NEW YORK STATE | Department of Environmental Conservation

Rock Salt Reduction

New York Citizens Advisory Committee

March 31, 2025

Presentation Outline

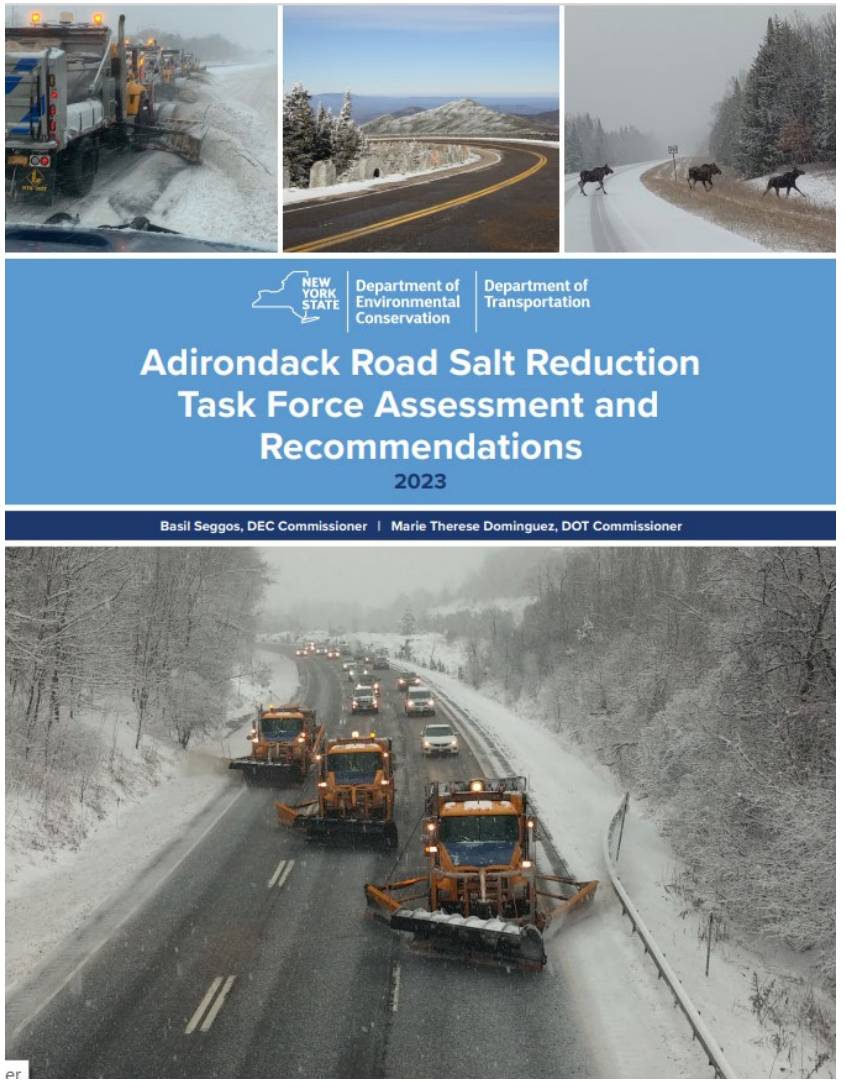
- Rock salt pollution
- ADK Road Salt Reduction Task Force and Recommendations
- Road Salt Reduction Grants
- “Don’t Be Salty New York” Campaign
- Campaign to Date
- Rock Salt Perception Survey Results

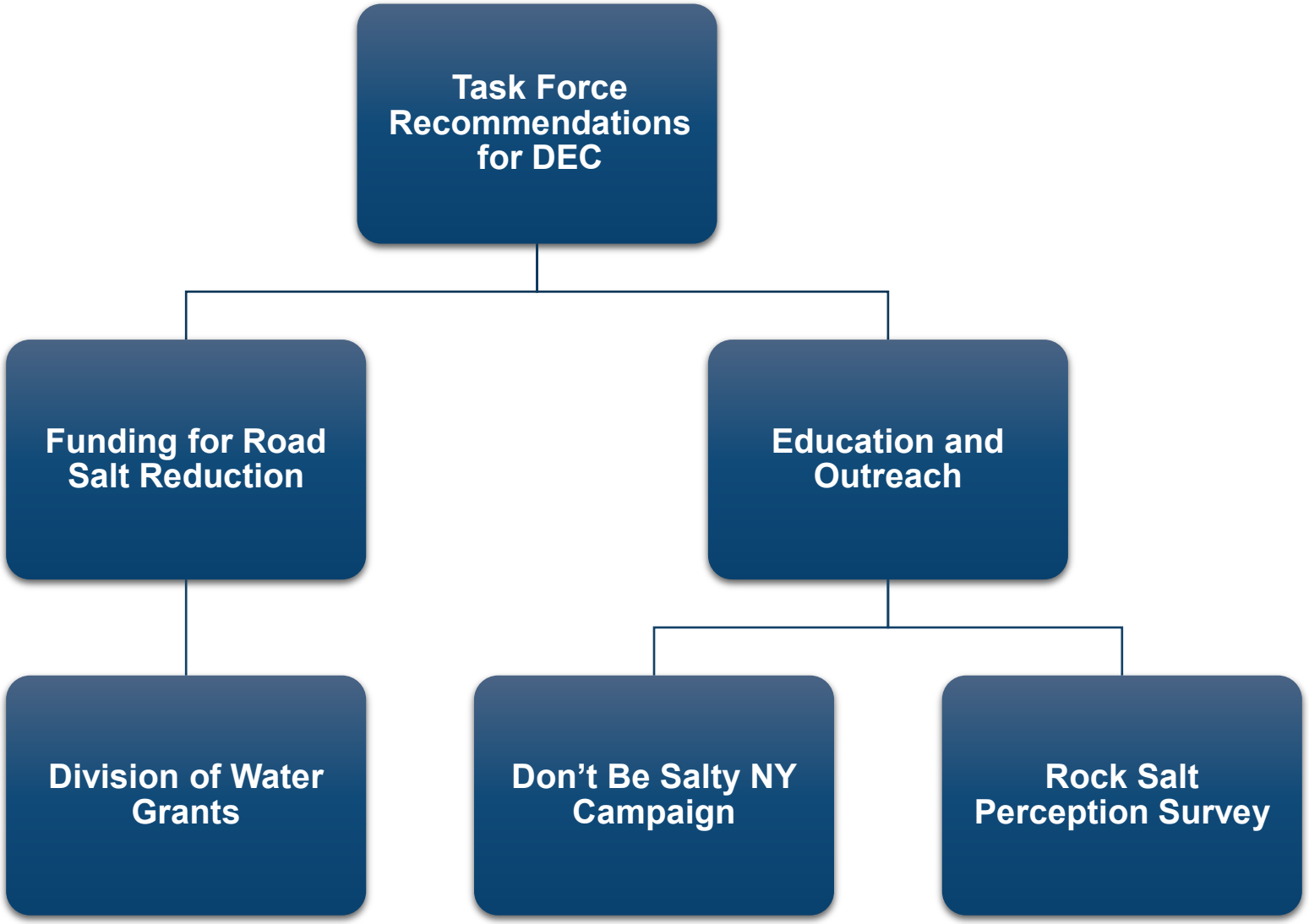
Rock Salt Pollution

- During winter months, the application of rock salt to roads and other surfaces to control ice and snow for the safety of the traveling public has become an established practice.
- Once road salt dissolves, it can run off into surface waters through snow melt and stormwater or find its way onto surfaces where, even later in the year, it can continue to leach further into groundwaters.
- As a result, the rock salt applied for public safety during the winter can cause wide-ranging threats to aquatic and terrestrial ecosystems and sources of drinking water.

ADK Road Salt Reduction Task Force

- The Adirondack Road Salt Reduction Task Force was established in recognition of the need to reduce the application of road salt in the Adirondack Park, to reduce risks to public health and the environment while maintaining public safety.
- Following the passage of legislation in 2020, the Task Force was authorized to complete a comprehensive review of road salt contamination and road salt application best management practices within the Adirondack Park. The report addresses:
  - The nature, scope, and magnitude of impacts from road salt on surface and groundwaters, public health, and infrastructure
  - Reviews current state, local, and commercial winter road management practices,
  - Identifies methods for training and public outreach related to the wise use of road salt and its potential impacts, and
  - Provides recommendations to reduce the overall application of road salt through various best management practices




Task Force Recommendations for DEC
Funding for Road Salt Reduction
Education and Outreach
Division of Water Grants
Don’t Be Salty NY Campaign
Rock Salt Perception Survey

Division of Water Grants

- In May 2024, NYSDEC made $15 million in Clean Water Infrastructure Act funding available to eligible applicants to support best management practices for road salt reduction practices and salt storage as part of the Water Quality Improvement Project (WQIP) program.
- WQIP offered funding to eligible applicants for:
  - brine making and brine storage equipment,
  - plow blades and guards for more efficient snow and ice removal,
  - equipment to allow municipalities to inform application of rock salt to roadways
  - Salt storage structures
- Additional funding was also made available through NYSDEC's Non-Agricultural Nonpoint Source Planning Grant (NPG) focused on planning for implementation of road salt reduction practices by creating community-led winter road maintenance plans.

Find More Information

Water Quality Improvement Project (WQIP) Program

Non-Agricultural Nonpoint Source Planning and MS4 Mapping Grant (NPG)

Don’t Be Salty New York Campaign

- Task Force recommendation to develop and implement outreach campaign
- DEC worked with ADKAction’s authorization to translate their road salt reduction outreach materials to a statewide outreach campaign
- **Campaign Messaging:**
  - Homeowners, businessowners, landlords, and maintenance personnel: Reduce the amount of salt you use on your driveways and walkways. 12 oz. of salt is recommended for a 20’ driveway; other reduction practices
  - Municipalities and agencies who provide winter road maintenance: Use brining solution, live edge plow blades, salt storage.

Don’t Be Salty New York Outreach Campaign to Date

- Pre-Campaign informational survey
- Don’t Be Salty, NY! DEC podcast published in January that hints at outreach campaign
- Outreach materials (stickers and cups)
- Fact sheet with information for municipalities/local DPWs developed and printed
- Press video for road salt reduction grant awards filmed in Ontario County

Rock Salt Perception Survey

- 26 question pre-campaign survey
- Primarily opinion-based questions (agree or disagree with following statement?)
- Received 2,700 responses Statewide
- Obtained information about:
  - Age range, zip code, job sector
  - Perceptions of rock salt usage
  - Ways people get their information about environmental issues

Responses

Region	Percentage of Responses
NYC	1%
Long Island	3%
Central NY	6%
Mid-Hudson	6%
Southern Tier	7%
Mohawk Valley	7%
North Country	11%
Western NY	16%
Capital District	17%
Finger Lakes	25%
Total	100%

Survey Design

- Survey will help inform outreach
- Before the survey was published, we used a specific research-based format which included:
  - Specific research questions
  - Which questions would inform those responses
  - Our hypothesis: H^1
  - Null hypothesis: H^o
- Looked to other surveys
  - ADKAction Salt Survey
  - Division of Communication, Education and Engagement (DCEE) Kiosk Survey

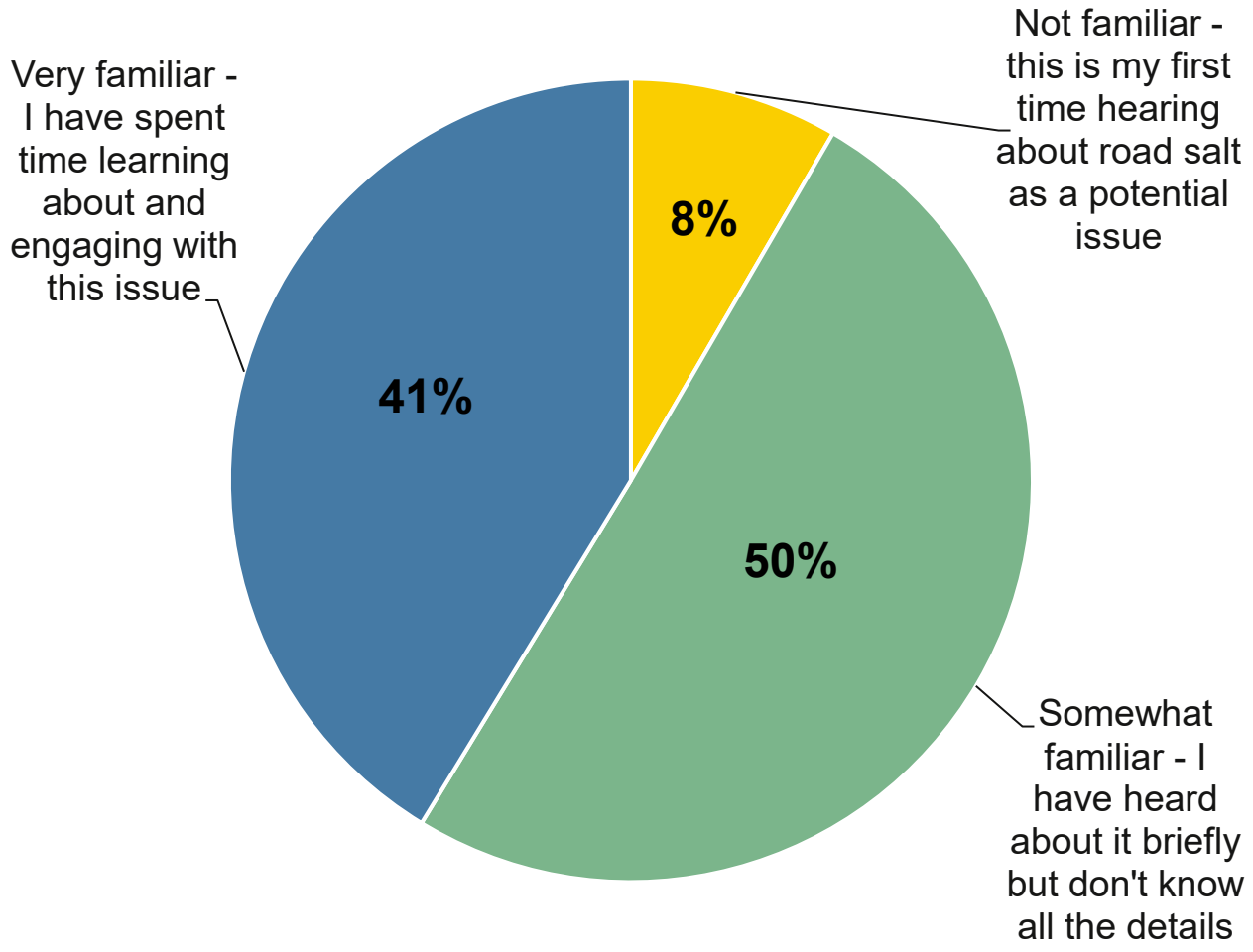
Research Questions

The survey results were used to inform 7 research questions:

- R1: Is the general public aware or familiar with the issue of road salt as a potential pollutant?
- R2: Where are respondents most aware of salt pollution?
- R3: Does the perception of salt reduction differ based on the drinking water source of the respondent?
- R4: Will respondents from different community types (rural, urban, suburban) view liability from salt reduction differently?
- R5: Does the removal of liability make salt reduction and/or alternatives more appealing?
- R6: Do respondents that perceive all forms of salt pollution equitably? (private residence vs. public/municipal roadways)
- R7: Do respondents perceive environmental impacts from salt pollution equally?

R1: Is the general public aware or familiar with the issue of road salt as a potential pollutant?

- Awareness of rock salt pollution and its impacts on water quality and the environment by the general public
  - H^1 – The general public is aware that salt pollution has impacts on the environment
  - H^o – The general public is not aware that salt pollution has impacts on the environment



R2: Where are respondents most aware of salt pollution?

Perception of salt reduction as a result of geographic location

- H^1 – Respondents from the Adirondacks will have a greater awareness of personal property and environmental impacts of salt pollution
- H^o – There is no difference of perception of salt pollution geographically in New York State

Adirondack Residents were found to:

- Be more familiar with rock salt pollution and impacts (very familiar = +18%)
- Strongly agree/agree that rock salt is overapplied in the winter (+13%)
- Strongly agree/agree that application of rock salt can pollute groundwater and wells (+10%)
- Strongly agree/agree that salt corrodes cars and infrastructure (+5%)
- Very concerned/concerned about aquatic impacts (+13%)
- Very concerned/concerned about terrestrial impacts (+10%)

R5: Does the limitation of liability make salt reduction and/or alternatives more appealing?

How does liability impact perception of rock salt reduction practices?

- H^1 – Respondents will look more favorably upon the use of rock salt alternatives if liability is limited.
- H^o – Respondents will feel skeptical of the use of rock salt alternatives regardless of liability

Results:

- 83% strongly supportive/supportive of alternatives methods of snow and ice removal municipal/public roadway
- 88% were supportive of alternatives methods of snow and ice removal municipal/public roadways if safety is maintained and liability is limited for all involved (+5%)
- 76% were supportive of alternatives at private residences
- 86% were supportive at private residences if safety is maintained and liability is limited for all involved (+10%)

R6: Do respondents that perceive all forms of salt pollution equitably? (private residence vs. public/municipal roadways)

Perception of rock salt pollution based on surface rock salt is spread

- H^1 – Respondents that agree or strongly agree with salt having an environmental impact will be in stronger agreement that public/municipal roadway salt application causes environmental impacts than private residences
- H^o – Respondents that agree or strongly agree with salt having an environmental impact will perceive all forms of salt pollution equally

Among those respondents that answered "agree" or "strongly agree" that rock salt is a pollutant:

- 88% believe that rock salt on public/municipal roadways has an impact on water quality
- Only 72% of those same respondents believe that rock salt used at private residences has an impact on water quality (-16%)
- ***It only takes a teaspoon of salt to pollute five gallons of water (Minnesota Pollution Control Agency)***

Lessons Learned and Considerations for Surveys

- Number of questions asked
- Time of year circulated
- How will survey be circulated
- Deliberately false results/filtering results
- Opportunities for written feedback

Contact Information

Julie Berlinski

Division of Water Grants Team

Water Assessment and Implementation

NYS DEC

Phone: (518) 402-8179

General Contact: dowgrants@dec.ny.gov

Department of Environmental Conservation