



# Connecticut Department of Energy and Environmental Protection



# UPDATE: Private Well Impacts from Road Salt Applications



2018 CT Private Well Conference  
Chrysalis Center's Training & Conference Center  
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# Road Salt Impacts to Private Wells

- 2013 - increasing complaints relating to **elevated sodium and chloride in private wells**
- **100+** impacted wells identified within past 5 years
- Typical concentrations in drinking water wells
  - Sodium = 300+ mg/L (**100 mg/L Guidance Level**)
  - Chloride = 600+ mg/L (**250 mg/L MCL**)



# Road Salt Impacts to Private Wells

## *Sources of Road Salt in Drinking Water Wells:*

- **Road application/run off** – most common cause
- **Salt storage facility** – storage and handling
- **Parking lots** – high application rate
- **Plow contractor** – washing trucks
- **Plowing/placing snow on or near wellhead**



# How Road Salt gets into Drinking Water Wells

*Common links between Road Salt application and elevated sodium/chloride levels in wells:*

- **Road drainage:** open drainage, catch basins
- **Shallow depth to bedrock**
- **Well location**
- **Disposal/stockpiling of snow:** plowed off road, salt spray, snow placed in front yards
- **Poor well construction:** shallow/dug wells, damaged casing, well sealed below ground



# Well Water Quality Concerns

*Elevated Sodium and Chloride in Drinking Water supplies can cause:*

- **Health impacts** associated w/ high sodium intake
- **Salty taste** – high chlorides
- **Corrosivity:** plumbing failures, leaching of lead and copper
- **Mobilization of Manganese, Iron, Radium, and Radon**



# Solutions for Wells Impacted by Road Salt

## Short-term:

- Providing **bottled water** by responsible party
- Roadway **drainage improvements**
- Road salt application **BMPs**

## Long-term:

- Connecting to **public water** (if available – permanent solution)
- **Sleeving/drilling new well**
- **Community well**
- **Whole house R.O.**



# Strategy for Addressing Road Salt Impacts

- Bi-monthly Meetings w/ DOT's Environmental Compliance Division
- DOT's Draft *Road Salt Procedure*
  - Similar Model for Municipalities
  - DEEP working directly with many local health depts.
- Education/Outreach
  - **GoGreen Certification** – UConn/DOT/DEEP collaboration
  - **Outreach to Municipalities** – Public Works



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