

ALTERNATIVE DRINKING WATER SYSTEMS

Regulation, Available Technologies, and Potential
Funding Sources

Hancock County Planning Commission

**395 State Street
Ellsworth, ME 04605
207-667-7131**

www.hpcme.org

May 2013



Parts I and II adapted from material prepared by the Washington County Council of Governments under the Grow Washington Aroostook project

INTRODUCTION

Hancock County has many small villages that are not served by a municipal water or sewer system. This makes it difficult to replicate the traditional New England village that is characterized by compact lots. Most existing water systems have limited excess capacity and frequently have an aging distribution system. Waterline expansions may be costly due to bedrock. Towns without any residential public water systems rely entirely on individual household wells for their drinking water. There are cases of outright contamination, unreliable supply, and problems such as high iron content.

This three-part report discusses alternatives to water systems. The first part describes adjustments to municipal land use regulations that accommodate small-scale systems. The second reviews the various types of systems. The third is an overview of funding sources.

PART 1: MUNICIPAL LAND USE REGULATIONS

Municipal regulations that encourage the use of alternative systems need to address application review requirements that minimize the risk of contamination. They should allow for reduced lot sizes. Adequate operations and maintenance of systems must also be assured. The HCPC recommends the following steps:

1. Recommend small-scale systems in your comprehensive plan:

The Future Land Use (FLU) section of a comprehensive plan should identify areas not presently served by public water and sewer where the town wishes to encourage higher density development. While towns face different circumstances, potential areas include those that already have village-type development or that are adjacent to a village. Conditions such as soils, road access, and the expected rate of development need to be considered. In some towns small-scale systems may not be practical.

State law (12 MRSA 4807) sets the minimum lot size at 20,000 square feet for single family dwellings not served by public water and sewer. The comprehensive plan should specify the conditions under which smaller lot sizes are allowed. These would include lots served by alternative water systems.

2. Promote Best Management Practices

The Future Land Use Plan should recommend land use standards to reduce the likelihood of contamination of the water source and the adjacent groundwater recharge area. The term “recharge area” refers to the land around the water source from which rainwater replenishes the well. The Maine Drinking Water Program has a Best Management Practices (BMP’s) manual to protect groundwater sources for public water systems. The full report is available at: <http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/swp/bmpv2-0a.htm>. BMP’s include:

a. Keep it out

The easiest way to protect the water supply is to keep potential contamination sources out of the recharge area. Examples of potential contaminants include solvents (such as used in a dry cleaning, furniture finishing, or vehicle repair operations) and wood and manure piles.

b. Keep it small

If a potential contamination source is located in a recharge area, its size should be limited. For example, a small used car lot poses less risk than a large gravel lot or a truck terminal. Land use review standards in a recharge area should limit impervious surface, regulate materials storage, and require stormwater management provisions that minimize run-off.

c. Know what is there

Planning boards may not be aware of potential sources of contamination. The location and composition of every potential contaminant source within the recharge area should be identified during the application review process. Land use regulations should require emergency contingency plans to address any spills, accidents, and fires.

3. Modify Your Land Use Ordinances

It is important to have clear ordinance standards to guide the planning board review process. Sample language adjusted from Cumberland is presented below. Since planning case law evolves and each town has its particular needs, be sure to have any language you draft reviewed by an attorney familiar with Maine law:

- a. *Covenants shall be included in each deed from the developer to an individual lot owner which shall require mandatory membership in the association and shall set forth the owner's rights, interests, privileges, and obligations in the association.*
- b. *The association shall develop a system to levy and collect annual charges against any and all lot owners to defray expenses connected with the maintenance and operation of all facilities located therein and this system shall be set forth in the deed covenants or other legal instrument binding upon the lot owner and running with the land.*
- c. *The developer shall be responsible for the maintenance and operation of the water system until at least 75% of the lots have been sold to individual lot owners after which time the association shall be responsible for such maintenance and operation, This requirement shall be set forth in the deed covenants or other legal instrument binding upon the lot owner and running with the land. The operation and maintenance requirements for the communal water system shall specify:*

- i. *The liability for operation, maintenance, repair, or replacement of all parts of the system in compliance with State of Maine Department of Health and Human Services Drinking Water Program standards;*
 - ii. *The right by easement, including access easements recorded against all properties associated with or necessary for the system to operate, to enter said properties for purposes of servicing, maintaining, repairing, or replacing any or all parts of the system,*
2. *All proposed deed covenants and legal documents shall be reviewed by the town attorney and the planning board and, if approved, shall be recorded in the Cumberland County Registry of Deeds and included or referred to in the deed of each lot.*

In addition to having an attorney review the legal documents, towns should have an engineer review the design of the system and the operation and maintenance manual. The town may also want to have a geologist review groundwater conditions.

PART II: TYPES OF ALTERNATIVE SYSTEMS

Options include shared wells and community water systems. There are state laws pertaining to siting, testing, design, construction, maintenance, and monitoring. Aquifer drawdown areas surrounding these wells are designated by the Maine Public Drinking Water Program as Source Water Protection Areas. They require setbacks from septic systems that vary according to the design flows of both the well(s) and the septic system(s). Source Water Protection Areas are intended to protect the groundwater within the drawdown zone from potential contamination. Some aquifers (particularly the more sensitive overburdened aquifers) may require very large protection areas to reduce the possibility of contamination.

Alternatives include:

1. Shared Wells

Shared wells are an option for small-scale development. The USDA Rural Housing Service (<http://www.rurdev.usda.gov/me/SFH/sfh.htm>) will not guarantee mortgage loans for homes with shared wells unless there is a legally binding agreement to assure maintenance and safe operation. It also requires that the properties sharing the well be unable to connect to a public or community water system. Up to four dwelling units may share a well per Rural Housing Service standards. If an applicant proposes a shared well, the planning board may want to have its attorney review the legally binding agreement.

Minimum standards for a shared well agreement include:

- cost sharing arrangements among participating homeowners to provide power to the well pump, repair, test and disinfect the system; replace components, and make improvements to increase the service life of the system;

- requiring that each well user promptly repair any leaks or damage in their part of the service line and replace, when necessary, the service line connecting the water system to the residence;
- permitting water testing at any time by a licensed tester at the request of any party to the agreement;
- requiring corrective measures if testing reveals a significant water quality deficiency, but only with the consent of the majority of all parties;
- assuring ongoing water service to all parties even if the supplier has no further need for the shared well;
- prohibiting water usage by any party for “other than bona fide domestic purposes.” This provision is important since conflicts have arisen over matters such as excessive lawn watering;
- requiring that any new connections occur only with the consent of all parties, appropriate amendment of the agreement and compliance with the other terms of the agreement;
- establishing easements for all elements of the system, assuring access and adequate working space for system operation, maintenance, inspection, replacement, and expansion; and
- providing for binding arbitration of major disputes over the water system or the terms of the well sharing agreement.

For a sample shared well agreement, see <http://www.rurdev.usda.gov/Publications/WI-RHS-Shared-Well-Agreement.pdf> . If you are unable to download from this site, contact Tom Martin at the Hancock County Planning Commission.

2. Community Water Systems

Shared water supplies over a certain user threshold are subject to regulation by the Maine Drinking Water Program as Community Water Systems. They are defined as:

A public water system which serves at least fifteen service connections used by year-round residents or regularly serves at least 25 year-round residents. (Year-round is defined as permanent residence greater than six months.)

Examples of community water systems include those serving apartment buildings, mobile home parks, and restaurants. A list of existing community water systems in a given town is available from the Maine Drinking Water Program (<http://www.maine.gov/dhhs/mecdc/environmental-health/water/sources.htm>) This site has information on state requirements for community systems. If an applicant proposes that a development be served by a community or other type of public water system, the system design should be reviewed by the Drinking Water Program.

PART III: FUNDING SOURCES

The role of various agencies in funding alternative systems is described here. Participating households must generally meet income guidelines to qualify for assistance. Some programs are more suited for new development than to retrofitting an existing developed area.

1. Washington Hancock Community Agency

Telephone: (207-546-7544)

Website: <http://www.whcacap.org/house-and-home/index.php>

Washington Hancock Community Agency provides 1% mortgages or 0% deferred/forgivable mortgages (i.e. 0% interest rate with no monthly payment) to low-income homeowners for necessary home repairs. Wells and septic system repairs or replacements are eligible activities.

2. Maine State Housing Authority

Telephone: 1-800-452-4668

Website: <http://www.mainehousing.org>

The Maine State Housing Authority oversees the Affordable Housing Tax Increment Financing (AHTIF) Program. AHTIF enables communities to dedicate the tax revenues from new affordable housing development to help make the housing affordable or to pay for related costs. Communities using AHTIF also avoid the decreases in state revenue sharing and increases in county taxes that otherwise would occur with increased property values. Eligible uses of incremental tax revenues include:

- Housing development or operating costs *within the AHTIF district*, such as capital investments, financing costs, project operating costs, professional service fees, administrative and start-up expenses, and the costs of recreational and child care facilities.
- Investments *outside the AHTIF district* that are necessary because of activities within the district, such as: infrastructure or public safety improvements, and mitigation of adverse impacts on the community (including costs to local schools).
- Establishing permanent housing development revolving loan or investment.

Key requirements include:

- At least 25% of the district area must be suitable for residential use, and development within the district must be primarily residential.
- The development must address an identified community housing need and comply with Maine law regarding growth-related capital investments.
- At least 33% of the housing units must be for households earning no more than 120% of area median income.
- The affordability of rental units must be maintained for at least 30 years; the affordability of homeownership units must be maintained for at least 10 years.

3. USDA RURAL DEVELOPMENT

Telephone: 207-990-3676

Website: http://www.rurdev.usda.gov/me/RHP_CF.htm

Rural Development is a division of the United States Department of Agriculture. Single Family Housing programs include:

- a. **Section 502 Guaranteed Loans** - Loans are made by mortgage lenders and guaranteed by USDA Rural Development to low and moderate income applicants to buy or build homes (30-year fixed interest rate) in rural areas of Maine.
- b. **Section 502 Direct Loan Program** - Low interest loans are made directly by Rural Development to applicants whose incomes are less than 80 percent of the median income for the area. This program is focused toward purchasing modest housing, constructing new homes, or repairing pre-owned dwellings, located in rural areas of Maine.
- c. **Section 504 Direct Loan Program** - Loans are made at 1 percent interest rate to repair, improve, or modernize modest single-family homes in rural areas, making homes safer or more sanitary, or to remove health and safety hazards. Applicants' incomes must be less than 50 percent of the median income for the area.
- d. **Section 504 Grant Program** - For homeowners 62 years old or older who cannot repay a loan, grant funds are available to remove health or safety hazards, or remodel dwellings to make them accessible to household members with disabilities.
- e. **Mutual Self-Help Housing Program** - Low interest loans are made directly by Rural Development to applicants whose incomes are less than 80 percent median income for the area. This program is focused toward constructing modest new homes, through a group effort, in rural areas of Maine.

4. Maine Office Of Community Development

Telephone: 207-624-7484 Website: <http://www.meocd.org>

The primary focus of the Office of Community Development is the administration of the HUD funded Community Development Block Grant (CDBG) Program. Hancock County Planning Commission serves as the designated technical assistance provider for CDBG programs in the HCPC service area. Housing Programs include:

a. Housing Assistance Grants:

The Housing Assistance Grant Program (HA) provides funding to address housing problems of income qualifying households. Eligible activities are those directly related to assisting or creating residential housing units including Acquisition, Code Enforcement, Conversion of Non-Residential Structures, Demolition, Historic Preservation, Housing Rehabilitation, New Housing Construction as allowed by HUD regulations, Relocation Assistance, and Removal of Architectural Barriers. Only applicants with populations that exceed 3,000 are eligible to apply. Multi-jurisdictional applications with more than three communities will not be accepted.

Maximum grant award: \$500,000.

b. Public Infrastructure Category 2:

The Public Infrastructure Grant (PI) Program provides gap funding for local infrastructure activities. Eligible activities are construction, acquisition, reconstruction, installation, relocation assistance **associated with** public infrastructure, and public infrastructure limited to supporting construction of fully-funded affordable LMI housing.

Maximum Grant Award: \$500,000

Prepared with funding from the USDA-Rural Utilities Services. Opinions expressed herein are not necessarily those of the funding agencies.