



City of Madison

City of Madison
Madison, WI 53703
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Item 11

Master

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Final Action:

Title: Draft Groundwater Sustainability Plan
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History of Legislative File

Ver- sion:	Acting Body:	Date:	Action:	Sent To:	Due Date:	Return Date:	Result:
1	WATER UTILITY BOARD	03/25/2008					

Action Text: Genesis Bichanich of City Engineering is going to do a presentation from the design team that has been working on the controversial sustainability issue. Genesis said the next step is input from the board. The two major goals were to maintain the current annual rate of groundwater pumping, and to reduce the residential per capita water use by 20% by the end of 2020. The current residential water use is about 73 gallons per day (5-year average from 2002-2006). To meet the 20% goal, each person would need to decrease their daily water use by about 15 gallons, which corresponds to a residential goal of 58 gallons per day. Goals for different water users is divided up among residential, commercial, industrial, and municipal/other government, and the University in order to provide alternatives that may be taken by each to improve water conservation across the city. Genesis said they wanted to see how each of these entities could reduce water usage so they broke up into teams and each team looked at one of those sections. Residential for example, changing to high efficiency appliances, changing showerheads, etc. The document presented gives examples of this.

Other cities were looked at to see what they did with their rate steps. We looked at commercial use with a goal of promoting water conservation through rebate promotions and education. They would have to submit landscape plans and major redevelopment plans.

For industrial, we looked at a one on one approach since we don't have that many industrial customers in Madison. There are 23 industrial customers and they account for 10% of the total water use so the opportunity for water savings is significant. Conservation generally falls into three categories: reducing water usage, reducing water loss, and reusing water that is currently being discarded.

Audits of government buildings will be performed. Water conservation measures would be replacing old toilets, installing sink aerators, installing rain gardens and rain barrels.

Moving to a system of rates that promotes conservation needs to be done carefully to minimize impacts on low-income residents while maintaining an adequate revenue stream. Larry said they evaluated other communities that use inclining rate structure; we have declining rate structure for all classes of customers. Only the biggest water users benefit from the declining rate structure. The average residential customer uses 45 ccf every six months or 184 gallons per day. The Water Utility should consider conservation rate structure in its 2009 rate case. Larry said we looked at Ann Arbor MI, Boulder CO, Tucson AZ and Waukesha WI where they have issues with respect to quality of their unit wells. All of these communities with the exception of Tucson and Madison are billed on a quarterly basis. The PSC is very concerned about inclining rate structures for communities that have a semi-annual bill. The rationale is that with the inclining rate structure, the people don't get their bill often enough to change their habits to avoid a large bill. Larry pointed out that 40% of the bill is sewer and 10% is storm sewer. Our current median usage is 45; 80% use 60 ccf or less. Larry said we wanted to find out if we could have an inclining rate structure with a semi-annual bill, and next month we plan to come back to the Board with an automated meter reading system and the cost of that, which would mean with the same staff we could read the meters more often. Larry went over the examples of conservation rate structures. Larry said there is not much difference in the initial declining rate structure. He said if we replace 4,000 meters per year and we have another 1,500 new customers, we can get through this in 10 to 12 years. After you get into it for 5 to 6 years, you've got a tipping point where you can actually read the remaining meters.

Jon asked Larry if he has knowledge that the PSC is not interested in a rate structure that would really make people think twice before they turn the tap on. Jon asked if there is any way to get a feel from the PSC that we could actually put numbers in there where the size of the bill would affect people's behavior. Larry said that is something that might be discussed with them. Ken said they are trying to learn that information from Waukesha, but it will take them some time to see if it has had any effect at all on their residential customer rates since they were the first to do it. George said the customer won't cut back because they won't know what happened in a course of six months. Michael said he would be concerned in using rates to change behavior. He asked what the Board's role is in determining what rate structure request we put in. Robin said the rates are based on the cost of service study the PSC completes. It's broken down into what it costs to serve residential customers. They set up a rate structure and present it to us. Robin said we've presented the proposal. Larry said this was done for demonstration purposes. He said we are suggesting this be put on the April agenda. The Water Utility puts in information on finance and needs and PSC develops the cost. They set up a rate structure and if the Board wants to weigh in on it, they can next month. The draft report will be referred to the April meeting. Michael asked for clarification of what the Board's role would be. Lauren said she thinks citizens need information as to why.

Jon said for 2008, you do an 8% increase that takes us to \$1.20—that's already in the works.

Robin said to \$1.20. Larry said this will go on the April agenda. Jon asked if it is correct that this will not include any conservation measures that will go to 2009. Michael asked if we are monitoring the amount of water used for flushing operations. Lauren said it's important for citizens to have the companion education piece along with the money—you just get a bigger bill in the mail, it's meaningless.

Comments on this report are due to Genesis on April 15 or earlier. Robin said the committee would like to review this before it goes back to the Board. George said staff involvement is very important and has been good. He said on page 12 where it talks about sustainability, what are we sustaining? The sustainable goal is the sustaining of the current pumping levels, and if we could do it, many people will look at sustainability in terms of the aquifer. Is there any way we can translate that into sustainability? Jon thinks it's more about putting as much water in through recharge as you're taking out. The plan talks about how we would reduce how much we take out, but doesn't have anything about pavement, rain gardens or a few small items. It doesn't really talk about sustaining the aquifer by recharge, which to him is a big part of the picture. Lauren said we're not the only users in Dane County and asked if he has the sensibility that our neighboring water utilities might be interested in instituting a similar plan or some of the efforts, or is it just us? Other communities should start talking about this. The sewerage district did talk about plans for recharge so it might be important to contact them too and let them know what we are doing and ask them what they are doing.

Larry asked what the Board thinks of a rebate for low flow toilets. All Board members were in favor of it. George said one of the cost savings is the energy to move the water. On the other end too, the water goes to MMSD. He said 15 to 20% of water from source to discharge is for energy use. He asked if we can quantify that. Jon said at the Commission on the Environment meeting last month, they had Madison Metropolitan Sewerage District do a presentation on water reuse and recharge. They really didn't know we were doing this conservation plan that hasn't been released yet. They said they definitely need to know, that if we're going to have 20% reduction, that means a 20% reduction in revenues to them, so they need to be in the loop on this. Jon commended the team for doing a nice, comprehensive report on this.

Ken Key said we didn't put an item in here on green plumbers but we will do so for your review. That is something he and Robin learned about at a seminar in Reno. It's an education program sponsored nationally that started in Australia as a way to educate plumbing contractors about what the latest things are, because you'd be surprised at the things they don't know about energy savings. Ken said we are going to be sponsoring that in Madison and perhaps Dane County. We can also educate the customers about it. In Madison, 1.2-gallon flush toilets are not readily available. All the plumbers now are using the 1.6 standard, which has been mandated but they are not carrying the 1.2 so we want to teach them more about this. Jon said one Commission on the Environment member said he has a 1.1 toilet and it hasn't failed yet.

Michael Schumacher made a motion to refer this item to the next meeting. Lauren Cnare seconded; unanimously passed.

Notes:

1 WATER UTILITY BOARD 04/29/2008

Text of Legislative File 09695

Title
Draft Groundwater Sustainability Plan