

Solid Waste Management Grant Program

Project Summary

The purpose of the solid waste technical assistance and training to be provided include:

- ***Operations and Maintenance Manuals.*** Recent changes in the Maine Department of Environmental Protection's (MDEP) solid waste rules require that transfer station and landfill operators update their Operations and Maintenance Manuals to comply with the new operating requirements of Chapter 402. Operations and Maintenance Manuals are an integral part of the annual licensing requirements for each transfer station and landfill. By state law, every transfer station and landfill must have a working and updated Operations and Maintenance Manual and each employee must be familiar with the manual. If NMDC is awarded the Solid Waste Management Grant, it will allow NMDC to provide one-on-one technical assistance for two landfills and twenty transfer stations operators to bring their facilities existing manuals up to date for submittal to MDEP.
- ***Waste Management Technical Assistance Program.*** Grant funds from USDA will allow NMDC to partner with the Maine Department of Environmental Protection (MDEP), Maine State Planning Office (MSPO), Northern Maine Solid Waste Management Committee (NMSWMC), Caribou Rotary Club and Cary Medical Center to provide free, waste management and training opportunities to communities, business, and schools in NMDC's service area to promote recycling in order to reduce the waste stream. Additional components of the Waste Management Technical Assistance Program will be to implement the Safe Sharps Disposal Program to help educate and encourage the proper disposal of medical sharps and to provide technical assistance and training opportunities to the Northern Maine Solid Waste Management Committee, a group of transfer station and landfill operators, to enhance their operations skills.

The two tasks that NMDC are proposing will relate to the Rural Development Utilities Program (RDUP) by improving the management of solid waste sites in rural areas. The first task, Operation and Maintenance Manuals, will directly benefit the landfill and transfer station operators in northern Maine by, "providing technical assistance to enhance the operators' skills in the maintenance of active landfills." The second task, Waste Management Technical Assistance Program, will provide, "technical assistance to help communities reduce the solid waste stream."

The work will be carried out entirely by NMDC staff for twelve months. The project will produce:

- Twenty-two updated landfill and transfer station Operation and Maintenance Manuals;
- Waste management technical assistance for any community, school or business in NMDC's service area;
- Public Service Announcements to promote the Safe Sharps Disposal Program;
- Six NMSWMC meetings that consist of training and educational opportunities for the solid waste haulers, landfill managers and transfer stations operators.

The NMDC Office of Planning will direct the proposed Solid Waste Management Grant. Currently, the department has on staff a Regional Planning Director, Senior Planner, Environmental Planner, and Geographic Information Systems (GIS) Specialist, providing a wealth of experience in the areas of solid waste management, natural resource management, environmental studies, land use planning, mapping and graphic design, ordinance development, and public administration.

2. Needs Assessment

The funding that is provided to NMDC through the Solid Waste Management Grant is needed because: 1) Operation and Maintenance Manuals are outdated, 2) Maine has never achieved its 50% recycling goal, 3) more than 6,000 people in northern Maine are using sharps on a routine basis and these medical wastes are disposed of along with household trash, 4) the rural towns, transfers station and landfill operators do not have the financial or staff resources to undertake waste management activities or attend training sessions to improve their operator skills.

Recent changes in the Maine Department of Environmental Protection's (MDEP) solid waste rules require that transfer station operators update their Operations and Maintenance Manuals to comply with the new operating requirements of Chapter 402. Operations and Maintenance Manuals are an integral part of the annual licensing requirements for each facility. By state law, every transfer station must have a working and updated Operations and Maintenance Manual and each employee must be familiar with the manual. They are designed to assist both regulators and employees understand the day to day operation of the facility. As a result of the rule changes in Chapter 402, MDEP has stated that many Operations and Maintenance Manuals are currently outdated and need to be upgraded to reflect the new rules in order to be in compliance with the MDEP.

In 1989, the Maine State Legislature established the goal (MRSA, Title 38, Section 2132) of recycling 50% of the state's annual municipal solid waste that is generated. This goal was set in response to Maine's anticipated waste management crisis that was being fueled by the increasing amount of municipal solid waste generated within the state coupled with decreasing landfill capacity, which resulted in skyrocketing disposal costs for municipalities and businesses. According to the SPO data, Maine has never achieved its 50% recycling goal.

Spent sharps generated from in-home medical use can pose significant problems when disposed of along with household trash. This disposal method is very dangerous for sanitation workers due to the potential of being stuck by a used needle when handling, storing and transporting household trash. In northern Maine, more than 6,000 people use sharps on a regular basis. Currently there are no formal sharps disposal programs in northern Maine, and as a result, people are currently disposing of sharps along with their household trash.

The Department of Environmental Protection will partner with NMDC to offering training to municipalities to help improve the operation and overall management of transfer stations and landfills. By providing this training, landfill and transfers station operators will gain a better understanding of Department regulations and concern, learn methods of operation that achieve

compliance, improve efficiency, and possibly save money; and have the opportunity to become a Certified Transfer Station Operator or Master Transfer Station Operator.

Incorporated in 1839, Aroostook County is the largest county east of the Mississippi River, larger than the state of Connecticut and Rhode Island combined, with a land area of 6,672 square miles, yet is host to a population of only 73,938 people. Aroostook County is located at the northernmost tip of Maine and is wedged between the two Canadian provinces of Quebec and New Brunswick. Aroostook County is an exceptional recreational area with more than 2,000 lakes, streams, rivers, and ponds covering approximately 80,000 acres. Aroostook is derived from the MicMac Indian word for 'clear' or 'beautiful' water.

The Northern Maine Development Commission's service area encompasses all of Aroostook County and parts of northern Piscataquis, northern Penobscot, and northern Washington Counties and consists of 71 communities and 137 unorganized territories. There are two landfills and 20 transfer stations located in NMDC's service area. Recycling rates vary greatly throughout the region. Some communities have recycling rates as low as 10% while others are approaching 60%.

The average population of the communities in the NMDC's service area is 1,018 with Presque Isle being the most populous at 9,511 residents. Most other communities are much smaller with fewer than 3,500 residents. 15.2 % of the Aroostook County population was living in poverty in 2008 (the most recent available) and 18.2% of Aroostook County's population received food stamps during 2007-08. The median household income for Aroostook County in 2008 is \$36,107.

Currently there are 20 transfer stations within the Northern Maine Development Commission's service area: Aroostook Valley Solid Waste Disposal District, located in Ashland; Bridgewater Transfer Station, located in Bridgewater; Danforth Transfer Station, located in Danforth; Northern Katahdin Valley Disposal District, located in Dyer Brook; Grand Isle transfer Station, located in Grand Isle; Northern Aroostook Solid Waste Association, located in Eagle Lake; Northern Aroostook Incinerator Facility, located in Frenchville; Pine Tree Waste, located in Houlton; Littleton Transfer Station, located in Littleton; Mars Hill Transfer Station, located in Mars Hill; Monticello Transfer Station, located in Monticello; Oakfield Transfer Station, located in Oakfield; Orient Transfer Station located in Orient; Portage Lake Transfer Station, located in Portage Lake; Presque Isle Transfer Station, located in Presque Isle; Sherman Transfer Station, located in Sherman; Sinclair Transfer Station, located in Sinclair; St. Francis Transfer Station, located in St. Francis; and the Van Buren Transfer Station, located in Van Buren; Weston Transfer Station, located in Weston; in addition to, the two landfills, Tri-Community Recycling and Sanitary Landfill, located in Fort Fairfield, and the Presque Isle Landfill located in Presque Isle. These solid waste facilities will be directly served through this grant in addition to the 71 municipalities located in Aroostook, northern Washington, and northern Penobscot, and northern Piscataquis counties.

3. Project Goals and Objectives

Below are the goals, objective and outcomes for NMDC Solid Waste Management project:

Task 1- Operation and Maintenance Manuals

Goal: To update Transfers Station and Landfill Operation and Maintenance Manuals in order to be in compliance with the MDEP licensing requirements.

Objective: To provide one-on-one technical assistance to the 20 transfer station and two landfill operators by updating their Operation and Maintenance Manuals

Outcome: Of the two landfill and 20 transfer stations in NMDC's service area, all will have newly updated Operation and Maintenance Manuals by the end of the grant.

Task 2- Waste Management Technical Assistance Program

Goal: To initiate and improve public participation in existing waste management and recycling programs, aid the Cary Medical Center and the Caribou Rotary in promoting the Safe Sharps Disposal Program, and to provide training opportunities for landfill and transfers station operators.

Objectives: To promote the importance of proper waste management and recycling to reduce the waste stream.

Outcome: Recycling rates in the rural communities will increase, the amount of medical sharps disposed of in household trash will be greatly reduced, and six training sessions will be provided to the twenty transfer station and two landfill operators.

4. Project Narrative

Starting in 1987, the state of Maine faced a solid waste disposal crisis, which became the backdrop for the current waste policies in the state. Maine was faced with a serious potential for landfill disposal capacity shortage and recycling, as a waste management strategy, was accounting for well under 10% of the waste stream. There were also over 300 open, unlined, town 'dumps' scattered throughout Maine that had been the standard means of local waste disposal for nearly a century.

In 1989, to address the looming environmental and financial problems of these 'dumps', the Maine Legislature ordered that by 1992, all unlined 'dumps' be closed and replaced with licensed and secure landfills, and that these be supplemented by strategically located transfer stations. In addition to closing the unlined 'dumps', the Maine Legislature established a goal to recycle 50% of the state's municipal solid waste annually.

The implication of the legislature's closing of all open, unlined 'dumps', and setting the goal of a 50% recycling rate, means that town managers and municipally-run transfers station and landfill operators must pay close attention to the economics and environmental regulations of their solid waste facilities in northern Maine.

According to the State Planning Office (SPO), Maine has never achieved its 50% recycling goal. In 2008, the recycling rate was 38.7. %, while in 2006 it was measured at 36.2%. The state remains committed to reaching the 50% recycling goal as a means of lessening the need for additional landfills while reducing the overall solid waste management costs to municipalities and businesses. Every ton of solid waste diverted from a landfill is cost avoidance to a municipality's budget.

The state of Maine remains committed to reaching the 50% recycling goal because it will lessen the need for additional landfills while reducing the overall solid waste management costs to municipalities and businesses. Although individual municipalities and solid waste associations are not legally obligated to achieve the 50% recycling rate, they are required to demonstrate progress toward that goal. Recycling programs vary from community to community, but overall the recycling program in Maine removed about 90,000 tons of paper, plastics, metal and glass containers from the waste stream that would otherwise have been landfilled.

According to the Maine State Planning Office (SPO) report from January 2009, *Rethinking Solid Waste*, states that, "based on what Mainers generate for waste today, municipal and private sector recycling programs would need to handle an extra 300,000 tons of material annually to achieve the 50% recycling goal. This number will grow each year to match the increase in waste generation (based on an assumed 4% annual growth in municipal solid waste generation)."

"Over the next 20 years, simply to maintain a 35% recycling rate will require municipal and private programs to **double** their recycling abilities. As waste generation increases in Maine, the volume of recyclable materials collected in order to maintain the current 35% recycling rate will need to increase from 700,000 tons of recyclables collected in 2007, to 1 million tons in 2009, and 2.4 million tons in 2027."

Operation and Maintenance Manuals

Transfer stations and landfills in the state of Maine are licensed by the DEP and require annual reporting, which must be submitted to the Department for review and approval. The annual report must include an annual summary of activity at the transfer station or storage site, and a discussion of any factor or conditions which influence the operation, design, or environmental monitoring program of the transfer stations or storage sites. Recent changes in the Maine Department of Environmental Protection's (MDEP) solid waste rules require that transfer station operators update their Operations and Maintenance Manuals to comply with the new operating requirements of Chapter 402. Operations and Maintenance Manuals are an integral part of the annual licensing requirements for each facility. By state law, every transfer station must have a working and updated Operations and Maintenance Manual and each employee must be familiar with the manual. These manuals are designed to assist both regulators and employees understand the day to day operation of the facility. As a result of the rule changes in Chapter 402, MDEP has stated that many Operations and Maintenance Manuals are currently outdated and need to be upgraded to reflect the new rules.

NMDC will develop a model Operations and Maintenance Manual incorporating the June 2006, Solid Waste Disposal Rule changes. This manual is intended to serve as a guide to supervisors and operators for the proper operation and maintenance the community's transfer station or landfill. Any person assigned to operations or supervision must be familiar with the contents of this manual and be aware of their roles in operating a safe and well-run facility. NMDC will provide the model to each facility and offer one-on-one technical assistance to tailor the manual to the particular facility in order to bring their facilities existing manuals up to date for submittal to MDEP.

Waste Management Technical Assistance Program

In response to Maine's waste management issues, NMDC has partnered with the MSPO, MDEP, the NMSWMC, Cary Medical Center and the Caribou Rotary to implement a Waste Management Technical Assistance Program.

Solid waste programs offered by landfills and transfer stations vary greatly in northern Maine, resulting in numerous ways in which municipal solid waste is handled, in addition to the available recycling options. These rural communities are required to meet the same state waste reduction goals as urban areas in the more populous southern Maine. Given the significant economy of scale in any given recycling program, a large volume of material must be recovered from the waste stream in order for recycling programs to be cost effective. Consequently, recovering a large volume of recyclables is difficult for small communities to achieve in rural areas unless recycling participation rates are high.

The purpose of the SPO's "Maine Recycles Campaign" is to promote and increase recycling throughout the state. Since each town or solid waste association determines how they will collect their recyclables, programs vary from town to town resulting in various ways in which Mainers recycle. The new Web site (www.mainerecycles.com) is full of useful information and resources, including an on-line tool kit that NMDC will use in conjunction with the Waste Management Technical Assistance Program. USDA-RD funds will allow NMDC to provide hands-on training opportunities for municipalities, businesses, and schools in the region in order to enhance and expand upon local and regional recycling, composting, and waste reduction activities.

In response to Maine's waste management issues, NMDC has partnered with the MSPO and the to implement a Waste Management Technical Assistance Program using the MSPO's new marketing material to help the communities in northern Maine reduce their overall solid waste stream. Currently no one in NMDC's service area is in charge with hands-on public education programs related to reducing the solid waste stream. While the generation of MSW and the need for education programs are not new issues, education outreach has been lacking.

Cary Medical Center and the Caribou Rotary Club have established a Safe Sharps Disposal Program in northern Maine. The disposal of home generated needles, syringes and lancets or "sharps" has become a growing problem not only in the United States, but in northern Maine as well. Most sharps are discarded in the municipal solid waste stream, posing risk, injury and the risk of infection to anyone to encounters them. Many residents have medical conditions that require self-injection at home. More than 6,000 people in northern Maine use "sharps" on a

routine basis. Currently there are no formal sharps disposal programs in northern Maine. Without a safe disposal program for such medical waste, people use whatever disposal method is most convenient, and end up flushing, disposing of them along with regular household trash or in public restrooms. Such disposal methods are very dangerous to the public, a cause for concern for sanitation workers, and problematic for transfer station and landfill managers to properly handle and dispose of. Despite the growing problem associated with the improper disposal of sharps, there are currently no federal regulations for the safe disposal of sharps. NMDC is proposing to partner with the Cary Medical Center and the Caribou Rotary to develop a series of public service announcements to educate users of sharps about the proper methods in which to dispose of these common medical wastes.

NMDC's Waste Management Technical Assistance Program will also provide technical assistance and training opportunities for transfer station and landfill managers in northern Maine to enhance their skills with the maintenance and licensing requirements of the transfer station and landfills. The NMSWMC is a group of municipal officials, solid waste management professionals, who meet six times per year at NMDC's offices. These meetings provide a forum to share information on waste management programs, waste reduction and recycling strategies, training sessions with the MDEP, and pending state and federal regulations or laws relating to waste management.

- **Documentation of Ability to Administer Solid Waste Management in accordance with the Provision of 7 CFR Part 1775**

NMDC, established in 1969 and located in Caribou, Maine, is a private, non-profit 501(c) (3) organization with a mission statement of "an innovative and effective regional agency delivering planning, economic and community development services to all northern Maine communities". A regional organization with representation from member communities, NMDC's scope and direction evolved with the times and according to the needs of the region over the last 30 years. NMDC provides numerous services including, technical assistance with state and federal contracts for local and regional planning, technical assistance to communities such as Economic Development, Business Finance, Small Business Consulting, and Planning services and serves as a regional clearing house for the review of proposed projects and programs.

NMDC's experience in the area of solid waste management includes previous Solid Waste Management Grants from USDA. These have enabled NMDC to assist communities, businesses and schools in northern Maine with a wide range of solid waste reduction activities. Funding from USDA has enabled NMDC to develop closure plans for sub-standard landfills, provide waste recycling workshops, complete regional compost feasibility studies, educate residents about household hazardous waste education, host nationally recognized landfill operator training courses, complete waste reduction activities with school-age children during Maine Recycles Week, and develop numerous public service announcements for the region on the importance of recycling.

