



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 REGION 1
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 BOSTON, MASSACHUSETTS 02114-2023

August 20, 2009

David P. Breau
 Division of Water Quality Management
 Department of Environmental Protection
 17 State House Station
 Augusta, ME 04333

Dear Mr. McLaughlin:

I am pleased to inform you that EPA has reviewed and approved the revised business case provided by Olver Associates and the City of Belfast, Maine. This approval increases the amount of green project reserve for Belfast from \$70,000 to \$100,000. Below is the revised breakout for the Maine Clean Water State Revolving Fund ARRA Green Project Reserve List.

At this time EPA is approving the following projects and funding towards the green project reserve:

Bangor	NPS – Birch St Stormwater Mgmt	\$1,690,000
Bangor	NPS – St sweeper & in-stream monitor equip	\$270,000
Bangor	NPS – Penjajawoc Stream Stormwater Mgmt	\$877,000
Belfast	CSO Influent Pump Replace & Disinfection inc	\$100,000
Cumberland	NPS – Long Creek NPS	\$2,095,000
Limestone	Facility – WWTF Upgrade	\$1,500,000
Machias	Facility – WWTP Upgrade	\$50,000
TOTAL		\$6,582,000

The total green project reserve of \$6,582,000 that is being approved accounts for 21.7% of the State of Maine's ARRA CWSRF Capitalization grant exceeding the 20% requirement set forth in the March 2, 2009 ARRA Guidance. If a project from the GPR drops off the list or if one or more projects come in underbid and the GPR drops below the 20% requirement, EPA reserves the right to re-evaluate this approval at that time.

We appreciate the great working relationship demonstrated by the State during this process. Should you have any questions regarding this approval please contact me at (617) 918-1658.

Sincerely,

Katie Connors, Environmental Engineer
 Municipal Assistance Unit



STATE OF MAINE
Department of Environmental Protection

JOHN ELIAS BALDACCI
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COMMISSIONER

December 17, 2009

Katie Connors
USEPA - OEP06-2
5 Post Office Square
Suite 100
Boston, MA 02109-3912

Subject: Business Case back-up for ARRA Green, Limestone Water and Sewer District,
Greater Limestone Regional Wastewater Treatment Facility

Dear Ms. Connors:

The Maine Department of Environmental Protection (DEP)'s Clean Water State Revolving Loan Fund (CWSRF) has developed a business case for the American Recovery and Reinvestment Act (ARRA) Green funds on behalf of the Limestone Water and Sewer District (LWSD), referencing the Wright-Pierce Memorandum on April 5, 2009 to show the energy efficient wastewater treatment process by centralizing and consolidating the treatment facility.

Currently, the LWSD and Loring Development Authority (LDA) have antiquated wastewater treatment collection and treatment facilities with water quality issues that need to be addressed. The Town of Limestone has two wastewater treatment facilities run by LWSD and LDA. The Maine DEP has recommended under Governor Baldacci's vision that the two facilities be consolidated into one treatment facility. It is also recommended that the facility be upgraded to be more energy efficient in the northern climate because of the seven foot frost depths and the severe temperatures in the winter months.

Both utilities have conducted wastewater treatment facility studies between 2004 through 2007 which evaluated various individual and regional treatment alternatives, with and without wet industry, along with several discharge locations. Based on availability of funding in 2007, the proposed project developed by Wright-Pierce Engineering and supported by the Maine DEP and USDA Rural Development (RD), consisted of the LWSD abandoning its existing wastewater treatment facility and discharge to Limestone Stream. The wastewater would be pumped to LDA's treatment facility using two pump stations and approximately 30,500 linear feet of force main and

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gravity sewers. The wastewater from LWSD would then be treated at the LDA facility of which LDA has turned all ownership over to LWSD. The upgraded LDA facility will now become the Greater Limestone Regional Wastewater Treatment Facility (GLRWWTF). Therefore LWSD is changing from the old activated sludge system that is not energy efficient to a rotating biological contactor (RBC) system which is more energy efficient.

This regionalization project will also consist of both the LDA and LWSD upgrading their collection systems replacing approximately 30,000 linear feet of vitrified clay pipe, manholes and services reducing the volume of inflow and infiltration (I/I). The replacement of 30,000 linear feet of pipe will result in an estimated 1 MGD removed from the collection systems. The project would also extend the current outfall from the Little Madawaska River to the Aroostook River consisting of 21,000 linear feet of additional force main and gravity sewers.

The result of these projects is one regional treatment facility, significant reduction of I/I, elimination of three discharges (Limestone Stream, Greenlaw Brook and Little Madawaska River) with water quality concerns eliminated by extending the outfall to the Aroostook River where the toxicity, metals and nutrient testing requirements are reduced significantly.

The Operations and Maintenance (O&M) cost saving for the GRLWWTF and the abandoned LWSD Treatment plant in energy efficiencies based only on Electrical and Heating can be estimated by the table below.

Total Energy Efficiency									
Treatment Facility Name	Estimated Electrical Saving				Estimated Heating Saving				Total Yearly Energy Saving (\$)
	AVG Yearly Usage (KW-hr/yr)	AVG Yearly Unit Price (\$)	Annual Cost (\$)	Total Percent Reduction (%)	AVG Yearly Usage (gal/yr)	AVG Yearly Unit Price (\$)	Annual Cost (\$)	Total Percent Reduction (%)	
GRLWWTF Upgrade	305,800	0.17	\$51,986	20%	6,900	2.48	\$17,112	12%	\$57,712
Old LWSD	134,000	0.17	\$22,780		5,000	2.48	\$12,400		
Old LDA	415,000	0.17	\$70,550		8,500	2.48	\$21,080		

* GRLWWTF is the New Combined Treatment Facility

The guidance entitled, "The Green Project Reserve" dated June 22, 2009 sent from EPA under section II, Part B of Energy Efficiency, Question and Answer #1 states the following:

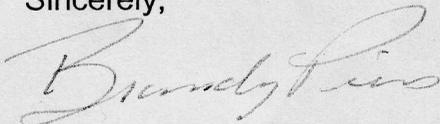
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[CWSRF] What energy efficient wastewater treatment process projects qualify for the GPR?
We expect communities to select the most cost effective wastewater treatment projects when pursuing centralized wastewater management. Often, the most cost effective project is also the most energy efficient project. Consequently, new centralized wastewater treatment processes are not eligible for the GPR. If a community is changing its current wastewater treatment process to something significantly more energy efficient, they may justify the project for the GPR based upon a business case that identifies substantial energy savings.

The Maine DEP has determined that the significant energy savings of this project meets the above guidance, and the entire \$3 M of ARRA funds should be part of the Green Project Reserve. We are requesting EPA's concurrence.

If you have any comments or questions please contact me at (207) 287-6093 or by email brandy.m.piers@maine.gov.

Sincerely,



Brandy M. Piers, Project Engineer
Division of Water Quality Management
Bureau of Land & Water Quality Management
Maine Department of Environmental Protection

Cc: Steve McLaughlin, P.E., Engineering Manager
Steve Hallowell, P.E., Wright-Pierce
Neal Leighton, Chairman LWSD