

Inflow and Infiltration Task Force

Task Force Purpose:

To formulate recommendations to take to the Metropolitan Council for adoption

Meeting Notes of January 15, 2004

Attendees: Russ Susag, Bill Moeller, Don Bluhm, Kyle Colvin, Bob Molzahn (Consultant) and Deborah Rose, Metropolitan Council Environmental Services; Deb Bloom, Roseville; Bob Cockriel, Bloomington; Mike Kassan, St. Paul; Eugene Ranieri, Association of Metropolitan Municipalities; Pat Wrase Minneapolis; Jeannine Clancy, Golden Valley; Tom Ozzello, Woodbury; Harlan Van Wyhe, Maple Grove; Bonnie Burton Shorewood, M. Drew Anderson, Waconia; Tom Colbert, Eagan; .

1. The group met at the Bloomington Public Works Facilities, 1700 W. 98th St., The training room Bill Moeller opened the meeting and turned it over to Bob Molzahn to walk the group through the report.

2 Bob Molzahn lead the group through each of the report areas and asked for questions, comments or discussion. The following comments were made for various areas of the report:

- Introduction:
 - ✓ Add real life examples in the Background area
- Characterization of the Problem and Historical Perspective
 - ✓ Need information on how many cities have I/I programs (Deb will get out a survey)
- Impact on MCES System
 - ✓ Avoid drawing conclusions, just the facts.
 - ✓ Put notion of risk in the executive summary too.
 - ✓ Take out the words "a few" communities are investigating and get real numbers if possible.
 - ✓ Pages 13 & 14; Figures 6, 7 & 8 explain more in detail.
 - ✓ Page 13 and add information on the impact to local systems and also include this in the executive summary.
 - ✓ On page 12, comment "why fixing I/I problems vs backups"- expand and add other reasons such as financial.
 - ✓ On page 13 the statement about I/I being a nuisance, change sentence, expand to say " there are issues with what to do with the water on private property and use local examples.
- Forecasting Capacity Needs
 - ✓ Make maps larger
 - ✓ Page 20, How does the individual flow discussed follow the cities plans flow information? Bob Cockriel will get Bob Molzhan some industry numbers on flow estimates.
- Estimated Regional Capital Costs
 - ✓ Table C should show the entire system and numbers so people will not have to go to their plans to find out if the pipe recognize locations.
 - ✓ Concern that putting a \$ amount will make people think we can solve the problem, when that is not the case. Okay to take the \$ amount out and explain

we cannot build out of it. However, please discuss what the true costs might be to build out if you could.

- Measurement of Excessive I/I: MCES metershed (maps)
 - ✓ Hard to read the maps, make larger
 - ✓ Page 35 needs a table.
- Examples of I/I Control Programs
 - ✓ MCES program needs expansion
 - ✓ There were pros and cons for moving the city examples. Decided temporarily to leave where they are.
 - ✓ Add a paragraph that states the I/I problem is not any easy fix
 - ✓ Provide information on cities that have ordinances
- Possible Control Strategies
 - ✓ Grant program needs a different name
 - ✓ There was discussion of getting rid of the grant program recommendation. Will put in Opt Out language so cities that are already working on I/I do not have to send in money to the program
- Options for Reduction of I/I in Local Systems
 - ✓ Asked task force members to send in comments on this area
 - ✓ Regarding the Federal and State programs add expectations to include avoiding costs
 - ✓ Asked to get MPCA survey information, if they will share (Deb will do this)

3. Chair Susag wrapped up the meeting explaining that MCES staff will work with the groups comments, add information where it is missing and have the next draft ready for the February meeting. Additional information on future work included a report to the Environment Committee by Bill Moeller that will provide a background to the Committee to prepare them to receive the completed report in April. In April if the Environment Committee accepts the report it will go same week to the Committee of the Whole for acceptance as part of the Policy Plan that can then go out for public review and comment.

*I/I Task Force Meeting
March 11, 2004
1:00-3:00 pm
Bloomington City Offices,
Bloomington, Minnesota*

Agenda:

- *Full Draft review*
- *Discussion of April Meeting*
- *Begin discussion on Communications outreach*

Note: You can find information about the Task Force, current actions, activities, etc. at www.metcouncil.org/environment/environment.htm under featured links. If you have questions or comments you may contact Deb Rose at 651-602-1479 or by e-mail debra.rose@metc.state.mn.us

Surcharge & Grant Program (2008-2012)

The Metropolitan Council will establish an I/I Grant Program for a five-year period starting in 2008 as an incentive for the communities to remove peak wet weather I/I from their sanitary sewer systems. Under this program, starting in 2007, those communities whose peak I/I rates exceed the I/I goals established for their community will be assessed an uniform I/I surcharge on top of the regular MCES municipal wastewater (flow) rate to fund the grant program for the five-year period. These monies will be set a side by the MC in an account, for each of the communities, to aid them in the implementation of their I/I reduction program. For example, the money could be used to disconnect roof leaders, sump pumps and drain tile from homes or to construct peak storage facilities or to hire consultants to study the problems.

The grant program will require a local 50% match. The community would be eligible to receive sums of money that matches the balance in its account based on the five-year I/I surcharge to do acceptable I/I projects. If the community is successful in reducing its peak wet weather flows so that they do not exceed their I/I goal for a consecutive 3-year period any balance in their surcharge account will be returned to the community. If an eligible community does not apply for all the money in its I/I surcharge account and does not effectively reduce its peak I/I to meet its I/I goals, the remaining money in its account will be used by the MC to help fund needed improvements within the Metropolitan Disposal System to contain, transport and treat its excessive I/I.

Excess Demand Charge

If a community does not effectively reduce its I/I and meet its I/I goal(s), resulting in a needed improvements to the MDS, the MC will meet with the community to inform them of the needed improvement(s), its schedule, and the communities share of the cost to recover the capacity lost to its excessive I/I. The local share of the cost for these needed improvements when completed will be assigned to the community over 20 years in the form of an excess demand charge. The excess demand charge is not a penalty, but will be based on MCES cost of providing the service.

While details of the excess demand charge will be worked out in the future, it will be in addition to the actual MCES municipal wastewater flow rate.

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1. Chair Susag welcomed everyone and asked the members to review the minutes and provide Deb Rose with any comments or corrections. Chair Susag then reviewed the agenda and recap from previous meetings.

2. Bob Molzahn walked the members through the draft information using a presentation:
 - ✓ Statement of Problem
 - The members asked that the report contain additional information explaining the problem in both private and public commentary. The staff will add that language to the draft outline.
 - ✓ Proposed Council Policy
 - There was a request to use a different word such as excessive, rather than eliminate. It was felt that eliminate was too strong and the expectation on the city/community too high. Staff will adjust.
 - ✓ Definition of What is Excessive
 - Members accepted the definition: *I/I is excessive if it causes the peak hour flow divided by the average flow to exceed the ratio used by MCES to design interceptor sewers. The average flow for determination of "excessive" is defined as a three-year running average.*
 - ✓ Flow Data and Goals
 - Information related to understanding excessive flow: Council can provide dry and wet weather hourly flow data. Flow data can be analyzed to assess risk of having excessive I/I. Council has characterized I/I risk for all watersheds and projected impact of 25 and 100 year rainfalls on peak flows.

The information and charts, with city specific data, was accepted by the members.

- ✓ Possible Control Strategies
 - The members accepted how the I/I Goals will be determined: *The I/I goal(s) will consist of the design flow standard used by the MCES in the design of its interceptor facilities as compared to the community's actual wet weather Peak to Average Hourly Ratio (P/A) for each connection point to the interceptor system.*
 - *Areas of Control: Grant Program, Surcharge (MCES will use to recover capacity lost to I/I).*

- The members asked that the staff present a more in-depth Grant Program Draft at the next meeting.

✓ I/I Program Guidelines

- Members accepted that local systems programs will include ongoing maintenance, inspection and I/I removal.

- Members agreed new construction must meet design specification and be certified, and certification will be available for review.

- Members accepted the idea that cities can/should adopt ordinances that prohibit the connection of roof leaders, foundation drain tile and sump pumps to the sanitary system. Disconnection should be certified.

- Members are still discussion the concept of Point of Sale.

- Members agree that **Flow Storage** is community specific.

✓ Implementation

Members agreed on the following areas:

- I/I reduction programs included in Comprehensive Plans.

- I/I goals and guidelines

- Require community to meet design flow standard

- Use of monitoring equipment

Areas that members are still discussing since details still need to be worked out:

- 2008 Initiate I/I program

- Adopt I/I surcharge program

- 2015 limit future increase in service if I/I goals are not met

- 2015 institute a wastewater rate surcharge program to defray cost to MC system.

3. Chair Susag asked staff to bring a draft of the Grant Program back at the December meeting. Staff will also refine Problem Statement to ensure Private vs Public language.

4. Chair Susag announced that the Task Force has an extension on their work until March 2004 due to the 2030 Framework.

I/I Task Force Meeting

January 8, 2004

1:00-3:00 pm

Bloomington

Agenda:

- Full Draft review

- Additional discussion, revisions to Grant Program

- Begin discussion on Communications

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October 9, I/I Task Force Meeting Notes

Current I/I Control Programs in Minnesota Communities

Local Communities

a) Maple Plain:

History. Due to recurring events, especially with flooding they decided on going after services in 2003. City decided to handle in the process in house and purchased a camera to try to find where the problems exist.

Early fixes were flow monitoring and slip lining.

In 2003 decided to look at what they can do with private property. A schedule was set and the city was able to get 25 approval from homeowners to inspect the homes for passive drain tile and sumps that flow into the sanitary system. The city chose 12 of those 25 homes and have been allowed into eight readily, two have not allowed to date and the other two have problems.

What the city found is that trying to find the problem and fix it is time consuming, complex and expensive and are wondering if it makes sense to proceed.

The city believes that a program should like to incentives based on infrastructure. They have not seen anyone program work except in Farmington where they got rid of the ground water as a fix, but that won't work in every city.

b) Minneapolis:

History: in 1986 most of the combined sewers were separated. In 2000 Metropolitan Council and Minneapolis agreed to a joint study. It was determined that rain leaders were the main source of the problem. A program was put together with start up in 2002 and implementation from 2003-2007. The program contains three parts 1) rain leader disconnect (voluntary), 2) Capital improvements and maintenance to look for connections and catch basins that are connected, and 3) build or upgrade storm drains.

Attempts to pass ordinances initially did not have the political backing, but was finally passed in 2003 and became effective August of 2003.

To date, 14000 inspections have been completed, 4% of homes/businesses were found connected to the city sanitary system. The city hired contractors to do the work since the amount of time necessary to perform the inspections could not be handled by the city infrastructure. The estimated costs for five years have been over \$18 million. The city does not know all the costs yet, to date the city has spent \$1.2 million in one and three quarter of a year.

There has not been much reaction yet from the public, but it is expected as the program continues and notices continue to get sent out. The city expects negative feedback to the program.

Minneapolis suggests being creative and working with the homeowners to help provide solutions where there is a lack of storm drains or lawns. They believe that

having political support earlier would have been better and would have allowed multiple projects to be conducted all at once related to I/I reduction.

c) Plymouth:

History: The City of Plymouth's program involved sump pump inspection. The program goal was to save money. The city looked at programs at Lakeville, Farmington and did a cost benefit analysis before embarking on their program. The responsible city office was the Finance office. The program finished the end of 1997. The Mayor endorsed a letter that was mailed to all Plymouth residents. The city had an education campaign before and during the program. The education elements consisted of using the city newsletter, cable TV announcements, articles in the local paper to include advertisements, direct mail notices and neighborhood meetings.

The city found it was very helpful to get information out to the public in advance. The city set up enforcement actions, they were: inspected properties by a contractor. Residents were given the option to hire a certified plumber if they didn't want the city contractor to inspect. Inspected all existing properties, new construction had to be certified. There was 2-3 weeks notice before inspection, and flyers were placed on residents doors if they were not home that provided information for making an inspection appointment. Sometimes it took 2-3 months for fixes to be completed. None respondents were followed up 2-3 times then assessed individuals on their bills to include \$100 surcharge per month. Some residents went non-compliant and paid the monthly fee for a couple of years. There were 2000 properties disconnected from the sanitary.

-750 removed due to education,

-1300 direct result of inspection

\$357,000 spent

The city tried several ways to see the effect. 1) about \$80-\$250,000 a year was saved, 2) \$40,000 in grant money from MC. Follow up related to grants found that in five years there was some hooking back to the system.

Lessons:

City found that you need good inspection forms and records of inspections

Have a good software program to help you be flexible related to inspections.

Provide as much information as you can to include the benefits to individuals, city and region.

Had some complaining, but not as bad as anticipated.

Didn't have a lot of political pressure, and

Paid for it out of sewer fund.

d) St. Anthony:

History: 90% of homes were built in the 1960's and the soil is mostly sandstone. Because of this, homes were hooked into the sanitary system. In 1999 started a program to take 1) public system off sanitary, and 2) residential of sanitary.

Related to the public system, when televising the system showed that a spot was connected to the sanitary it was then taken off.

In the last five years the city spent \$14 million to alleviate stormwater flooding. The program is Point of Sale removal. The reason for going with Point of Sale was that the average age of the residents in St. Anthony were 55 years old. This meant that there would be a hardship to the elder residents if it were a mandatory program other than home turnover. Point of Sale was positive both for the resident and the city.

Public education consisted of individual mailings and public meetings. The public meetings were split into five locations and there was good overall attendance. Public Works department handled the inspections for residents. There were 200 homes inspected annually. In 10 years should cover most of the homes, of which most are require the need to be taken off the system.

Average cost per resident was \$1200-1500. Some residents still have back ups, cost to upgrade okay at the time of sale, not before has been the most effective. The program may not reach all the homes because of the type of community; elder residents sell or transfer property to their children and this does not trigger an inspection. Most homeowners would not allow city inspections without this program.

City is looking at two levels of sewer rates, one for getting off system, the other for needing the fixes. Finance didn't like the two rate system, so are still considering door to door inspections. The city is also considering grants to help and it would be assessed back over a 5-10 year period rather than be a hardship to the homeowner all at once.

e) Duluth

Required by state as part of negotiated conditions to reduce SSO
Initially voluntary program for residents to seek reimbursement to disconnect sump pumps and gravity drains from sanitary sewer system
\$1200 reimbursement but mandatory (current proposal)

City evaluating storage

State requiring compliance in 5 years.

Currently the program is no longer voluntary.

City is also evaluating storage but doesn't believe it is cost effective

Other Programs (Out of MCES System)

1) Ann Arbor, MI

City provides total reimbursement for mandatory disconnection of 20,000 homes

Must accept city offer in 90 days or get zero reimbursement

Long term (20 years for implementation of program)

City providing curbside collector for sump discharge

Into third year of program

Costs averaging about \$7,000 per home

2) Rock River Water Reclamation District

Section 3. Certification of Compliance with Discharge Standards

Except as otherwise provided in this Section, no person or entity shall sell, transfer or convey ownership of a building serviced by District sewer until such time as a current certification of compliance with Title 2, Article III, Section 1 of this Code has been obtained by the property owner and deposited with the District.

Must have confirmation by a licensed plumber. There are certification forms

3) West Lafayette, IN

Successful program to disconnect gravity foundation drains

Program for disconnection adopted in 1992

Started with a pilot program 1993

1998 completed disconnection of foundation drains

Implementation steps included an administrative program for enforcement and funding, verification of disconnections, and guide specifications for disconnection work.

The program included required drainage improvements to accept foundation drainage and a public information process Program contained both voluntary and enforced action

Program Team included the Mayor, City attorney, Utility director, City engineer, finance director, clerk-treasurer and a consultant

Included enabling legislation with procedural requirements, notifications and penalties

City completed drainage improvements during the program as required.

There was a public reimbursement program that required application process

Outline Conclusions and Comments:

Chair Susag asked that staff now take what has currently been discussed and create a strawman to send out prior to the November meeting. November will be a discussion of areas in the strawman outline that require decisions.

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1. Chair Susag welcomed everyone and asked the members to review the minutes and provide Deb Rose with any comments or corrections. Chair Susag then reviewed the agenda and recap from previous meetings. Chair Susag asked if there was any disagreement where the task force is currently focusing: Formulate and evaluate some alternatives. No disagreement was voiced. Chair Susag reminded the group that he would be giving an update on the Task Force progress to the Environment Committee September 23rd.

2. Bob Molzhan presented information on

- ✓ Implication of Two Tier Standard for I/I
- ✓ Magnitude of Private Property Contributions, and
- ✓ Examples of Disconnecting Foundation Drains

See Presentation information on www.metcouncil.org/environment//projectteams/I-Ihome

3. Chair Susag opened the floor for questions reminding the members there was a need to agree on the fundamental point regarding MCES standard of design.

Questions:

- These scenarios are because we do not have sewersheds, instead we put everything into the regional system? A: Staff admits some line will be drawn, but the boundaries aren't set yet it is assumed the ultimate service area will be set.
- How large is Lafayette, Indiana? A: 20,000-30,000 residents.
- How does the Lafayette model translate into a regional model? A: A strong regional directive and team and a correlating team at the community level.
- How much I/I is related to the drain tiles and sump connections discussed? A: 80-90% (guess based on flow data). Everything points to the sumps and in addition to house laterals/foundation drains.
- If we were going to take a regional initiative what is the best way to go, policy or legislation? Legislation helps a city, as they wouldn't have to pass an ordinance, they just enforce the law.
- If you took out all I/I you wanted to what would that do to the rates? That could be an incentive, if rates at least balance because you allow more density into the system. A: We are looking at major peaks, not something that happens regularly so this doesn't add a significant amount to the bill for a community to want to worry about.
- Should the Council be the one playing the bad guy by telling the communities enforce the ordinance? A: Concur.

➤ Is I/I addressed in the policy plan? A: Yes, both current and new framework. Twenty-three cities had I/I goals in their comp plans related to 1996 the Policy Plan. In the new policy plan and framework there will be some adjustment.

Comments:

- There is enough data out there to assume that the best course of action to take for reducing I/I is to deal with the private connections.
- Would like to see Duluth's report for their program.
- The members attending would like to have some of the communities such as Duluth come in and discuss their programs. Have a panel discussion.
- Cities will end up spending more money to tighten allowing more communities further out into the regional system. A: No one get more capacity than the standard as long as we don't take acreage behind where the pipe can't handle it. This is where a decision on where the line will be for the region still must be set. As we expand the system the rates go up because they are part of the regional system. If it is cheaper to get I/I out and allow service to other communities then it costs everyone less. It is difficult to put treatment plants in certain areas, we look for cost relationships to the edge and how we provide that service. As good stewards we want to do it for less cost and we can do that with getting I/I out.
- Later on there must be a look at implications of ultimate service area.
- There is plenty of opportunity to identify the problem(s) and verify where problem is coming from.
- Let's talk about the concept that private vs. public could be the problem and what it would cost to get it out of the system seems like an easy path to choose. If you decide to go the way of private then you have the problem of how and which way to pay for it, and does that come from the regional entity. The Council does not have money to directly fund this.
- Billing for I/I fee then the money becomes grant funds for the reduction program.
- Another option is using SAC. A: If done as surcharge under SAC then it would be okay for the Council and cities but citizens may not like it. If it is a surcharge there must be a way to prove who is causing the problem.
- There must be dedicated funds and the program must be measured and monitored.
- I don't necessarily agree that new users shouldn't be allowed to be charged, they are coming onto the system and since it is a regional system they must pay their portion helping everyone keep costs down.
- Politically you may want to make a distinction between the people who are doing this illegally and know they are.
- Some cities have disconnection ordinances but are not enforcing them.
- The City of St. Anthony has a program to disconnect at point of sale, we could have them come in and talk about their program. Group agreed.
- If you go point of sale you must look at each community and its turnover rate, this could take awhile. Once it is completed it is done. This could be completed in about 20 years. Additionally, education must be done in order to help get legislation done and with the homeowners on a continuous basis.

- MCES staff needs to tell us where they believe the problems are and have a series of options and work with the problem cities. There could be a series or menu of funding options. Don't just say point of sale is the only way.
- We can have a meeting just on incentives
- A selling point to the reduction program would be if it costs more.
- Less basement flooding would be an incentive. Some communities do not have that problem or they would jump on it. Perception of most homeowners is that you can do what ever to them, they are going to stay connected to keep the water out of their basements.
- I need to understand, if the community has an ordinance then it isn't (shouldn't be) an option that people's homes are connected to the sanitary.
- I like the idea of the Council having a policy that forces communities to enforce their ordinances and the community then chooses from a menu of options how they will get the enforcement accomplished.
- Use the threat of a surcharge for not tightening up. I think it would be useful to have a budgetary threat. That could be part of a future meeting, what and how to charge.
- Make the requirement to put how they will get I/I reduction completed in the comprehensive plans. A: During the grant program we did require that cities that were identified with high I/I to put reduction goals into their comprehensive plans, we are at a point that there will be a need for setting new or additional goals for the next round of comp plans updates.
- We (communities) believe that it must be more individualized, that we know what we must do as a mandate and we decide how and when it gets done.

4. There was some discussion around when a law took effect that required drain tile, house laterals and sump pumps to drain other than to the sanitary sewer. It was agreed it was around 1968 and it was a plumbing code change. There is also a state law (471.342 chapter 317) that allows for cities to set up a program to reduce I/I. This is what Duluth used when setting up their I/I reduction program.

5. Bob Molzahn's presentation included some examples of I/I reduction programs in other cities. Deb Rose handed out some of the site information to include the website addresses where members could go to read about the programs in detail.

6. Russ Susag wrapped up the meeting by getting agreement on the date and time of the next meeting. The meeting will be October 09 from 1-3pm again at the Bloomington facility. The MCES staff will work on getting members from cities for a panel discussion

Key Issues

- *Regional versus local liability for SSO*
- *Appropriate level of service from regional government*
- *Appropriate type and level of support from regional government to reduce I/I (regulation, legislation, etc.)*
 - *Schedule of activities*

- *Who pays and for what? (surcharge, public, private)*

RECAP:

- ✓ *Council's use of P/A rations for interceptor design is reasonable and proper*
- ✓ *Some older communities may have difficulty meeting the Council's design standard*
- ✓ *I/I reduction in publicly owned sewers can be driven from good infrastructure management*
- ✓ *I/I reduction from private property is better effected by a regional approach*

7. Items asked for by Chair and members:

- + Menu of options cities/communities can
- + Matrix or spreadsheet of pros and cons for task force members
- + Panel discussion with other cities

*I/I Task Force Meeting
October 09, 1:00-3:00 pm
Bloomington*

Agenda: *Tentative Panel Discussion with St. Anthony, Maple Plain, Duluth and a few other cities.*

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Meeting Notes of August 14, 2003

Attendees: Russ Susag, Bill Moeller, Don Bluhm, Kyle Colvin, Bob Molzahn (Consultant) and Deborah Rose, Metropolitan Council Environmental Services; Drew Anderson, Waconia; Deb Bloom, Roseville; Bonnie Burton, Shorewood; Jeannine Clancy, Golden Valley; Bob Cockriel, Bloomington; Wayne Schwanz, Eagan; Greg Gappa, Orono; Kelley Janes, Chanhassen; Mike Kassa, St. Paul; Tom Ozzello, Woodbury; Eugene Ranieri, Association of Metropolitan Municipalities; Harlan VanWyhe, Maple Grove; Paul Chellsen, Minneapolis

1. Chair Susag welcomed everyone and introductions were made as Mike Kassa joined the task force as the new representative for St. Paul. Chair Susag asked the members to review the minutes and provide Deb Rose with any comments or corrections. Chair Susag then turned the agenda over to the staff to begin the briefings.

2. Bob Molzahn presented information on
How MCES determines capacity for a new sewer,
Why MCES is forecasting a need for relief sewers,
The reasons for not designing for more infiltration and inflow,
and Responsibility for providing "adequate" capacity.

Some of the information was a review from previous meetings.

3. Chair Susag opened the floor for questions reminding the members there was a need to agree on the fundamental point regarding MCES standard of design.

Questions:

What calculations have been done as to what it would cost to take out I/I? A: The cost depends what you assume the source is, example at Blue Lake it will cost \$15 million assuming it was drain tile. Sumps are cheaper.

Are you talking about tying sumps into storm drains? A: depends on the community(s).

What about the infrastructure, that is more than \$5000/yr? A: It costs around \$1 million/yr during pavement and other upgrades to include additional catch basins.

Are you saying the Council is responsible for clear water flow? C: We must pay attention to what is previously said about old and newer communities.

There has to be an acknowledgement that you will get less for your dollars in the core cities as you try to reduce I/I.

Is the assumption that new homes in the country (suburbs) will have sump pumps? A: All sources need to be addressed as adequately as the community can. All communities contribute some I/I.

If we handle this issue at point of sale then someone has to be on staff to inspect and how do we pay for that staff person? How do we (the communities), in budget problem times, realistically get this done through point of sale and I/I charging? A: MCES staff can come up with examples of what communities have done in the area of

charging homeowners. We think initially it is sumps and drain tiles; where do you go after and how is probably on a priority basis, for example what's cheapest probably the sumps and passive drain tiles at \$4500.00. With a grant program you must have follow-up, but then you would with any type of program. Maybe make it harder for them to connect to the system. Staff has heard about communities that have been adding areas to their systems where sumps can connect to the storm sewers. Chanhassen is one example.

Who flows to the Metro Plant? 65 communities.

How do you categorize a 100-year event? A: six inches in a 24-hour period. Over the last 4-5 years we are getting 6-7 100-year events in parts of the Twin Cities.

Why do we continue to allow sprawl? A: This task force could possibly end up recommending to the Council they curtail sprawl, but we haven't answered fundamental questions such as the standard yet.

What is the standard of design in this region? A: The ten-state standard plus a little more.

Cooperatively working on things will help along with new technology. But, what is going to be the incentive for getting the I/I out?

So what is the Council's responsibility? If you give each community a different standard how much flow is that and how do we use that?

What is our number to reach? A: 1.2-1.0 mgd. This is not achievable in 6-12 months or five years. Maybe three terms political horizon, or 10-15 years growth horizon to deal with this problem.

It sounds as though there is agreement that the standard is reasonable, but that the group wants to look at tighter standards for newer and less tight for older communities, is this so? A: (MCES Staff consultant) I would not go above or below the ten-state standard. What is the repercussion's of assigning new communities different standards than older communities? We must find that cut off, I can tell you it would mean a two-tier system. The grant program and the funding would all be different. Eventually the two-tier would lead to a onestandard system. We don't want to design out of plants, begin at the plants and work back to formulate the draft of a two-tier system.

Are we on schedule? A: Good for now. Staff needs to put some things forward to the task force to beat up next time.

Comments:

Some communities have been decreasing flow by separating storm and sewer over the last five years and this includes the grant work with sumps connection costing around a few hundred dollars.

About \$400 million might be what needs to be expended for CIP to build out. Although, we are throwing out numbers we are seeing that even if we build out we can't get there. What would cost maybe \$5 million in Minneapolis would quadruple when you go to the outer rings. Going back to the 1920's the original design for the population growth estimate was very different. \$5 million in Anoka for I/I removal will get us a lot more I/I removal than in Minneapolis.

It is a global issue but we are almost at reacting to it individually in each community.

Minneapolis recognizes flooding is adding to this and is spending \$70 million on a flooding program.

(Minneapolis) I am worried we are spending huge sums to handle small flows and I don't believe we can get to the I/I reduction numbers you want reached.

In Golden Valley we do pay for it and it reflects in our bills.

There was a project in Duluth and it proved that most I/I was coming from house laterals.

There must be an acceptable level of infiltration and inflow into the regional system.

Our projections for growth to 2030 timeframe show we are filling pipes during stormwater events. MCES staff are seeing the impacts and we recognize it is not an easy thing to deal with as growth occurs. We know it isn't simple and it will take awhile this is why we are beginning to address this now. In June during the rain Golden Valley had what was classified as a 100-year event.

Roseville stormwater system is designed for ten-year not 100-year events and you are saying that we have to get I/I out of the sewer and into the stormwater system, but our stormwater system isn't designed to handle that much.

With new SSO regulations each community is going to have to deal with overloading the system. We need to figure out as a task force how we can do this and how much it is going to cost. The preference is not to have to use enforcement.

The grant program idea is good as it is a regional problem. Cities are going to say I don't have I/I if you take money from rates to fund grants. Cities also have to rehabilitate their systems. From the Council perspective we are not looking for one answer, there are many ideas that could/should be considered as we look at this.

The regional approach idea is good, and the task force should continue to look at it from that perspective.

The idea of new construction and pro-ration on a city is good as some cities will never meet the current new construction level.

If all the communities get rid of most of their I/I then that will help other communities.

The regional system should not allow some areas to hook into the regional system, they should have their own system.

Maybe in some cases we should have sewersheds. (Bloomington) We are sprawling and adding more users and had no idea that some cities like Maple Plain would be providing this kind of flow. Regionalization was a good idea, but as days have gone by we can't buy our way out and can't keep adding pipes and telling people you have to tighten up. Sewersheds may be the best idea. Quit allowing MUSA to expand. A: Some of this has been done such as Eagles Point and Maple Plain flows to Blue Lake. If you add additional growth we need to look at sewersheds, but if you stopped development there would still be I/I problems.

It is not just one group of communities there are 60 communities on the list so it is a problem for the region. However, the list doesn't provide all the information.

It is understood that it will be difficult going on private property. The task force can explore Duluth, MN and Rockford, IL programs for dealing with private property for our discussions in the future.

4. Russ Susag wrapped up the meeting by getting agreement on the date, time and location of the next meeting. The meeting will be September 11 from 1-3pm again at the

Bloomington facility. Russ asked the task force to be aware that the Council runs by committee and he will be bringing information on the task force progress to the Environment Committee in September.

Key Issues

- *Regional versus local liability for SSO*
- *Appropriate level of service from regional government*
- *Appropriate type and level of support from regional government to reduce I/I (regulation, legislation, etc.)*
 - *Schedule of activities*
- *Who pays and for what? (surcharge, public, private)*

5. Items asked for by Chair and members:

Updated Glossary of acronyms and definitions for the members

Community goals (Council data). What each community needs to do or meet.

Basis for determining standards (Ten-State?). Two-Tier System

What other agencies around the country are doing for and I/I program

Profile of cities list with data indicating where they are.

*I/I Task Force Meeting
September 11, 1:00-3:00 pm
Bloomington*

Agenda: *Tentative Discussion on two-tier standard. Finalize agreement on standards*

6. Additional Information:

Members may designate an alternate, please do not send someone new each time.

Provide alternates name to Deb Rose

Deb Rose is the direct contact for everyone and she will get information, questions, etc. to the right parties as needed.

Note: You can find information about the Task Force, current actions, activities, etc. at www.metccouncil.org/environment/environment.htm under featured links. If you have questions or comments you may contact Deb Rose at 651-602-1479 or by e-mail debra.rose@metc.state.mn.us

Inflow and Infiltration Task Force

Task Force Purpose:

To formulate recommendations to take to the Metropolitan Council for adoption

Meeting Notes of July 10, 2003

Attendees: Russ Susag, Bill Moeller, Don Bluhm, Kyle Colvin, Bob Molzahn (Consultant) and Deborah Rose, Metropolitan Council Environmental Services; Drew Anderson, Waconia; Deb Bloom, Roseville; Bonnie Burton, Shorewood; Jeannine Clancy, Golden Valley; Bob Cockriel, Bloomington; Wayne Schwanz, Eagan; Greg Gappa, Orono; Karl Johnson, St. Paul; Eugene Ranieri, Association of Metropolitan Municipalities; Jim Sweeney, Inver Grove heights; Harlan VanWyhe, Maple Grove; Pat Wrase, Minneapolis

1. Chair Susag welcomed everyone and introductions were made. Chair Susag asked the members to review the minutes and provide Deb Rose with any comments or corrections. The members reviewed the agenda and reminded of the key issues for the task force. Chair Susag then turned the agenda over to the staff to begin the briefings.

2. Don Bluhm briefed the historical programs regarding I/I; Tim Keegan gave the members insight to the MCES internal inspection program and the regulatory future based on cMOM. Bill Moeller finished the briefings with how data is collected for and metering information related to flow and billing.

3. Chair Susag opened the floor for questions.

Questions:

➤ Why is the Met Council changing classifications, is there something wrong with the methodology? A: Not the methodology, but the data currently, and the ability to collect and manipulate the data is greater than it was as used in the 1988 report. Peak flow information capture was easily done in the past. It is easier to collect data monthly today with the ability also to get information at actual meters, to include short time impact related to rains and flows.

➤ Is the sheet listing the 50-57 communities inflow or infiltration or both? A: It is flow and inflow. It may not be the whole community, may be just one or two metersheds. (max flow peak hour greater than max standard).

➤ Can inflow and infiltration be distinguished in these cities and where they are by data? A: That can be seen by amount and how fast of flow as to whether it is ground infiltration or other. The ground infiltration is usually seen a few days after the heavy rain and it has gone into the soil.

➤ What is the percent of system flow of those communities tagged as I/I communities? A: Looking at percent of water that could be removed if those communities could bring down their I/I.

➤ One plus million was spent on grant program, is there any information on how that grant program worked, or didn't? A: Kyle has to go back and look at the data to determine that, but we do have that information.

➤ The 1992 report had 25 communities that were in various stages and now there are 60 communities. What is the criteria for putting communities on the excessive

I/I list? A: The larger number of communities is dependent upon size and flow of community-not using the two.

➤ For each city that is being critiqued and judged are you using average or peaks, or design flow? A: Average flow and peak data flow for current system cities.

➤ How much I/I is acceptable? A: The report is available from the Council on this, to include acceptable flow. Council's definition max peak-average ratio is 4. Designed based on future average flow, everyone still looks at average minus peak and then designs to that. So what are you going to do to reduce back ups? Reduce or pay for a larger system? The table used for two decades at the Council is the starting point.

➤ Is it fair to assume that each community design is the same or different? A: The ten-state standard table is the same ES has been using and has been unchanged for many years.

➤ Which is the one you look at? Does ES look at each individual connection? A: ES looks at excess in the system then goes back to find out where is it coming from.

➤ Could we look at each community and the data? A: Yes, we will get everyone a copy and data relative to communities and list with ratios applied to these communities.

➤ Is inflow a bigger problem for backups? A: Yes.

➤ Is there going to be a destination? Should communities get credit if they have infiltration versus inflow to help get them grant money? A: Both rob capacity, one takes smaller portion of capacity and communities pay for infiltration (inflow affects individual communities more).

Comments:

- Council needs to know what has been the effectiveness of the grant/loan program from the past so when recommendations come from the task force good decisions can be made.
- There needs to be some discussion in this task force to find out where we have been and where we should really go.
- We need to ensure we look at the global view of the problem.
- We need the chart on flow standards and design.
- This list of communities still needs to be reviewed and agreement on flow standards needs to be accomplished.
- ES staff will bring in the community flow information to work with.
- We'll need to know where each community base is if you say you are looking at average peak and design.
- Compare with peak design factor is what we use.
- We need to know what is excessive, it appears based on information that we have exceeded the ratio.

4. Russ Susag wrapped up the meeting by getting agreement on the date, time and location of the next meeting. The meeting will be August 14th from 1-3pm again at the Bloomington facility, room location to be determined.

Key Issues

- *Regional versus local liability for SSO*
- *Appropriate level of service from regional government*

- *Appropriate type and level of support from regional government to reduce I/I (regulation, legislation, etc.)*
 - *Schedule of activities*
 - *Who pays and for what? (surcharge, public, private)*

5. Items asked for by Chair and members:

- + Updated Glossary of acronyms and definitions for the members
- + Community goals (Council data). What each community needs to do or meet.
- + Basis for determining standards (Ten-State?)
- + What other agencies around the country are doing for and I/I program
- + Profile of cities list with data indicating where they are.

*I/I Task Force Meeting
August 14, 1:00-3:00 pm
Bloomington*

Agenda: *Tentative Discussion on basis for standards, what other agencies are doing and profile of cities with data*

6. Additional Information:

- Members may designate an alternate, please do not send someone new each time.
- Provide alternates name to Deb Rose
- Deb Rose is the direct contact for everyone and she will get information, questions, etc. to the right parties as needed.

Note: You can find information about the Task Force, current actions, activities, etc. at www.metcouncil.org/environment/environment.htm under featured links. If you have questions or comments you may contact Deb Rose at 651-602-1479 or by e-mail debra.rose@metc.state.mn.us

Inflow and Infiltration Task Force Meeting Notes of June 10, 2003

Attendees: Russ Susag, Bill Moeller, Don Bluhm, Kyle Colvin, Bob Molzahn (Consultant) and Deborah Rose, Metropolitan Council Environmental Services; Drew Anderson, Waconia; Deb Bloom, Roseville; Bonnie Burton, Shorewood; Tom Klatt, Golden Valley; Bob Cockriel, Bloomington; Tom Colbert, Eagan; Greg Gappa, Orono; Kelley Janes, Chanhassen; Karl Johnson, St. Paul; Bruce Osborne, Victoria; Robert Benson, Woodbury; Pat Wrase, Minneapolis

1. Chair Susag welcomed everyone and introductions were made. The members were introduced to the background and challenges facing the task force around the issue/problem of Inflow and Infiltration.
2. Deb Rose provided a brief that information about/and for the task force will be available on the Metropolitan Council web site under 'Featured Links' (www.metcouncil.org/environment/environment.htm). The site is intended to provide task force members with access to the information, activities, ask and receive answer to questions between meetings. The site also serves other interested parties such as cities that are not a member on the task force but want to keep up on the activities, ask questions and receive feedback. Deb Rose will be the contact and administrative support for the Task Force.

Task Force Purpose:

To formulate recommendations to take to the Metropolitan Council for adoption

3. Bob Molzahn, ES Consultant, walked through a presentation describing the problem and outlining the challenges and key issues to the members.
4. During the Question and Answer/Comments segment the following were brought forward by members:
 - Questions:**
 - What is the Met Council assuming number of gallons per household is? A: 100 gals per person/270 gals per household.
 - Where does Met Council derive the design standard? A: The Ten State standard available nation wide.
 - Is the Council standard reasonable and achievable based on data? A: Yes.
 - Are the dollar figures shown for expansion capital costs or are there operating costs involved? A: Strictly capital costs.
 - Could the design standards be increased? A: Based on what is known from data we have to discuss what is reasonable, there is no ability to expand capability for a 100-year event. Shouldn't we get rid of the source rather than design/build larger.
 - Using the data and knowing what we know today, would we build the same way? A: The Ten States Standards are proven good numbers to use based on 50 years and new regulations are going to come into play. Peak flows are going to be problems with original designs-those currently built.
 - Does anyone have what it will cost to reduce?

➤ Private property seems to be part of the problem, how will this be addressed?
A: This is part of what the task force will wrestle with, but as a group it will be easier to work a solution and help enforce the solution such as legislation, regulation, etc.

➤ Does anyone have a feel which is more of the problem that should be focused on, inflow or infiltration?

➤ If all communities and all contributors are throttled back to fit into the appropriate ratios that were shown I still noticed a need for further expansions, do you have any idea how many connections could be allowed? A: We haven't done the math yet, we know we are looking at another million people in the region, this would be about 360,000 connections would be allowed if controlled.

➤ How does Met Council approach your own interceptor for I/I? A: Televised, inspections and annual rehabs.

➤ Is just paying the bill vs. fixing the problem responsible? Task force is the way to gain support.

➤ What is used elsewhere and can we use that information?

Comments:

- Ensure we are working with good data to base discussions and decisions on.
- We need to ensure we create and implement a targeted and coordinated effort not only implementing but communications.
- Easements and where they are located are an issue to themselves as they can be placed in saturated areas allow for inflow and infiltration such as in swamps.
- Crux of problem is liability; modeling will allow us to see predictive peaks and related risks.
- Construction standards are part of the equation.

5. Russ Susag asked for consensus from the members on the Key Issues presented and all members agreed on the current Key Issues with clarification and the understanding they could or might change as the task force continues its work.

Key Issues

- *Regional versus local liability for SSO*
- *Appropriate level of service from regional government*
- *Appropriate type and level of support from regional government to reduce I/I (regulation, legislation, etc.)*
- *Schedule of activities*
- *Who pays and for what? (surcharge, public, private)*

6. Items asked for by Chair and members:

- + Glossary of acronyms and definitions for the members
- + Community goals (Council data). What each community needs to do or meet.
- + Put presentation on line to access for readability
- + Updated membership information that includes Council staff information
- + Would like information on work done by earlier task force; task force membership and what was implemented.

7. The members agreed on the next meeting, date, time and location.

I/I Task Force Meeting

July 10, 1:00-3:00 pm

Bloomington

Agenda: Tentative Historical programs and Regulatory Future

8. Additional Information:

- Deb Rose will e-mail to members rather than sending by mail information, notices, etc.
- Members may designate an alternate, please do not send someone new each time.
- Provide alternates name to Deb Rose
- Deb Rose is the direct contact for everyone and she will get information, questions, etc. to the right parties as needed.

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