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Salt Line

The Salt Line: What is it and Where is it?

Salt-laced water, known in water jargon as the "salt front" or "salt line," is defined as the 250 milligram per liter chloride concentration. This concentration is based on drinking water quality standards originally established by the U.S. Public Health Service. You cannot see the "salt line."

The salt front's location fluctuates along the tidal Delaware River as streamflows increase or decrease in response to changing inflows, diluting or concentrating chlorides in the river. The seven-day average location of the salt front is used by the DRBC as an indicator of salinity

intrusion in the Delaware Estuary. The commission's drought plan focuses on controlling the upstream migration of salty water from the Delaware Bay during low-flow conditions in basin rivers and streams. As salt-laced water moves upriver, it increases corrosion control costs for surface water users, particularly industry, and can raise the treatment costs for public water suppliers.

Water releases from five reservoirs are used to help repel, or flush back, the salt-laced water. Three reservoirs -- Pepacton, Neversink and Cannonsville -- are owned by New York City and are located in the Delaware River's headwaters in the Catskill Mountains in New York State. When full, these three reservoirs hold 271 billion gallons of water. Two additional reservoirs -- Blue Marsh and Beltzville -- are located in Pennsylvania along the Schuylkill River in Berks County and the Lehigh River in Carbon County, respectively. These two lower basin reservoirs hold nearly 20 billion gallons of water when full.

The following table shows the current location of the salt front in relation to several other sites along the river.

The next scheduled update is February 21, 2014.

Site Descriptor	River Mile
Confluence of the East and West Branches of the Delaware River	330
I-95 Scudders Falls Bridge	139
Pennsylvania-New Jersey Turnpike Bridge	121
Burlington-Bristol Bridge	117
Torresdale Drinking Water Intake	110
Tacony-Palmyra Bridge	107
*Salt line location during 1960s "Drought of Record" farthest recorded upstream location	102
Benjamin Franklin Bridge	100
Walt Whitman Bridge	96
Mouth of the Schuylkill River	92
Philadelphia International Airport	89
Chester, Pa.	83
Delaware-Pennsylvania State Line	78
*Current salt line location (last available data: February 13, 2014)	75
*Normal salt line location for this month	71
Delaware Memorial Bridge	69
Mouth of the Delaware Bay (Cape Henlopen-Cape May)	0

^{*} Based on the seven-day average location of the 250 milligrams per liter chloride concentration.

Estimates of the salt line are based on provisional data and subject to change if better data becomes available.

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