side of roadways to accept stormwater runoff. The drains would be continuous trenches filled with gravel and covered by turf. The drains could also accept discharges from sump pumps and downspouts.
4. Install perforated pipe in the French drains so they can discharge more freely when they flood. The piped drain system would need to be a combination of gravity and pump depending on the topography and discharge point(s).
5. If a solid pipe system is used, the system could discharge to constructed wetlands designed to treat stormwater. Possible sites for constructed wetlands are the forest north of the Community Park and the detention pond for the bank on Shelbyville Road at the Beechwood Village entrance.
6. Restore natural stream banks for the Sinking Fork north of Shelbyville Road where the big pump now sits.

II. Funding Ideas

A. Cost Allocation Strategies

1. Equitably assign costs (focus areas for the financial equity value):
    a. Consider the burden on fixed income and low-income populations
    b. Rates and fees that are linked to the cost to serve (i.e., the level of impact)
2. Charge residences differently depending on the area of impervious surfaces on properties (and therefore the amount of stormwater runoff that would be generated)
3. Require lower development fees for areas that already have sewer capacity (e.g., urban areas in need of re-investment)

4. Bill based on increased water usage - the more you use, the higher the rate

B. Financial Incentives

1. Provide incentives for "preferred" behaviors
2. Offer incentives for developers to use cost-effective, eco-friendly solutions (e.g., stormwater best management practices)
3. Charge reduced wastewater rates to property owners that use eco-friendly techniques to reduce stormwater runoff

C. Funding Sources/Options

1. Consider using volunteers to reduce costs
2. Consider solutions that could meet the objectives of multiple agencies (e.g., water quality and flood control improvements) and therefore could potentially receive funding from multiple sources

Community Events and Public Meetings –April & May 2007

Sunday, April 22, 2007 12:00PM – 4:00 PM.
Party for the Planet: Earth Day 2007 at the Louisville Zoo
MSD Booth - We will be using the Enviroscape to demonstrate how everyday activities can cause water pollution if not done right and how everyone can prevent water pollution by doing the right thing with chemicals and waste in their own yard.

Tuesday, April 24, 2007 6:00 - 8:00 PM
Project WIN – Public Meeting
Southwest Government Center - 7219 Dixie Hwy
Presentations will be given to help educate the community about stormwater and sewage overflows during wet weather, the goals of Project WIN, requirements of the Consent Decree, future rate increases, and how individuals can help. Question and answer session to follow.

Tuesday May 8, 2007 8:15 AM – 12:00 PM
Rain Garden Workshop – Space is limited (see attached)
MSD Board Room – 700 West Liberty Street

Thursday, May 10, 2007 6:00 - 8:00 PM
Project WIN – Public Meeting
NIA Center - 2900 West Broadway

Saturday, May 12, 2007 10:00 AM – 2:00 PM
Community-wide volunteer project to label storm drains that go directly to Chenoweth Run Creek
10434 Watterson Trail (next to City Hall) at the J-Town Farmers Market Pavilion

Monday, May 14,2007 6:00 - 8:00 PM
Project WIN – Public Meeting
East Government Center - 200 Juneau Drive

Monday, May 14 through May 18, 2007
The River Education Center will be in Louisville
MSD and LWC is sponsoring the ORSANCO Floating Classroom
Six Elementary Schools of Jefferson County kids will get to cruise the river and participate in hands on experiments...water sampling, wildlife study, mapping etc

Wednesday, May 16, 2007 6:00 - 8:00 PM
Project WIN – Public Meeting
Central Government Center - 7201 Outer Loop

Thursday, May 24, 2007 6:00 - 8:00 PM
Project WIN – Public Meeting
Kentuckian Girl Scouts Building - 2115 Lexington Rd

Monday, May 29, 2007 10:00 AM – 3:00 PM
EarthSave Louisville – Taste of Health
Louisville Slugger Field – 401 E. Main Street
MSD Sponsored Booth – Distribute MSD handouts and educational brochures along with sample bags of Louisville Green fertilizer. We will also be using the Enviroscape to demonstrate how to prevent Non point source pollution in everyday activities that can cause water pollution.

Rain Garden Workshop

May 8th, 8:15am-12:00pm

Location: Louisville MSD Board Room, 700 West Liberty, Louisville, KY. 40203

- Welcome & Introductions Phyllis Croce, Louisville MSD
- What is a Rain Garden? Municipal Success Story
- Why Rain Gardens? Hydrology, urbanization, and the need for stormwater controls
- Rain Garden Basics What's involved
- Questions & Answers
- Break
- Kansas City's 10,000 Rain Gardens Initiative Public Education & Outreach
- Municipal Programs
  - Making rain gardens happen
  - Incentives and credits
  - Maintenance (who and how)
  - Public Acceptance
- Local & National Case Studies
- Questions & Answers

- **Low Cost Best Management Practice**
- **Simple Installation**
- **Aesthetically Pleasing**
- **Easily Maintained**
- **Possible Storm Water Utility Credits**
- **Educational**
- **NPDES compliant**

RSVP (space is limited)

Contact Phyllis Croce,
502-540-6456 or
croce@msdlouky.org

URS

Be a Leader!
Help Us Protect Our Creek!

Join a community-wide project to place labels on the storm drains that go directly to Chenoweth Run Creek.

MAIN EVENT

Saturday May 12

10AM- 2PM

AT THE J-TOWN FARMERS MARKET PAVILION
Located at 10434 Watterson Trail (next to City Hall)

Volunteers also needed Saturday May 19, 2007 (same place/time).

The purpose of the event is to mark 1,000 storm drains in the Chenoweth Run watershed so people will know that dumping into a storm drain or catch basin will pollute our creek.

Volunteers* will be trained and all materials will be provided.

The kick off for this event will be held on Saturday May 12 as a part of "Spruce Up Jeffersontown."

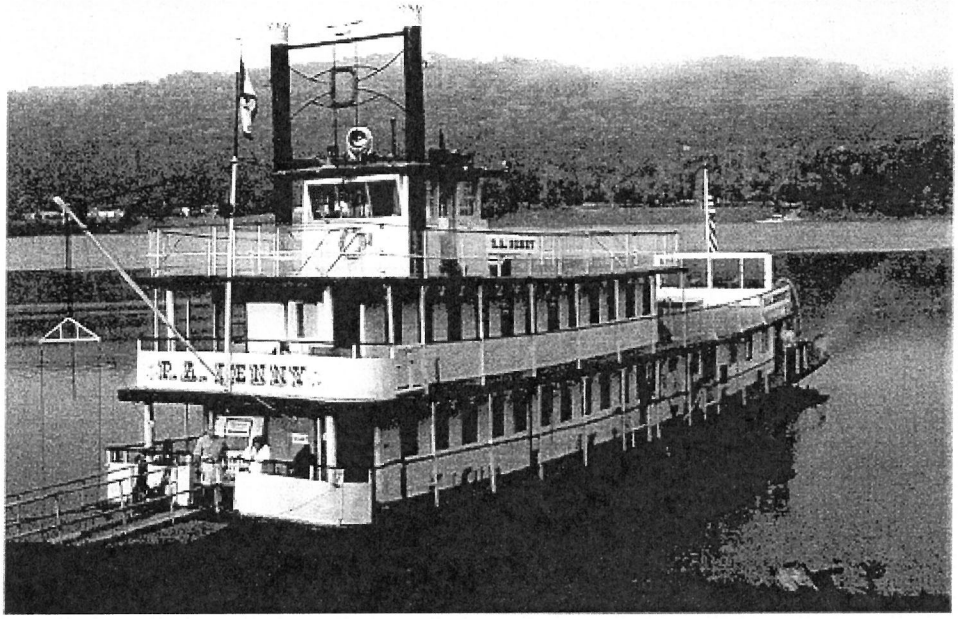
Lunch will be provided for all volunteers on May 12 at the Pavilion.

For groups that are unable to attend on these days, but DO want to participate on a different date, please contact us and we will make alternative arrangements.

To volunteer, please contact Sharon Worley at worley@msdlouky.org or call 540-6744.

Project funding provided by Project XL. The program is endorsed by the City of Jeffersontown.

*Permission Slips & Adult Supervision required for all volunteers under the age of 16.



PA Denny River Education Center Coming to Louisville

The PA Denny River Education Center, a floating science classroom for the Ohio River will be coming to Louisville the week of May 14-May 18.

The floating classroom is owned and operated by ORSANCO Educational Foundation, a nonprofit educational foundation in Cincinnati, OH. The Foundation was formed in 2004 under the domain of the Ohio River Valley Water Sanitation Commission (ORSANCO). The Foundation's mission is to design and manage educational programs for the Ohio River.

While in Louisville, the boat will host elementary students from Jefferson County. Students will become Pollution Detectives for a day. Besides giving the river a health check up, they will learn about water quality, aquatic life, navigation and the watershed system.

The Louisville trip is sponsored by Louisville Water Company, Louisville and Jefferson County MSD, American Commercial Lines, JJ&G, and River Fields.

For further information contact: Jeanne Ison, 513-231-7719, jison@orsanco.org

From: Herbert Schardein
To: Carlton, Chad; Hayes, Larry; Heitz, Mike; James.Sexton@jefferson.kyschools.us; Johnstone, Rick; Kamer, Matt; Martin, Allison; McGovern, Jim; Northern, Mary Lou; Summers, Bill; Wolf, Ron
Date: 4/3/2007 12:39:57 PM
Subject: GREAT NEWS!

We met this morning with the Principal of Eastern High School, James Sexton,and members of his management staff at the Floyds Fork Wastewater Treatment Plant in Miles Park.

The purpose of the meeting was to discuss a formal environmental education and public service partnership between MSD and Eastern High School, similar to our program with Fairdale High School in southern Louisville Metro. The high school is going to develop outdoor classroom programs though their biology department. Their ROTC officer, Colonel Schneider, is going to use MSD facilities as a base for service projects such as tree planting, trail development and a camp ground along Floyds Fork. He offered his ROTC students as labor for Metro Parks initiatives in the area. The students will receive credits for their participation. This program will be managed by the high school and is scheduled on a daily basis. MSD will provide the facilities and classroom instructors regarding wastewater treatment process; wetlands; and, floodplain issues. The partnership will provide a day-to-day year round use of the environmental education center.

There will be a public announcement sometime in May. We have all agreed that Mayor Abramson should kick this program off. We want to do it on the same date that the canoe loading facility in Miles Park is announced. Dan Jones, 21st Century Parks, has been involved and considers it another beneficial use of the City of Parks program. David Wicks, of JCPS, is on board and will provide administrative support from the school district.

If you have questions, do not hesitate to call. I believe this is a great opportunity for the parks initiative, environmental education, community service, and the full use of a public property. I can only see it expanding in the future.

Bud

CC: board; Brady, Eric; C Group; Coombs, Vicki; Croce, Phyllis; Exec-Staff; Greg Farris; Purifoy, Paula; Thomasson, Dennis

Value: Environmental Enhancement

Aspect	-5	-4	-3	-2	-1	0	1	2	3	4	5	Score Per Aspect
Habitat Protection				Significant habitat destruction	Minor reduction in existing habitat	No impact on habitat	Minor enhancement of existing habitat	Significant enhancement of existing habitat	Creation of minor amount of common habitat	Creation of significant amount of common habitat	Creation of critical habitat for rare or endangered species	
Aesthetics - Solids and Floatables (S&F)				Removes existing S&F control device	Reduces efficiency of existing S&F control device	No change in S&F removal	0 - 10% of flow treated with screens	10 - 25% of flow treated with screens	25 - 50% of flow treated with screens	50 - 75% of flow treated with screens	>75% of flow treated with screens	
Aesthetics - Odor and Air Emissions		Create annoying odor source affecting >20 customers often	Create annoying odor source affecting <20 customers often, or >20 customers occasionally	Create detectable odor source affecting >50 customers often, or annoying odor source affecting <20 customers occasionally	Create detectable odor source affecting <50 customers occasionally	No impact on odors	Eliminate detectable odor source affecting <50 customers occasionally	Eliminate detectable odor source affecting >50 customers often	Eliminate annoying odor source affecting <20 customers occasionally	Eliminate annoying odor source affecting <20 customers often, or >20 customers occasionally	Eliminate annoying odor source affecting >20 customers often	
Recreational Opportunities		Elimination of existing recreational use in large area	Elimination of existing recreational use in a limited area	Major interference with existing recreational use	Minor interference with existing recreational use	No change in recreational uses	Minor enhancement to existing use	Major enhancement to existing recreational use	Major enhancement and expansion of existing recreational use	Creation of new recreational use with limited distribution	Creation of significant new recreational use with widespread distribution	
Dissolved Oxygen (DO) Impacts			Reduction of in stream DO likely during critical conditions	Intermittent reduction of in-stream DO likely during non-critical conditions	Intermittent reduction of in-stream DO possible during non-critical conditions	No DO impacts	Intermittent improvement of in-stream DO 0 - 2 mg/l	Intermittent improvement of in-stream DO 2+ mg/l, intermittent critical condition improvements 0 - 2 mg/l	Continuous improvement of in-stream DO 0 - 2 mg/l, intermittent critical condition improvements 2-4 mg/l	Continuous improvement of in-stream DO 2+ mg/l	Continuous improvement of critical condition in-stream DO 2+ mg/l	
Downstream Impacts (Biochemical Oxygen Demand [BOD] and Nutrient Loads)				Significant increase in annual average BOD or nutrient loads	Potential increase in annual average BOD or nutrient loads	No impact on BOD or nutrient loads	0 - 10% reduction in annual BOD or nutrient loads	10 - 25% reduction in annual BOD or nutrient loads	25 - 50% reduction in annual BOD or nutrient loads	50 - 75% reduction in annual BOD or nutrient loads	>75% reduction in annual BOD or nutrient loads	
Stream Flow Impacts (Dry Weather Flows Only)	>50% decrease in flow during critical conditions	25 - 50% decrease in flow during critical conditions	0 - 25% permanent decrease in flow during critical conditions	Frequent decrease in flow during critical conditions, or frequent increase in high flow peaks	Possible decrease in average flow, or minor increase in high flow peaks	No impact on stream flow	Intermittent increase in stream flow - not timed to critical conditions	Intermittent increase in stream flow - often improves critical conditions	0 - 10% permanent increase in stream flow during critical conditions	10 - 25% permanent increase in stream flow during critical conditions	>25% permanent increase in stream flow during critical conditions	

Instructions:
1. Score each alternative for each of the seven aspects of the value. Scores can be positive or negative, depending on the impact of the alternative on the value.
2. Total the scores for each aspect to get the total score for this alternative in this value.
3. Maximum score is 25. Minimum score is -22.

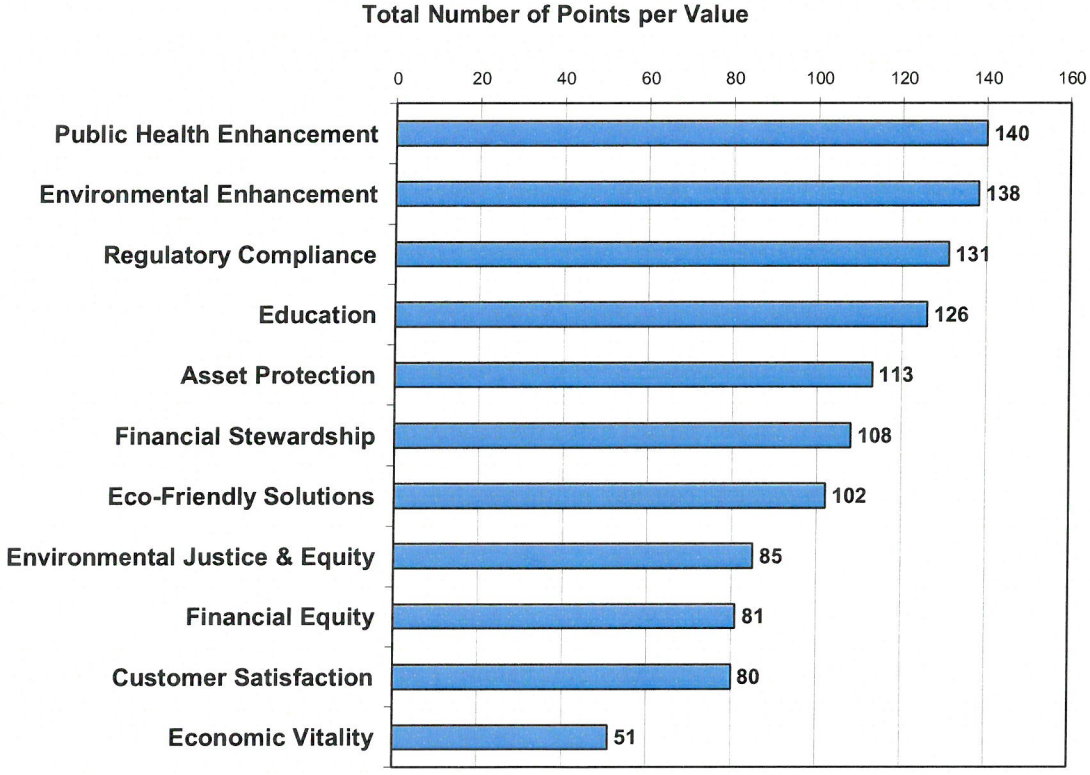
Total Score Environmental Enhancement (Maximum Score = 25)

Update on Approach to Weighting the Wet Weather Team's Community Values
Discussion Draft Prepared for Wet Weather Team Meeting #7, March 15, 2007

This document summarizes the results from the straw poll voting exercise conducted during and after the Wet Weather Team (WWT) stakeholder meeting on February 13, 2007, outlines a potential distinction between values that could be evaluated at the programmatic level rather than at the project level, and describes potential implications of the results of the straw poll voting exercise for weighting the values.

I. Results from the Straw Poll Values Weighting Exercise (Updated 3/20/07)

At the WWT meeting on February 13, 2007, stakeholders on the Wet Weather Team were asked to complete a "straw poll" ballot soliciting their thoughts on the relative importance of the WWT values for deciding between alternatives for MSD's Wet Weather Program. (Input from WWT stakeholders who missed the meeting was also collected.) The ballots asked individuals to assign 55 points across the 11 values, with higher point values representing greater importance for evaluating program alternatives. The voting exercise was intended to provide a snapshot of the group's preferences, as a starting point for further discussions. The results from the voting exercise are shown in the chart below.



In the straw poll voting exercise there was a high degree of divergence in the voting for two of the top tier values (education and regulatory compliance). Discussions following the exercise suggested that the wide divergence in voting on regulatory compliance was due to many stakeholders not voting for the value because they assumed that it was "given." The discussions indicated strong support among the stakeholder group for placing high value on regulatory compliance as a value.

II. Values Used in Programmatic and Project Level Evaluations

In the values-based decision-making model the Wet Weather Team is using, alternatives for the Wet Weather Program will be evaluated at two levels:

(1) Project level—measuring the benefits and costs of alternatives to address site-specific problems (e.g., a specific CSO location); and

(2) Programmatic level—evaluating the characteristics of the Wet Weather Program as a whole, including all site-specific projects as well as watershed or community-wide solutions.

Certain values are relevant in the context of evaluating alternatives to address site-specific problems, while other values appear better evaluated and served when used at the programmatic level for the Wet Weather Program as a whole. The values proposed for programmatic evaluation include:

- Economic Vitality
- Education
- Environmental Justice and Equity
- Financial Equity

The rationales for considering these values at the programmatic level are as follows.

- Economic vitality addresses the total cost burden for the community as well as wastewater service rates and development fees; these aspects relate to the Wet Weather Program as a whole.
- Education is an important component of all projects. Some strategies, such as efforts to change homeowner behavior to prevent pollution, require education in order to be effective. Other strategies, such as structural changes to MSD's sewer systems, depend at least indirectly on education, to foster understanding and support among ratepayers for MSD's investments to address sewer overflow and water quality issues. Because of the cross-cutting nature of the education value, it would appear important to ensure the value is examined programmatically.
- The environmental justice and equity value and the financial equity value relate to the overall distribution of positive and negative impacts among different racial and socioeconomic groups in the community. While a given project may affect a specific socioeconomic population more than others, it is the balance in the distribution of benefits and costs of the Wet Weather Program as a whole that is most important to consider for these values.

III. Implications of the Straw Poll Voting Exercise for Weighting the Values

Examples of the potential implications of the results of the straw poll voting exercise for the weighting of the Wet Weather Team's community values are listed below. The facilitation team will work with the technical team to develop proposed weights for the community values.

Project-Specific Analysis of Alternatives

- Wet Weather Team (WWT) stakeholders appear strongly supportive of projects that will deliver public health and environmental enhancement benefits.
    - All other factors being equal (e.g., project cost), WWT stakeholders will want to favor projects that enhance the environment and public health more than projects that provide, for example, benefits for asset protection and eco-friendly solutions.

- Environmental enhancement and public health enhancement also have scored higher than financial stewardship, implying that stakeholders may accept some degree of diminishing cost effectiveness when the result is improvements to the environment and/or public health.
- WWT stakeholders will want to favor projects that provide asset protection and eco-friendly solution benefits more than projects that provide customer satisfaction benefits.
- Thus, a project alternative that scores high on customer satisfaction improvement, but low on environmental enhancement and public health enhancement, will likely be ranked lower compared to other alternatives.

- WWT stakeholders also know that MSD's Wet Weather Program needs to be highly attentive to regulatory compliance.

Programmatic Analysis of Alternatives

- Financial Values: The relatively low weighting of the economic vitality value implies that WWT stakeholders are willing to take on a substantial cost burden in order to gain real benefits for the community, especially in the areas of public health and environmental enhancement.
  - However, considering the high weighting of the financial stewardship value, WWT stakeholders feel strongly that resources should be used wisely, on solutions that are cost effective.
- Education: About a third of the WWT stakeholder group sees education as critically important to the success of the Wet Weather Program. Most of the rest of the group believes that education is, at a minimum, a key building block for the program.
  - This implies that the Wet Weather Program should explore and invest in all cost-effective educational opportunities that contribute to benefits such as environmental enhancement, regulatory compliance, and public health enhancement.
- Environmental Justice and Equity: This value indicates a strong interest on the part of WWT stakeholders to ensure the Wet Weather Program examines opportunities to increase balance in the distribution of costs and benefits among different racial and socio-economic populations in the community.
  - The relative straw poll score for the environmental justice and equity value suggests that opportunities to improve the balance would be undertaken as long as, in particular, they do not adversely affect environmental and/or public health benefits, or create *strongly* negative impacts to regulatory compliance, asset protection, financial stewardship, and/or eco-friendly solutions.

Wet Weather Program: Proposed Evaluation Process for Programmatic Values

Wet Weather Team
Stakeholder Group Meeting No. 8
April 19, 2007

Presentation Outline

- Review the overall Wet Weather Program development process
- Review and provide feedback on the proposed approach for the evaluation of programmatic values:
  - Education
  - Economic Vitality
  - Financial Equity
  - Environmental Justice and Equity

Wet Weather Team Community Values

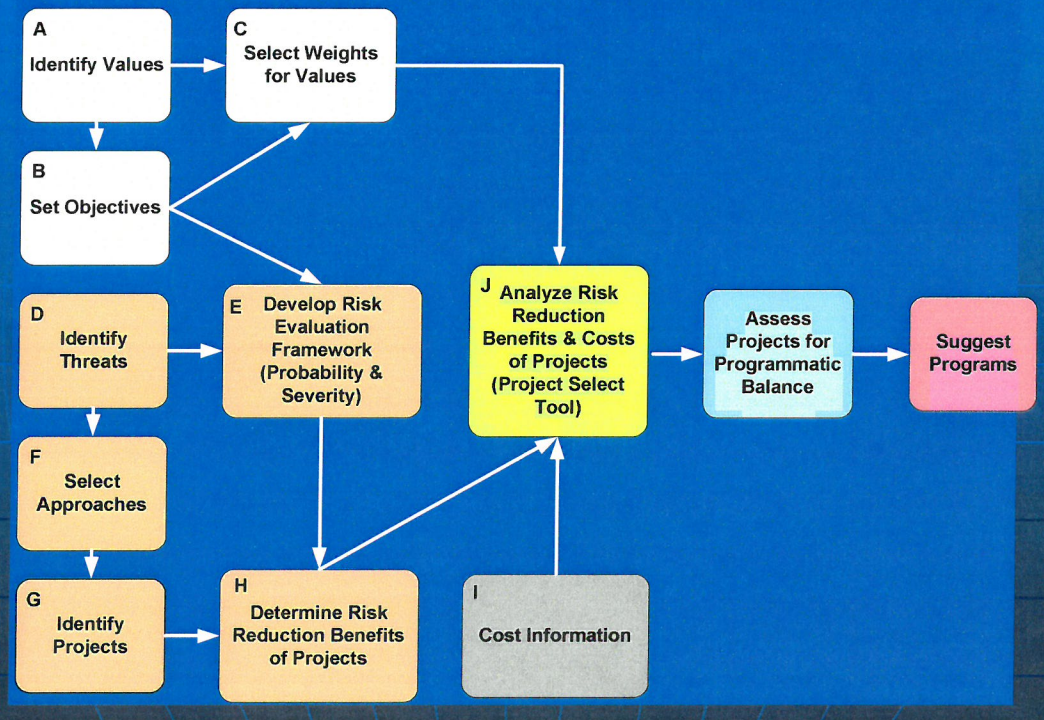
For Project-Level Evaluation:

- Asset Protection
- Customer Satisfaction
- Eco-Friendly Solutions
- Environmental Enhancement
- Public Health Enhancement
- Regulatory Compliance
- Financial Stewardship (project level & programmatic)

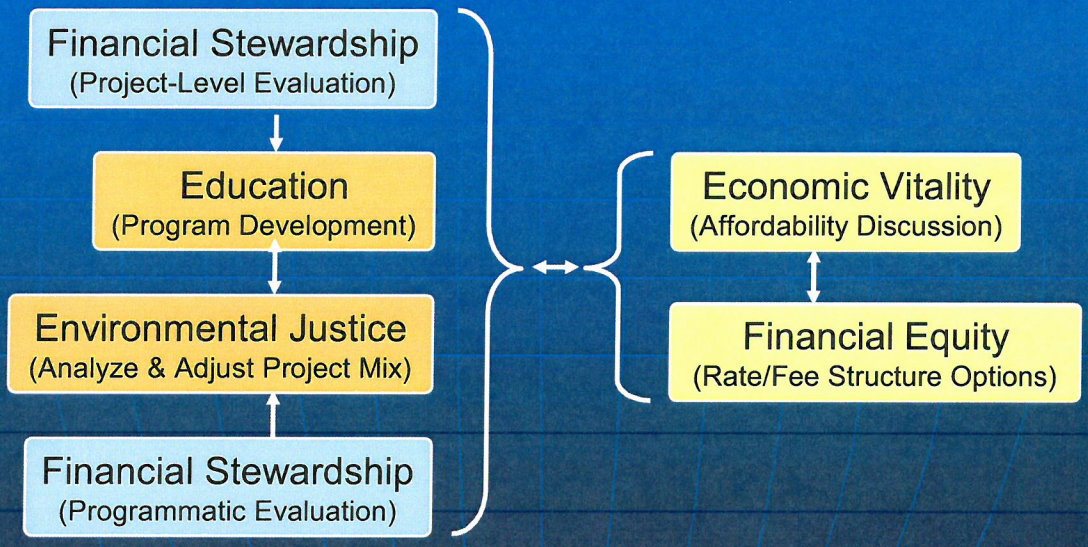
For Programmatic Evaluation:

- Education
- Economic Vitality
- Financial Equity
- Environmental Justice and Equity

Values-Based Risk Management Planning Process



Programmatic Values Evaluation Sequence



Education Value Overview

- WWT stakeholders have identified education as a critical component of MSD's Wet Weather Program
- Key education and outreach objectives include:
  - Value clean water
  - Protect public health
  - Support investment needs
  - Maintain positive MSD image
  - Provide Wet Weather Plan input
  - Change people's behavior

Why is Education a Programmatic Value?

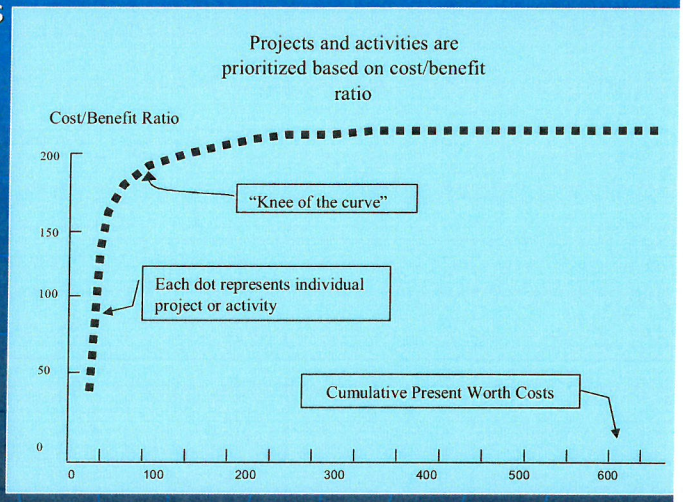
- Education is relevant to all projects and other program components
  - All projects have potential financial/rate impacts to community members
  - Some control strategies rely heavily on education to change people's behaviors
  - Outreach is an important part of the construction phase of many projects
  - Education is critical for public support for Wet Weather Program goals (clean water) and public acceptance of rate impacts
- Effective education efforts are:
  - Integrated with other strategies
  - Comprehensive to address county-wide needs

Proposed Education Program Development Process

1. Consult with social marketing experts to develop draft education/outreach plan (for WWT review)
2. Conduct a literature review of other public behavior change efforts
   - Learn what strategies and techniques produce the best results and are most cost-effective
3. Identify the education needs associated with selected project alternatives
4. Identify other strategies needed to meet overall public education goals (gaps analysis)
5. Refine draft education/outreach plan to meet identified needs and goals, and develop cost estimates for the Wet Weather Program budget

Financial Stewardship

- Project Select outputs summarize cost-benefit results
- Financial stewardship value is evaluated at two levels:
  - Project level (choosing between alternatives)
  - Programmatically (cost-effectiveness of all projects combined)



Economic Vitality – Value Definition

- <u>Brainstormed Value Components:</u>
  - Affordability of rates and fees
  - Affordability – housing
  - Competitive industrial rates
  - Avoid excessive charges and fees for new development (don't push more development outside Jefferson County)
  - Fiscal transparency
  - Rates and fees predictable and transparent
  - Adequacy for development, support smart growth
  - Revitalize urban core
- <u>Focus Areas:</u>

  (1) Average residential rates

  (2) Average commercial/industrial rates

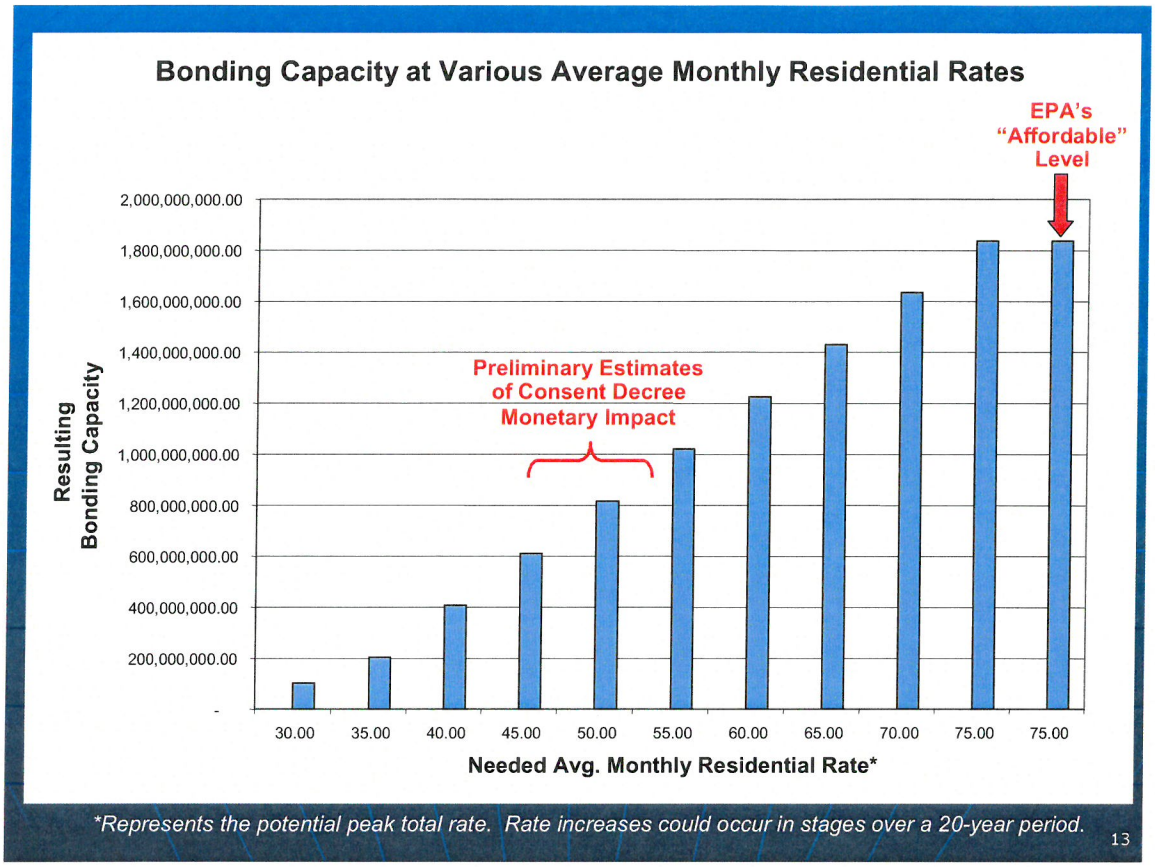
  (3) Development fees

Economic Vitality – Potential Analytic Approaches

- Two options for defining "affordability" include:
  1. EPA's affordability criteria
  2. Comparison to current rates (e.g., percentage increase)
- The analytic framework (decision rules, scales, etc.) will be set before reviewing the results of cost-benefit analysis

Option 1: EPA Affordability Criteria

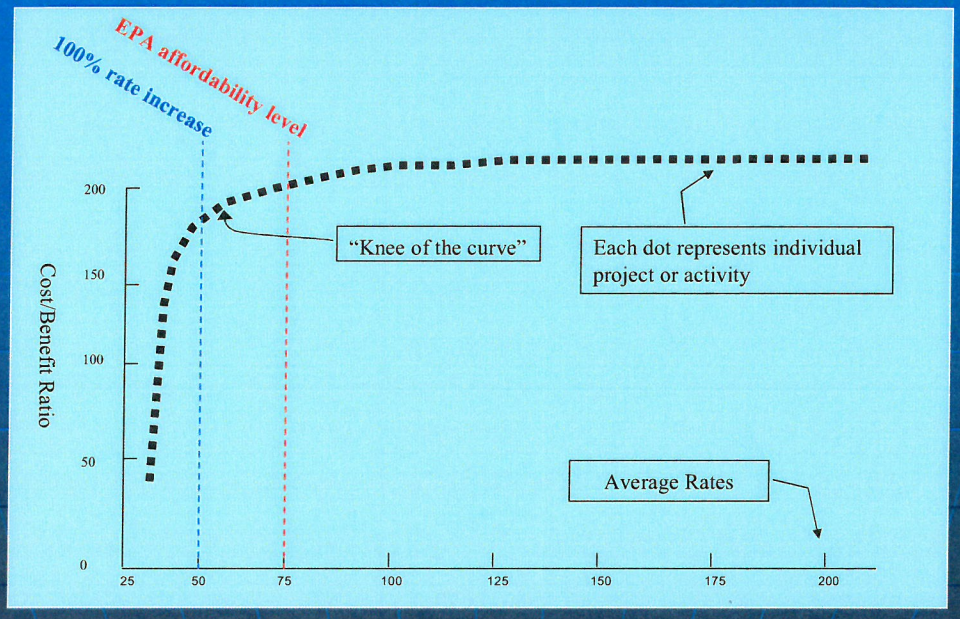
- EPA's affordability criteria are based on:
  - Residential Indicator
  - Financial Capability Indicators
- MSD could charge approximately $50 more per month before our rates would hit EPA guidelines of 2% of median household income (MHI)
- The total MSD bill (drainage & sewer) would be $75 per month at EPA guideline of 2% per MHI
- EPA's definition of "affordable" exceeds preliminary estimates of Consent Decree monetary impact



Option 2: Affordability Based on Comparison to Current Rates

- Examine percentage increase in rates
  - Residential rates
  - Commercial and industrial rates
  - Development fees
- Rate/fee increases could be phased in over a 20-year period
- Define "acceptable" level of maximum rate increase
  - 0-50%?
  - 50-100%?
  - 100-150%?
  - 150-200%?

Knee of Curve Analysis



Different definitions of "affordability" (economic vitality) may indicate a different stopping point on the "knee of the curve" graph.

Financial Equity – Value Definition

- Brainstormed Value Components:
  - Equitable assignment of costs
  - Natural state of cause and effect: ownership of impacts, assigns costs
  - Impact-weighted cost structure
  - Consider burden on fixed and low-income populations
  - All neighborhoods have the same value
- Focus Areas:
  (1) Net cost to low-income populations (rates plus any assistance)
  (2) Rates and fees that are linked to the cost to serve (i.e., level of impact)

Financial Equity Approach

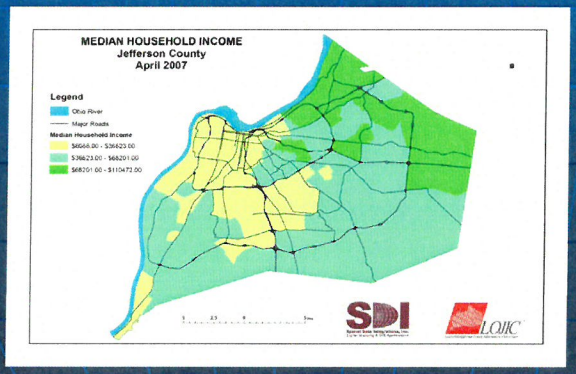
- Consider how Wet Weather Program costs would affect different segments of customers if there were no changes to MSD's rate structure
  - Distribution of costs among residential, commercial, and industrial users
  - Effects on low-income populations
- Identify needs for subsidies, financial incentives, and/or other assistance
- Discuss rate and fee structure options that could:
  - Decrease the burden on low-income populations
  - Improve the linkage between rates/fees and the cost to serve (level of impact)

Environmental Justice and Equity – Value Definition

- <u>Brainstormed Value Components:</u>
  - Equitable distribution of resources/benefits
  - Equitable quality of life improvement (help challenged areas) – environmental justice
  - Equitable responsibility for problem solving
  - Equitable service and equitable siting of facilities (don't locate all facilities in minority or low-income neighborhoods)
  - Minimize household relocations
- <u>Focus Areas:</u> Seek balance in the distribution of:
  (1) Capital investments
  (2) Facility construction and siting
  (3) Service provision

EJ & Equity–Analytic Approach

- Develop color-coded base maps showing 3 categories of:
  - Income levels
  - % minority population
- Plot and analyze distribution of:
  - Neutral or negative projects
  - Positive-impact projects (e.g., enhanced parks)
- Identify where to consider changes to the project mix to improve the balance of benefits and/or burden



Environmental Justice and Equity – Additional Strategies

- Develop an evaluation checklist to make sure that projects (regardless of location) include positive design features, such as:
  - Open versus closed storage basins
  - Pump station odor control
  - Improvements to neighborhood parks and natural areas
  - Notification and mitigation of construction impacts
- Engage with a cross-section of racial and economic groups during the development of the Wet Weather Program

Wet Weather Program Development Schedule

- May '07: Finish performance evaluation framework
- June '07-April '08:
  - Develop **education** and outreach plan with budget
  - Identify alternatives and conduct cost-benefit analysis (**financial stewardship**)
- Dec. '07: Discuss affordability (**economic vitality**)
- Jan.-Feb. '08: Discuss potential rate impacts and rate structure options (**financial equity**)
- April '08-June '08:
  - Prioritize projects
  - Conduct **environmental justice & equity** analysis
- April '08-Sept. '08: MSD develops draft Wet Weather Plan based on Wet Weather Team suggestions

Programmatic Evaluation Discussion

- Clarifying questions about the proposed analytic approach?
- Areas of feedback:
  - Do you see any key gaps or "fatal flaws" with the proposed approach?
  - Which of the options for the economic vitality (affordability) analysis seem most useful?
  - Does the evaluation sequence seem appropriate?
  - What other suggestions do you have regarding the analysis of programmatic values?

EPA Affordability Criteria
Residential & Financial Indicators

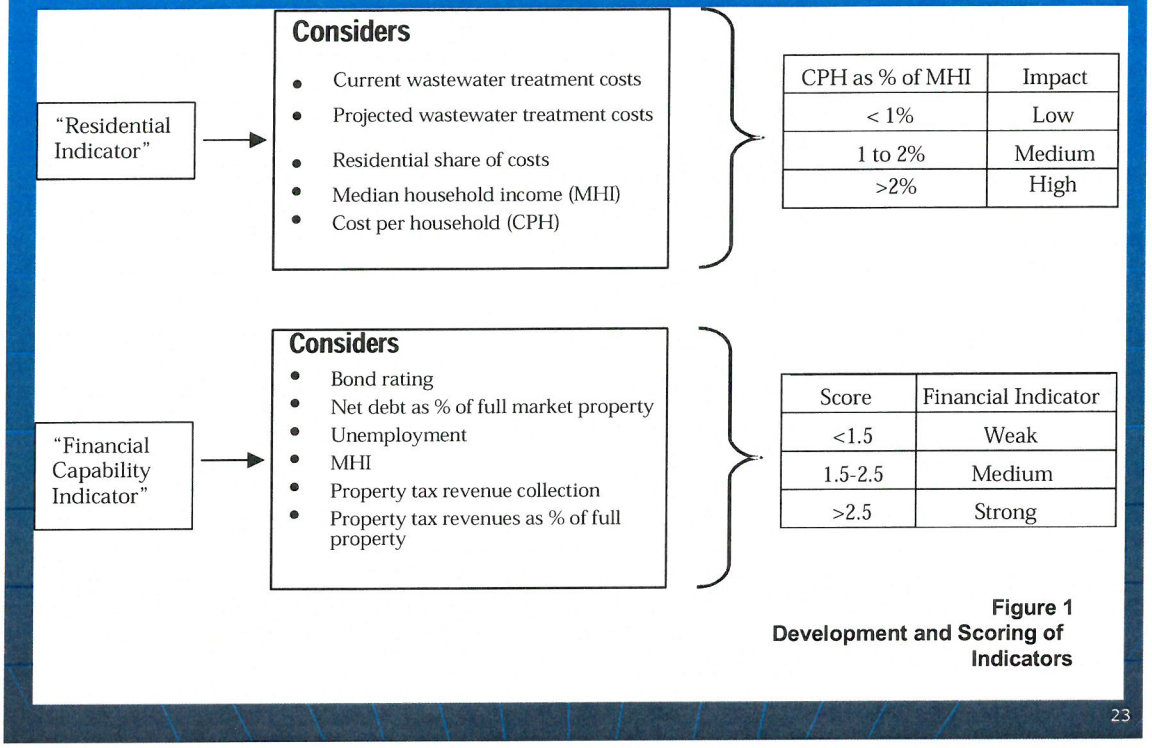


Figure 1
Development and Scoring of Indicators