Hinkson Creek

Collaborative Adaptive Management

Chloride Task Force Meeting Minutes

Date: **Nov 16, 2022**
Time: **8:00- 9:30 am**
Location: **MU General Services Building**

Present: *Pete Millier, Cody Luebbering, Rusty Strodtman, Tom Boland, Mark Woodward, Greg Edington*
Absent: *Doug Coley, Hannah Wichern, Stacy Salter, Jessica Scholz, Tom Trabue, Georganne Bowman, Alba Argerich, Mark Fuchs, Richard Stone*

- **Introduction**
    a. September and October were approval
- **Synthesize information and target areas that need expiation (Key takeaway, Area that needs more information, Action Steps)**
    a. Rusty noted that it has been beneficial to learn methods from the group and peer partnership that could help community snow removers knowledge on BMP and alternative practices
    b. Reduction of Salt
        i. The alternative can be cost-prohibitive. Can there be a way to reduce the cost of getting into an alternative to reduce cost
            1. Grants, group buying, shared equipment
        ii. A cooperative system for installs to buy into bringing systems might be a method to reduce cost and waste. The volume that companies need often is not high enough to offset the costs
        iii. The university gets its brine from the city. They are just getting into the bringing prices. The main driving factors for them are the reduction in the amount of salt, and they reduce the impact it has on infostructure and plants. They want to see how it works on the sidewalks before the increases the bringing practices
        iv. The cost savings is significant rough numbers would be 80% on salt costs. The municipalities' salt costs are less than the private industries because they buy in bulk and use a basic variation.
        v. The county used water containers and modified equipment before
        vi. Beet juice, salt dust, warming mats (expensive, and the mall have not had much luck), and alternative need to be explored more
        vii. Training and information on the appropriate amount of salt for appliers
    c. The building design requirements for new construction can help reduce the amount of salt reduction- can this be an action step to reduce the salt needed? The following can reduce freezing water on walking surfaces and the amount of chloride needed.

i. Downspouts drain away from walking surfaces
ii. Parking lots are constructed and maintained to drain properly
iii. No north-facing entrance or closing it during snow
iv. Darker-colored walking paths
v. Using waste heat or hot water (when applicable) to melt snow
vi. Asphalt melts much quicker than concrete, so the darker colors
    1. Chip seal with chad has increased the friction coefficient high enough that ice melt has not been necessary for ice accumulation less than $1/10^{th}$ inch
        a. A Carbide blade is required to plow
vii. Type of floor in the building to prevent slips, trips, and falls from the salt coming inside

d. Using supplies that are in the region: sawdust, sand, and waste products (sand can leave an impact)
    i. Manufactured sand can give traction during ice, but the residue is left after
    ii.
e. Mitigation of salt that is applied
    i. What plants can tolerate salt, and are there plants that can be used to uptake the salt before it gets to the waterways
        1. Future information gathering needs to be done. Tom is going to ask Miguel, who he works with who has studied it a little for their bmps- to create a cheat sheet that can be used on MU and other areas
        2. Cody noted some plants that uptake some salt, but the plants have to be cut and removed, or it will leach back in eventually – Chloride general bypass structural BMP (new technology is g
        3. Technological removal of salt is similar to processes used in desalination drinking water. In target areas could be a possibility
f. The information and data on chloride in the stream post-snow event were powerful in making the information "real."
g. We need more information on what other communities are doing and how to manage liabilities
h. Liability and clear parking lots can are in people's faces every day and have a direct impact on job security compared to chlorides impact on the stream is importation but currently, it does not have the immediate impact that the drivers for removal do
i. Building design and

❖ Need to make a prioritization list of low-hanging fruit or accomplishable tasks that can be shared to decision-makers

Michele will create a list that people can add to before the meeting to reorganize at the next meeting.

❖ **Programs in other communities**

a. Cody Created a list that can be found most of the information he found that other communities have not been structurally focused on education and brine at_
b. WEF just recognized St. Louis MSD for their education and outreach efforts for reduction and correct usage.
    i. Comedic promotional videos, relating it to your daily actions

1. Social media, and sports commercials, to improve stormwater runoff

c. Salt Wise from Wisconsin-salt week
    i. Community science and an interactive map to make connections to
    ii. Program for certified "salt smart" appliers that community members can hire (some of their advertisements for the amount of salt seemed unrealistic to the appliers in the room)
    iii. Charing by the job, not by the amount of salt used
d. Daniel's project on bringing the application in St. Louis
    i. Brine seems to reduce the amount of salt in the stream

❖ Public education would be a good starting point for working with the chamber of comers to connect with the local businesses
    a. Social media would be a good method of outreach
        i. The office of sustainability has had success with advertising road salt and has had a higher than average with response
        ii. Putting information in the city mailer could be a good outreach method
        iii. Actions steps that people can do are important to share

❖ **Chloride intrastation example**
    a. Cody brought in equipment that has been used to test the stream
    b. There is a wide variety of monitoring probes, can be programmed to read temp, chloride, conductivity, and pressure
    c. They can become very pricy with the more intricate equipment
    d. Some models can monitor in real-time
        i.

❖ Next meeting
    a. Rank the action, information needed step, important information to keep in mind