

## Road Salt

Human Health Risk

Ecological Risk

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Socioeconomic Risk

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Various salt compounds are used to melt ice and snow that accumulates on roadways in winter. Salt-contaminated runoff from streets and highways can damage nearby trees and shrubs, and can also affect aquatic ecosystems when it reaches streams and other surface waters. There have been isolated instances of salt contamination of drinking water in New Jersey in recent years. Road salt also damages road surfaces, bridges, vehicles, and electrical fixtures.

### What's at risk?

Areas along roadways statewide, particularly those adjacent to water bodies, are at risk. Areas next to highways and major routes, urban areas, and areas in the northern part of the state receiving greater snowfall are at increased risk because of greater salt application rates. Roadside vegetation and trees, birds, and aquatic life (especially young fish) are at risk for acute or chronic impacts. Elevated salt concentrations in the Oradell Reservoir in Bergen County can pose a health hazard for water customers with high blood pressure.

### What are the ecological impacts in New Jersey?

In terms of water quality impacts, observable effects have not been documented in any New Jersey waterbodies. Screening data has indicated that 4 of 136 monitoring stations had concentrations of chloride above the EPA benchmark for the protection of aquatic life. These areas exceeded the benchmark at least once during the period from 1997-2000: Rahway River near Springfield, Cooper River at Haddonfield, Green Brook at Plainfield, and Ramsey Brook at Allendale. The potential impacts to New Jersey roadside vegetation and birds were not quantifiable with available information.

### What are the socioeconomic impacts in New Jersey?

There have been isolated and unsubstantiated claims of road salt contamination of private wells resulting in a loss of property value. The cost of remediating salt contamination in Bergen County has been estimated at \$300,000. Road salt causes substantial damages to roads, bridges, and motor vehicles; these costs have been estimated at nearly \$8 million. Overall, however, the socioeconomic impacts attributable to the use of road salt are comparatively low.

### What's being done?

Some of the salts and salt alternatives are less harmful than others and these may be used effectively to protect sensitive areas. Road salt in runoff has been included in local and regional plans in New Jersey; Bergen County's Hackensack and Hudson watershed plans include efforts to reduce quantities of road salt contaminating the Oradell Reservoir. There are significant opportunities to improve road salt storage and application techniques, thereby minimizing quantities available for runoff to the environment.