

## MMSD Maintenance Policy

- Watercourse Policy Adopted April 1999
- Watercourse Policy Advisory Group met January, 1998 thru March, 1999
- Members:
  - WDNR
  - State Legislators
  - SEWRPC
  - Milwaukee County
  - City of Milwaukee Common Council and DPW
  - Other municipalities
  - Environmental Groups
  - District Staff

## MMSD Watercourse Maintenance Policy

- Focus of policy is on flood management
- Applies to:
  - MMSD Jurisdictional Waterways
  - Flow Impeding Debris



*milwaukee metropolitan sewerage district*

## MMSD Maintenance Policy

- The Watercourse Policy Advisory Group recommended that MMSD remediate flow impeding debris only when the debris threatens non-floodplain structures
- MMSD Maintenance Policy is defined in Chapter 13, Surface Water and Stormwater Rule (Section 13.07)

# QUESTIONS?

## **Watercourse Policy Advisory Group**

### **MMSD Staff:**

Anne Spray Kinney, Mark Nicolini, Mike McCabe, Tom Crawford, Chris Magruder, Dave Fowler

### **SEWRPC:**

Phil Evenson, Bob Biebel,

### **Municipalities:**

Janette Bell, Don Voith, Joe Greco, Dale Richards

### **WDNR:**

Gloria McCutcheon. Sharon Gayan

### **Milwaukee County**

Sue Baldwin, Mike Raap

### **Environmental Groups:**

Bob Boucher, Susan Mudd

### **State Legislature:**

Brian Burke

### **City of Milwaukee:**

Mike Murphy (Alderman), James Kaminski

April 26, 1999

99-048-4(02)

Item 13

On motion made by Commissioner Schwerm and seconded by Commissioner Riley, the following resolution was presented:

### REVISED RESOLUTION

#### Adoption of Watercourse Policies and Direction to the Executive Director to Recommend Rules Pertaining to the Implementation of Watercourse Policy Advisory Group Recommendations

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**RESOLVED**, by the Milwaukee Metropolitan Sewerage Commission that certain policies pertaining to the implementation of the Watercourse Policy Advisory Group recommendations that are included as an attachment to this file are hereby approved as Commission policy 1.01.15, and

- the Executive Director is authorized and directed to utilize these policies as the basis for implementation of the Watercourse System Management Plan; and
- that the Executive Director is authorized and directed to develop and recommend to the Commission rules necessary and proper to implement certain recommendations of the Watercourse Policy Advisory Group, based on the direction that is attached to this file; and
- that the Executive Director report to the Commission on recommended rules at appropriate intervals.

The above resolution was adopted by the following vote:

YES: Burke, Hanrahan, Kaminski, Murphy, Owley, Riley, Schwerm, Smith, Vretenar and Voith

NO: Walsh

I, Fran Ashley-Jordan, Director of the Office of the Commission of the Milwaukee Metropolitan Sewerage District, do hereby certify that the above is a true and correct copy of a resolution adopted by the Milwaukee Metropolitan Sewerage District at a meeting held on

April 26 19 99



**Milwaukee  
Metropolitan  
Sewerage  
District**

# Commission Policy

<p>Subject: Watercourse Policy</p>	<p>Index: 1.01.15 Page: 1 of 6</p>
<p>Authority: Statute: Resolution:</p>	<p>Date Issued: Date Revised:</p>

## I. JURISDICTION

- A. Jurisdiction refers to the streams and watercourses for which the Commission has determined the District should serve as the primary management agency with respect to the construction and maintenance of flood abatement measures. The District may assume jurisdiction for the purposes of flood abatement over perennial streams that meet at least one of the following criteria:
1. streams within the District whose flooding poses potential major flood damage;
  2. streams within the District with tributary drainage in more than one community within the District; or
  3. streams within the District for which the District has completed channel improvements.
- B. The District may exercise jurisdiction for the purposes of flood abatement over intermittent streams that meet at least two of the following criteria:
1. streams within the District whose flooding poses potential major flood damage;
  2. streams within the District with tributary drainage in more than one community within the District; or
  3. streams within the District for which the District has completed channel improvements.
- C. The estuary reaches of the Kinnickinnic, Menomonee and Milwaukee Rivers and major stream reaches having 50% or more of their drainage area located outside of the District are excluded from jurisdiction.



# Commission Policy

Subject: Watercourse Policy	Index: 1.01.15
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## II. FUNDING

- A. The District will limit its funding of watercourse improvements to those streams and stream reaches for which the Commission has chosen to assume jurisdiction for flood abatement purposes.
- B. The District may provide up to 100% of the capital costs, including, but not limited to, land acquisition, purchase of right-of-way, and construction, for the following structural measures:
1. Storage facilities, such as detention and retention ponds, that receive the flows from two or more upstream communities, and/or control the flows moving toward two or more downstream communities.
  2. Modifications to the existing stream channel designed to increase channel capacity.
    - River lowering is the least preferred alternative for flood control and would be used when other alternatives are not feasible.
    - River lowering will be considered when the bottom elevation of a stream segment is not low enough to enable an outfall from a previously installed storm sewer.
  3. Modifications designed to restore or maintain natural vegetation and habitat in a channel, and that mitigate a potential increase to flood exposure that may result from restoration.
  4. Containment structures such as earthen dikes, concrete floodwalls and levees that prevent lateral overland flow from a channel to adjacent land areas.
  5. Pursuant to an intergovernmental agreement, removal of existing bridges and culverts, if such removal is necessary for the construction of structural flood control measures.
- C. The District may provide up to 100% of the costs for the following non-structural measures:
1. Acquisition of improved real property and the demolition or removal of associated structures from the floodplain, when such expenditures are essential to implementing a Watercourse System Plan alternative adopted by the Commission.
  2. Expenditures associated with the relocation of the residents of properties acquired for the purpose of implementing a Watercourse System Plan alternative adopted by the Commission.



# Commission Policy

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3. Expenditures associated with maintaining property in open land uses for the purposes of preserving environmentally valuable features such as natural storage, infiltration and conveyance. Such expenditures may take the form of conservation easements, fee-simple acquisition, purchase of development rights or other methods the Commission deems to be advisable. The Executive Director shall ensure that the District is named on any deed related to a fee simple acquisition, or purchase of development rights or conservation easement, to which it has contributed.
4. Direct costs associated with floodproofing non-residential structures when such expenditures are essential to implementing a Watercourse System Plan alternative adopted by the Commission.

D. The District may fund up to 100% of the following operation and maintenance expenditures associated with structural and non-structural flood control measures:

1. Operation and maintenance necessary to achieve the optimum results from a structural measure that the District has constructed. In the event a structural measure constructed by the District serves multiple objectives, MMSD will be responsible for the operations and maintenance pertaining to flood abatement, including that which is necessary to restore flood abatement functionality after a storm.

In the event that the District has constructed a structural measure that serves multiple objectives, other parties who benefit from the secondary purpose, such as local governments, are responsible for the operations and maintenance pertaining to the secondary objective. This applies regardless of whether the land on which the measure is constructed is owned by the District or by another party. The Commission shall approve an appropriate agreement regarding operations and maintenance responsibilities and funding prior to initiating construction of a structural measure that serves multiple objectives.

2. Expenditures necessary for the enforcement of a conservation easement.



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### III. MAINTENANCE

- A. The District will limit its performance of watercourse maintenance activities to those streams and stream reaches over which the Commission has chosen to assume jurisdiction for flood abatement purposes.
- B. District watercourse maintenance will be performed as follows:
  - 1. The District will establish a baseline condition for debris removal in specific streams based on the water surface elevation during the 1% storm. The District will limit its maintenance activities to the removal of natural debris or man-made items from watercourses in order to prevent or eliminate obstructions that would raise surface water elevations during the 1% storm in an amount that would cause an increased number of structures above the baseline condition being flooded.
  - 2. The District will establish a baseline condition for sediment removal in specific streams based on the water surface elevation during the 1% storm. The District will limit its sediment removal activities to those segments of streams in which the District has constructed a structural flood control measure, and where sediment is shown to increase water surface elevations during the 1% storm in an amount that would result in an increase number of structures above the baseline condition being flooded.
  - 3. The District will perform sediment removal only after it receives any required permits or approvals pursuant to Wisconsin Department of Natural Resources regulations.
  - 4. The District may initiate watercourse maintenance work or may perform watercourse maintenance consistent with Commission policy as a result of a request by a local government.
  - 5. This policy is not intended to preclude local governments from undertaking watercourse maintenance or sediment removal that is environmentally responsible and in accordance with any state or federal law or rules.





**Milwaukee  
Metropolitan  
Sewerage  
District**

# Commission Policy

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6. The District will cooperate with the Wisconsin Department of Natural Resources, University of Wisconsin – Extension, and local governments in informing riparian owners of the impact of property maintenance practices on erosion control and flooding.



# Commission Policy

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## IV. PROJECT PRIORITIZATION

- A. The District shall utilize a weighted benefit point system as set forth below as guidance in determining how projects included in the Watercourse System Plan will be prioritized.
- B. The District may also take into account the following factors in determining project prioritization:
1. The status of a project relative to necessary permitting.
  2. The status of a project relative to its technical readiness for implementation.
  3. The availability of non-District funding for a project and the timeframe during which such funding can be secured.

### WEIGHTED BENEFIT POINT SYSTEM FOR FLOOD CONTROL PROJECTS

Benefit	Points	Unit of Measurement
Avoided Residential and Apartment First Floor Flooding	150	per structure or unit, times number of residents <sup>1</sup>
Avoided Residential and Apartment Basement Flooding	50	per structure or unit, times number of residents
Avoided Manufacturing or Public Works Facility Flooding	45	per 1,000 square feet <sup>2</sup>
Avoided Office or School Facility Flooding	100	per 1,000 square feet <sup>3</sup>
Avoided Commercial Facility Flooding	37.5	per 1,000 square feet <sup>4</sup>
Avoided Roadway Flooding, 18" or more	50 25 15	per 300 feet of arterial per 300 feet of collector per 300 feet of residential
Avoided Diversion of Emergency Vehicles	50	Per 300 feet of roadway

Notes: <sup>1</sup> MMSD occupancy factors may be used to determine the average number of residents per structure within the project area.

<sup>2</sup> Based on an assumption of 1.8 employees per 1,000 square feet.

<sup>3</sup> Based on an assumption of 4 employees per 1,000 square feet.

<sup>4</sup> Based on an assumption of 1.5 employees per 1,000 square feet.

Key Word/Phrase:

See Also:

**Commission Direction Regarding the Development of Rules That Are Necessary and Proper to Implement the Recommendations of the Watercourse Policy Advisory Group**

- A. The Executive Director shall develop and submit to the Commission for its review and approval proposed rules that will support achievement of the following objectives:
1. A requirement that local governments, as part of sewer plan approvals, demonstrate that they have implemented and are enforcing effective management of stormwater quantity. Effective management of stormwater quantity should ensure that additional stormwater runoff that results from development or redevelopment does not cause an increase to flood risk within the watershed into which such runoff drains. The rules should at a minimum provide for:
    - Restriction of peak flows during the 1% storm from new development to not more than the level of peak flow during the equivalent storm prior to the development's occurring.
    - Restriction of peak flows during the 1% storm from redevelopment that causes a new increase to impervious surface to not more than the level of peak flow during the equivalent storm prior to the redevelopment's occurring.
    - In addition to specific performance standards, implementation and enforcement of Best Management Practices pursuant to a stormwater management plan that can be expected to ensure that additional stormwater runoff that results from development or redevelopment does not cause an increase to flood risk. This may include, but is not necessarily limited to, control of peak flows during storms with a probability greater than 1%.
  2. A requirement that local governments and private party owners remove sediment in, directly adjacent to, or produced from their storm sewer systems to the extent needed to allow for a free outfall to the receiving stream.
    - Upon request of a local government the District would, to the extent requested, assist in the evaluation of the problem, preparation of any necessary contract specifications, and evaluation of bids.
  3. A requirement that owners of structures such as bridges, abandoned bridge piers and culverts are responsible for the removal of excessive sediment from these structures.
- B. The Executive Director shall report to the Commission at appropriate intervals regarding the progress of rulemaking.

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT  
 REGULAR COMMISSION MEETING  
 BALLOT  
 APRIL 26, 1999

ITEM NUMBER: 13

FILE NUMBER: 99-048-4(02)

DESCRIPTION: Adoption of Watercourse Policies and Directions to the Executive Director  
 To Recommend Rules Pertaining to the Implementation of Watercourse  
 Policy Advisory Group Recommendations

MOTION BY: Schwerm SECOND BY: Riley  
 MOTION TO: APPROVE  AMEND  TABLE  HOLD  DEFER  RECEIVE   
 MOTION CARRIED  FAILED  FORWARDED TO COMMISSION

AMEND AS FOLLOWS: \_\_\_\_\_ DIRECTIVE(S) \_\_\_\_\_

OTHER DISPOSITION: \_\_\_\_\_

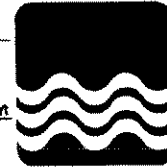
NAME	AYE	NAY	PRESENT	ABSTAIN	EXCUSED	OUT OF ROOM
BURKE, B.						
HANRAHAN, E.						
KAMINSKI, J., VICE CHAIR						
MURPHY, M.						
OWLEY, C.						
RILEY, A.R.						
SCHWERM, G.						
SMITH, M.						
VOITH, D., CHAIR						
VRETENAR, M.						
WALSH, M.		X				
TOTAL	10	1				

UNANIMOUS VOICE VOTE \_\_\_\_\_ ROLL CALL \_\_\_\_\_ VOICE VOTE

COMMISSION FILE NO.: 99-048-4 (02)

INTRODUCED BY: Executive Director *Michael Walsh Acting Ex-Dir*

DATE INTRODUCED: April 26, 1999



**Milwaukee  
Metropolitan  
Sewerage  
District**

REFERRED BY COMMISSION CHAIRPERSON TO: Policy, Finance & Personnel Committee

**RELATING TO:**

**Adoption of Watercourse Policies and Direction to the Executive Director to Recommend Rules Pertaining to the Implementation of Watercourse Policy Advisory Group Recommendations**

**SUMMARY:**

Staff requests Commission approval of several watercourse policies and direction to the Executive Director to recommend rules pertaining to Watercourse Policy Advisory Group recommendations.

The Watercourse Policy Advisory Group has made recommendations pertaining to the implementation of the Watercourse System Management Plan, including the following issues:

- Relationship between municipal stormwater management and MMSD's flood control activities;
- Funding responsibilities for system plan components;
- Project prioritization and policy for potential interim projects;
- Riparian management

This resolution establishes Commission policies regarding the exercise of jurisdiction over certain streams within the District for the construction and maintenance of flood abatement measures. These policies relate to structural and non-structural measures that MMSD may fund; MMSD responsibilities for watercourse maintenance; and guidance for District determination of watercourse system plan priorities.

This resolution also directs the Executive Director to recommend rules for the Commission's consideration pertaining to local government management of stormwater quantity and the responsibilities of owners of storm sewers and transportation facilities regarding removal of sediment. The resolution directs the Executive Director to report to the Commission at appropriate intervals regarding the progress of rulemaking.

ATTACHMENTS RESOLUTION  BACKGROUND  KEY ISSUES  FISCAL NOTE

04/08/99

MN 4-16 WC Sum

COMMITTEE ACTION Approved unanimously DATE 4/26/99  
6-0.  
With ex-officio.

COMMISSION ACTION Approved 10-1. DATE 4/26/99  
Commissioner Walsh voted no.



Date: April 22, 1999

To: Commissioners  
Milwaukee Metropolitan Sewerage District

From: Mark Nicolini *MN*  
Planning & Evaluation Manager

**Re: Item 13 on April 26 Agenda: Adoption of Watercourse Policies**

Enclosed is a packet of information pertaining to Item 13 on the April 26 agenda, File 99-048-4 relating to Adoption of Watercourse Policies and Direction to the Executive Director to Recommend Rules. This information responds to discussion at the special April 16, 1999 meeting of the Policy, Finance, and Personnel Committee regarding this matter.

The following materials are included:

1. Updated proposed Commission Watercourse Policy and Directions on Rulemaking. This reflects minor editorial clarifications and formatting changes. It also reflects a modification to the proposed rulemaking direction to allow for District technical assistance to local governments in addressing the removal of sedimentation to permit a free outfall from a storm sewer.
2. Responses to six topics of inquiry that Commissioners raised at the April 16 meeting.
3. Pertinent correspondence on this matter from affected local governments.

I hope this information is useful to you. Please call me at 225-2107 if you have any questions.

## FOLLOW-UP TO APRIL 16, 1999 MEETING OF THE POLICY, FINANCE, & PERSONNEL COMMITTEE

### Topic 1: Sediment Removal for Storm Sewer Outfalls

The Committee expressed an interest in examples of how responsibility for sediment removal would apply under the proposed policy and direction on rulemaking. This response addresses the proposed rulemaking direction under item A. 2. that provides a requirement for local government and private party owners to remove sediment in, directly adjacent to, or produced from their storm sewer systems to the extent needed to allow for a free outfall to the receiving stream.

#### Response

1. Implementation and compliance with this proposed rule will assist in the prevention of backup to local drainage systems. This in turn will assist in the prevention of infiltration and inflow into the District's sewerage system, which could otherwise occur as a result of water that is backed-up in roadways seeping through manhole covers.
2. The rule is intended to apply to removal of sediment that is discharged from a storm sewer and is preventing a free outfall, or whose placement inside or directly adjacent to a storm sewer prevents a free outfall. Sediment accumulations that prevent a free outfall from a storm sewer might result from hardening of deposits that could occur due to weather patterns, relatively large mass of the deposits in question, and/or interior sewer condition.
3. Research indicates that construction site erosion control, streetsweeping (especially if performed on industrial site parking and storage areas), and semi-annual catchbasin cleaning are relatively effective methods of preventing large discharges of sediment through urban storm sewers during heavy rains, that might otherwise accumulate to the point of preventing a free outfall.
4. The proposed change to A. 2 of the Commission direction regarding the development of rules is designed to provide technical assistance to municipalities on this subject.

### Topic 2: Local Government Implementation of Floodplain Management

The Committee expressed a concern that local government implementation of the Watercourse Policy Advisory Group recommendation concerning floodplain management, specifically, a compensatory storage requirement for development in the floodfringe, is impractical under "infill" circumstances.

## Response

1. Implementation of the Advisory Group's recommendation is left to the discretion of local governments. Neither the proposed policy nor the direction on rulemaking mandates any action pertaining to floodplain management.
2. The Advisory Group's recommendation recognizes the limited feasibility of compensatory storage in redevelopment situations involving infill. The recommendation states:
  - "The [compensatory storage] requirement does not apply to infill development that occurs within the context of already urbanized neighborhoods." (page 13 of *Report*)
  - The report's *Glossary* defines infill development as "development within or immediately adjacent to existing development that can rely on existing infrastructure for its service, with no extensions."

## **Topic 3: Proposed Commission Policy on Sediment Removal**

The Committee expressed an interest in examples of how responsibility for sediment removal would apply under the proposed policy and direction on rulemaking. This response addresses the proposed Commission policy III B. 2 (Maintenance) that provides that MMSD will limit its sediment removal to those stream segments in which the District has constructed a structural flood control measure.

## Response

1. Sediment removal from area watercourses is being considered because some perceive that sediment deposits (sediment bars and sandbars) in the stream/river channel impede flows and increase flood elevations. MMSD consultants developed a water surface profile model for the Menomonee River to investigate sediment bars. The model indicated that these deposits did not have a significant impact on the 1% storm water surface elevations in the stream reaches that were investigated.
2. The sediment load carried by a stream/river and the sediment bars and sandbars that are formed are natural features of stream/river channels. They play a crucial role in the dynamic geomorphic processes that determine the characteristics of the stream/river channel such as size, shape, and depth. Sediment is deposited in areas where the sediment load of the river drops out of the current. This occurs under conditions where the current is slowed in relation to the upstream current.



3. A common example is the deposition that occurs along the short arc of a bend in a river. The current along the edge of the short arc is relatively slow and this reduces the sediment load, causing some of the sediment to fall out of the current. This area becomes a location of sediment deposition. Conversely, even under low flow conditions the long arc of the bend has a faster current and becomes an area of erosion causing sediments to be added to the current. These two forces work in dynamic equilibrium and cause the river bends (river channel) to move horizontally across the flood plain.
4. Not removing the sediments from an unmodified (natural channel) stream reach allows the natural geomorphic processes to reach dynamic equilibrium. This is the preferred method for dealing with sediment deposits (sand and sediment bars) in the stream/river channel. Allowing the stream/river to determine its equilibrium characteristics including size, shape, sediment deposition zones, and sediment erosion zones is a natural process.
5. In an urbanized stream where manipulations of the stream are ongoing, or where the hydrologic and hydraulic processes are modified through channel and watershed alterations, the sediment load in the river/stream will vary. The sediment load and sedimentation rates can be cyclic and the magnitude of these variations drastically alters the size, location and shape of deposits. This can result in large sediment deposits and also scour areas (erosion zones) in our urban systems.

This higher sediment load resulting from increased scouring during rain events greatly increases the sediment load in the current. This sediment load eventually drops out as storm flows are reduced. This exacerbates the sedimentation problems found in the Milwaukee Harbor and estuary area. This type of problem may require manipulation of the stream/river channel (dredging of sediments or stream bank armoring) to stabilize individual stream/river reaches to prevent further degradation (excessive erosion) of the stream/river channel.

6. Sediments can be removed from a stream/river reach after modifications to the stream/river channel that impacts that depositional area. If channel modifications do not change the stream hydraulics the river will simply place new sediments in the area of dredging to reach equilibrium again. With no channel modification, channel dredging would have to be done routinely and would not be getting at the cause of sediment bars.

These manipulations should not be done without consideration of the impacts on the upstream and downstream reaches. Undertaking such manipulations (dredging of sediments) in isolation will only repeat the original problem or create new ones upstream or downstream, as the river reestablishes a new equilibrium. That is why leaving the sediments in place is the best alternative

until we have completed a thorough study of the geomorphic processes of a suspected problem area of any stream or river in question.

#### **Topic 4: Proposed Commission Policy on Sediment Removal (Baseline Condition)**

The Committee expressed an interest in examples of how responsibility for sediment removal would apply under the proposed Commission policy. This response addresses the proposed Commission policy III B. 1 & 2 (Maintenance). That policy provides that MMSD will perform debris and sediment removal under certain circumstances, and will establish a baseline condition based on structure flooding resulting from the water surface elevation during the 1% storm as the level of protection to be maintained through debris and sediment removal.

#### **Response**

The purpose of the baseline is to determine whether the sediment or debris accumulation in the watercourse has a significant hydraulic impact on water elevations. The Watercourse System Management Plan will establish the level of protection needed to remove or protect all structures within the pre-existing 100-year floodplain (1% storm), based on projected 2020 land use.

Removal of sediment or debris to accomplish water surface elevations lower than the baseline condition will not result in any flood-avoidance benefits for structures, because the system plan component(s) will provide protection up to the baseline elevation. Once the system plan has been implemented, potential debris and sediment removal projects will be evaluated relative to the baseline. If structure flooding is projected to occur due to debris or sediment deposits that cause a water surface elevation higher than the baseline, MMSD action to remove the debris or sediment deposits is appropriate under the policy.

#### **Topic 5: Proposed Rule Regarding Sediment Removal from Culverts and Other Facilities**

The Committee expressed an interest in examples of how responsibility for sediment removal would apply under the proposed policy and direction on rulemaking. This response addresses the proposed rulemaking direction under item A. 3. that provides for a requirement for owners of structures such as bridges and culverts to remove excessive sediment from these structures.

#### **Response**

1. Sediment and debris removal from manmade structures such as bridge culverts, bridge supports, or pylons designed to carry stream flow through or under these structures is a necessary maintenance item. If not maintained

properly, these structures can become completely or partially clogged with debris and sediments.

2. For most structures the hydraulics of the stream/river reach and the design of the structure reduce the chance of an excessive build up of sediments or debris around the structure. However when blockages occur they can result in increased flood elevations upstream of the structure during high flows.
3. Owner responsibility for the removal of sediment that poses a flood hazard from transportation facilities is appropriate for the following reasons:
  - The nature of transportation facilities subjects them to forces originating outside the community in which a facility is located. The inter-community nature of factors that influence transportation costs is addressed by the State's local transportation aid program, which reimburses local governments for a portion of their transportation-related costs.
  - Assigning operating and maintenance responsibility associated with maintaining the functionality of a roadway to the roadway owner is standard practice. Part of the functionality of bridges and culverts is allowing for the flow of water.

#### **Topic 6: Use of Cost-Effectiveness Analysis**

The Committee expressed an interest in how cost-effectiveness could be utilized in the Watercourse System Management Plan. The proposed Commission policy (IV. Project Prioritization) provides for a system of guidance based on benefit points, with no provision for cost. Additional factors other than cost may also be considered under the proposed policy.

#### **Response**

1. Cost-effectiveness can be defined as the units of outcome achieved per unit of expenditure. It is a useful means to determine the relative impact of expenditures on achieving desired benefits in cases where benefits are not assigned a dollar value.
2. It will be very difficult to utilize cost-effectiveness in the ranking of projects because final cost estimates won't be certain until well into the design phase. However, cost-effectiveness could be useful in choosing among alternatives for a specific project.
3. For example, the District might evaluate three flood abatement alternatives pertaining to the same watershed or sub-watershed. All the alternatives would presumably yield essentially the same benefit points, since the System

Plan is using protection from structure flooding during the 1% storm as the design standard. However, preliminary cost estimates might reveal:

- Alternative A yields 30,000 benefit points, at an estimated cost of \$25,000,000, or 1 benefit point per \$833 of project cost.
- Alternative B yields 30,000 benefit points, at an estimated cost of \$35,000,000, or 1 benefit point per \$1,167 of project cost.
- Alternative C yields 30,000 benefit points, at an estimated cost of \$45,000,000, or 1 benefit point per \$1,500 of project cost.

4. Under this approach, Alternative A would be assessed as the most cost-effective approach to the watershed in question.

4-26-PF&P.doc

**Oak Creek**OFFICE OF  
THE MAYOR

April 21, 1999

Chairman Don Voith  
Milwaukee Metro Sewerage District  
260 W. Seeboth Street  
Milwaukee, WI 53201

Dear Don,

After conferring with a few of the Mayors, I still sense some uneasiness and concerns on the proposed watercourse policy recommendations. It is my understanding that the District is scheduled to vote on this Monday morning. I would respectfully submit that the vote be postponed at least until after the ICC meeting on Monday afternoon. I believe that this will provide an additional opportunity for any further concerns that might be lingering out there. This is an extremely important policy and I certainly would share your concern about delaying improvements that we could still start this year, if we move quick enough. But I don't feel this policy should be adopted at the expense of ensuring that we have a consensus.

One suggestion that I feel has merit and could be considered as optional, is that where a local unit of government is responsible for the cleanup of sedimentation from an outfall, that the District could offer to provide the guidance and direction as to how a community can accomplish this. (Bid list, contract specifications, DNR approvals, sub-contracting or whatever?) There are some communities that do not have the engineering or technical expertise to do this on their own and could certainly use the district's assistance, without being a financial burden on it, in contracting out this service.

Respectfully yours,

Mayor Dale J. Richards

cc: Anne Kinney, ICC Members

8640 S. HOWELL AVE.  
OAK CREEK, WI 53154  
TEL: (414) 768-6348  
FAX: (414) 768-9587

Mayor99/Watercourse Policy Concerns/ 04/21/99



VILLAGE OF FOX POINT  
MILWAUKEE COUNTY  
WISCONSIN

VILLAGE HALL  
7200 N. SANTA MONICA BLVD  
FOX POINT 53217-3505  
414-351-8900  
FAX 414-351-8909

April 15, 1999

Ms. Anne Spray Kinney  
Executive Director  
Milwaukee Metropolitan Sewerage District  
260 West Seeboth Street  
Milwaukee, WI 53201

VIA FACSIMILE AND MAIL

RE: Watercourse Policy Advisory Group  
Updated Final Draft Report - March 19, 1999

Dear Ms. Kinney:

On behalf of the Village of Fox Point, I would like to express our appreciation for the opportunity to review the Watercourse Policy Advisory Group's draft report of recommendations prior to adoption by the Milwaukee Metropolitan Sewerage District Commission. Having reviewed the draft report, and in light of the flooding that has occurred in the Indian Creek area of our community, the Village of Fox Point would like to request that consideration be given to amending the proposed policy recommendation regarding project prioritization.

The Village of Fox Point has concern regarding two issues. First, while the Village understands the desire to move from a project prioritization mechanism based on cost benefit analyses to one that incorporates the number of structures and people impacted by flooding, it is our belief that the proposed prioritization system overly disadvantages communities such as the Village of Fox Point which are predominantly residential and have properties that tend to be higher valued. The Fox Point Village Board unanimously requests that some specific consideration for the value of properties impacted by flooding be included in the new priority system.

Second, on page 22 of the draft report, the comment is made that other factors, such as readiness of a project for implementation, should be taken into account. The report provides no specific recommendation as to what type of an impact the readiness of a project for implementation will have in relation to the point value assigned through the prioritization system. The Fox Point Village Board also requests that some value be assigned to account for the readiness of a project for implementation.

I would appreciate it if you would share these comments with the Commission. I would also

welcome the opportunity to further discuss these issues with the Commission, if appropriate.

Sincerely,

  
Susan E. Robertson  
Village Manager

c: Village Board



Anne Spray Kinney  
Executive Director

April 22, 1999

Susan E. Robertson  
Village Manager  
Village of Fox Point  
7200 North Santa Monica Boulevard  
Fox Point, WI 53217-3505

Dear Ms. Robertson:

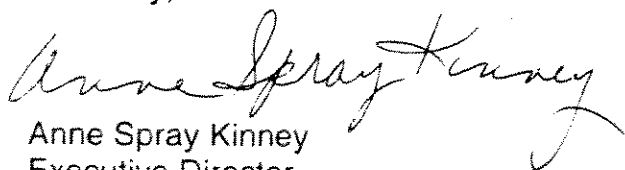
I have received your letter related to the Watercourse Policy Advisory Group's draft report and forwarded it to the MMSD Commission.

Your board's first concern was that property values were not a factor in establishing priorities. You may want to know that the policy group specifically directed staff not to include property values. The group's discussion focused on concerns with structural damage and threats to health and safety and the group felt that, due to widely differing property values in the various communities, property values could seriously skew the priorities away from these top two concerns. For example, a river reach that had five flooded houses with extremely high property values could end up being given a higher priority than a reach with 20 or more houses with very low values.

Related to your board's concern about "readiness for project implementation" being a factor in doing projects, the group discussed the fact that projects that were clearly simple and relatively ready to implement should not be held up because a higher priority project was much more complex and would take more time to become implementation-ready. This means that projects higher on the priority list would not be delayed, only that we would not want to have gaps in activity because higher priority projects weren't ready to go.

I expect your issues to be discussed at the committee level of the Commission Meeting on April 26, 1999.

Sincerely,

  
Anne Spray Kinney  
Executive Director

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**Milwaukee Metropolitan Sewerage District**  
260 W. Seeboth Street, Milwaukee, WI 53204-1446  
414-225-2088  email: [akinney@mmsd.com](mailto:akinney@mmsd.com)



Received Event (Event Succeeded)

Date: 4/21/99  
Pages: 2  
Sender:  
Fax Number:  
Type: Fax

Time: 4:10 PM  
Duration: 2 min 0 sec  
Company:  
Subject:

MEQUON CITY HALL

776 P02/02 APR 21 '99 15:18



11333 N. Cedarburg Road 60W  
Mequon, Wisconsin 53092  
Phone (414) 242-3100  
FAX (414) 242-9655

OFFICE OF THE MAYOR  
Christine Nuernberg

April 20, 1999

Via fax: 272-5057

Donald Voith  
MMSD Commission Chair  
260 W. Seeboth Street  
Milwaukee, WI 53204-1446

Dear Mr. Voith: 

Last week Friday, city officials representing MMSD contract communities met to discuss the regional flood and stormwater efforts presently underway. We also discussed the Watercourse Advisory Group's updated draft final report dated March 19, 1999. It is my understanding that the Commission will consider adopting the report at its meeting of April 26, 1999.

As it concerns that report, the City of Mequon respectfully requests that the Commission defer adoption. Instead, we recommend the report be referred to the Technical Advisory Team. An initial review of the report suggests a broad and deep mix of questions that are best addressed by the TAT. We recommend this review beforehand so that administrative and technical aspects of the plan can help guide the policies.

The City of Mequon is unsure of the fiscal, technical and ecological impact the policies will have on our residents. Equally important, however, we desire to be a partner in this process and believe our concerns can be addressed by a technical review by the TAT, a process that has included our staff and consulting engineer.

The Commission's consideration is appreciated.

Sincerely,

  
Christine Nuernberg  
Mayor

Cc: City Administrator Lee Szyborski  
City Engineer Bill Hoppe  
Director of Public Works Jon Garms



April 22, 1999

Mayor Christine Nuernberg  
City of Mequon  
11333 N. Cedarburg Road 60W  
Mequon, WI 53092

Dear Mayor Nuernberg:

Thank you for your April 20, 1999 letter regarding the recommendations from the Milwaukee Metropolitan Sewerage District's Watercourse Policy Advisory Group.

At its April 26 1999 meeting, the MMSD Commission will consider adopting proposed watercourse policies relating to the recommendations and directing staff to draft specific rules. Since the Intergovernmental Cooperation Council executive committee made up of MMSD member communities will be meeting later the same day, the Commission may decide to delay final action on the policies to allow for their input. You are more than welcome to attend the Commission's Policy, Finance & Personnel Committee meeting on April 26 to provide input and ask questions.

I want to assure you that any proposed District rules regarding watercourses that result from the recommendations will be presented to the Technical Advisory Team (TAT) prior to consideration by the MMSD Commission. A public hearing must also be held by the MMSD Commission before it considers adopting any rule.

In regard to the proposed policies, it is imperative that the District move ahead promptly on these issues. To delay the approval of these policies would stall potential flood control work on several Milwaukee-area watercourses. MMSD is moving rapidly toward flood control to complete flood control alternatives so that the community can be provided with flood relief absolutely as quickly as is responsibly possible. We need to have these policies in place so that we can meet that goal.

At the April 26 meeting, the Commission is being asked to approve advance planning in accordance with Commission policy, for flood control projects on the Menomonee River, Southbranch Creek, and Indian Creek. If regulatory approvals are granted, work could begin on some of those watercourses in 1999.

After the devastating floods of the 1997 and 1998, the District must move forward as expeditiously as possible to implement measures that will reduce the risk of flooding.

Mayor Christine Nuernberg  
April 22, 1999  
Page 2

The public is demanding that of all municipal officials involved in developing these plans.

Of course, District policies can be changed by the MMSD Commission at any time if they are found to be inconsistent with the District's overall mission.

Regards,

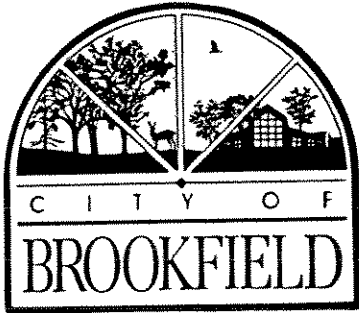


Donald J. Voith  
Commission Chair

cc: MMSD Commissioners

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Item 13 Attachment  
99-048-4



KATHRYN C. BLOOMBERG  
Mayor

APR 7 99 AM 9:51  
NET COMMISSION STAFFS

April 5, 1999

Fran Ashley-Jordan, Director  
Office of the Commission  
Milwaukee Metropolitan Sewerage District  
260 West Seeboth Street  
P.O. Box 3049  
Milwaukee, WI 53201-3049

Dear Commission:

The City of Brookfield received the Proposed Watercourse Policy Recommendation and will be reviewing them. Anne Kinney indicated the proposed rules or legislation which may result from these policies will be presented at the meeting of April 16, 1999.

Executive Director Kinney assured me comment on either the policy or rules and regulations can be presented to the Commission on April 26, 1999.

Thank you for allowing us to hold our comments until the 26th.

Sincerely,

Kathryn C. Bloomberg  
Mayor

KCB/mjg

cc: Board of Public Works

Commissioner Voith  
Commissioner Burke  
Anne Spray Kinney

For your information

Fran Ashley-Jordan  
4/7/99





April 7, 1999

Mayor Kathryn C. Bloomberg  
City of Brookfield  
2000 North Calhoun Road  
Brookfield, WI 53005

Dear Mayor Bloomberg:

Thank you for your April 5 letter regarding the recommendations forwarded to the Milwaukee Metropolitan Sewerage District Commission by the Watercourse Policy Advisory Group.

I look forward to receiving any comments from the City of Brookfield regarding these important issues. I would ask that you forward any comments to me by April 21, 1999 to allow staff time to prepare appropriate answers and responses for the April 26 meeting. Of course, you can make comments or ask questions at the April 26 meeting of the District's Policy, Finance and Personnel Committee.

Thank you for your interest.

Sincerely,

Donald J. Voith  
MMSD Commission Chair

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