

David Owen

From: David Ford
Sent: Tuesday, September 30, 2014 8:19 AM
To: David Owen; Linda Murray; murray1004@gmail.com; Sarah; Dave Bowers; Brad Harriman; David Senecal
Subject: FW: WW Planning - Next Steps
Attachments: N2474 Letter to David Ford.pdf; 2015 CIP - Effluent Disposal Study and Pilot test 9-25-14.xlsx

Dave & BOS;

Please find attached a letter recommending a plan for evaluating the effluent disposal alternatives. Also attached is a 2015 CIP request for \$700,000 to fund the 30 month project. I would like the Boards approval to move forward with this plan and to submit this letter to NHDES to document the proactive steps Town is taking to address NHDES concerns and specific issues to be documented in the "Administrative Order by Consent" that the Town working with NHDES plan on finalizing prior to the end of this year.

Can we discuss this on Weds. night during my presentation on Capital Projects?

Thanks,

Dave

From: Keith A. Pratt [<mailto:kpratt@underwoodengineers.com>]
Sent: Monday, September 29, 2014 2:54 PM
To: David Ford; David J. Mercier
Cc: Thomas G. Page
Subject: WW Planning - Next Steps

Dave,

Attached is our letter that summarizes next steps for WWTF planning over the next 30 months.

Thanks,

Keith



Keith A. Pratt, P.E.
President
Underwood Engineers, Inc.
kpratt@underwoodengineers.com

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N2474

September 29, 2014

David Ford, P.E.
Public Works Director – Town of Wolfeboro
84 South Main Street
PO Box 629
Wolfeboro, NH 03894

Re: *Wastewater Disposal Planning 2014-2015*
Wolfeboro, New Hampshire

Dear Mr. Ford:

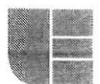
This letter summarizes recommended next steps for wastewater disposal planning in Wolfeboro, NH. We suggest that the approach be comprehensive to include evaluation of the entire wastewater infrastructure and alternative strategies such as wastewater re-use, conservation and decentralization. The next steps will build off previous and ongoing evaluations. The primary goals of the next steps include the following:

- Identify potential long-term cost effective solutions for wastewater treatment and disposal. Options may include:
 - Improvements to the spray system
 - Disposal options on Town owned and/or non-Town owned lands
 - Possible regional solutions
 - Possible surface water discharge options
- Address NDHES concerns to mitigate impacts at RIB site
- Consider decentralized options
- Identify possible solutions to reduce wastewater flows by:
 - Conservation measures
 - Aggressive I/I reductions
 - Re-use opportunities
- Utilize pilots to evaluate and assess options.

Based on the above, we recommend the following budgets be established to complete the following tasks:

	Anticipated Range
Establish flows and loads and basis of design. Services anticipated: <ul style="list-style-type: none"> • Engineering Evaluations 	\$25,000
Evaluate the long term viability of the existing groundwater disposal infrastructure at the spray site. Mitigate RIB impacts until a better long-term solution can be constructed. Services anticipated: <ul style="list-style-type: none"> • Field investigations • Hydrogeologic and geotechnical evaluations • Environmental Impact Assessment • Engineering Evaluations • Piloting 	\$100,000 to \$150,000
Evaluate the possibility of expanded groundwater disposal on existing town owned land and adjacent lands or remote sites. Evaluation will consider various groundwater disposal technologies. Services anticipated: <ul style="list-style-type: none"> • Field investigations • Engineering evaluations • Piloting 	\$250,000 to \$350,000
Evaluate alternative disposal solutions including regional solutions or surface water discharge. Services anticipated: <ul style="list-style-type: none"> • Engineering evaluations • Environmental Impact Assessment 	\$50,000 to \$75,000
Investigate alternative/innovative options and compare cost-effectiveness to expanded treatment and disposal. This will include consideration of decentralization, re-use, and conservation. Services anticipated: <ul style="list-style-type: none"> • Engineering evaluations 	\$50,000 to \$75,000
Conduct additional I/I investigations to assess potential to reduce I/I significantly enough to offset expansion of treatment and disposal capacity. Services anticipated: <ul style="list-style-type: none"> • Engineering evaluations • Piloting 	\$50,000
Evaluate needs at WWTF and Effluent Storage Pond. Services anticipated: <ul style="list-style-type: none"> • Engineering evaluations 	\$25,000
Complete a regulatory evaluation. Services anticipated: <ul style="list-style-type: none"> • Engineering evaluations 	\$25,000
Provide an engineering report that includes public information and funding assistance: Services anticipated: <ul style="list-style-type: none"> • Engineering evaluations 	\$50,000
TOTAL	\$625,000 to \$825,000

This does not represent a detailed scope of work, but is intended to identify the items that should be considered in the evaluation. As a scope of work is developed [or as preliminary evaluations



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Mr. David Ford
September 29, 2014

are completed], an initial screening of alternatives will likely be conducted to determine if any of the considerations should be ruled out or modified prior to proceeding with detailed evaluations. Although a range is identified above, we recommend budgeting a minimum of \$700,000 until a final scope of work can be established.

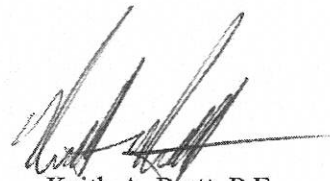
We anticipate the above work would require 30 months to complete following authorization to proceed. This would allow time to complete the field work, conduct the pilot studies, and evaluate the results.

Very truly yours,

UNDERWOOD ENGINEERS



David J. Mercier, P.E.
Project Manager



Keith A. Pratt, P.E.
President

KAP/kap



**TOWN OF WOLFEBORO
PROJECT REQUEST**

DEPT PRIORITY: 1
 RANKING: 1
 DEPARTMENT: Public Works
 ACTIVITY/DIVISION: Wastewater
 PROPOSED START (FY): 2015
 ACCOUNT NUMBER:

PROJECT TITLE: **Effluent Disposal Study**

PREPARED BY: DWFord

PURPOSE OF REQUEST:

- Add a Project
- Delete a Project
- Modify a Project
- Consolidate Projects

DEPARTMENT PRIORITY:

- Urgent
- Necessary
- Desirable

SUBMITTING AUTHORITY:

SUBMITTED BY: DWFord
 DEPARTMENT HEAD: DWFord
 DATE: 9/25/2014
 TOWN MANAGER:

DESCRIPTION/LOCATION: Study treated effluent disposal options, develop and implement pilot tests on alternative disposal, continue I/I studies as agreed to with NHDES.

JUSTIFICATION: The Town of Wolfeboro is required by NHDES to discharge its treated wastewater effluent into the ground. In 2006 and 2007 the Town appropriated over \$7 million to address this problem. Unfortunately the constructed long term solution failed and needs to be replaced. The Town was legally successful in being made whole by parties involved in that project. The Towns goal is to make sure that we develop a long term plan that will meet State and Federal laws. The Town is working with NHDES on a new Administrative Order by Consent, which will commit the Town to a 2 year schedule to perform these studies and pilot test. At the conclusion of these studies develop the best alternative for the Towns long term needs.

RATIONALE:

- Urgent Need
- Removes imminent threat to public health/safety
- Alleviates substandard conditions or deficiencies
- Responds to federal or state mandatory requirement
- Improves the quality of existing services
- Provides added capacity to serve growth
- Reduces long-term operating costs
- Provides incentive to economic development
- Eligible for matching funds available for limited time
- Needed to meet ADA compliance

IMPACT ON OPERATING COSTS OR PERSONNEL REQUIREMENTS:

- Add Personnel
- Increased O&M Cost
- Reduces Personnel
- Decreased O&M Cost

Dollar Cost of Impacts if Known:
Annually

RELATED PROJECTS:

Proposed For:

COST ESTIMATE:

	AMOUNT
Planning/Feasibility Analysis	\$ 200,000
Architecture & Engineering	\$ 150,000
Real Estate/Land Acquisition	
Equipment/Materials/Furnishings	\$ 50,000
Vehicles & Capital Equipment	
Site Preparation	\$ 300,000
Construction	
Other:	
TOTAL PROJECT ESTIMATE:	\$ 700,000

SOURCES OF FUNDING:

Grants From:	
Loans From:	
Donations/Bequest/Private	
User Fees & Charges	
Capital Reserve Withdrawal	
Current Revenue	
General Obligation Bond	
Sewer Fund Balance*	\$ 700,000
* Funds from Lawsuit settlement	
TOTAL PROJECT COST:	\$ 700,000

SOURCE OF ESTIMATES: Town Staff

COMMENTS & ADDITIONAL INFORMATION:

REVIEWERS' NOTES: