Drinking Water In Maine

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PUBLIC WATER SYSTEMS

- 25 or more people
- 15 service connections
- 60 or more days per year
TRANSIENT WATER SYSTEMS

- Restaurants
- Camps & campgrounds
- Hotels & motels
- Bottled water companies
- Golf courses

About 1200 transient systems statewide
COMMUNITY WATER SYSTEMS

- Utilities
- Mobile home parks
- Apartments
- Nursing homes
- Condominiums

About 400 community systems statewide
NON-TRANSIENT, NON-COMMUNITY WATER SYSTEMS

- Schools
- Office buildings
- Manufacturing facilities

About 375 NTNC systems statewide
2100 PUBLIC WATER SOURCES

2000+ groundwater sources
- Drilled wells
- Dug wells
- Springs

Drilled well
GROUNDWATER SOURCES

Spring Source

Drilled well
2100 PUBLIC WATER SOURCES

45 surface water sources
- Ponds and great ponds
- Streams
- Rivers
- Impoundments & quarries

Including 8 unfiltered surface water supplies
SURFACE WATER SOURCES

Sebago Lake
Lake Auburn
China Lake
Eagle Lake
Nequasset Lake

Saco River
Kennebec River
Salmon Falls River
Where is your protection area?

- Sand and Gravel wells
  - Time of Travel
    - 200 days for acute contaminants
    - 2,500 days for chronic contaminants
- Community Bedrock wells
  - Probable contributing area
    - High probability: full protection
    - Moderate probability: watch area
Small System Protection Area

- Minimum radius 300 feet
- Maximum radius 2500 feet
- Chronic contaminant area 2500 feet radius
- Size of area based on SRF Population
Small System Protection radius

- **Chronic Contaminant area**
- **Base protection area**

Population:
- 239
- 333
- 416
- 500
- 583
- 666
- 750
- 833
- 916
- 1000
- 1083
- 1167
- 1200
- 1200+
What risks are we managing?

- Future development near water sources identified as the #1 risk to drinking water in Maine
- Most development decisions are made at the local level
- Location of some high-risk activities is mandated at the state level (petroleum storage, human waste disposal)
- Development decisions are often driven by landowner financial and generational needs.
- Maintaining sustainable forests and farms is both complicated and important for safe and secure drinking water
Most systems are not in control of their watersheds and aquifers.
Smaller Systems are not able to develop protection plans
In five years, we had a 5% increase in developed area in our most protected watersheds and aquifers.
WISE LAND USE DECISIONS

Most development decisions are made locally.
Land use decisions are local

- Comprehensive Planning is the base for local decisions, and needs to be coordinated through the watershed
- Resource management is a key part of a plan
- Plans are only as good as the ordinances that implement them
- Ordinances are only as good as the Planning Board and Code Enforcement Officer
- Land use comes down to individual homeowner decisions
Ground Water Protection

- Locate and develop the best quality water you can find
- Keep sources of bacteria away from your well
- Construct and maintain your well to keep surface water out
- Monitor quality to make sure the water is safe
Select a source with natural protection from contamination

- **Bad**: exposed or very shallow bedrock
- **Good**: 20 feet or more of glacial till or clay
Bacterial contamination sources

Septic Malfunction
Bacterial contamination sources

Septic Malfunction

Animal Husbandry (NRCS Photo)
Bacterial contamination sources

Septic Malfunction

Animal Husbandry (NRCS Photo)

Residuals spreading (NRCS Photo)
Well Construction

- At least 20 feet of casing
- Sealed into sound bedrock
- Surface sealed
- Surface graded to shed water away from the well
- Well cap with sanitary seal, screened vent
- Above flood level
- Pitless adapter sound and trench backfill is tight
Keep the area around the well safe

- Own or control at least the 300 foot sanitary radius
- Work with neighbors so they won’t contaminate the ground water
- Work with your town to manage nearby activities.
Summary
• Find the best source
• Construct a secure well
• Keep contaminants away
• Monitor your water quality to protect public health

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