SAVE OUR STREAMS
FROM ROAD SALT

Tookany / Tacony-Frankford
Watershed Partnership, Inc.

A problem across the world

- An invisible freshwater pollutant – salt – has increased at least 2-4 times in the last 50 years in many places
- Road salt use has more than doubled since the 1970s, and is the main cause of the salt increase in our region
- Road salt dissolves in water and enters streams quickly via runoff from roads and parking lots, and slowly enters into the soil and groundwater
- Even though the problem is getting worse, solutions need to be balanced with safety and economic concerns

Photo by Geoffrey Selling
Excessive use of road salt on Ben Franklin Parkway

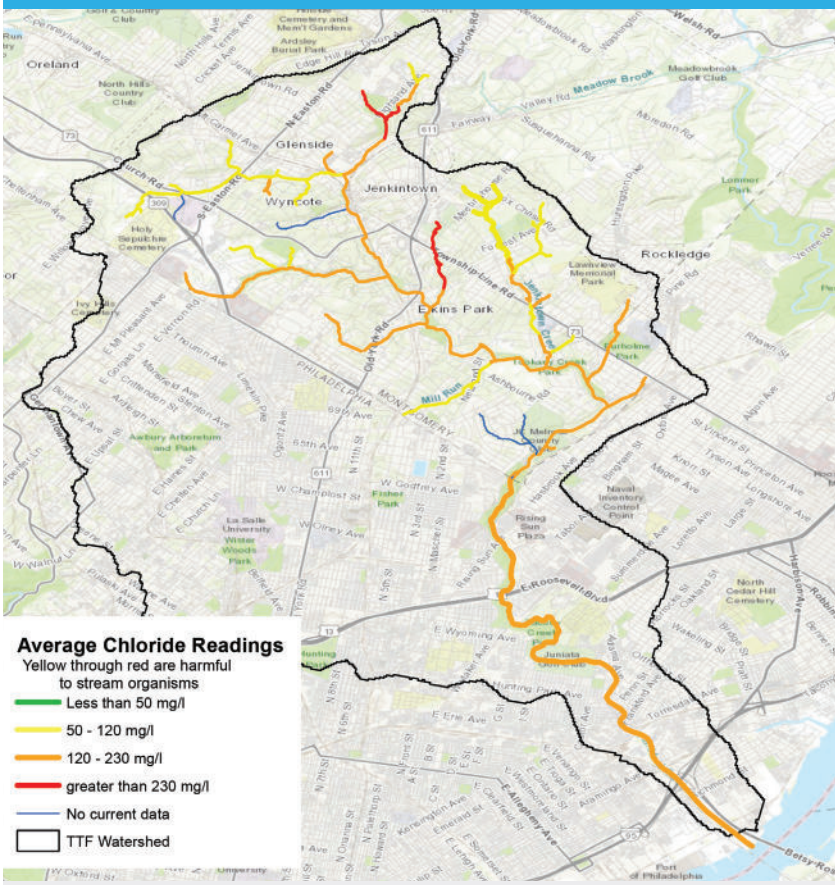
Salt is a problem in the Tookany-Tacony/Frankford watershed

- Most TTF streams are contaminated with salt
- Salt levels in local streams are 10-30 times higher than natural levels, even in the summer. During winter storms, levels rise to 50-100 times higher than natural (TTF and USGS)

The amount of salt in TTF streams is shocking

11,000+ TONS
of salt applied by humans
flow through the watershed every year
=
30+ TONS PER DAY

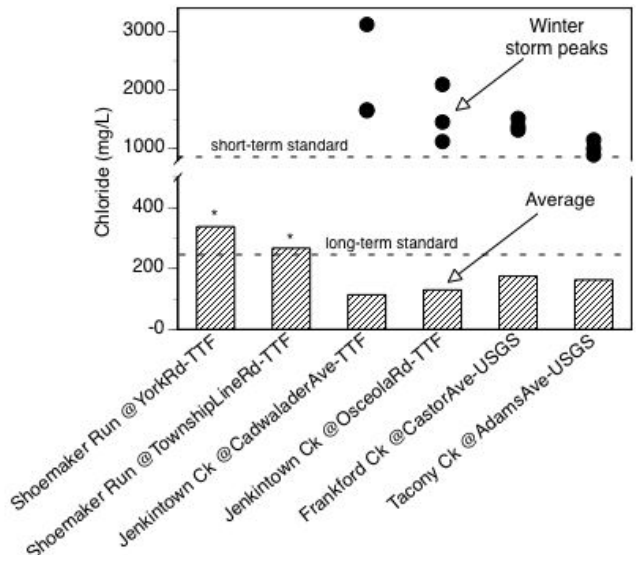
Salt (as chloride) in TTF streams



Map includes all available data from 2014-2022, collected by TTF volunteers with chloride test strips in partnership with the Izaak Walton League, and by continuous sensors maintained by TTF volunteers and the US Geological Survey (Stations # 01467086 and 01467087). This is a dynamic map, values are updated with each sampling event.

*Color representation is an estimate based off of data points. This map was created in conjunction with Stroud Water Research Center.

Salt (as chloride) in TTF streams



KEY	Peak	Average	Peak data unavailable

Natural Chloride Concentrations in this area should be less than 5 to 20 mg/l

Why is salt a problem?

- Salt can be harmful to aquatic animals and plants. Some of these streams exceed the federal standard for long-term exposure designed to protect aquatic life most days of the year
- High levels of road salt during winter storms have exceeded the federal standard for short-term exposure designed to protect aquatic life (about 1 tsp of salt per gallon)
- Road salt speeds up rusting of metal and corrosion of concrete. It has been shown to cause millions of dollars in damage to infrastructure and personal property

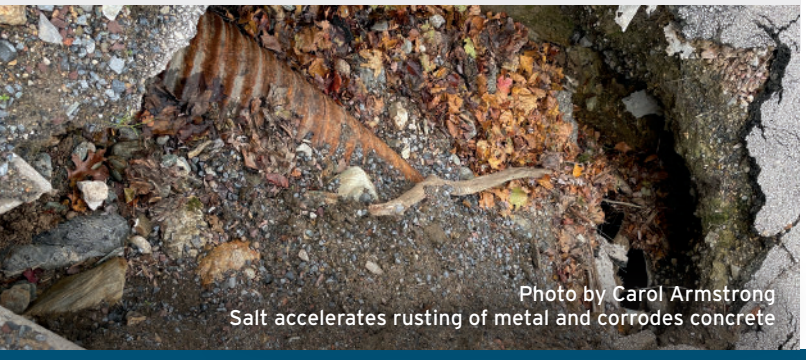


Photo by Carol Armstrong
Salt accelerates rusting of metal and corrodes concrete

Photo by Maria Kiernan
TTF volunteer measuring chloride in Abington

What can we do to help?

Homeowners and residents

- **Shovel First:** Shovel before you salt and right after it snows to reduce the need for salt
- **Reduce and Reuse:** Use just enough salt to melt ice (One 12oz cup of salt per 20ft of driveway or 10 sidewalk squares). After snow melts, sweep up and reuse the salt that remains
- **Consider:** sand or crushed limestone instead of salt or a 1:1 sand/crushed limestone to road salt mixture
- **Read the Label:** Don't use products containing urea, kitty litter, or ashes
- **Speak Up:** Educate your neighbors! If you see an unprotected salt pile or excessive salt use contact your township

Considerations for municipal and private property owners

- Adopt more efficient mechanical snow/ice removal methods such as live edge plows
- Apply pre-storm salt brine to reduce use of rock salt
- Improve efficiency of salt application and storage to reduce waste. Sweep up salt after use
- Adjust brine and salt applications to match snow/ice expectations and traffic volume

Tookany/Tacony-Frankford Watershed Partnership, Inc.

Stroud Water Research Center

QUESTIONS? Ryan@ttfwatershed.org 215-744-1853