

# Meeting Minutes

Advisory Technical Panel – Updating Infiltration and Inflow Control Program

Location: MWRD LASMA Visitor Center

Date: January 18, 2012 1:00pm to 4:00pm

Attendees: See attached

- A. Ms. Maureen Durkin, Supervising Civil Engineer, MWRD, welcomed the ATP members. She stated that the meeting will focus on a Long-Term Operation and Maintenance Program (LTOMP).
- B. Mr. Jerry McGovern, Principal Civil Engineer, MWRD, gave a slide presentation regarding high wet weather flows at Lemont, Hanover Park and Egan Water Reclamation Plants that serve separate sewer areas. Dry weather and wet weather flow data was presented to demonstrate that these Plants receive excessive I/I during wet weather flows.
  1. Mr. Al Berkner, Sewer System Evaluations, asked a question regarding the cost to treat I/I at the Water Reclamation Plants. Mr. McGovern stated that the Maintenance and Operations Department would know the cost to treat the excessive I/I and would have to be consulted to provide an answer.
- C. Mr. Sergio Serafino, Assistant Director of Maintenance and Operations, MWRD, gave a slide presentation describing the new requirements proposed to be imposed in the draft NPDES Permits (e.g., CMOM, I/I reduction, SSOs), MWRD's efforts to comply with the new regulations and the features of MWRD's current Interceptor Inspection and Rehabilitation Program (IIRP).
- D. Mr. John Wiemhoff, USEPA, gave a slide presentation regarding the guidelines for evaluating collection system Capacity, Management, Operation and Maintenance (CMOM) programs and provisions included in CMOM programs.
  1. Mr. Rafiq Basaria, MWRD, asked how the MWRD dry and wet weather flow rates compare to the rest of the country with similar weather. Mr. Wiemhoff stated that he has seen similar flow rates and worse flow rates. The excessive flow rates are indicative of the I/I problem and that all systems have it. Mr. Wiemhoff also stated that everyone is trying to implement effective O&M strategies to save money and reduce long-term costs. Additionally, excessive wet weather flows imply that there is potential for SSO's within the system. There should be a procedure in place to determine when a system is experiencing an SSO. Known problem areas should be monitored during rain events for active SSO's.
  2. Mr. Basaria stated that if there is a basement flooding complaint reported to the MWRD; the MWRD will investigate when and where it

happened. He noted that since the MWRD receives flow from the local sewer systems, the MWRD Interceptors are investigated to determine if there are any problems or SSO's within the system. In cases of basement flooding, the MWRD has not found any problems within its system.

3. Mr. Wiemhoff stated that a 308 Information Request can be sent to the community to request a report numbering the SSO's and basement backups. That information can be used to determine the problematic areas in which a focused study can be implemented for I/I source identification and removal.
- E. Ms. Durkin gave a slide presentation, highlighting minimum requirements of a LTOMP under the new I/I program. She opened the floor to discussion regarding feasibility and achievability of LTOMP.
1. Mr. Rob Sulski, IEPA, stated CMOM requirements specified in the draft NPDES permits for the three of the MWRD's Water Reclamation Plants will remain in the final version, and will be specified in the permits for the remaining plants when they come up for renewal. CMOM requirements will be included in all NPDES permits when they are renewed.
  2. Mr. David Weakley, City of Palos Hills, detailed the I/I source identification and removal measures his community took both in the private and public sector to comply with his ICAP goal of 245-GPCPD. These measures included enactment of ordinances (e.g., disconnection of water supply for a refusal to allow property inspection, mandatory inspections of properties at the time of sale), imposition of monthly sewer fee to pay for the I/I source removal from the public sector, expedited/regular periodic private sector inspections, transparent and open communications with the residents, no-fault property inspections for a limited time, re-inspection of properties where violations were previously found, etc. Mr. Weakley explained that it is generally not easy to get the elected officials on board when it comes to imposing additional fees/taxes to pay for the sewer rehabilitation work and cited the measures he took to overcome those obstacles. Mr. Weakley believes that the focus should be on whether a system is working without SSOs or basement backups while always pursuing simple cost effective reductions in I/I, that the status-quo is not acceptable, and that I/I reduction is a necessity. However, he also believes that the requirement of wet weather flow reduction to 150-GPCPD is very difficult to achieve for most sanitary sewer systems and is not supportive of that flow rate. He stated that reduction of I/I and system maintenance can be achieved in a cost effective way. Mr. Weakley further stated that given a problematic I/I area, the local community may not be the only one contributing to that specific problem. The sewer systems located upstream and downstream of the problem area may be contributing to the I/I without even knowing they are part of the problem and must address their system for the solution. He also voiced support of sewer separation projects in the combined sewer areas.

3. Ms. Durkin clarified that the 150-GPCPD in the MWRD's NPDES Permits is a trigger for action. If the satellite sanitary sewer system experiences or contributes to basement backups and SSO's and the flow rate within the system is above that number, then action must be taken to reduce I/I.
4. Mr. Sulski stated that a caveat is attached to the 150-GPCPD number. He reiterated that if the satellite sanitary sewer system experiences or contributes to basement backups and SSO's then the flow rate has to be reduced closer to that number.
5. Ms. Durkin asked if anyone has or implemented any methods for periodic flow verification. She and Mr. Abbas Bhikapurawala, MWRD, showed a simple, inexpensive and easy-to-setup device (Surcharge Level Indicator) that can be used to measure sewer system surcharging. Mr. Basaria, who has experience with such devices, stated that the floats of the devices are often not large enough to push the disk marker up and could result in erroneous measurements. Fixing a larger Styrofoam float could fix the problem.
6. Mr. Basaria queried if significant I/I reduction was achieved by public sector sewer lining alone. Mr. Weakley stated that sewer lining improved the structural integrity of the sewer. Sewer lining did reduce I/I; however, sump pump disconnection led to the greatest I/I reduction results.
7. Mr. Alan Hollenbeck, RJN Group, stated that he has been involved in several projects where communities have done significant amount of main sewer lining projects, without coupling it with a manhole rehab program or sump pump disconnection programs. In those cases, dry weather overflows have been reduced due to the elimination of grease and grit related problems, but no significant reduction in wet weather flows were achieved. That would indicate that water, in the main sewer trench, migrates to the service laterals. There is an increase in structural integrity and long-term operation and maintenance benefits, but he has not seen any data that main sewer lining alone will result in significant wet weather flow reduction. His recommendation is to start with main sewer lining programs, but it can not be relied upon to fully address I/I issues.
8. Mr. Chris Breakey, South Lyons Township Sanitary District, stated that approximately 80% of his Sanitary District's main line sewer has been lined and there has been a small reduction in wet weather flow. Currently he is focusing on sump pump disconnection and reviewing how to address issues of private laterals.
9. Mr. Weakley recommended smoke "bomb" testing, instead of liquid smoke, because it rises out of the ground better and is easier to visually detect.
10. Mr. Joseph Pisano, Village of Hillside, asked how much it costs for a homeowner to line a lateral. Mr. Breakey answered that it costs anywhere from \$2,300 to \$5,000 to line a lateral if they televiser it.

11. Mr. Pisano stated that lining the private lateral seems to be cost prohibitive for the home owner. Mr. Breakey answered that there are several contractors currently doing it, so the cost is declining. He also stated that replacement of a lateral could cost \$15,000, and some Villages require directional boring, resulting in a higher cost.
12. Mr. Craig Brunner, Donohue & Associates, asked Mr. Weakley if there is a sewer charge on his water bill. Mr. Weakley responded that the charges on the water bill include the sewer charge, the water purchased and the capital improvement portion.
13. Mr. Pisano stated that the main issue is finding funding to do sewer maintenance. He further elaborated that when getting into reporting requirements it will be difficult to pin-point which system, private or public, is the cause of the excessive flows. Investigation of excessive I/I flows is the responsibility of the public agency, and it will further increase spending. Sump pump disconnection and point of sale housing inspections were done in his Village; however, there may be sump pump reconnections and low housing turnovers are reducing the number of home inspections. He suggested that funds may have to be invested in flow monitoring and follow-up remedy/maintenance must start at known surcharge locations.
14. Ms. Durkin asked Mr. Pisano if the sump pump disconnection was done to achieve ICAP compliance or if it was done after compliance. Mr. Pisano answered that it was to achieve ICAP compliance.
15. Mr. Hollenbeck stated that it is typical to see sump pump reconnection in small lots because they normally discharge to the backyards which cause flooding. Also, with PVC piping, reconnection can easily be done.
16. Mr. Weakley stated that the disconnection must occur as close to the sanitary sewer as possible so that reconnection is more difficult.
17. Ms. Durkin asked in situations where sump pits that were found to be collecting groundwater, did an ordinance allow action to be taken to correct the problem. Mr. Weakley responded that the homeowner was given a violation notice and had 30 days to repair.
18. Mr. Pisano stated his concerns regarding the amount of lining versus what is economically feasible and advantageous. He also stated that having the community pay to line the entire sewer system is extremely costly even when considering rebates or other offers.
19. Mr. Sean Dorsey, Village of Mt. Prospect, described an initiative where his municipality offered low interest loans to homeowners in areas subject to flooding to address private-property I/I sources. However, relatively few homeowners chose to participate.
20. Ms. Durkin asked if public education of cost sharing programs and the value of maintenance of the private lateral help the homeowner to

take advantage of the programs. Mr. Breakey answered that the more education directed to the homeowner, the better the response. In his experience, once the homeowner understood why the inspections were being done, they were more likely to grant access and comply with inspections. Also, with the elimination of fees and violations the homeowner was less intimidated with the inspection process.

21. Mr. Dale Schepers, Village of Tinley Park, stated that in each successful case of compliance of I/I reduction is the enforcement of regulation. He stated that since Mr. Weakley's City was under a consent decree, he could go to elected officials of his community, educate them and obtain funds for compliance programs. He cited problems of funding, support from elected officials and the citizenry that several communities face and recommended that the MWRD may need to exercise its enforcing authority under the applicable regulations. He also recommended that the MWRD make the communities aware of the ramifications of non-compliance so that I/I reduction programs could be appropriately funded and implemented with due diligence. Other Village representatives concurred with this suggestion. Mr. Schepers asked if CMOM will be a requirement for the satellite sewer systems. Messrs. Sulski and Wiemhoff confirmed that as of now CMOM requirement does not apply to the satellite sewer systems.
22. Mr. Pisano stated that he went through a consent decree. He tried to fight it, but in the end, he had to comply with it.
23. Ms. Durkin stated that in extreme cases of non-compliance, there are consent decrees, court orders, permit moratoriums, and noted that they are extreme measures. Having this known to communities is a useful motivational tool to leverage them to take the action they need to take.
24. Mr. Sulski stated that there are basement backups and SSO's which are not reported. If the reporting system is easier and the reporting process is done, sooner or later there will be a compliance letter or a permit moratorium.
25. Mr. Schepers stated that awareness of the enforcement process is crucial so that proactive actions can be taken to implement programs to reduce I/I.
26. Mr. Sulski suggested to have a database available to all Villages detailing all I/I reduction programs being implemented.
27. Mr. Wiemhoff suggested that the MWRD have a model ordinance language available so that it can be presented to the communities.
28. Mr. Weakley stated that his Village was under a consent decree, but it was the threat of the additional sanctions and penalties, outlined by MWRD letters, that motivated his Village to comply with reducing I/I.

29. Mr. Troy Ishler, City of Oak Forest, suggested that the MWRD send a letter stating that new NPDES Permit requirements are coming, the implications of them, and the ramifications of non-compliance.
30. Mr. McGovern stated that he agreed with the feedback from the Village officials to have the MWRD act as an enforcer. Reduction of I/I cannot be achieved without dedicated funding. The MWRD believes that any money spent on the sewer system is beneficial for long-term maintenance and I/I reduction. However, the private sector sources must be addressed for achieving a meaningful I/I reduction.
31. Ms. Durkin suggested that the MWRD include a letter with the annual summary reports detailing the new and updated I/I program and what the MWRD expects beyond what is currently done under the ICAP program.
32. Mr. McGovern asked if the MWRD were to require every community to submit a financial report regarding the amount raised and spent on their sewer systems, would it aid communities to reinvest in their sewer systems. Mr. Pisano stated that considering the current economic climate, he didn't think that would help because the sewer fund is currently being used to supplement the general fund.
33. Ms. Durkin asked that if revising the MWRD Ordinance to require submittal of a financial report to ensure that sewer funds are spent for that purpose, whether communities would comply. Mr. Pisano stated that that Ordinance would have to include requirements that mirror the public service retirement funds, to ensure funds collected for sewer maintenance are used for that purpose.
34. Mr. Weakley stated that he is placing a letter in the water bill, directed to the homeowners, detailing the improvements to the sanitary sewer system and achieving compliance, and that continuous maintenance is a must.
35. Mr. McGovern suggested that the Manual of Procedures have a revised I/I article stating that at the time of residential sale, a home inspection is required. Mr. Sulski further elaborated, suggesting that a detailed punch list of items to be inspected at the time of residential sale be included in the revised article language.
36. Mr. Daniel Feltes, MWRD, stated that the MWRD instituted a permit moratorium in the past to require communities to adopt floodplain and overhead plumbing requirements. The same leverage can be used for communities to implement I/I compliance programs.
37. Mr. McGovern stated that the first step of addressing private I/I sources is a sump pump inspection at the time of sale.
38. Mr. Weakley stated that the MWRD has the authority to require a home inspection at the point of sale and can record it against the title of the property. Ms. Durkin stated that the MWRD would have to look into that authority further.

- F. The next meeting is scheduled at 1:00pm on Wednesday March 21<sup>st</sup>, 2012 at the LASMA Visitor Center.