

Water Conservation Community Education Event Plan for the City of Rosemount

Prepared by

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University of Minnesota
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On behalf of

The City of Rosemount

With support from

The Resilient Communities Project

Resilient Communities Project

UNIVERSITY OF MINNESOTA
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Objective:

Our objective was to design a program to help educate the residents of Rosemount regarding the urgency of water conservation. Since increased water education is a relatively new goal for the community, we determined the best initial step would be to hold a public community education event. Our program covers identification of the target audience, incentive, promotion, logistics, supporting materials, and evaluation methods for the event.

Target Audience

Because the city highlighted lawn watering as a major concern, we identified homeowners as the target audience. All residents of Rosemount would be welcome as they all have the potential to make an impact, but homeowners would be the primary market.

Incentive

Providing motivation to learn is a critical part of adult education. There are several aspects of incentive in this plan. The first is the incentive for community residents to increase their concern regarding water conservation and to understand their potential impact on water usage. We determined that linking water conservation to the children's future quality of life would be one effective way to get the attention of city residents.

The second aspect is the incentive that will help convince people with already busy lives to take the time to attend a community event. We determined a giveaway would help increase attendance. In addition, a water-themed giveaway will help reinforce the message after leaving the event. Depending upon budget, imprinting the giveaway item with a water-related message

should be considered. One example is to imprint on a toothbrush holder, the number of gallons of water a person can save each day by simply turning off the faucet while brushing his or her teeth. We have provided a number of other options based on budget:

- Lawn sprinkler timer
- Water bill discount/credit
- Low flow shower head
- Faucet aerator
- Opportunity to meet local celebrity
- Amazon or other shopping gift certificate

The third aspect is to provide incentive for evaluation of learning transfer, both immediately following and six months after the event. Methods of evaluation are covered on pages 8 - 10. Suggestions for evaluation incentives would be similar to those previously listed.

Promotion

In order to engage a large percentage of the community, the event will require heavy promotion. The recommended methods are print and online advertisements, as well as posting of flyers in public locations. These materials should cover the following information:

- Time
- Location - Address, name of building and room
- Name of speaker or presenter
- Incentive offered for attending the meeting

Following are a number of recommendations for advertising locations:

- City newsletter
- City website
- Social media (Facebook, Twitter)
- Church newsletters or bulletins
- Community education bulletin
- Radio announcements from local stations

Flyers (Attachment A, page 11):

- All businesses with bulletin boards: supermarkets, thrift stores, liquor stores
- Places of worship
- Library
- Community and technical colleges

Community Event

The objective of the community event is to create awareness of the problem, the need for a change in behavior, and provide education on ways to change. The most important aspect of the event is to convince attendees the problem is real and that the residents can make a difference.

Logistics:

The event should be held in a high profile location that the public enjoys visiting and that demonstrates the significance of the issue. Our first preference would be the City Hall, followed by a community center or the Dakota Technical College. We recommend holding the event on a weekday evening, such as a Tuesday or Thursday. It should be

early in the evening, to minimize conflicts with resident's work and family schedules. We suggest a one-hour event, consisting of a 45-minute presentation and a 15-minute question and answer session. If the city decides to hold a reception, 15-30 minutes should be added to the event, but it is important attendees know when the actual presentation will start. The city should provide refreshments for the attendees.

Attendees:

As previously mentioned, the primary target of the event is the homeowners; however, all adults in the community should be welcomed. We suggest having at least one attendee who is well-known and well-respected in the community.

The presenter should be a familiar and charismatic community leader, if possible. Speaking ability (and persuasive speaking ability in particular), is more important than technical knowledge. If that type of person is available to speak, we recommend having subject matter experts in the audience or on stage to support the speaker with answers to any technical questions the audience might ask. It would also be valuable to have someone with a powerful personal water story to tell as part of the event. One example would be to have a White Bear Lake homeowner speak briefly about his or her experience.

Presentation:

We provided a sample PowerPoint presentation in Attachment B on page 12 - 22. The PowerPoint slides illustrate the topics that we believe are critical parts of the education process. We also included recommendations for how to use the slides in the notes of the presentation, as seen in the attachment.

The format of the presentation, in general, is as follows:

- Engage the audience's experience - Start with a personal or community water story. A personal story will engage the audience's emotions and help them to see the urgency of the situation. It is imperative that the presenter manage the timing of the presentation well, so storytelling does not take up the entire allotted time. We provided an opening question to help engage the audience to relate personal stories. It would be beneficial to have as many residents as possible respond to this question and be allowed to have their voices included in the conversation.
- Water education - This slide provides brief background information on clean water with the intention of helping people understand how clean water is created so they can see why it is so critical to start conserving water today.
- Relevance - This slide provides a link between the behavior of the audience and the problem. We hope it will help the audience to personalize the situation and create a sense of urgency.
- Call to action – This slide should help the audience see that they can make a significant difference in Rosemount's water consumption and motivate them to begin immediately.

- Assessment - On the last slide, we provided a quiz to help assess whether or not the transfer of learning of certain key points occurred. In addition, the quiz provides a opportunity to interact further with the audience in a fun and nonthreatening way.

There are many ways to facilitate the transfer of learning. Storytelling is an effective way of both capturing the audience's attention and facilitating their retention of the information. We encourage you to limit the data driven information and focus instead on personalizing the situation. We think the event should be as interactive as possible within the time allotted. Repetition is another effective method of improving transfer of learning. One example of how we used repetition in the presentation is our repeated use of "5,300 gallons". The city identified this number as a target goal for each resident to work toward in an effort to reduce Rosemount's overall water consumption. We used this number to illustrate points on several PowerPoint slides and included it in other supplemental materials.

Supporting materials:

A brochure is another tool the city can use to reinforce the message of the event. We provided a sample brochure with additional conservation and educational content. -We recommend distributing the brochure after the presentation to those who want more information than can be provided during the time allowed for the meeting. Our reason for delaying the distribution of the brochure is to limit distractions and allow the audience focus on what the speaker and other audience member are saying. The city can also use this brochure to send a consistent message at future community events. See attachment C, page 23.

Evaluation

Assessment is a critical component of the program in order to determine whether the desired learning objectives were achieved. This is important to both evaluate the immediate reaction to the event and gauge long-term behavior changes that may have occurred.

At the event:

During the presentation and discussion, the presenter should be evaluating the body language and involvement of attendees. He or she should adjust the presentation style accordingly to ensure active participation.

We also recommend having a designated individual present in the room to note the audience's response and degree of interaction at various points during the presentation. The city could use the information to improve audience engagement at future events. We included an example rubric in Attachment D on page 24.

Immediately after the event:

We also suggest distributing a survey to attendees immediately after the event. The presenter should encourage attendees to complete the survey before leaving. To encourage compliance, the survey could be used as part of a drawing held at the conclusion of the event. The presenter should encourage attendees to write their names and email addresses on the back of the survey to participate in the drawing and future conservation events. A survey will help gauge the attendees immediate reaction to the event and whether or not learning objectives were met. Questions should address topics

such as venue, content and delivery, and motivation to change. We provided a sample survey in Attachment E on page 25.

Six months after the event:

We urge the city to have a survey online to help evaluate long-term consumer awareness of the problem, retention of key points, and continued motivation to change. In order to accomplish this, the city can use the email addresses be collected at the event. The city should send invitation to complete the online to all contacts six months after the event. A small incentive or chance at an incentive should be offered to the residents for completing the survey. We recommend using a simple online survey tool to create a survey that can be accessed by the attendees via a link provided in the email from the city. We have provided a sample survey that was created using Survey Monkey. We have also provided the username and password to facilitate usage of the survey. See Attachment F on page 26.

Conclusion:

We hope our sincere efforts and detailed plan will provide the City of Rosemount with an effective and meaningful way of connecting with the residents of the city regarding current and future water issues and conservation efforts. We believe reaching out to the residents in a personal way can help build a meaningful and lasting relationship between the Department of Public Works and the citizens of Rosemount.

Why and how to Conserve Water

The City of Rosemount


Invites You to the City Hall

Thursday, April 30, 2015
6:00 - 7:15 PM


Light refreshment and popcorn will be provided


Address:
2875 145th St. W.
Rosemount, MN 55068

Phone:
(651) 423-4411 - TTY 7-1-1

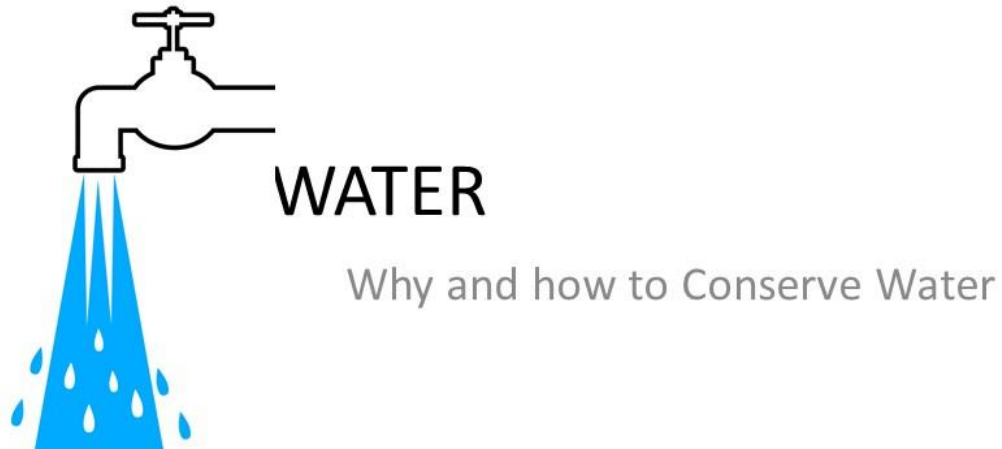


Reuse **Recycle** **Reduce**



 **ROSEMOUNT**
MINNESOTA

Attachment B: PowerPoint Presentation Guide



This is a guideline to help visualize our recommendations for structure and format of the presentation and discussion during the event.

Tips:

- Written Information on the slides should be kept to a minimum. Pictures are generally more effective.
- Stories usually make more of a lasting impression on the audience than statistics. Stories relating to the experiences of the audiences will be most effective.

How many gallons of water do we use for our lawns and pools?



 ROSEMOUNT
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Engaging the experience of the audience.

Questions you might ask include:

- How do you water your lawn?
- How do you decide when to water?
- How much water do you think you use?

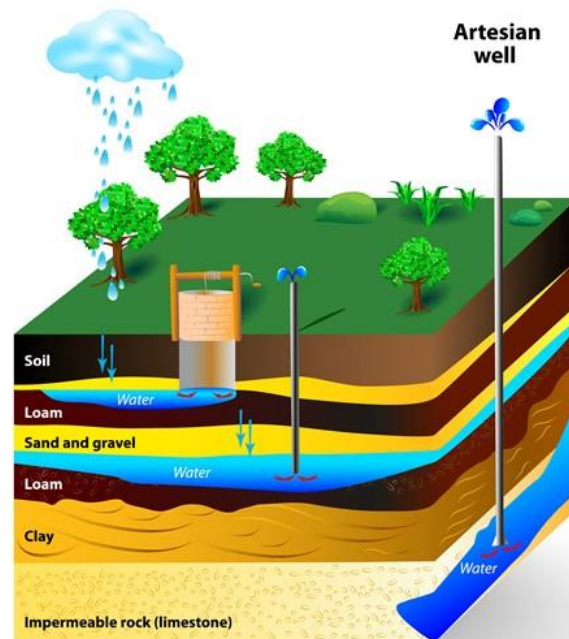


**5,300 gallons per household
per month!**

Identifying target area for behavior change.

- Note that each household uses approximately 5,300/month in the summer months for lawn care & pools. This is *in addition* to normal water usage.
- This statistic was chosen based on lawn watering being identified as a water conservation target area by the City of Rosemount.
- You could give examples of other things that hold approximately 5,000 gallons to help the audience visualize the quantity of water they are using.

**How long
does
it take to
make 5,300
gallons of
drinking
water?**



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Background. Help the audience understand a few technical details.

Answer: It can take from days to years.

A demonstration of the water filtering process could be effective here.

Interesting facts about the process may include items such as:

- Aquifers are primarily recharged by precipitation
- MN has been in drought for many years which dramatically slows the recharge process.
- Demand is high. One aquifer supports multiple Rosemount wells and also other states.
- Supply is limited.
- Cities such as Marshall, Worthington, and Chanhassen have experienced dry wells due to aquifer shortages

What happened to White Bear Lake?



Marlin Levison, Star Tribune (www.startribune.com/local/east/172018831.html)



Story to demonstrate relevance and create a sense of urgency.

A story like this can make a huge impact on the audience as far as seeing the need for change. Take your time. This is a good point for an interactive discussion.

Questions you might ask include:

- What have you heard about the decrease in White Bear Lake?
- How quickly did the change happen? *5.5 feet in 7 years*
- What do you think caused it? *Low precipitation and increased pumping due to residential growth.*
- What was the impact on homeowners? *Need for longer docks, concern over property values, lawsuit against DNR over water mismanagement*
- Could something similar happen in or near Rosemount?
- What other lakes are experiencing similar issues? *Turtle Lake, Chisago Chain of Lakes, and Marine Lake*

Good news – you *can* make a difference!

Biggest savers:

- Plumbing
- Appliances
- Lawncare



Transition from the problem to the solution.

Key messages may include:

- There is a positive outlook if we conserve now.
- We can change the future.
- A few small behavioral changes can make a big difference.

If choosing to do an interactive exercise at the end to reinforce key points (target behavioral changes), this would be a good time to inform the audience.

Plumbing



- Turn off faucets when not directly using
- Use aerators on faucets
- Install low flow showerheads
- Conduct routine inspections for leaks



Conservation tips related to plumbing.

Some interesting facts may include:

- Doing routine leak inspections can save up to 500 gallons per month.
- Low flow toilets together with aerated faucets and showerheads save up to 1,200 gal/month

Water Efficient Appliances



- Toilets
 - Low Flow
 - Dual Flush
- Dishwashers
- Clothes Washing Machines



Conservation tips related to appliances.

Some interesting facts may include:

- Running washing appliances only when fully loaded can save up to 1,000 gallons/month!
- Low flow toilets, faucets, showerheads save up to 1.200 gal/month.
- Rebate information, if applicable, from local utilities for buying efficient appliances.

Landscape



- Adjust sprinkler times frequently
- Use rain sensors
- Water before 12:00 and after 6:00pm
- Leave clippings
- Use more native plants



Conservation tips related to lawns.

Instruct audience on the right way to water a lawn. Other key points may include:

- Impact of the seasons
- How much water to use
- How to utilize cycling
- Examples of native plants that make the biggest impact

Depending upon time, a lot of education could be done here and each tip alone could easily be a separate slide or more. These might be good topics for future meetings.

How can you save 5,300 gallons/month?

- Regularly inspecting plumbing for leaks:
500 gallons/month
- Running water-using appliances only when fully loaded:
1000 gallons/month
- Installing low flow toilets, faucets, and shower heads:
1,200 gallons/month
- More efficient lawn watering system
2,600 gallons/month



Evaluate learning transfer.

The objective here is to both to evaluate whether or not the audience absorbed the information discussed and to reinforce those key points (conservation techniques) one last time.

The audience should be asked the question and responses noted. Then the responses can be compared to those on this slide. The numbers don't have to be exact. The key is to discuss how the audience can make small behavioral changes that will produce the desired impact.



Questions?



At least 15 minute should be allowed for questions at this point.

Depending upon the speaker, subject matter experts could also be invited to the front of the room at this point.

Attachment C: Brochure

Information on the Web

For More Information

On Aquifers and the water table:

- *Beneath the Surface* (MPR)
<http://minnesota.publicradio.org/projects/2014/01/ground-level-beneath-the-surface>
- Minnesota Water Supply And Availability:
http://wrc.umn.edu/prod/groups/cfans/@pub/@cfans/@wrc/documents/asset/cfans_asset_290681.pdf

On Water Conservation:

- *Water, Use it Wisely*
<http://watenscitwisely.com/100-ways-to-conserve/?view=list>
- *Water Sense* (EPA)
<http://www.epa.gov/watersense/>

On Rosemount's Water Status

- <http://www.ci.rosemount.mn.us/index.aspx?NID=272>



The Usage Problem

Groundwater is being drawn out faster than it is being replenished. Groundwater is limited; it can take anywhere from days, to centuries to replenish the deepest sources of groundwater.

General Water Usage Data

- ♦ Rosemount has nine wells pumping water from the Jordan aquifer.
- ♦ During the summer, Each resident of Rosemount increased their water usage by about 5,300 gallons of water per month
- ♦ Lawn sprinkling accounts for a large portion of the summer increase in water usage.

Did You Know?

- Aquifers are underground geological units that can store and supply significant amounts of water for use.
- Rosemount is drawing water from the Jordan Aquifer which supplies water to parts of nine states.
- Only a small portion of infiltrated water (water that soaks into the ground) becomes recharge (refills the aquifers).
- Groundwater pumping can result in reduced flows or lowered water levels in rivers, lakes, and wetlands. This in turn can lead to concerns about drinking water and aquatic habitats.
- Minnesotans have a general perception of an abundance of water even though there are some major limitations to the supply.
- Minnesotans lack a sense of urgency regarding the groundwater supply.



**YOUR FUTURE,
YOUR CHOICE !**

Why and How to Conserve Water



Have you Chosen a Different Future?

You can reduce the amount of water your household uses?

Simple Ideas to Reduce Water Usage

Indoors

- ♦ Install low flow shower heads or restrictors
 - Showers can use 5-10 gallons of water per minute.
- ♦ Fit household faucets with aerators.
- ♦ An inexpensive "tank bank" in your toilet tank can save 10 or more gallons per day.

Outdoors

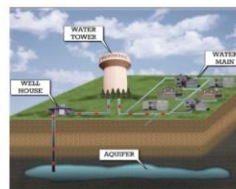
- ♦ Plant drought resistant flowers, shrubs, and plants.
- ♦ Water your lawn only when needed.
 - Most lawns only need about an inch of water each week.
 - Deep soak your lawn, water long enough for the water to soak in.
- ♦ When washing your car, run the garden hose only while rinsing.
- ♦ Use a broom, not a hose to clean driveways and sidewalks.

REDUCE

There are many ways to reduce the growing pressure on our water resources. For example, research supported by the American Water Works Association indicates that water use in a typical home can be reduced by nearly 20 gallons per person per day by using water saving plumbing fixtures and practices.

Why We Do This

The current withdraw of water from the Jordan Aquifer is unsustainable. Changes that are made now, will lessen the impact of drastic changes that may be needed in the future.



Attachment D: Event Rubric

Socratic Seminar: Holistic Participation Rubric

Participation is Outstanding	If 60+ %	<ul style="list-style-type: none"> ➤ Audience, through their comments, shows that they are actively listening to others. ➤ Audience offers clarification and/or follow-up that extends the conversation ➤ Audience's remarks often refer to specific parts of the information.
Participation is very good	If 60+ %	<ul style="list-style-type: none"> ➤ Audience, through their comments, demonstrates a good knowledge of the information and answers the questions. ➤ Audience shows that they are actively listening to others. ➤ Audience asks for clarification and/or follow-up.
Participation is satisfactory	If 60+ %	<ul style="list-style-type: none"> ➤ Audience, through their comments, demonstrates general knowledge of the text and the question ➤ Audience is actively listening to others, but does not ask for clarification and/or follow-up to others' comments. ➤ Audience relies more upon their opinion, and less on the information to drive their comments.
Participation is not satisfactory	If 60+ %	<ul style="list-style-type: none"> ➤ Audience offers little commentary ➤ Audience does not listen to others. ➤ Audience offers no commentary to further the discussion.

Reconfigured rubric based on Adams@studyguide.org

Attachment E: End of Event Survey

Water Conservation in Rosemount

1. Which water conservation methods are you likely to use?
2. How has your attitude about water conservation been changed?
3. Was enough information presented to help you understand the need for water conservation?
4. Was there enough time to answer your questions about water and water conservation?
5. Was the time and location of the event suitable?

Attachment F: Survey Monkey Information

Access the online survey at www.surveymonkey.com

Username: RosemountH2O

Password: Rosemount5204