



Smart Salting: A Comparative Analysis of Road Salt Reduction Programs and Stakeholder Engagement

Bridget Bisson, Tony Cao, Anna Sladic



PROBLEM DEFINITION

Location: Montgomery County, Maryland

Issue: Chloride levels in drinking water sources have increased by over 100% in 30 years

Cause: Oversalting for winter safety

Stakeholders: DEP, salt applicators, property managers/homeowner's associations (HOAs)

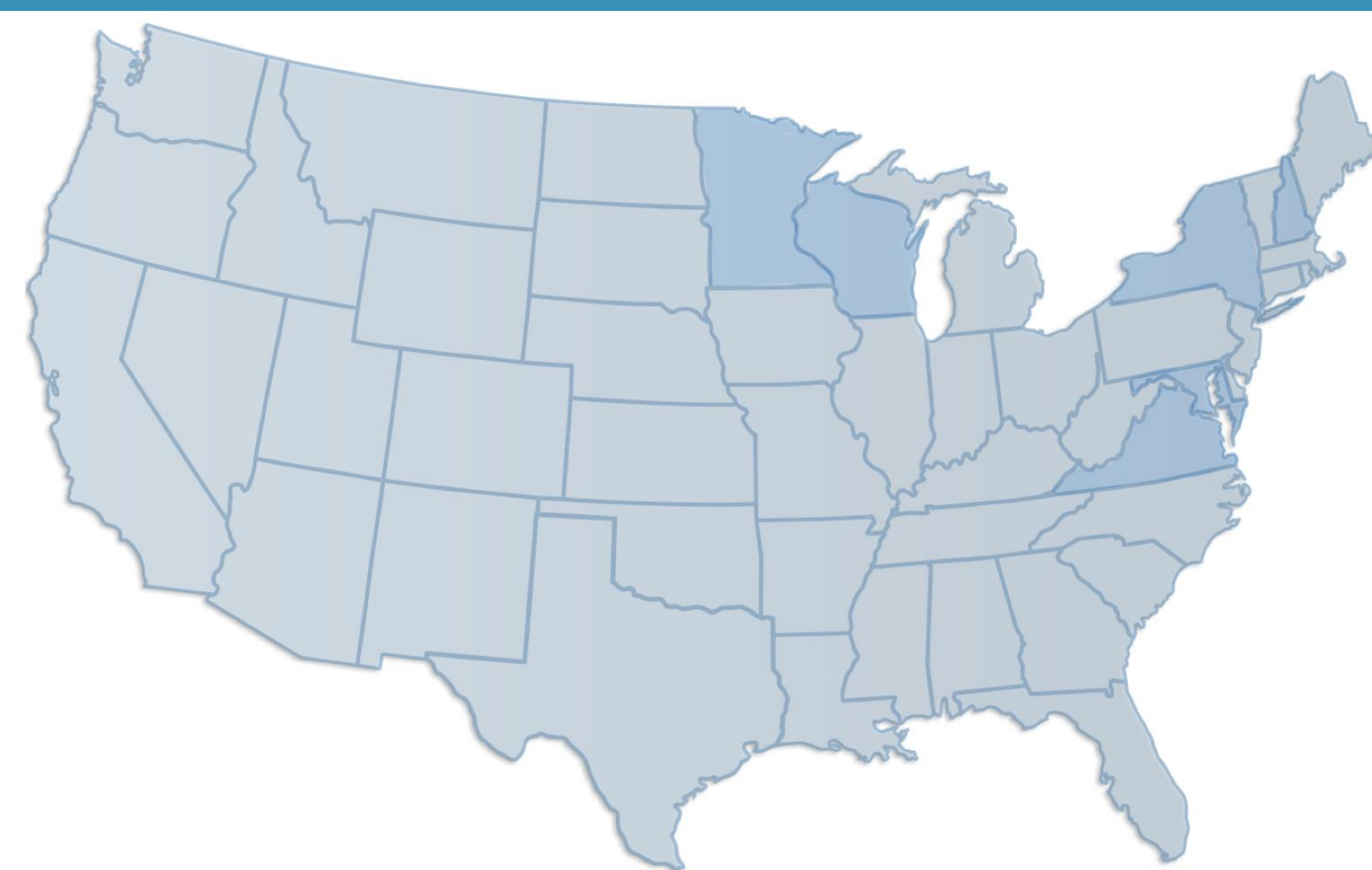
Why it matters:

- Contaminates drinking water causing health concerns
- Harms ecosystems
- Damages infrastructure



METHODOLOGY

- Literature Review
- ↓
- Interview Experts from 6 Programs
- ↓
- Stakeholder Surveys
- ↓
- Qualitative Coding
- ↓
- Multi-Criteria Decision Analysis (MCDA)
- ↓
- Recommendations

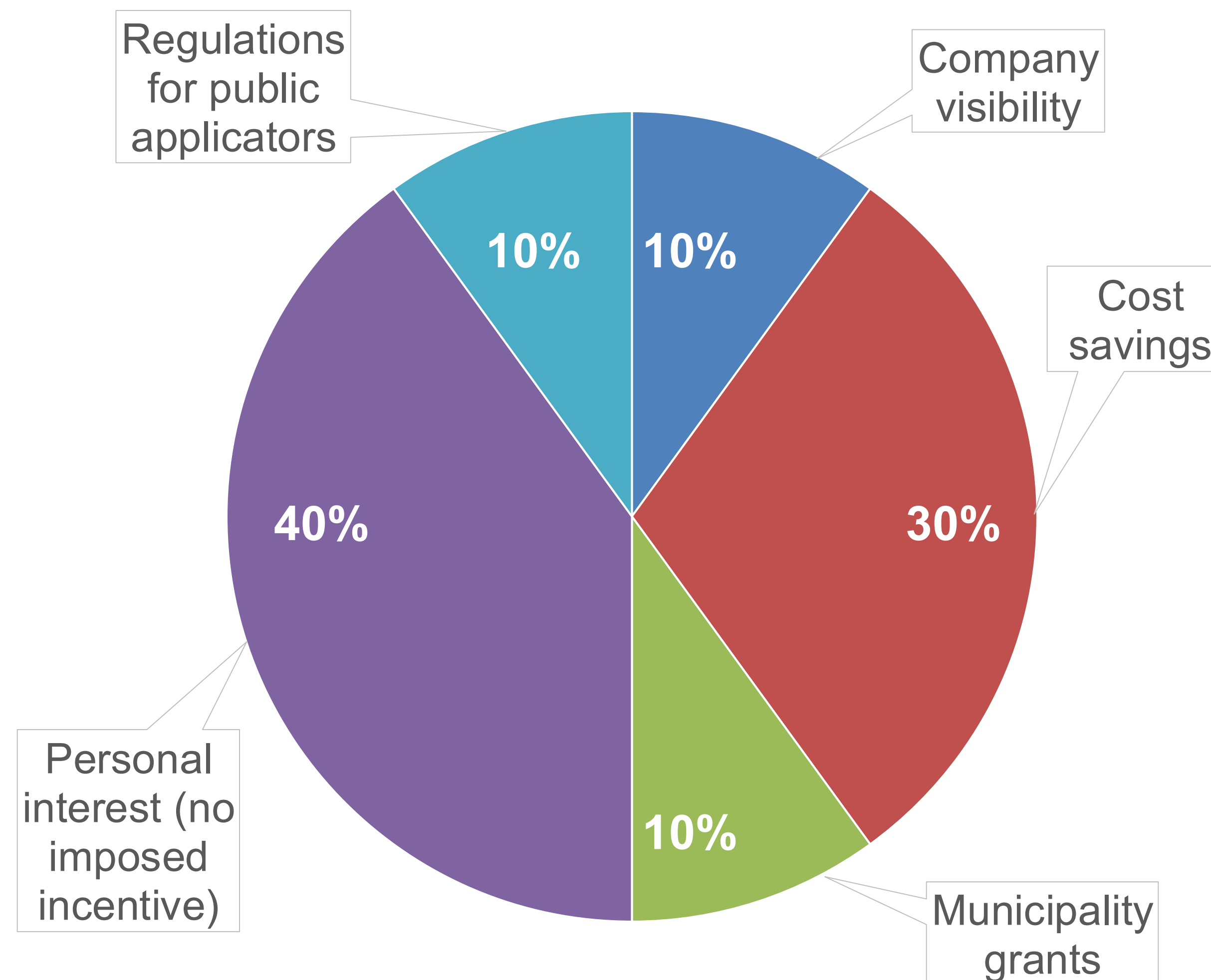


The six programs evaluated were in the states above:

- **Minnesota's** Low Salt, No Salt
- **Wisconsin's** Salt Wise
- **Northern Virginia's** SaMS (Salt Management Strategy)
- **New Hampshire's** Commercial Green SnowPro Certification
- **New York's** Don't Be Salty, New York
- **Maryland** Department of Environment (MDE)'s SMART Training

KEY FINDINGS

Incentives Used Across Programs



“Get in front of people right away to be seen as a trusted person. Build brand recognition by doing initial leg work, consistently delivering quality content.”

—Allison Madison (Wisconsin Salt Wise)

“No silver bullet. You need to consider multiple approaches: certification, licensure, behavior changes, legislation, etc.”

—Jessica Wilson (Minnesota Low Salt. No Salt)

“For property managers liability concerns were prominent, they were hesitant to be present for conversations.”

—Will Isenberg (Northern Virginia SaMS)

Survey Response

Low response rate:

3/18 responses from private salt applicators

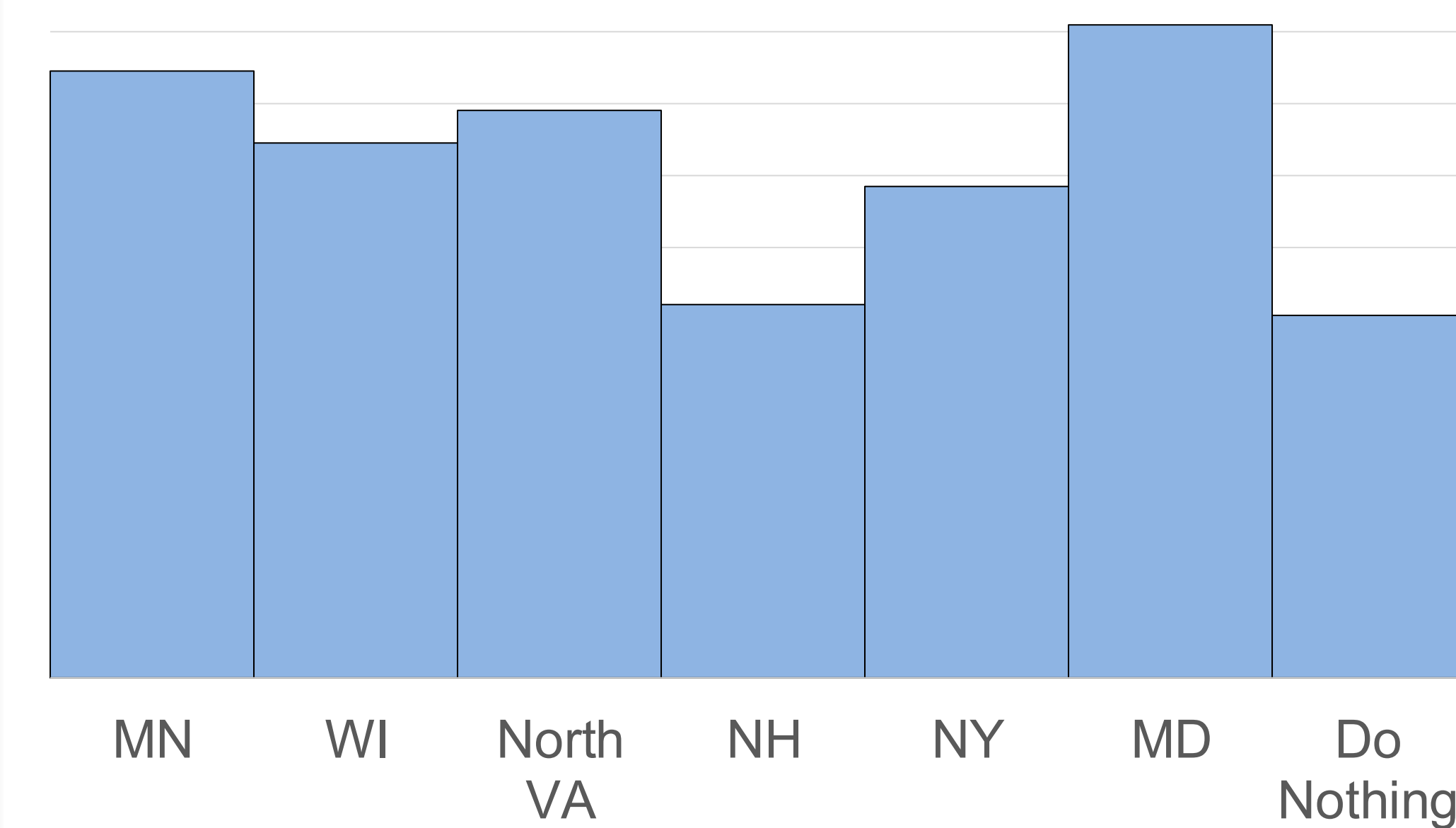
3/33 responses from property management companies/HOAs

Awareness is low:

100% of surveyed property managers/ HOAs and 50% of salt applicators are unaware of current SaltWise program.

RESULTS

MCDA Ranking



Top Program: Maryland SMART Training
Rankings reflect feasibility, not necessarily effectiveness.

Recommendations

- Start with targeted outreach & pilot partnerships
- Use existing training programs (SMART Training)
- Introduce incentives (certifications, rebates)
- Build long term stakeholder relationships
- Gradually move toward policy & accountability

CONCLUSION

Oversalting is a behavioral and systematic issue. There is no one-size-fits-all approach to fix oversalting and its consequences. The Montgomery County DEP must take a hybrid approach in fixing this issue. We found that this includes combining education, incentives, relationship-building, and gradual movement toward more structured or policy-driven solutions.