

# Regulatory Standards

- **Currently no required Maximum Contaminant Level (MCM)**
- **Secondary Maximum Contaminant Level (SMCL) is > 0.05 mg/L**
  - Levels above SMCLs can lead to loss of customer confidence in water quality / health
  - Compliance with SMCL is strongly encouraged by MassDEP
- **MassDEP Health Advisory Level (HAL) is > 0.3 mg/L**
  - Recommends limited consumption >1 mg/L to decrease possible adverse neurological effects
  - Infants should not be given water with manganese > 0.3 mg/L for more than 10 days per year

# Human Health Impacts

- Manganese is an essential nutrient in our diets
- Over exposure can cause neurological impacts
- Infants and children less than a year old are most susceptible
- Can lead to learning disabilities

# Other Impacts

- **Aesthetic issues for customers**
  - Stain laundry and water use fixtures
  - Metallic or vinyl type water taste
  - Clog household water filters
  - Cause objectionable water color
  - Customer complaints
- **Nuisance issues in distribution system**
  - Pipe and other blockages from precipitate
  - May increase the number of coliform "hits"

