

# City of Philadelphia



Council of the City of Philadelphia  
Office of the Chief Clerk  
Room 402, City Hall  
Philadelphia

(Resolution No. 140082)

## RESOLUTION

Authorizing the Committee on Streets and Services to hold public hearings to better understand and analyze the use of the compounds commonly called “rock salt” by the Streets Department and Philadelphia citizens to melt ice and snow and determine whether alternatives and additives can make this material and effort safer and more efficient.

WHEREAS, Rock salt is the most commonly used material to melt ice and snow on our City streets and sidewalks. Since the 1940’s, rock salt has been used to clear frozen precipitation from the ever-expanding highway and road system in the United States. An estimated 15 million tons of rock salt is used every year for this purpose nationally; and

WHEREAS, The most prevalent compounds in use, Sodium Chloride (NaCl), Potassium Chloride (KCl), and Calcium Chloride (CaCl) have known corrosive effects, and can do damage to roads, vehicles, underground utilities and even roadside property through the misting effect; and

WHEREAS, Rock salt is also extremely dangerous for pets and other animals. When ingested by animals, the rock salt can cause liver and kidney failure, pancreatitis, and depending on the amount ingested, can lead to death. Also, even small amounts of rock salt can be stuck in animal paws and fur, causing extreme discomfort and irritation; and

WHEREAS, Heavy usage of rock salt has damaging effects on the environment. Almost all melting minerals find their way into the waterways, whether through run-off or soil and groundwater. Higher chloride levels in water have a deleterious effect on fish and other aquatic life, and this denser water also sinks to the bottom of the waterway, reducing water circulation and further deteriorating the ecosystem. High sodium levels in drinking water are also dangerous, and can be a concern for people on a restricted-sodium diet; and

WHEREAS, Technological advances have made rock salt dispensing and road de-icing much more efficient. PennDot is using computers on their trucks to calibrate dispensing

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machines and researchers in Europe are using optical sensors to determine road salt levels. Other states use infrared sensors to determine street temperatures and dispense the correct quantity and type of de-icer; and

WHEREAS, Advances have also been made in the compounds used for de-icing. Companies are producing chloride free materials for use on roads and sidewalks. Also, some areas are experimenting with renewable organic materials, such as beet juice, cheese brine, pickle brine, and molasses that can be used to increase the effectiveness of traditional methods; now, therefore, be it

RESOLVED, BY THE COUNCIL OF THE CITY OF PHILADELPHIA, That the Committee on Streets and Services is authorized to hold public hearings to better understand and analyze the use of the compounds commonly called “rock salt” by the Streets Department and Philadelphia citizens to melt ice and snow and determine whether alternatives and additives can make this material and effort safer and more efficient.

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CERTIFICATION: This is a true and correct copy of the original Resolution, Adopted by the Council of the City of Philadelphia on the sixth day of February, 2014.

Darrell L. Clarke  
PRESIDENT OF THE COUNCIL

Michael A. Decker  
CHIEF CLERK OF THE COUNCIL

Introduced by: Councilmembers Kenney and Squilla

Sponsored by: Councilmembers Kenney, Squilla, Quiñones Sánchez, Greenlee, Jones, Goode, Johnson, Oh, O'Brien, Blackwell and Reynolds Brown