

Minutes
Water Resource Management Utility Meeting
(Formerly Stormwater Utility)
February 12, 2008

Please note: Minutes are unofficial until approved by the Water Resource Management Utility (formerly Stormwater Committee) at their next regularly scheduled meeting.

Present: Alderman Ken Harenda, Alderman John Hopkins, Alderman Bill Moore, Mayor Jack Chiovatero & Commissioner Jim Kern

Others Present: Nicole Hewitt (Division Engineer), JP Walker (City Engineer), Matt Bednarski (Bonestroo) & Sue Hanley (Office Coordinator Utilities & Streets)

Meeting called to order at 4:54 pm by Alderman Harenda. Roll call and declared a quorum with all members present.

Old Business

SW 01-08 Minutes from January 8th Meeting

Motion by Commissioner Kern to approve the minutes from the January 8th Water Resource Management Committee meeting. Seconded by Alderman Hopkins and upon voting the motion passed unanimously.

SW 07-06 Resident Request for Corrective Action Re: Drainage Concerns (tabled)

This item remains tabled.

SW 19-05 Approval of Stormwater Utility Updated Five-Year Plan (tabled)

This item remains tabled.

NEW BUSINESS

SW 03-08 Sump Pump Requirements

Mayor Chiovatero: I received an article from Whitefish Bay regarding sump pumps and had a discussion with Alderman Hopkins about some downspouts that are connected to the sanitary sewer as we have an issue with MMSD regarding the water flow and would like to come up with a plan to reverse this. We talked about passing an ordinance in the past, but that may cause a problem. I saw this as a good way to correct the infractions we have out there. If the homeowner comes in to get a permit for remodeling or addition to their home, this would be a good time to look at the issue of the down spouts and try to disconnect them.

Harenda: 267-11 is what they are proposing?

Hewitt: That is our current ordinance.

Harenda: We discussed this in depth several years ago at the Utility Committee regarding the Buena Park drainage study with respect to infiltration I & I as well as illegal discharge. The Utility Committee looked at different policies to correct some of these deficiencies in some of the homes built prior to 1954 and we do have a list of some of the homes that are illegally connected already. The issue is coming up with the means to pay for this and how to enforce this. Since this has more effect on the Utilities and MMSD, I suggest that we send this to the Utility Committee. One of the ideas that the Mayor pointed out is that when people come in for a building permit for remodeling or additions to use that as a trigger to

correct some of the deficiencies. We had looked at grant programs and different funding formulas with respect to some of these illegal hookups, but when we did the study in Buena Park, we told the residents that we would not hold things that were identified against them for allowing us into their homes. Mequon had looked at doing this with illegal connections and it is a political hot potato. I would probably refer this to the Utility Committee. The City of Superior also looked at illegal hookups with respect disconnecting them from the sanitary sewers and they used a grant system to help pay the residents to do that. We were looking at setting up grant programs to do it in a certain period of time, and if you did not take advantage of that you would eventually be responsible for doing this on your own dime. The other concern was with respect to laterals that connect to these older homes, one discussion was that when a home was put up for sale, if the lateral had not been inspected in a 10-15 year period, prior to the home being sold, the lateral would have to be inspected visually, smoke tested, whatever, and if it did not meet the requirements, it would have to be corrected prior to the sale. It is something we need to address and it sounds like MMSD is going to be forcing us to address this. I think currently in our code for new construction, it is inspected, but I do agree that we could put in our code if you renovate your property that is one trigger mechanism that could kick it in. We don't know how many homes are hooked up illegally on that area of the City. There are a number that we are aware of, but how do we get into the homes to identify that.

Chiovatero: I do agree and remember that the Utility Committee discussed this a few years ago, but I was not privy to this information. You are probably right, the Utility Committee should look at this at the same time. I put this on the Water Resource Management agenda because of stormwater, even though this is talking about sump pumps, I was thinking about downspouts and everything else. Maybe both committees should look at it at the same time. It is a political hot potato, but it needs to be corrected as it is a health and safety issue down the road in the long term. I am looking for a mechanism or trigger to correct a couple a year, it is a way of showing we are doing something about it.

Harenda: I think this Committee should look at it, and I will also put it on the Utility agenda. We can look at what other municipalities are doing. With the mandates from the DNR trickling down to MMSD I think we will be forced to do some things here and how we implement them is the concern. The other issue is, and Nicole and JP attached 267-11, is within that in a lot of the older subdivision in the city, the sump pumps are not supposed to be discharging into the ditch lines, but they are. It is not happening with new construction.

Chiovatero: That may also something we can include on this, when they are digging up their yard for an addition or major remodeling, it may be a chance to correct some of those.

Harenda: I think the idea of renovation or some type of upgrade to the home can trigger these things and force them to deal with it at that point.

Moore: Every once in awhile someone says to me why doesn't Milwaukee and the North side communities disconnect from the deep tunnel, they are the ones causing all of the problems. In fact, we are still part of the problem here with some of these homes being hooked up to the sanitary sewer system. Do we also have a rule that sump pumps can't discharge into the ah...?

Harenda: No, they can't. It is already under the code and ordinance; they can't discharge into the sanitary sewers.

Moore: I'm not talking about the sanitary sewers, I'm talking about into the regular storm sewers.

Harenda: No, they should be not be connected to the storm sewers.

Moore: Should be connected?

Harenda: They should not.

Walker: 267-11 says the sump pump should be directed to the front of the house to a ditch or storm sewer unless you have a drainage easement or drainage ditch to another side of the house. At that point, it can be directed to that conveyance system.

Moore: At the same time that prohibits from the sanitary sewer connection, it says that have to basically put it out on their lawn right?

Walker: It can be connected to a storm sewer if that is available. If it is to be discharged to a ditch it has to have a minimum of 10 foot of sheet drainage before it gets to the conveyance system.

Moore: My concern is that when it goes directly into a storm sewer, which you are saying is not prohibited is that correct?

Walker: It is allowable.

Moore: That it goes directly into a stream instead of having the opportunity to go into the ground and I'm suggesting that maybe we should look at taking away the opportunity for new homes to connect to the storm sewer and have all of the water go onto the property.

Walker: The water we are talking about here is clean water. Where it is an issue, and I agree with you is when we have water that has sediment in it. It needs to have some sheet drainage to allow for the cleansing, but when you are dealing with clear water, I don't see the issue other than your infiltration point.

Moore: But what it does is pushes the water downstream, increasing flooding, rather than putting that water out on the lawn and allowing it to soak in and decrease flooding.

Walker: The issue you have though is if you disconnect the connection to the storm sewer you have to install a field inlet for water that will not infiltrate or to get to a conveyance system.

Moore: Would you say that again for me please?

Walker: If you have a sump pump that's discharging connected directly to a storm sewer, and as you are indicating we are not giving it an opportunity to infiltrate.

Moore: That is correct.

Walker: So if we disconnect it from the storm sewer and require it to be discharged on the property, not all of that water is going to infiltrate. It needs to get back to the storm sewer and the only way to do that is you would have to install a field inlet that the water would be able to drain to.

Moore: All I'm suggesting is that you follow the same rules stated here it has to go out at least 3 feet from the home.

Harenda: What residential properties in the recent past have we hooked up properties to a storm sewer?

Walker: The Conservancy on Janesville Road is hooked up to a storm sewer.

Harenda: That all goes to a retention pond?

Walker: There are retention ponds there.

Harenda: So it feeds into there.

Kern: What is the rationale for allowing them to hook up directly? Would it be that it is going to end up in the storm sewer system eventually as clean water?

Walker: As Alderman Harenda just indicated, it's where you have a stormwater management facility such as detention pond; all of the storm sewers convey the water to that pond. That is where your water quality aspect comes into play. Where we have subdivisions that may have storm sewers but don't have detention facilities, that's where Alderman Moore's issue comes into play, we are not providing the opportunity for any infiltration to occur if there is a direct connection to the storm sewer. What I am cautioning you is if you disallow that connection, at some point the water that does not infiltrate has to get back into that storm sewer.

Kern: I'm thinking too, if the water is going to be discharged on the lawn, it is going to flow somewhere; don't you want to eventually have it flow back into the storm sewer?

Moore: It eventually will. Any rainwater that lands on your lawn eventually is going to...

Kern: But wouldn't that argue for letting them go directly into the storm sewer, because that is where you want it eventually anyway.

Moore: Well no. The objective is to have more infiltration in order to resupply the subsurface water that we are depleting.

Harenda: It is not as easy as it appears to be.

Moore: My suggestion is that we look at this on a stormwater basis here to include not just not allowing new hook ups to the sanitary sewer, but also to use the same language, what to do with that water to discharge it on the lawns to not hook up to stormwater systems and to discharge on the lawn. I am just suggesting we add the prohibition.

Hopkins: It was mentioned earlier about Buena Park. If you go back even before the study in Buena Park about 5-7 years ago, they came through all of the neighborhoods on the eastern part of the 1st District and again came into the homes and we encouraged the people to let us come into the homes. We told them it would not be used against them and they did blow smoke through the systems to see how the hooks were there. Many of these people, some didn't have sump pumps and some were told point blank that we are not going to hold this against you and I think we have to go back and consider the cost both to the City and to the property owner. A lot of the homes in that area, we are trying to encourage the people to keep up their property. They are not putting additions on as much as they are keeping up the property and if we want them to come in and redo a bathroom and redo a kitchen, I'm not sure that we want to nail them to have to rip up their home. I think this is a much bigger problem and we should look at it from a lot of different aspects.

Harenda: Alderman Moore has pointed out 2 things. We have an issue with pre-1954 homes with illegal hook ups per code and also newer construction that is hooked up to storm sewers and there is no impact on our sanitary systems. Those are two different animals all together. These subdivisions are designed to be hooked up to storm sewers. If we switch to discharge their sump pumps onto their lawns, how much is that impact, or is that a better impact than if they discharge into the storm sewer that discharges into the retention ponds, which helps with the particulates that we are trying to get out of the system. What are the benefits and how does it impact future construction in the City if we go that way?

Walker: The concern I have is that this would be great if we had a sandy environment. We have a clay environment. We really don't know how much infiltration we will create if we follow this scenario. There will be some, but I don't think there will be as much as some think there will be because of the clay environment.

Moore: What I am suggesting is for new home construction, we can certainly discuss any retrofitting. Even if a small amount of water infiltrates, it is better than none. Since water that comes out of the sump pump is similar to water that falls from the sky, it's going to get to the ponds eventually because of the system within the subdivision. Lawns do work as an infiltration process just as a settling pond.

Hewitt: For clearing out the TSS removal, the grass allows that to be cleaned out, but the infiltration rates are different depending on your soil, and if you don't have a location for that stormwater, some people are pumping and pumping, if they only have storm sewer and they don't have ditches to go in.

Moore: If they don't have any place for that water to go, they shouldn't build there.

Hewitt: Some places are designed to drain to the roads with curb and gutter and storm sewers in them. Others drain into ditches, that is the mechanism to get to that system. Any of these places that have storm sewers that are connected in there, where that water which is clean would go to the road where it will get dirty now and it has to back into the storm sewer dirty and would have to be treated by some other mechanism.

Moore: Water from the street would be going into the pond anyway.

Hewitt: But you are dirtying up water that is already clean.

Kern: The advantage of going directly is that it is clean correct?

Hewitt: Yes.

Kern: You could solve one problem and excess water or flood problem if you have no water that you are now pumping on the lawn to go.

Harenda: That is the point I was trying to make. What are the advantages or disadvantages? We are doing it this way for a specific reason. The City of New Berlin has been very good and spent a lot of money on the Utility side on the I & I, the problems that MMSD is finding is not coming from the City of New Berlin, but from Shorewood, City of Milwaukee and the combined sewer systems. We spent \$6-7 million dollars over the last couple of years and we did a pilot study in Alderman Hopkins area. I'm sure there are some illegal hook ups, but I don't think it a lot is coming from our municipality, as compared to some of the older municipalities. We can look at this issue as far as how our stormwater is functioning as well as the Utility and how are we going to implement it and what is the funding source. It could be quite costly and we don't want to dump it all on the residents. Nicole or JP, please give us a list of pluses or minuses or benefits and disadvantages. I will put this on the Utility agenda too. Nicole, please look at our existing codes if we flip on new construction, if it a benefit to the environment or the community, or is how we are doing it the best way. The stormwater field is evolving as new technology develops. We are trying to do more with our stormwater retention ponds, and take the bomb craters and turn them more into infiltration ponds so that we inject that back into the ground at a more rapid pace than the sheet flow into somebody's lawn. That depends on the geology and the soil out in that area too.

SW 04-08 Update on SLAMM Analysis

Walker: Bonestroo is going to be submitting the formal SLAMM Analysis to the City of February 29th and our attempt is to bring this back to the committee in March and Matt Bednarski will be available for questions. The good news is that the results of the SLAMM Analysis is that the City is experiencing 31% reduction of Total Suspended Solids. We are required by the end of this year to achieve 20%. We are achieving 31% with our existing systems the way they are. By the year 2013 we have to meet 40% reduction. Now comes the tough part, how do we achieve the extra 9%. Where do we get the biggest bang for the buck?

Harenda: That was the reason that over the past couple of years we held off on some of the projects, to find out how well we were doing overall and then taking a look at the ranking of various projects and see where we would get the biggest bang for the buck in meeting the 40% reduction in TSS in 2013. We are working on a PR campaign for the WRM Utility to let the customers know where their money is going. A lot of it is the mandates coming down, is there some way to utilize this as a positive to show what the Utility, the Committee and our Staff has done over the last 6 years since the Utility was founded, we are

getting some good benefits. Our current and past staffs have done a good job, and somehow we need to get that out to the residents too. What do I pay my \$15 for and also the benefits of what the commercial and industrial customers are paying too. Do we increase fees to cover more projects, do we really need to do more projects, which we are forced to by some of the mandates by the DNR and EPA, but how far do we need to go. We can pace ourselves that way versus jumping head first. We have always been proactive in the City, some kind of press release or if you want to wait until the final report comes in to show that.

Walker: One thing I want to say as a caution. We are at 31%, but it doesn't mean we can slack off and jump on it in the year 2012. We have to continue, if we exceed 40% great, that is a benefit to everybody.

Matt Bednarski: I am with Bonestroo and we have a contract to complete the SLAMM modeling to show NR216 compliance with respect to water quality. He apologized for being late. The calculations are complete and we are not done with the final report, but it shows that we are slightly more than 31% TSS removal. 31% of the erosion is being removed from the runoff that would be there if the City wasn't doing any practices whatsoever. We will show compliance with the 20% DNR goal for 2008. The next goal is 2013 and that is 40%. Between now and then, my advice would be for the City to plan to get to 40%. We are doing a couple of analyses for the final report, including some flood control facilities that could double as water quality facilities and also looking at the current practices of street sweeping and catch basin cleaning.

Harenda: With respect to the 31% reduction, does that include the year round street sweeping?

Bednarski: It does include that already.

Harenda: Does it include potential projects that engineering is working on or just the existing system in place?

Bednarski: It is a calculation based on a point in time that the DNR chose as October 1, 2004. That is the time that NR151 came on board and everyone had to meet 80% removal on their new construction sites. The practices up to that point and they will allow what your current street sweeping practices are to count toward that. So all of your stormwater facilities through 2004, your water quality ditches or rain gardens up to 2004 are part of the calculations.

Harenda: Anything after 2004 that we have implemented in the City, we are probably above 31%. We've instituted new street sweeping and bought a new street sweeper a year ago, we've upgraded that, we have new road projects coming on line and upgraded stormwater facilities for those so that is after 2004 and we have more projects in the pipeline now.

Bednarski: It is, but I will caution you that it is something that is required today by NR151 or NR216 it's not supposed to be calculated in your reduction. It has to be something above and beyond what's required.

Harenda: The street sweeping is beyond and we are doing that.

Bednarski: You're right, but if you are required to do a pond for a road project, then that is part of NR151 and doesn't get calculated for what the City does beyond that.

Harenda: The work that the City is doing in the Industrial park, are we getting any benefit from that or is that a zero benefit? We are upgrading the facilities, but are we going to get a benefit?

Walker: We are instituting best management practices, such as bio swales and those types of things, are we gaining any benefits as far as the total reduction?

Bednarski: It will if it's taking an existing area and adding water quality.

Harenda: It will. We are instituting more stuff now after 2004 and I am sure there is more in the works, which is good; we are at 31% and working toward 40%. Like JP said we don't want to slack off but we are still working to achieve that goal. You are going to give us indication of where we can see some potential improvements, which shows us where we want to go with future projects.

Bednarski: It will aid you in planning for your future projects and what you need to do by law.

Moore: Are sand or salt included in the suspended solids.

Bednarski: They are not. The only thing included is erosion and it is basically an annual average and calculated over a 5 year period. Those are the only things included right now.

Moore: You are saying that which we throw on the roads during the winter to help driving does not impact.

Bednarski: It is not detrimental to these calculations. It may impact water quality, but that is a different question.

Moore: I thought we were talking about water quality.

Bednarski: We are but the way the calculations are set up, we are looking at some very specific things, in this case its erosion from construction sites or suspended solids off of parking lots. The way your discharge permit is written, it is not specific to the practices that you use during the winter.

Harenda: That is why we bought the street sweeper. To piggyback Alderman Moore's question, the model says this and the calculations are at this point in time, do you feel the DNR or the EPA will incorporate those particulates, the sand and the salt in the future or someday, probably after 2013 or after 2020.

Bednarski: I don't see that coming down the pipe soon. I think that would be above and beyond what we are doing.

Harenda: Thanks for driving in. We will see you next month.

Chiovatero: When your report comes out, is it going to identify areas within the City that will be a benefit to work on?

Bednarski: It will identify by areas which are below the mark and will have a land use that will contribute more. That is the target area.

Chiovatero: So we would have an idea where we should be working to make some gains.

Bednarski: This report will help you make those decisions.

Harenda: This is City wide. We have an urbanized sector versus a rural sector.

Bednarski: This is only the urban section, that is the only part that is required by the Discharge Permit.

Harenda: How far are we going out to Calhoun Road or where the Utility is?

Bednarski: Basically anything that is served by a separated storm sewer system, anything that has a storm sewer discharge pipe. Agricultural lands are not included at all and anything that is purely rural is not included.

Harenda: But we have some subdivisions on the west side that have storm sewers.

Bednarski: Right and they are included.

Harenda: It is sort of citywide but there are some areas that aren't included.

Bednarski: It's everything that is required by the discharge permit, but keep in mind some areas are excluded.

Harenda: That wraps up our agenda. I will have staff look at item 03-08 regarding the sump pump requirement and I will put that on the next Utility Committee agenda. Next month Matt will be back with the SLAMM Analysis report. Also, staff just a note regarding old business 07-06, Nicole please look at where our files are on that one so that we can discuss it or go forth on it, and perhaps drop it. I don't foresee the residents will be doing anything else on that. I can call them or issue them a letter. You can give me a call and let me know what you are doing on that and we can discuss it at the next meeting.

Motion to adjourn at 5:34 p.m. by Commissioner Kern. Seconded by Alderman Hopkins and upon voting the motion passed unanimously.

Respectfully submitted by Sue Hanley, Office Coordinator Utilities & Streets