



Citizen Advisory Committee Meeting Minutes - DRAFT

February 8th, 2022 6:30-8:30 pm - VIA Zoom

6:15 PM: Optional Pre-Meeting Social Time

1. 6:30 PM: Welcome & Introductions: Attending: John Chikkala, Jill Danner, Randee Edmundson, Hallie Finucane, Mark Gernes, Jennifer Gruetzman, Lauren Hazenson, Kathryn Keefer, Stuart Knappmiller, Dana Larsen-Ramsay, Carrie Magnuson, Linda Neilson, Gary Nelson, Glen Olson, Sage Passi, Scott Ramsay, Gary Schroeher, Stephanie Wang, Karen Wold. Guest Speaker: Brandon Barnes (BARR Engineering)
2. 6:45 PM – Annual organizational meeting items – Members were notified the previous week of the officer election at the first meeting of the year. Dana, sent out a document with responsibilities for Chair and Vice Chair roles at that time and asked for nominations.
 - a. Officer Elections (Chair)
 - i. Formal request for additional names for Chair? None
 - ii. Using a Zoom poll function, Dana ran uncontested and was re-elected as Chair for 2022.
 - b. Officer Elections (Co-Chair)
 - i. Formal request for additional names for Co-Chair? None
 - ii. Using a Zoom poll function, Stephanie Wang ran uncontested and was elected as Co-Chair for 2022
 - c. Current by-laws state that elections take place annually and officers can continue their position in perpetuity. A few members suggested alternative ideas to allow for more rotation, shared leadership, accountability, and learning opportunities. The current chair, vice-chair and RWMWD staff will assemble the ideas shared and come back to the group for discussion in April. Many ideas would require a change in the by-laws, but include:
 - i. Single- or two-year terms for officers.
 - ii. Rotating vice-chair into the chair role at the end of a term.
 - iii. Have other members preside at meetings
 - iv. Having chair and co-chair co-lead
 - d. Update CAC member contact list – Dana – Tabled until April
3. 7:00 PM: Flood Risk Mitigation at RWMWD – Brandon Barnes (Barr Engineering) shared slides and spoke about a topic that has been a primary focus at RWMWD for a few years. His slides will be shared separately and available by contacting carrie.magnuson@rwmwd.org. His outline was as follows:
 - a. Rainfall depths (TP40 vs Atlas 14): Past and more recent models have defined the rainfall depth that corresponded to a certain duration. Aka 100-year rainfall event, a 1 in 100 chance of meeting or exceeding a given rain event in a certain area in a 24-hour period during any given year.
 - b. 2014-2016 hydrologic/hydraulic model update
 - i. Using 2011 LiDAR, storm sewer data, and updated modeling layers, RWMWD's subwatershed boundaries were updated and inundation areas under various rain fall scenarios were mapped.
 - ii. Average change: 100-year flood inundation areas increased by an average of 0.7 ft. (varied 1.7 ft *Battle Creek Lake Subwatershed to 0.1 ft Phalen Subwatershed)
 - iii. Observations:
 - ❖ Larger increases in depth were modeled for those water bodies where there was a restrictive outlet and/or there was not an overland flow path available.
 - ❖ Existing municipal storm sewers based on 10-year event data, may not be undersized, but flood control, based on 100-year event data, could be undersized.

- ❖ Before we make system-level changes, updating data models must be run, and reviewed.
- c. 2018 model validation –
 - i. Used rainfall data from gauges, combined with NEXRAD radar data to simulate how rainfall passes over RWMWD. The model was checked by looking at observed (real-world) verses predicted (modeled) flow.
 - ii. Question: Was bathymetry considered?
 - ❖ Answer: BARR models estimated the storage curves by approximating area below the water level that LiDAR does not account for, and added actual bathymetric data when available.
 - iii. Question: Given the accuracy of the model verses observed/measured, it looks like the model was successful. How common is this modeling? Is this level of sophistication used throughout the metro?
 - ❖ Answer: RWMWD’s model is one of the more detailed models in the state because the ongoing communications with municipalities. It varies elsewhere, but data is pretty good in areas with active watershed districts. RWMWD contains mostly developed land, so there is more predictability.
- d. 2018 flood prone area identification
 - i. BARR identified about 800 structures that would be impacted by increased rainfall events. Brandon explained how they’ve worked with the RWMWD Board to prioritize these areas/structures based on a point value system
- e. 2018-2020 Beltline Resiliency Study
 - <https://maps.barr.com/RWMWD/BeltlineResiliency/StoryMapSeries/index.html>
 - i. The northern half of RWMWD drains through the Beltline pipe at the south end of Phalen. An evaluation of the Beltline was done to estimate its ability to drain as flow increases or if we need to make other plans for drainage
 - ii. Managers didn’t want to put in a new beltline or buy out homes, so other solutions are being evaluated and implemented (storing water, changing direction of flow, or increasing conveyance capacity, for example).
- f. Project implementation <https://rwmwd.org/phalen-and-keller-weir-projects>
 - i. Brandon showed some examples of projects implemented to date including making the Keller Creek Weir and Lake Phalen outlet heights operable. Controlling the flow height can be done by trained staff on site, at our office or by their cell phones. This allows the ability to create live storage in the lake based on storm forecasts etc. These projects are the furthest downstream, which creates capacity for starting upstream projects.
 - ii. Ongoing updates to the District stormwater model will be made based on newer and more accurate data
 - iii. Emergency response plans will be created where projects are not feasible.
- g. Question/discussion
 - i. Does this information influence flood insurance maps?
 - ❖ Answer: It does not currently, but it will. RWMWD has been working with DNR to help contribute to flood risk maps, but that is a lengthy process. Right now, these elevations are used for applying RWMWD rules related to floodplain management.
 - ii. Stephanie Wang found the table for flood risk prioritization in the RWMWD Document Library. She asked where the public can find details for projects being implemented in their city.
 - ❖ Answer: Future/proposed projects do not yet have a project page on the RWMWD website. Projects in the southern half of the District haven’t had feasibility studies done yet. (Erin will talk about this in April)
 - iii. John Chikkala: How does surface water/groundwater interaction affect the modeled assumptions?

- ❖ Answer: There are areas within RWMWD with the potential for surface water/groundwater interaction. For example, the area north of Grass Lake and Snail Lake have experienced 5+ years in which groundwater levels were high, therefore surface water levels were high. This is why the engineers look at longer-duration models. The model they use includes an approximate seepage rate based on piezometer measurements, but it's not explicitly modeling groundwater/surface water interaction.
 - iv. QUESTION: I was curious about how much of an impact those 2 projects (Keller weir & Phalen outlet) had or will have on increasing the upstream "live storage"?
 - ❖ ANSWER: Great question, your interpretation of those figures is generally accurate. The Keller weir was adjusted to be able to lower the upstream water level by ~2-feet, and similarly the Phalen outlets were modified to lower the water levels on the lower chain by ~1.2-feet. In total the outlet structures could create approximately 1000 acre-feet (1 acre-foot ~ 326,000 gallons) of live storage volume during very large rainfall events. However, the operating plan that was developed for these structures tries not to drawdown the water level in the Phalen chain to avoid shoreline impacts. During small rainfall events, the structures are not operated (because there is no flood-risk on the chain). During larger events, the structures are lowered to create additional live storage volume prior to the rainfall event.
 - v. Other questions can be made through RWMWD staff or posed directly to Brandon at BBarnes@barr.com.
4. 7:45PM: Salt Use Outreach/Education – Dana, Mark & Carrie
- a. Mark Gernes had sent the following link to CAC members prior to the meeting: [Nine smart salting tips that protect Minnesota waters | Boreal Community Media](#)
 - b. The group discussed the [Salt Tip Card](#) from Clean Water MN
 - i. Sage disagrees with the card's suggestion for sand use – instead should recommend grit.
 - ii. Mark: Traction grit has been an active topic. Red cherry stone is a larger grain size than sand, not as easily washed away, and easy to sweep up. It is usually available at hardware stores.
 - iii. Can we talk to the group who made this to ask about adaptations? Carrie will contact Jana at Watershed Partners to inquire. Update: Jana said if we just want to make minor edits to the text, but leave most of the content and images the same, we just need to run the changes by her.
 - iv. Sage has done some modifications for presentations, etc.
 - c. How does the team want to move forward with supporting smart salting actions?
 - d. Karen: added links to chat for review
 - i. Vadnais Lake Area Watershed Management Organization's Smart Salting for Clean Water PDF: https://www.vlawmo.org/files/2115/4844/8318/smart_salting_for_clean_water_11_x_17.pdf
 - ii. Nine Mile Creek Watershed District's Winter Maintenance tri-fold brochure: https://www.ninemilecreek.org/wp-content/uploads/Buying-a-Deicer_NMCWD.pdf
 - iii. RWMWD's "Let's Keep it Clean" article: <https://rwmwd.org/lets-keep-it-clean-reduce-your-salt-use/>
 - e. Dana: members should review these and decide if they think it would be valuable to create something new.
 - f. Mark is interested in considering how we would actually use what the CAC creates. What are the communications strategies, target sectors, distribution expectations?
 - g. Sage has some experience with communicating salt recommendations for winter use:
 - i. Distribution of letters going out to churches and schools in RWMWD.

- ii. Assessing knowledge beyond flyer distribution by going the next step to teach and foster behavior change.
 - iii. Is there a community-level, subwatershed-level, drainage area focal point for the CAC? Can Water Stewards be involved?
- h. Stephanie noted there already is a lot of literature out there. She likes the Salt Use card from CleanwaterMN.org and feels the messaging is clear. It works better in her experience to actually talk to someone about it. Her idea is to decide from an impact standpoint if we could focus on commercial partners for the Watershed District – grant recipients for projects, schools, etc. Sometimes it’s not just how to put on the salt, but where? (aka not right up against the building where nobody walks). Talk to someone with a vested interest – property management who might have other motivations such as pavement maintenance.
- i. Glen Olson: Decide on our target audience: is it homeowners, small business with individual employees, or commercial spaces with large lawn care businesses who care mostly about litigation concerns from slipping? (Safety vs. pollution).
- j. Stephanie: Could RWMWD offer reduced-salt use grants? Carrie will talk to Paige Ahlborg about this. For example, purchasing of brine distribution equipment.
- k. Sage: Could incentivize at different scales? Fortin Consulting has been awarding/giving visibility to maintenance companies, hospitals, commercial buildings for doing it well.
- l. Mark: Smart Salting Certification: PCA used to offer funds through the EPA to get Smart Salt Certified, but funding has been exhausted. While that program was functioning, nearly all municipal road workers, commercial applicators, etc. had to go through the certification. The challenge is to incentivize.
- m. Mark noted that the gas station where he has dropped multiple flyers at and has had multiple conversations with employees recently appears to be using less salt.
- n. Mark has a recipe for a spray bottle for brine.
 - i. Could we give a recipe and/or provide materials to make brine at Phalen Freeze (February 26th)? Sage will follow up with Mark.
 - ii. Can we distribute these where salt is sold?
- o. Dana: How should we proceed? What are people interested in doing?
 - i. Linda likes Mark’s idea for revising the CleanwaterMN.org flyer and getting it into hardware stores.
 - ii. Dana recommended that the contractor H.B. Fuller uses for snow plowing take the Smart Salting workshop and has since increasingly used brine and less salt.
 - iii. Dana: Can RWMWD put out short videos on this?
 - 1. Lauren: Her experience with businesses is that they tend to look for other businesses doing it successfully. Between that and having multiple customers comment on it, we can create change. She encouraged members to find ways to have open conversations without being accusative: Ask why are you over salting? What are you concerned about? How do you get your information on how much to salt?
- p. Mark suggests that we put this on our working list so we have it ready to go by next winter. We could write our own card using info on reliable websites, and use some of the same graphics (with permission).
- q. Stephanie commented that we should include the motivation about salt being hard on pet paws.
- r. Stephanie suggested that communications could go out to RWMWD distribution lists before winter storms to encourage smart salting (or no salting) sidewalk management.
 - i. Use the Nextdoor app for similar messaging

5. 8:15 PM: Project, Activity & Event Updates

- a. WaterFest – June 4th
- b. Invasive Species live tour with Simba in June – does the CAC want this to be part of the regular meeting or on a separate additional date?
 - i. Glen & Stephanie would prefer it to be part of the meeting.

- ii. If we do it as part of the meeting, we would need to consider moving Nicole's presentation.
- c. Communications Update – Lauren (tabled)

6. 8:25 PM: Community Announcements

- i. Stewardship Program (Paige): Upcoming targeted retrofit projects: We will be moving forward with a project at Mounds Park Academy and St Pascal Baylon Church both in St. Paul.
 - 1. MPA: Remove a row of parking stalls to install a rain garden along with an outdoor classroom (MPA's expense).
 - 2. St Pascal: install 2 tree trenches, remove 4 parking spaces to install a rain garden, possibly add porous pavers (still under Barr review).

Goal is to have these installed as summer/fall 2022 projects.

- ii. Cliff Aichinger has decided to resign from the RWMWD Board of Managers as of February. He will be traveling for the next year. He would like to stay on the CAC. Maybe send a virtual card? Group seemed to like that idea to acknowledge and wish him well on his trip.

7. 8:43 PM: Adjourn

2022 Potential Education Topics and Project Planning:

- a. Education Topics:
 - i. Invasive Species – Simba – to do a live tour in June
 - ii. Permitting – Nicole & Mary
 - iii. Tour 3 most recent Water Steward capstone projects – Sage (Sage's request)
 - iv. Watershed District Projects & How to Interpret Them (Stephanie's request)
 - v. Flood Risk Mitigation, CER Projects, Watershed Budgeting (Cliff's request)
 - vi. PFAS (possibly join Board of Mangers meeting for topic) – John
- b. Salt Use Outreach/Education – CAC
- c. Create Invasive Species Education Pieces – CAC
- d. CAC Visit to Artist Eric Sommers' Glass Studio (2022?) – Dana
- e. Carp Fishing Contest Support/Participation – CAC
- f. Phalen/Water Trail Video Series Assistance – Lauren
- g. CAC Rain Garden Clean Up Project (Simba would like to move location from Casey Lake to a public land site) – CAC
- h. CAC/LEAP Team Planting – Wetland A? – CAC
- i. Buckthorn Removal – Orchard Lane/Handlo's Pond (Gary S) – Simba & CAC
- j. Canoe Trail Trip for CAC – Stuart
- k. East side wetland stewardship relationship – Randee
- l. Other ideas?

Future meetings – Zoom or In-Person:

- m. April 26th – Project Story Map/CIPs/Budgets – Tina & Erin (Barr), WaterFest
- n. June 14th – Weed walk – Simba
- o. September 27th
- p. October 25th
- q. December 13th