

## Hinesburg Water Treatment Facility – Value Engineering

As currently designed, we estimate the total project cost to be \$1,860,000 per the attached Total Project Cost Summary – Full Project (with \$1,477,000 under the SRF loan). As follow-up to our meeting yesterday, a summary of possible scope and cost reductions for your consideration follows:

- 1. Delete 4” water service past Bertrand \$70,000**  
Eliminate 1,700 lf of 4” water main, 620 lf of house services, and 3 curb and corporation stops. The water lines will need to be constructed at some point in the future, but do not need to be constructed to get the facility on-line.
- 2. Delete concrete entrance pads \$6,400**  
These pads can be eliminated and gravel access can be provided to these entrances. Pads could be added at a later date if desired.
- 3. Delete finish water tank \$20,000**  
Eliminate finish water tank and inject chemicals directly into the finish water line.
- 4. Diaphragm pumps for chemical feed \$14,000**  
Peristaltic pumps will not work if the finish water tank is eliminated. LMI diaphragm pumps would be used for chemical injection instead.
- 5. Delete hoist for pump removal \$4,000**  
Eliminate the trolley hoist, beam and support framing over the finish water pumps for ease of removal for repair and maintenance.
- 6. Eliminate air conditioning from HVAC system \$30,000**  
Revise the HVAC system to eliminate air conditioning, but increase ventilation to help address condensation in the Filter and Pump Rooms.
- 7. Eliminate fire alarm system \$10,000**  
A fire alarm system is not a code requirement, but is recommended to protect the facility.
- 8. Eliminate provisions for emergency power \$6,500**  
Eliminate the automatic transfer switch and 300A generator circuit breaker for a future emergency generator. If it decided that emergency power will never be required at the facility, these items are not necessary.
- 9. Reduce building length from 64’ to 42’ \$125,000**  
Eliminate the Office, Staff Room, Locker Room and Lab/Storage Room. Include a smaller Bathroom in the reduced space.

We understand that you may not wish to take all of these reductions, but if you did the Total Project Cost is estimated to be \$1,545,000 per the attached Total Project Cost Summary – Scope Reductions (with \$1,162,000 under the SRF loan). We trust that this gives you the information you need to decide on a recommendation to take before the Selectboard on Thursday evening.

Upon your review, we'd be happy to discuss each of these (along with any other ideas you might have) and help develop a recommended plan to present to the Selectboard on Thursday evening.

**Town of Hinesburg, VT**  
**New Water Treatment Facility and System Improvements, Contract No. 2**  
**Total Project Cost Summary - Full Design**  
**As of August 31, 2015**

ITEM DESCRIPTION	ESTIMATED COST	DWSRF COSTS <sup>(3)</sup>	LOCAL SHARE <sup>(4)</sup>
<b>CONSTRUCTION <sup>(1)</sup></b>			
Base Bid	\$1,005,330	\$1,005,330	\$0
Direct Purchases			
Nanofiltration System (ISI)	\$265,666	\$0	\$265,666
Well Pumps and VFDs (VT Well & Pump)	\$25,000	\$0	\$25,000
Telemetry System (Champlin)	\$15,000	\$0	\$15,000
3 Phase Electric Service (GMP)	\$24,000	\$0	\$24,000
CONSTRUCTION SUBTOTAL	\$1,334,996	\$1,005,330	\$329,666
<b>CONSTRUCTION CONTINGENCY</b>			
Construction Contingency (10%)	\$133,500	\$100,533	\$32,967
CONSTRUCTION CONTINGENCY SUBTOTAL	\$133,500	\$100,533	\$32,967
<b>STEP I - PRELIMINARY ENGINEERING AND PRE-DESIGN <sup>(2)</sup></b>			
Source Permitting (including wetlands and road building)	\$74,600	\$74,600	\$0
Topographic and Boundary Survey	\$5,500	\$5,500	\$0
Environmental Report	\$5,200	\$5,200	\$0
Preliminary Engineering Report	\$15,600	\$15,600	\$0
Bond Vote Assistance	\$4,200	\$4,200	\$0
Pump Testing	\$13,200	\$13,200	\$0
Archeological Resource Assessment	\$3,000	\$3,000	\$0
Archeological Phase IB	\$10,000	\$10,000	\$0
STEP I SUBTOTAL	\$131,300	\$131,300	\$0
<b>STEP II - FINAL DESIGN <sup>(2)</sup></b>			
Basic Services	\$88,200	\$88,200	\$0
Subsurface Investigation	\$7,300	\$7,300	\$0
Special Services	\$12,900	\$12,900	\$0
Easement Assistance	\$3,100	\$3,100	\$0
STEP II SUBTOTAL	\$111,500	\$111,500	\$0
<b>STEP III - CONSTRUCTION SERVICES <sup>(2)</sup></b>			
Bid Phase Services	\$3,400	\$3,400	\$0
Construction Phase Services			
Contract Administration	\$57,800	\$47,800	\$10,000
Resident Project Representative	\$75,100	\$64,742	\$10,358
Special Services	\$3,000	\$3,000	\$0
STEP III CONSTRUCTION SERVICES SUBTOTAL	\$139,300	\$118,942	\$20,358
<b>OTHER COSTS</b>			
Legal & Fiscal	\$4,000	\$4,000	\$0
Short Term Interest	\$5,000	\$5,000	\$0
OTHER SUBTOTAL	\$9,000	\$9,000	\$0
<b>ESTIMATED TOTAL PROJECT COST</b>	<b>\$1,859,596</b>	<b>\$1,476,605</b>	<b>\$382,991</b>
<b>USE</b>	<b>\$1,860,000</b>	<b>\$1,477,000</b>	<b>\$383,000</b>
<b>AVAILABLE AUTHORIZATION</b>	<b>\$1,903,607</b>	<b>\$1,500,000</b>	<b>\$403,607</b>
<b>REMAINING AUTHORIZATION</b>	<b>\$43,607</b>	<b>\$23,000</b>	<b>\$20,607</b>

**Notes:**

1. Construction cost based on ENR 10040 (August 2015)
2. Based on executed agreement
3. Authorization for the DWSRF loan is the Town's \$1.5M bond vote
4. The Town's Local Share is the MTBE Settlement fund

**Town of Hinesburg, VT**  
**New Water Treatment Facility and System Improvements, Contract No. 2**  
**Total Project Cost Summary - Scope Reductions**  
**As of August 31, 2015**

<b>ITEM DESCRIPTION</b>	<b>ESTIMATED COST</b>	<b>DWSRF COSTS <sup>(3)</sup></b>	<b>LOCAL SHARE <sup>(4)</sup></b>
<b>CONSTRUCTION <sup>(1)</sup></b>			
Base Bid	\$719,430	\$719,430	\$0
Direct Purchases			
Nanofiltration System (ISI)	\$265,666	\$0	\$265,666
Well Pumps and VFDs (VT Well & Pump)	\$25,000	\$0	\$25,000
Telemetry System (Champlin)	\$15,000	\$0	\$15,000
3 Phase Electric Service (GMP)	\$24,000	\$0	\$24,000
<b>CONSTRUCTION SUBTOTAL</b>	<b>\$1,049,096</b>	<b>\$719,430</b>	<b>\$329,666</b>
<b>CONSTRUCTION CONTINGENCY</b>			
Construction Contingency (10%)	\$104,910	\$71,943	\$32,967
<b>CONSTRUCTION CONTINGENCY SUBTOTAL</b>	<b>\$104,910</b>	<b>\$71,943</b>	<b>\$32,967</b>
<b>STEP I - PRELIMINARY ENGINEERING AND PRE-DESIGN <sup>(2)</sup></b>			
Source Permitting (including wetlands and road building)	\$74,600	\$74,600	\$0
Topographic and Boundary Survey	\$5,500	\$5,500	\$0
Environmental Report	\$5,200	\$5,200	\$0
Preliminary Engineering Report	\$15,600	\$15,600	\$0
Bond Vote Assistance	\$4,200	\$4,200	\$0
Pump Testing	\$13,200	\$13,200	\$0
Archeological Resource Assessment	\$3,000	\$3,000	\$0
Archeological Phase IB	\$10,000	\$10,000	\$0
<b>STEP I SUBTOTAL</b>	<b>\$131,300</b>	<b>\$131,300</b>	<b>\$0</b>
<b>STEP II - FINAL DESIGN<sup>(2)</sup></b>			
Basic Services	\$88,200	\$88,200	\$0
Subsurface Investigation	\$7,300	\$7,300	\$0
Special Services	\$12,900	\$12,900	\$0
Easement Assistance	\$3,100	\$3,100	\$0
<b>STEP II SUBTOTAL</b>	<b>\$111,500</b>	<b>\$111,500</b>	<b>\$0</b>
<b>STEP III - CONSTRUCTION SERVICES<sup>(2)</sup></b>			
Bid Phase Services	\$3,400	\$3,400	\$0
Construction Phase Services			
Contract Administration	\$57,800	\$47,800	\$10,000
Resident Project Representative	\$75,100	\$64,742	\$10,358
Special Services	\$3,000	\$3,000	\$0
<b>STEP III CONSTRUCTION SERVICES SUBTOTAL</b>	<b>\$139,300</b>	<b>\$118,942</b>	<b>\$20,358</b>
<b>OTHER COSTS</b>			
Legal & Fiscal	\$4,000	\$4,000	\$0
Short Term Interest	\$5,000	\$5,000	\$0
<b>OTHER SUBTOTAL</b>	<b>\$9,000</b>	<b>\$9,000</b>	<b>\$0</b>
<b>ESTIMATED TOTAL PROJECT COST</b>	<b>\$1,545,106</b>	<b>\$1,162,115</b>	<b>\$382,991</b>
<b>USE</b>	<b>\$1,545,000</b>	<b>\$1,162,000</b>	<b>\$383,000</b>
<b>AVAILABLE AUTHORIZATION</b>	<b>\$1,903,607</b>	<b>\$1,500,000</b>	<b>\$403,607</b>
<b>REMAINING AUTHORIZATION</b>	<b>\$358,607</b>	<b>\$338,000</b>	<b>\$20,607</b>

**Notes:**

1. Construction cost based on ENR 10040 (August 2015)
2. Based on executed agreement
3. Authorization for the DWSRF loan is the Town's \$1.5M bond vote
4. The Town's Local Share is the MTBE Settlement fund