Natural Resources Damage Compensation Plan
for the
Portland-Bangor Waste Oil site in Ellsworth, Maine

October 2013

I Introduction

This plan was prepared the Maine Department of Environmental Protection (DEP) in consultation with the State natural resource trustees,[1] the City of Ellsworth and the general public. The plan addresses damages to natural resources arising from the discharge of hazardous substances and oil at the Portland-Bangor Waste Oil site in Ellsworth (PBWO Ellsworth). The Commissioner of Environmental Protection designated the site as an "uncontrolled hazardous substance site" by written decision dated January 20, 2009.

Under Maine's uncontrolled sites law [38 M.R.S.A. § 1361-1371], each responsible party[2] is jointly and severally liable for costs incurred by the State to abate, clean up or mitigate the threats or hazards posed by the site. They also are liable for damages to the natural resources of the State. The responsible parties at the PBWO Ellsworth site and other sites where PBWO operated include hundreds of small businesses, municipalities, school districts and individuals that generated waste oil handled by the company.

In 2007, the Maine Legislature established the Waste Motor Oil Disposal Site Remediation Program[3] to deal with cleanup costs and natural resources damages at the PBWO sites. The program as currently configured imposes a tax (or "premium" as it is called in the law) on the sale of motor oil[4] and uses the revenue to cover costs and damages that the responsible parties otherwise must pay. Revenue from the premium is deposited in the Waste Motor Oil Revenue Fund established under 10 M.R.S.A. § 1020, which provides, among other things, for $6,919,681.57 to be transferred to the Maine Department of Environmental Protection (DEP or department) to pay response costs related to the PBWO disposal sites.

The revenue transfers to DEP include $500,000 for damages to natural resources at the PBWO Ellsworth site. This plan establishes a framework for the use of the money. Natural resource damages in this case are limited to the loss of use of groundwater. As compensation

[1] The Governor of Maine has designated the commissioners of the State natural resource agencies as natural resource trustees for the State. The DEP is the lead trustee because authority to collect natural resource damage compensation stems from the pollution control laws administered by the department. The DEP also is the trustee for groundwater damage issues. The Department of Marine Resources is the trustee for marine fish and other marine resources; the Department of Agriculture, Conservation & Forestry for state lands, parks and reserves; and the Department of Inland Fisheries & Wildlife for freshwater fish and wildlife.

[2] The term "responsible party" as defined under 38 M.R.S.A. § 1362(2) includes: (1) any person who owned or operated an uncontrolled site from the time the hazardous substances arrived there; and (2) any person who arranged for transport or transported hazardous substances to the site.

[3] *See* Public Laws 2007, chapter 464, section 6, enacting 10 M.R.S.A. § 1020-A.

[4] *See* 10 M.R.S.A. § 1020(6-A).

for these damages, the City of Ellsworth will be provided the full $500,000 for local projects to protect water resources from pollution.

II Liability for natural resource damages

The Maine Legislature created the Uncontrolled Hazardous Substance Sites Program in 1983. Under the program, the DEP is authorized to investigate and clean up locations where hazardous substances pose a threat to public health or the environment. The law also authorizes the department to seek compensation from responsible parties for damages to natural resources. *See* 38 M.R.S.A. § 1367.

At the PBWO Ellsworth site, 222 companies, schools, and government agencies have been identified as potentially responsible parties (PRPs). PRPs at hazardous waste sites ordinarily would join in an administrative agreement in which they are released from liability in exchange for funding of the site cleanup. Here, the establishment of the Waste Motor Oil Disposal Site Remediation Program makes this step unnecessary. Instead, revenue from the premium on motor oil sales will be used to reimburse cleanup costs for the PRPs. When the DEP has received $3.5 million from that revenue stream, most of the responsible parties will be released from liability by operation of statute. *See* 10 M.R.S.A. § 1020-A(9). The release will include release from liability for natural resource damages.[5] $500,000 of the revenue due DEP under the Waste Motor Oil Disposal Site Remediation Program is allotted for natural resources damages compensation at the PBWO site in Ellsworth.

III Natural resource damage assessment

A. Site history

From about 1963 through 1980, Dickie Dare Incorporated d/b/a Portland-Bangor Waste Oil operated a waste oil collection and storage facility on a 0.92 acre lot off Route 1A in Ellsworth. *See* Figure 1, page 6. It was one of four satellite locations to PBWO's main facility in Wells, Maine.

During operations in Ellsworth, waste oil was collected from hundreds of entities and stored in partially buried tanks prior to processing by gravity separation. Light oils were sold for fuel, heavy oils for use as a dust suppressant on roads. Non-reusable liquids, some of which were contaminated with solvents and polychlorinated biphenyls (PCBs), were disposed onsite.

PBWO decommissioned the site in the early 1980's, removing the storage tanks and stained soil and importing clean fill. The property was sold in 1982 to a logging

[5] *See* 10 M.R.S.A. § 1020-A(9), directing the State to execute a release in favor of eligible responsible parties at the PBWO sites in Casco, Ellsworth and Presque Isle upon receipt of $3.5 million in revenues from the surcharge on motor oil purchases. The release must "forever discharge and release all eligible persons from all claims, suits, actions, liabilities, causes of action, demands, costs, damages and expenses of any nature whatsoever, including, without limitation, past response costs, future response costs, oversight costs, natural resource damages and the cost of assessment, whether known or unknown, arising out of, directly or indirectly, a release, threatened release or presence of hazardous substances at or from the sites prior to [June 3, 2011]."

operation and resold in 1986 to Ernest and Sundae Robbins. The Robbins built a house and continued the logging business.

The DEP first investigated the site in 1989, determining at that time that the PBWO operations had released PCBs, solvents and waste oil that contaminated soil, the underlying groundwater aquifer and area drinking water wells.

In 2001, the department purchased the property from the Robbins and removed the structures to gain full access to areas of contamination. About 2000 tons of highly contaminated soil was removed but the groundwater aquifer remains contaminated. Upon determining that it is not feasible to clean up the groundwater, the DEP worked with the Ellsworth Water Department to extend a waterline to homes in the contaminated area. That work was completed in 2010.

B. Site investigation

The DEP has investigated the site to assess the extent of contamination and the potential risks to human health and the environment. These investigations did not reveal impacts to natural resources other than groundwater.

The site soils, which range in depth from about 6 to 40 feet, consist of a layer of imported gravelly-sandy fill over layers of silty-fine sand and medium to coarse sandy gravel. The bedrock is complexly fractured Ellsworth schist. Solvents from the PBWO operations penetrated all these layers. The Robbins well likely provided a conduit for contaminants to reach the underlying aquifer.

In addition to oil, the specific contaminants found in the site soils included: dichloroethane; trichloroethane; trichloroethylene (TCE); toluene; tetrachloroethene (PCE); ethylbenzene; trimethylbenzene; isopropyltoluene; dichlorobenzene; trichlorobenzene; naphthalene, xylenes and polychlorinated biphenyls (PCBs).

The vertical hydraulic gradient is downward, meaning the site is in a groundwater recharge zone. No groundwater quality test results are available from before PBWO began operations at the site. However, the area was characterized by light residential development before PBWO arrived on the scene, suggesting that its facility was the sole source of the groundwater contamination. No other contaminant sources have been identified.

The DEP estimates that 1,730,000,000 gallons of groundwater is contaminated by discharges from the site. Solvents remain pooled in the aquifer and will be an ongoing source of groundwater contamination. Natural degradation of the chlorinated solvents is expected to take more than 100 years.

The local topography suggests that groundwater in the area flows eastward toward Union River and then south along the river. The natural flow is inhibited by river dams impounding Graham Lake to the northeast of the site and Leonard Lake to the southeast. The hydraulic head from these impoundments inhibits groundwater discharge to the river and, in combination with the steeply dipping foliation and plunge of the underlying bedrock, causes groundwater to flow northeasterly, under Gilpatrick Brook, where it

discharges under artesian conditions from a well at the Hancock County Technical Center (formerly the Boggy Brook Vocational Center) about 2000 feet from the PBWO site.

Site related contamination exceeding State drinking water guidelines was found in the Technical Center well and two residential wells about 1,200 feet from the site. Public water lines have been extended to the area and the City of Ellsworth has amended its zoning ordinances to limit exposure to the contaminated groundwater. The ordinance prevents drinking water extraction in areas of groundwater contamination served by public water (Zone A on Figure 2, page 7) and requires well water testing and filter installation in areas of groundwater contamination not currently served by public water (Zone B on Figure 2).

C. Conclusions

Groundwater is the only damaged natural resource at the PBWO Ellsworth site. Prior to the discharge of contaminants from the site, residents of the area relied on groundwater wells for drinking water. The water from those wells is reported to have been of high quality. Area residents now must rely on the Ellsworth public water supply system for drinking water.

Given that the damage to natural resources is limited to the groundwater aquifer, funding to compensate for the damage should be applied, in the first instance, to measures that protect the quality of local groundwater resources and the public drinking water supply generally. This will ensure that there is a connection between the damage suffered and the remedy.

IV Compensation plan

The DEP will disburse $500,000 to the City of Ellsworth from funds transferred to the department by the Finance Authority of Maine as provided under the Waste Motor Oil Disposal Site Remediation Program. The City, in turn, will use the money to make grants for water quality protection and improvement projects pursuant to the *City of Ellsworth Natural Resource Compensation Program Guidelines* (Attachment A).[6]

City officials are best-positioned to identify threats to local water resources and to administer funds as appropriate to address those threats. The money could be used, for example, to protect drinking water sources by:

- Upgrading home heating oil tanks or other petroleum storage facilities;
- Upgrading septic systems;
- Providing technical assistance or equipment upgrades to hazardous waste generators; or
- Conserving land to protect drinking water resources.

[6] It is understood that the guidelines may be amended from time to time. Amendments will be coordinated with the DEP and submitted to the Ellsworth City Council for approval.

The DEP will monitor grant awards by the City to ensure the money is used appropriately, including up to a maximum of 10% for Ellsworth's costs to administer the grant program. Upon request, the DEP, in consultation as appropriate with the Drinking Water Program at the Maine Department of Health and Human Services, will assist Ellsworth in exploring cost-effective uses of the funds.

FIGURE 1: SITE LOCATION MAP

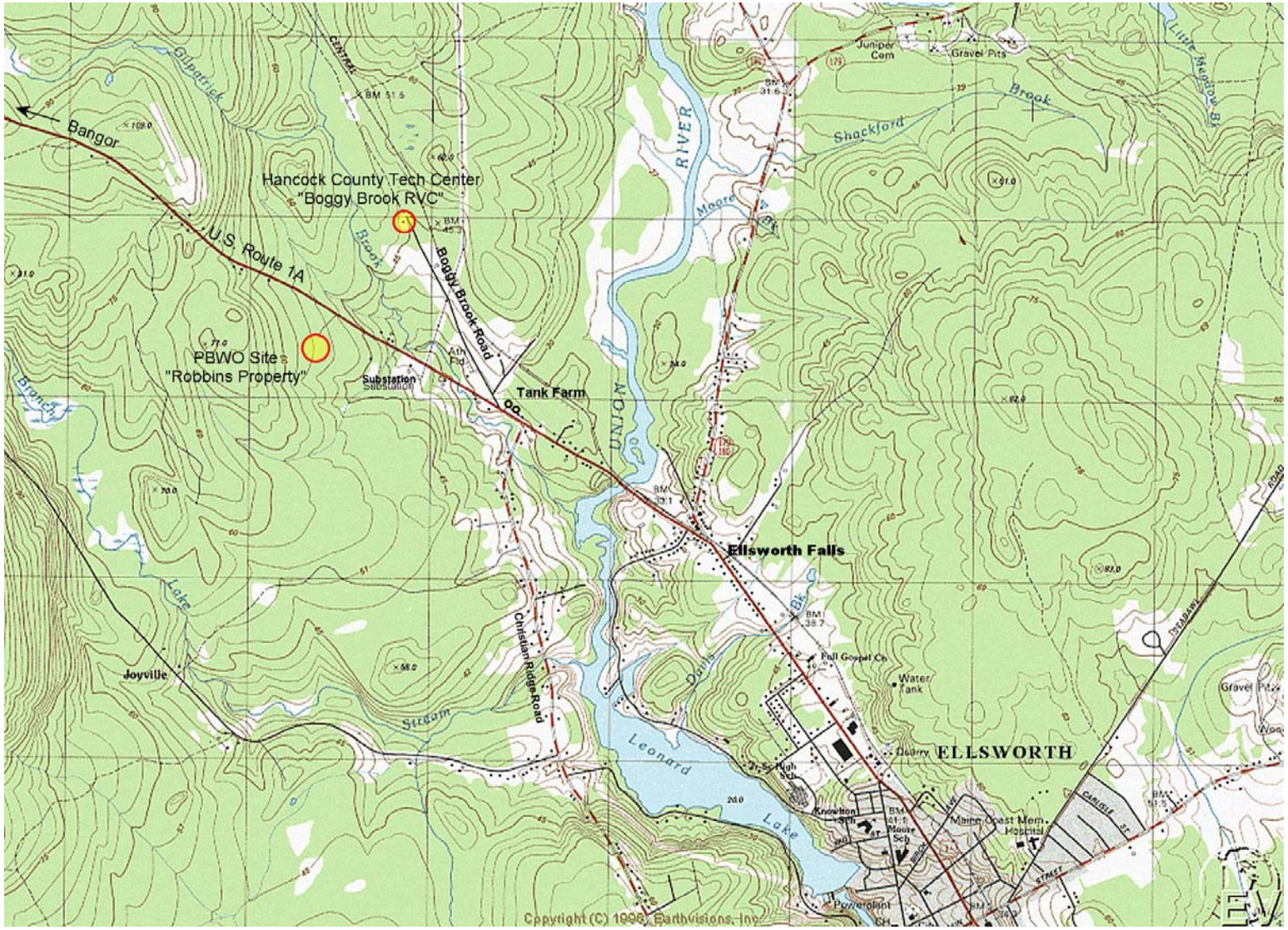
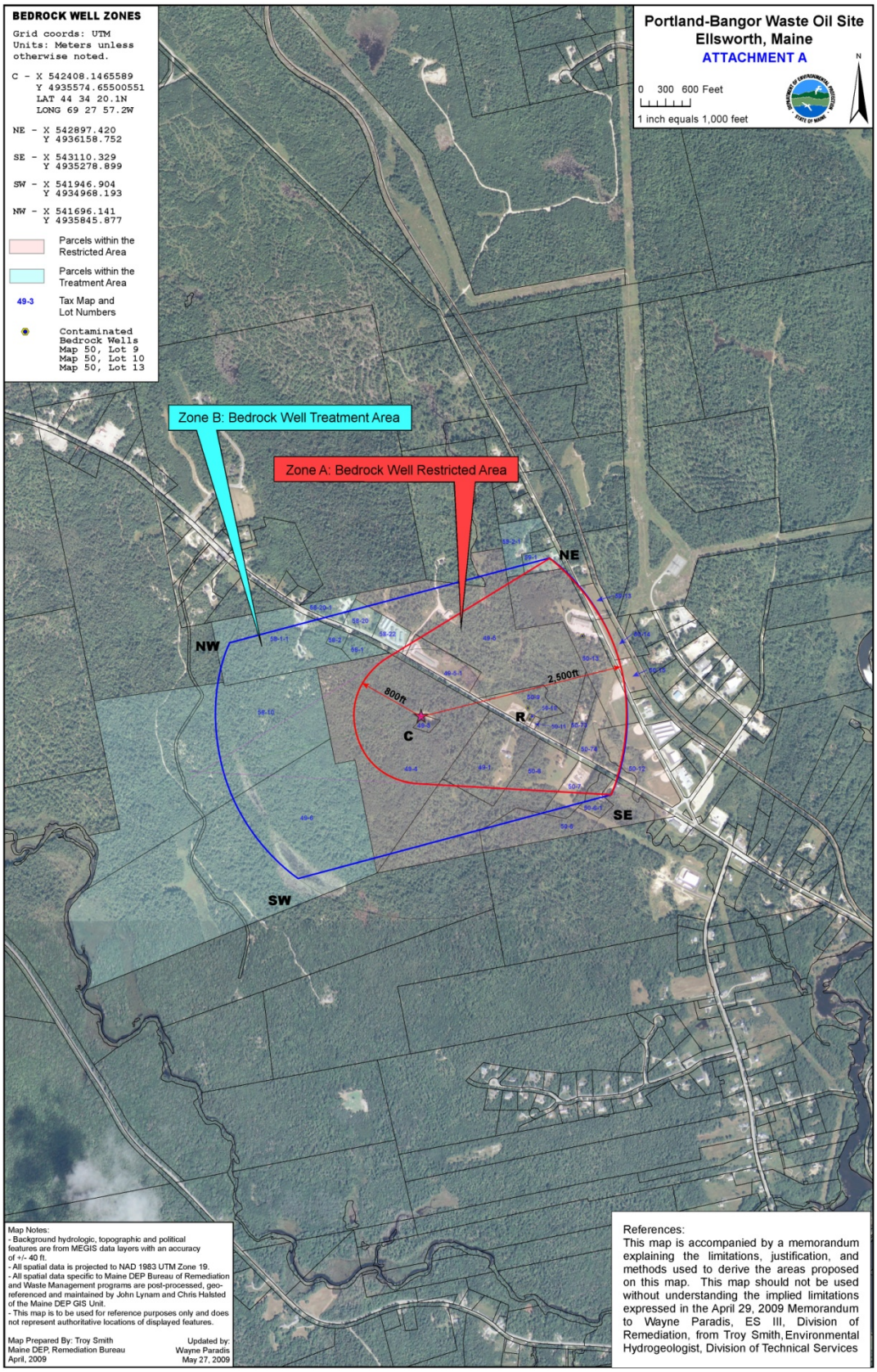


Figure 2: Groundwater Ordinance Well Exclusion Areas



Attachment A

City of Ellsworth
Natural Resources Compensation (NRC)
Enviro-Grants

Program Guidelines

1) **Introduction.** This document establishes the guidelines and procedures of the City of Ellsworth applicable to providing Natural Resources Compensation (NRC) grants also known as the enviro-grants.

2) **Purpose.** The NRC program is designed to protect or improve water resources by providing needed funding for eligible projects.

3) **Project Area.** Eligible projects must be located within the Ellsworth Source Water Protection Area which encompasses the City of Ellsworth and areas outside the City of Ellsworth but part of a shared watershed or shared sand and gravel aquifer with the City, as delineated on the attached Source Water Resource Protection Area Map. Other not mapped shared areas that may be considered include the Maine Department of Health and Human Services public water supply source protection areas.

4) **Funding and Administration.** NRC program funding comes from the Maine Department of Environmental Protection (DEP) through the Natural Resource Compensation Agreement (herein "Agreement") dated _____in the matter of the Portland-Bangor Waste Oil Site Ellsworth, Maine. The City of Ellsworth will administer the NRC program in compliance with the aforementioned agreement and these guidelines. Funded projects must conform to all local ordinances. Projects will be selected by the Enviro-grant Committee consistent with the listed priorities below. Day-to-day project administration will be the responsibility of the Planning Office. The City of Ellsworth may use up to 10% of the fund for administration purposes.

5) **Priority.**
   a. *Project Location.* Funding priority will be given first to water quality protection projects located within the City of Ellsworth and second to projects located outside of the City of Ellsworth but within the Ellsworth Source Water Protection Area. More specifically, projects located outside the geographic limits of the City of Ellsworth must be located within the watershed of Branch Lake, Green Lake, Graham Lake, and Patten Ponds, or over a Significant Sand & Gravel Aquifer, mapped by the Maine Geological Survey, that is shared between the City of Ellsworth and the Towns of Otis, Orland, Surry, Hancock, Lamoine or Fletcher's Landing.

   b. *Target Resource.* Funding priority will be given to drinking water protection projects within the watershed of Branch Lake; over a Significant Sand & Gravel Aquifer mapped by the Maine Geological Survey; within the Public Water Supply Source Protections Areas mapped by the Maine Department of Health and Human Services; or within 100 feet of drinking water wells.

   c. *Consistency with City Plans.* Funding priority will be given to projects that further City plans, efforts and visions, such as but not limited to, the Comprehensive Plan and the Economic Development Plan.

d. *Matching funds*. In general, projects will be given priority in proportion to the amount of matching funds to be contributed by the project proponent.

No more than $75,000 of the funds advanced to the City pursuant to the Agreement may be awarded for water quality protection and improvement projects (e.g., stormwater management projects to improve the quality of Card Brook) that do not qualify as a priority under paragraph b of this section.

6) Eligibility.

a. Projects must provide for cost effective and proactive protection of groundwater or surface water resources. Proactive protection means activities such as, but not limited to, restoration, establishment, enhancement, and/or preservation of water resources.
b. Eligible projects include, but are not limited to, providing technical assistance, upgrading petroleum storage facilities such as home heating oil tanks, upgrading septic systems, providing equipment upgrades to hazardous waste generators, conservation of land to protect significant source water resources, and purchase of land rights.
c. The applicant for an NRC grant may be the owner of the property or the lessee. If a lessee, the property owner must co-sign the application.
d. The City has the authority to determine the eligibility or ineligibility of all proposed projects.

7) Funding Levels and Match.

a. Maximum grant amount is at the discretion of the City.
b. A 25% match is recommended.
c. Work completed more than 12 months prior to the City receiving an application for funding is ineligible for match considerations.
d. Work completed less than 12 months prior to the City receiving an application may be eligible, as determined by the Enviro-grant Committee on a case-by-case basis, for match consideration if directly related to the approved work.

8) Application Review and Grant payment Procedures

a. The City of Ellsworth will receive and review each application. Upon determination that an application is complete, the Ellsworth City Planner will submit the application to the Enviro-grant Committee for review.
b. The City reserves the right to reject any and all applications or to request more information from an applicant when it is determined that it is in the best interest of the City to do so.
c. A complete NRC grant application shall consist of the following: 1) a completed and signed application form; 2) a description of all proposed work; 3) a cost estimate that itemizes the work to be done, and 4) a description of financial need.
d. After initial selection and before receiving final approval, the applicant may be required to provide a sketch plan of the proposed improvements.
e. Upon completion of the work and certification from the Ellsworth City Planner or designee that the work has been completed consistent with the application, the recipient shall submit a request for reimbursement along with paid bills/invoices for the approved work to the City Planner. In some cases, the City may make an exception and pay the contractor directly.
f. The purpose of the NRC Program is NOT to improve properties with the intent of resale at a higher price, but to provide incentive to improve properties for the protection of water resources. Therefore, if the subject property is sold within five years of project completion, the owner shall pay the City the following amount back:

    - Within 1 year ➔ Owner pays back 100% of grant award to City
    - Within 2 years ➔ Owner pays back 80% of grant award to City

- Within 3 years ➔ Owner pays back 60% of grant award to City
- Within 4 years ➔ Owner pays back 40% of grant award to City
- Within 5 years ➔ Owner pays back 20% of grant award to City
- After 5 years ➔ there is no repayment.

9) Program Income

Program income generated from paybacks, as described in Section 8.f above shall be used toward other eligible NRC projects.

10) Construction

a. Procurement Standards. Competitive procurement of supplies and of services applies to all NRC activities. This means that a grantee will have to obtain and document price quotes from at least three vendors for supplies and/or at least three contractors for services for purchases between $500 and $10,000. Purchases of more than $10,000 shall use a formal bid process as stringent as the City of Ellsworth bid process.

b**. Timely Performance.** All projects assisted by the NRC program must be completed in a timely manner. The City contract will allow a maximum of 12 months for project completion. When it can be demonstrated that circumstances clearly beyond the grantee's control prohibit completion in 12 months, the Enviro-grant Committee may grant one 12-month extension. Failure to complete the projects in a timely manner may result in a de-obligation of any expended fund and at the discretion of the City, recapture of expended funds.

c. **Permit Requirements.** The grantee will be responsible for securing all required construction, electrical and other permits from the local government, and from State or Federal agencies.

11) Additional Requirements

a. **Equal Employment Opportunity.** The grantee shall comply with all applicable regulations concerning equal employment opportunities for persons engaged in NRC work undertaken in connection with program assistance.

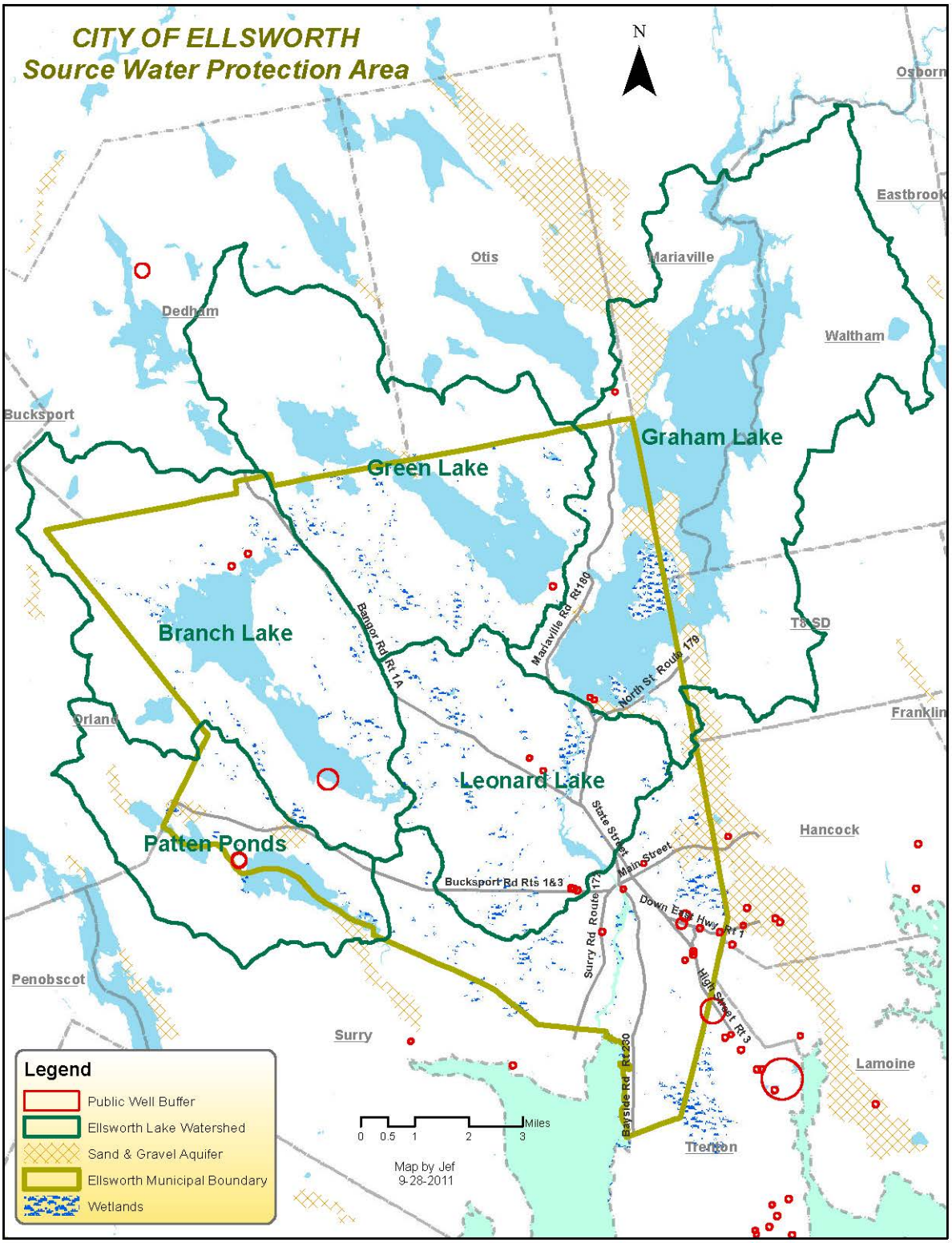
b. **Records.** The grantee shall keep such records as may be required by the City in connection with the work to be assisted.

c. **Civil Rights**. The grantee shall not discriminate upon the basis of race, color, sex, marital status, handicap, religion or national origin in the sale, lease, rental, use or occupancy of the property to be assisted.

d. **Interest of Public Body.** The grantee shall allow no member of the Ellsworth City Council and no employees of the City of Ellsworth to have any interest, direct or indirect, in the proceeds of any grant or in any contract interest into the grantee for the performance of work financed, in whole or in part, with the proceeds of the grant.

f. **Property Taxes**. Financial assistance will not be provided if property taxes are in arrears unless the project will improve health, safety and welfare of a low and moderate income household; or there are extenuating circumstances.

g. **Displacement of Tenants**. No financial assistance will be provided if the project involves the permanent and involuntary displacement of tenants unless the grantee agrees to provide financial assistance to the tenants at levels consistent with the Federal Relocation and Real Property Acquisition Act. Such assistance granted will not, however, be counted in the private match requirements.


CITY OF ELLSWORTH
Source Water Protection Area
N
Osborn
Eastbrook
Otis
Mariaville
Dedham
Waltham
Bucksport
Graham Lake
Green Lake
Branch Lake
Bangor Rd Rt 1A
Mariaville Rd Rt 180
North St Route 179
T&SD
Orland
Franklin
Leonard Lake
State Street
Hancock
Patten Ponds
Main Street
Bucksport Rd Rts 1&3
Surry Rd Route 172
Down East Hwy Rt 1
High Street Rt 3
Penobscot
Surry
Bayside Rd Rt 230
Lamoine
Trenton
Legend
Public Well Buffer
Ellsworth Lake Watershed
Sand & Gravel Aquifer
Ellsworth Municipal Boundary
Wetlands
0 0.5 1 2 3 Miles
Map by Jef
9-28-2011