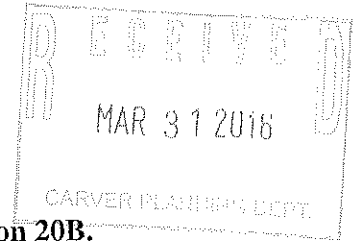


Approved 5-16-16

**NORTH CARVER WATER DISTRICT MINUTES  
MARCH 21, 2016**



**Posted in Accordance with the Provisions of M.G.L. Chapter 30A, Section 20B.**

The North Carver Water District Commissioners met on March 21, 2016, at the Carver Town Hall, Meeting Room #3, 108 Main Street, Carver, Massachusetts. The meeting was opened by Mr. Kevin Tracey at 5:01 p.m.

**PRESENT:** Kevin Tracey, Chairman; William Sinclair, Commissioner; Stephen Romano, Commissioner

**ALSO PRESENT:** Mr. Bruce Trumbull, SWSS; Mike Ohl, Comprehensive Environmental; Marlene McCollem, Town Planner; Christine Champ, Recording Secretary

**1. Review of bill(s) for 6 Green Street (Wendy Lundell).**

Ms. McCollem had the bill for 6 Green Street. Mr. Sinclair suggested that the Commission review the bill. The meter was read and the usage was 1310 gallons for 89 days. The Commission reviewed the bill and found that 1310 gallons times the usage was correct. Per Chairman Tracey, the bill looked correct. If Ms. Lundell has any questions, she can contact the board.

**2. Potential main extension to 68 N. Main St. (3 Lillian Way) - Review Rules and Regulations.**

It was noted, there had been no contact from the interested parties since the last meeting except for the engineer looking for pressure amounts. Mr. Ohl said there was no insight on the flows, other than limited at high end by pumps. The interested parties were trying to get an idea of the cost. The parties had not contacted Ms. McCollem but in preparation she had reviewed the rules and regulations.

There were a couple of things she noted. On Page 5, Section 23, the cost per assessment unit, in regard to the privilege fees was questioned. She suggested it increased 5 percent after the date. There was some discussion about discounted costs that were not laid out in the rules. Ms. McCollem thought it should be reflected in the rules and regulations.

Mr. Tracey thought what we did instead was a privilege fee. Section 17-1 stated that privilege fee should be assessed. If someone was aggravated by a privilege fee, they could file for an abatement. If they could prove they were overcharged, they could ask for an abatement.

Mr. Tracey wanted to have a meeting to clean up the rules and regulations towards the end of the year (June 30). He had other things to clean up and revise and wanted to have a hearing. Ms.

McCollem suggested maybe half at the April meeting and half at the May meeting. The April meeting will be on Wednesday, April 13, at 5:30 p.m. and Ms. McCollem said she will go through half at that meeting.

Mr. Ohl said there was something else with the developer. He said he suspected water use was minimal and there was no accounting for the fire department. He stated, the engineer tells us what the design flow will be for that building, depending on use and square footage, then it is multiplied by 35%.

Mr. Tracey said there is nothing in there for elderly-eligible customers and there needs to be a definition. Regarding the Lillian Way project and the Plymouth Street project, they would tie into the water. Ms. McCollem said the rules need to be clear as there could be expansion of the service area into two locations. There was further discussion regarding Lillian Way as well as the 40-B project needing regulations. Mr. Romano suggested, the day the water is turned on, the charging should start.

Regarding the Rules and Regulations, Ms. McCollem asked if June 30, 2010, was the starting date and Mr. Tracey said yes. Ms. McCollem said someone wrote revisions on a page. The board continued to go through the Rules regarding Section 17 and the privilege fees. Ms. McCollem said she would continue looking, too. Mr. Romano asked if they were from the town clerk and Ms. McCollem stated she got them from the web page. Mr. Romano felt they may not have been updated. In June they would be filed with the town clerk, according to Ms. McCollem.

### **3. Water Operator's Report**

Mr. Trumbull related that he brought meters over to New England Farms on North Main Street. He also said he dropped off a number at the town hall to Jill. He got a quote from Laviolette Controls and feels it is a cost savings. He suggested to go with VPN. It does not include Sonic Wall which costs more. Mr. Trumbull said it was a good price. (\$500 for VPN instead of standard, difference in price of \$100.) It was suggested to go forward with the quote and purchase. Mr. Sinclair wanted to know about the 16 hours of programming time. Mr. Trumbull said, yes, you could get it cheaper but Laviolette knows the background and is familiar with. Mr. Trumbull suggested to use him as he is up to speed for us.

Regarding the "Building & Grounds Dept." on the quote, Mr. Sinclair wanted them to revise that. Mr. Trumbull said he would have them revise it. Mr. Sinclair also suggested, maybe they can do all the work at once instead of paying for more travel time.

Mr. Tracey wanted to know where the money would come from and Mr. Sinclair stated, repairs and maintenance. Mr. Tracey said building maintenance, repair and maintenance, but not equipment, as it was over budget. Ms. McCollem would like it in the correct spot so the budget matches at the end of the year. It was noted, it was not new equipment but repairing existing

equipment, which is repair and maintenance.

Referring to Lavolette Controls, the Sonic Wall would be an additional \$500, bringing the quote up to \$1972.00, per Mr. Sinclair. Mr. Sinclair motioned to authorize the quote, not to exceed \$1972 and to make sure the billing was correct. Mr. Romano seconded the motion. It was voted unanimously. Chairman Tracey said it would come out of repairs and maintenance, building and grounds.

Mr. Trumbull said they had replaced a 2-inch meter that froze at Tractor Supply. It originated at the fitness center, back room. Mr. Trumbull also stated, the Kemp (phonetic) parts came in today. They repaired one and got parts for more. It is redundant. They fix as needed but have parts to repair. He also stated, there is a new tenant in the fitness center and they didn't know about the meter (maintaining temperature) but now they are up to speed. Mr. Romano wanted to make sure other tenants know it wasn't us, but the tenant.

Ms. McCollem wanted to know if she should be generating an invoice. Mr. Trumbull said they would tell her. She wanted to look in the Rules & Regulations regarding what to do. In reviewing the March bill, Ms. McCollem wanted to know what would get billed back to Waterstone. Mr. Trumbull said the meter and estimate for water use. They then went over what goes to their bill - 2 hours (\$260 + 15% markup) and 2" Meter and gasket.

Mr. Sinclair noted that the date was 2/16/16 for Waterstone Plaza. 2/14/16 was the plaza shut-off date and Mike came out the next day. Mike also went out the day after. Mr. Trumbull said they were probably not charged for this.

Mr. Trumbull said regarding the water loss, Mike was getting an estimate of water loss during that time. Ms. McCollem said she would bring a draft invoice back to the commission. The estimated water loss and Mike's hours for installation is what they would need. Ms. McCollem's invoice to Waterstone will have 3 pieces to be charged.

Regarding administrative things, Mr. Trumbull wants some help with this. He wanted to know if someone could be asked to enforce checking heat, date and time. He said, we really need that. Mr. Sinclair stated the fire department has that. Mr. Trumbull stated he needs access and wants it logged in there; that someone is checking that heat.

Mr. Trumbull noted that regarding Kemp (phonetic) repair, the parts came in. They have put in repairs. They are back up to full strength.

He also stated, the big thing to save us money is, Section 5, budget for wells. He said looking for a better and newer way to do would work and IPS would come out and look for more efficient ways. He said, 3000 to 5000 per year to clean is a good part of the maintenance budget and they are investigating ways to make it more cost effective.

Mr. Trumbull stated on the replacement probe they bought, they also had to pay air freight at \$200. Because of the weather, there would be no ground service.

He stated the generator is running well and it is doing it's thing now. F & M said they need more tanks because of the amount of fuel it uses. It's gotten better. Chairman Tracey said he recognized the issue early on. Mr. Sinclair wants to follow up on an appropriate size generator. He knows there is a market for our large existing one.

Also, according to Mr. Trumbull, the automatic refill for the propane is a problem. It is not calculating properly. Mike has checked it. It is an issue for Cranberry Village. Mike is checking often so he'll catch it.

He stated they replaced the GFI for the water heater. They went to the plant and one of the retention ponds was empty. Mike went in and there was lots of sludge. The stand pipe blew out and they replaced it. He said it was back to working correctly. He estimated it would be another ten years before more maintenance is needed on same.

He noted train #2 is going into maintenance and it needs inorganic cleaning. He said they need to replace the o-rings. They will order new o-rings and will do when they come in as it is just normal maintenance.

They checked the valve on one of the well pumps. They could tell one was gone. They will look at it and give updates as it progresses.

Also, the phone lines were down. Verizon got them back up and running.

Regarding the meter pit at the town line, Decas was taking regular. Everything went out good. They were doing a good job over there. Everything was locked.

He said that he wants a budget item for cleaning wells.

#### **4. Infrastructure Assessment Grant Application**

Ms. McCollem and Mr. Ohl put together information for the grant. She needs the maintenance records from Chairman Tracey going forward. The selection was supposed to be announced on March 10 but they are late. Ms. McCollem said she heard from them today and she will keep after them. Mr. Tracey signed the letter and it has been submitted. Mr. Ohl said the scope is loose enough so there is flexibility in the form to put the correct plan in place. Per Mr. Ohl, \$7400 in kind, labor, no cash. If awarded, Ms. McCollem will let all know.

According to Mr. Ohl, regarding Lillian way, the meter pit at the Middleboro town line was over \$2 million. It had been mentioned to him. There was some discussion regarding fire protection. Mr. Ohl said if it was tied in, it would provide water protection. They could regulate the pressure

and could set to save. He said something could be set up, a metered pressure, and it would be less expensive than a tank. Mr. Trumbull suggested people pay for the line even going by their house; that the insurance company protects.

#### **5. FY17 Budget.**

Ms. McCollem stated, Meg put it together but she could not be here tonight. The indirect cost increased by \$10,000. The general fund subsidy didn't go up by the corresponding amount. The refund on US loans, IRS subsidy -- the reason, only subsidized for \$2.9 million loan. It happened after cut off date.

She noted, Southern Sky stayed the same, the real estate taxes were different. There was no new growth indicated and she did not think that was true. She needed to go back and get the number and add it. Regarding the 31,000, she would leave it alone for now. However, regarding the clerical salary, if the billing was handled by the treasurer's office, some of that 4800 should come out and go into indirect cost. The propane, she suggested, leave alone. Repairs and maintenance, some things were combined. Ms. McCollem further stated, the equipment vehicles were still in there and she was not sure why. She suggested to leave legal services alone for this year.

As a sidenote, Mr. Trumbull wanted to add water, meaning Nashoba Valley Consortium. He said he got the okay to add North Carver to that. He said it will save money. They can go to purchasers of chemicals and usables and get much better, competitive rates.

Returning to the budget, municipal insurance, what does that cover, Mr. Sinclair wanted to know. Chairman Tracy said \$8,141.97 was spent on it. Chairman Tracey said he would touch base with Meg and that 260 should be 270 (needs to look at DIF number). He did not believe that.

Ms. McCollem said she did not include information regarding a spreadsheet on Solare. She thought it was under 31,000 but was not ready to give a lower number. Chairman Tracey said to leave it for now. She said she would keep tracking and update on how it was trending.

#### **6. Minutes: January 11 & February 8, 2016**

Regarding the (revised) minutes of January 11, 2016, Mr. Sinclair motioned to approve the revised minutes. Mr. Romano seconded the motion. The minutes were approved unanimously.

Regarding the minutes of February 8, 2016, Mr. Sinclair motioned to approve the minutes as written. Mr. Romano seconded the motion. The minutes were approved unanimously.

#### **7. Bills Payable.**

Mr. Romano asked about the small operating systems. He wanted to know what the Cranberry Village thing was. On 2/16, the pump failed. They replaced fuses at a cost of \$195. That gets

billed to the Town of Carver. Mr. Trumbull said he would take it out. It was suggested that something needs to get divided up three ways, perhaps to water commissioners. Ms. McCollem was worried about extra things getting wrapped up together. Mr. Trumbull said he would do it any way they wanted. He said he would bill separately but on one bill.

The Cranberry village on bills payable will be separate. (\$195) . The amount for the small water systems was \$8,062.06. Mr. Romano motioned to pay the amount of \$8,062.06. Mr. Sinclair seconded the motion. It was voted unanimously to pay the amount of \$8,062.06.

**8. Correspondence: Text of 2/26/16 received from Indian Head.**

Mr. Trumbull stated Indian Head wants to start taking water from us. He said they took their own samples and didn't like ours. They said ours were too close. He stated they will fill 3 vessels between 30,000 to 40,000 gallons. Mr. Sinclair made a motion to authorize at the full rate, a total of 120,000 gallons at full rate total over three months. Mr. Romano seconded the motion. It was voted unanimously.

**9. Next Meeting: Wednesday, April 13, 2016**

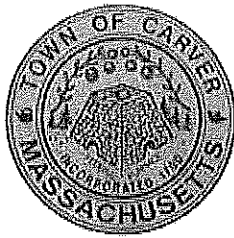
Mr. Sinclair moved to hold the next meeting on April 13, 2016 at 5:30 p.m. Mr. Romano seconded the motion. It was voted unanimously.

Mr. Sinclair moved to adjourn the meeting. It was seconded by Mr. Romano. It was approved unanimously.

The North Carver Water Commission was adjourned at 6:51 p.m. on March 21, 2016.

**Table of Contents**

Exhibit A	Meeting Agenda - March 21, 2016
Exhibit B	Laviolette Controls Quote
Exhibit C	FY17 Budget



# TOWN OF CARVER

## North Carver Water District Commission

108 Main Street  
Carver, MA 02330

Phone: (508) 866-3450  
Fax: (508) 866-3430  
E-mail: [marlene.mccollem@carverma.org](mailto:marlene.mccollem@carverma.org)

### PUBLIC MEETING NOTICE

POSTED IN ACCORDANCE WITH THE PROVISIONS OF M.G.L. CHAPTER 30A, SECTION 20B

### NORTH CARVER WATER DISTRICT COMMISSION

Monday, March 21, 2016

5:00 PM

Carver Town Hall Room #3

### AGENDA

POSTED IN ACCORDANCE WITH THE PROVISIONS OF M.G.L. CHAPTER 30A, SECTION 20B

1. Review of bill(s) for 6 Green Street (Wendy Lundell).
2. Potential main extension to 68 N. Main St (3 Lillian Way)—Review Rules & Regulations
3. Water Operator's Report.
4. Infrastructure Assessment Grant Application.
5. FY17 Budget.
6. Minutes: January 11 & February 8, 2016.
7. Bills Payable.
8. Correspondence: Text of 2/26/16 received from Indian Head.
9. Next Meeting: Wednesday, April 13, 2016?





# WATER BILL



## North Carver Water District

Town of Carver  
108 Main Street  
Carver, MA 02330

**BILL DATE**

1/19/2016

**DUE DATE**

2/19/2016

Hume Green St, LLC  
Wendy Lundell  
93 High Street  
Hanson, MA 02341

**Account No.**  
01055

**Service Location**  
6 Green Street

**Billing Frequency**  
Quarterly

Reading Period	Current Reading	Previous Reading	Usage CF	Number of Days	Average Daily Consumption Gallons
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10/14/15 - 01/11/16

1310

0

1310

89

110.1

100CF = 1CCF

7.48 gal = 1CF

Item	Amount
------	--------

Balance Forward

\$0.00

All Bills Are Due and Payable Upon Receipt. Service May Be Subject to Termination for Nonpayment.

IF PAYMENT IS NOT RECEIVED BY DUE DATE:  
Interest to accrue daily at 14% APR.

Water Usage

\$53.30

Minimum Charge

\$43.71

Readings are in cubic feet.

Usage charge is billed per gallon.

Water Rate as of 7/1/14 is \$9.90/1000 gallons.

**TOTAL DUE**

**\$97.01**

PLEASE RETURN BOTTOM PORTION OF BILL WITH PAYMENT AND RETAIN THE TOP PORTION FOR YOUR RECORDS

Make Checks payable to:

Town of Carver / NCWD  
108 Main Street  
Carver, MA 02330

**DUE DATE**

2/19/2016

Hume Green St, LLC  
Wendy Lundell  
93 High Street  
Hanson, MA 02341

**TOTAL DUE**

**\$97.01**

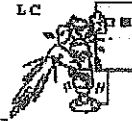
**Account No.** 01055  
**Location** 6 Green Street

**Total Payment Enclosed**

--



March 12, 2016



## Laviolette Controls

Town of Carver  
~~Bldg & Grounds Dept~~  
108 Main Street  
Carver, MA 02330

87 Rocky Hill Road  
Somersworth, NH 03878  
(603) 692 7224

Dear Mike:

Quote to replace the bad power Supply in the computer, add additional ram, and program a Sonic Wall for a VPN.

Parts:

Power Supply	\$ 180.00
Additional Ram 4	\$ 92.00

Labor @ \$75.00 an hour. 8 hours including travel For Computer work	\$ 600.00
Labor @ \$75.00 an hour. 8 hours including travel For programming VPN	\$ 600.00
Total	\$1,472.00

Does not include purchasing the Sonic Wall  
(+500)

Sincerely,

*Richard Laviolette*  
Richard Laviolette

REMARK: MAINT.

NOT TO EXCEED:  
\$1972

NJ/SR  
(3-0)



**North Carver Water District, Town of Carver, MA  
Water Asset Management and Fiscal Sustainability Plan**

**Water Infrastructure Assessment and Planning Grants**

BRP 2016-02  
February 26, 2016

**Prepared for**

**Commonwealth of Massachusetts  
Department of Environmental Protection  
BWR - Division of Municipal Services  
One Winter Street, 5<sup>th</sup> Floor  
Boston, MA 02108  
Attention: Joseph Delaney**

**Grant Applicant**

**North Carver Water District  
108 Main Street  
Carver, MA 02330  
Contact: Marlene McCollem  
508-866-3450  
marlene.mccollem@carverma.org**

**Prepared By**

**Comprehensive Environmental Inc.  
Marlborough, Massachusetts**



WE ENCOURAGE YOU TO RECYCLE



# TOWN OF CARVER

## North Carver Water District

February 23, 2016

Massachusetts Department of Environmental Protection  
BWR – Division of Municipal Services  
One Winter Street, 5<sup>th</sup> Floor  
Boston, MA 02108  
Attention: Joseph Delaney

Subject: Authorization to File and Letter of Support  
Water Infrastructure Assessment and Planning Grant  
BRP 2016-02

Dear Mr. Delaney:

The North Carver Water District is pleased to submit a proposal for the Water Infrastructure Assessment and Planning Grant. Our engineer, Comprehensive Environmental Inc., is authorized to submit this grant proposal request on our behalf.

Our authorized representative and signatory for this project is:

Marlene McCollem  
108 Main Street  
Carver, MA 02330

Office: 508-866-3450  
Fax: 508-866-3430  
Email: [marlene.mccollem@carverma.org](mailto:marlene.mccollem@carverma.org)

We appreciate the Massachusetts Department of Environmental Protection's consideration for this grant. The District was established in 2008 and invested significantly through the development/construction of new groundwater supplies, construction of a new water treatment facility and construction of extensive water mains to connect the new supply/treatment to its customers. Due to economic circumstances, the District continues to be partially subsidized through the Town. However, the District's long term goal is to become financially independent and sustainable. The completion of a Water System Asset Management Plan under this grant program is the next step in continuing our efforts toward improved system operations and fiscal sustainability. We look forward to working with the MassDEP on this most critical project.

Sincerely,

A handwritten signature in black ink, appearing to read "Kevin Tracey", is written over a horizontal line.

Kevin Tracey, Chairman  
North Carver Water District

*This institution is an equal opportunity provider and employer.*

# Table of Contents

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Section	Title	Page
	Authorization to File and Letter of Support	
1.0	Problem Statement/Narrative.....	1
2.0	Scope of Services/Schedule.....	3
3.0	Project Team.....	4
4.0	Estimated Effort/Budget.....	5
5.0	Contact List.....	6



## 1.0 Problem Statement/Narrative

### Purpose of Project

The purpose of this project is to develop an Asset Management Plan (AMP) for the North Carver Water District's drinking water system. This AMP will be developed in accordance with Good Engineering Practices and the US EPA issued "Asset Management -- A Best Practices Guide, April 2008."

Specifically the AMP will include:

1. Preparation of a complete inventory of assets for the entire water system.
2. Evaluation of the condition and performance of inventoried assets.
3. Evaluation of the required level of service, including useful life, material, integrity and critical components.
4. Identification and prioritization of critical assets, including mapping through GIS;
5. Identification of minimum life cycle costs.
6. Development of annual, five and ten year plan and ranking system for maintaining, repairing and replacing inventoried assets.
7. Development of estimates and probable costs to replace and for servicing, along with a funding plan to implement asset management.
8. Preparation of a written report and computerized program with inserted data and compatible software for the public entity computer system.
9. Development of a prioritizing map and table of improvements and a Written Plan.
10. Written methodology for the District to follow in performing asset management duties.

### Benefits of Project

The North Carver Water District will directly benefit from the development of this AMP. Established in 2008, the District has invested significantly through the development and construction of new groundwater supplies, construction of a new water treatment facility and construction of extensive water mains to connect the new supply/treatment facilities to its customers. Due to economic circumstances, the District continues to be partially subsidized through the Town of Carver's General Fund. However, the District's long term goal is to become financially independent and sustainable.

The District has invested substantially in the development of a Water System Master Plan which establishes a list of the necessary capital improvement projects. The completion of the Water System AMP under this grant program is the next step in the District's continuing efforts toward improved system operations and fiscal sustainability. This project will help the District to focus on making cost-effective asset decisions and to provide a sustainable level of customer service for the community, especially as the District evaluates the need for any necessary rate changes.

The North Carver Water District will be involved throughout the project. At the conclusion of the work, the District will receive a copy of the AMP software and guidance/training on using the software. The project will include a written methodology for the District to follow in performing asset management duties going forward, to ensure that the AMP is a dynamic tool for the District's use on a regular basis.

The District is committed to publicly discussing and considering the merits of the completed project. The results of this project will be presented and discussed at a regularly scheduled Board of Water Commissioners meeting. This discussion will include consideration of adding funds to the annual budget, to implement



Water Infrastructure Assessment and Planning Grant  
BRP 2016-02  
North Carver Water District, Town of Carver, MA





the needs identified through this project. This project will consider various options for informing customers and users of capital improvement needs such as direct mailing, inclusion within the Annual Consumer Confidence Report (CCR) and website postings. These communication strategies will be essential to transitioning from the planning stage to implementation, with the ever present goal of fiscal sustainability.

### Background

The North Carver Water District's water system is a Small System with less than 100 services. The system generally consists of the following components:

1. Two active groundwater supply wells
2. One treatment facility for removal of iron and manganese (membrane filtration process)
3. One emergency interconnection with the Middleborough Water System (hard piped and valved)
4. Approximately 3 miles of water mains (mix of old cast iron and new ductile iron pipes)
5. Associated valves, hydrants and meters.

The District's original investment in its water system was approximately \$4.8 million, bonded locally and through the U.S. Rural Development Administration, in addition to state grants of more than \$2.1 million to finance the water system construction that was completed in December 2010. Recently, the District invested an additional \$200,000 to expand the capacity of its finished water storage clearwell at its Water Treatment Facility, in order to improve overall water system operations and more fully utilize the supply and treatment capacity of the water system.

The Massachusetts Department of Environmental Protection (MassDEP) conducted a sanitary survey of the Town's water system and issued their findings in a report to the Town dated November 19, 2014. As a result of this recent Sanitary Survey, MassDEP requires that the Town develops an updated Master Plan, as part of its evaluation of the District's Managerial and Financial condition. The development of an AMP is an inherent next step in attaining financial sustainability for the District.

The District has already invested substantially in these efforts. Funding was approved and the District retained Comprehensive Environmental Inc. (CEI) to complete the Master Plan for the North Carver Water District. This project is anticipated to be completed in June 2016. The Master Plan report will include recommendations to address deficiencies and meet future needs, a prioritized list of improvements and associated costs.

Concurrently, the District is continually evaluating its water rates which are presently \$9.90 per 1,000 gallons. This high water rate is essentially at the "affordability" limit as recently established by the Massachusetts Water Infrastructure Finance Commission (WIFC) and published in their report dated February 7, 2012. The WIFC established that 1.25% of Median Household Income is reasonable for water service costs; this "affordability" threshold translates approximately to an annual water bill of \$800 for a residential customer. Based upon a residential water use of 80,000 gallons annually (typical for a family), the current District water rates would yield an annual water bill equivalent to the "affordability" threshold established by the WIFC. Completion of the AMP under this grant program is essential to assisting the District in its efforts towards fiscal sustainability while balancing the need to have "affordable" water rates for its customers.

The schedule proposed by this Grant Program for completion of the AMP project by June 30, 2016 is ideally complimentary with the ongoing work and overall plan. Completion of the AMP funded by this grant project will help the Board of Water Commissioners in making fiscally sustainable decisions necessary for the ongoing maintenance and rehabilitation of the entire water system.



The inventoried asset list, associated value, and cost of deferred maintenance that is developed as part of this AMP project will be essential for the North Carver Water District and Town of Carver in ultimately complying with the requirements of the Governmental Accounting Standards Board's Statement #34 (GASB 34). Compliance with these requirements will assist the Town in obtaining and/or maintaining a good credit rating, which ultimately yields lower interest costs.

## 2.0 Scope of Services/Schedule

Task 1. Initial Meeting and Asset Inventory. Conduct an initial meeting to start the project. Prepare an inventory of water system assets.

*Deliverables: Meeting minutes and summary of identified assets.*

Task 2. Asset Evaluation and Prioritization. Evaluate the condition and performance of inventoried assets; evaluate the required level of service, including useful life, material, integrity and critical components; identify and prioritize critical assets. Task includes mapping through GIS. The US EPA Check Up Program for Small Systems (CUPSS) software will be considered for this project.

*Deliverables: Summary of asset evaluation and prioritization and GIS maps.*

Task 3. Asset Management Plan. Identify minimum life cycle costs. Prepare annual, five and ten year plan and ranking system for maintaining, repairing and replacing assets. Develop estimates and probable costs to replace and for servicing, along with a funding plan to implement asset management. Prioritize map and table of improvements and a Written Plan.

*Deliverables: Summary of asset management plan and GIS maps.*

Task 4. Final Meeting and AMP Training. Meet with the District to review project findings. Provide software training to District staff. Provide written methodology for the District to follow in performing asset management duties.

*Deliverables: Meeting minutes and written methodology.*

Task 5. Report. Develop an AMP report summarizing the work completed for this project. MassDEP will be provided with two (2) written copies and a compact disk (CD) of the Asset Management Plan. The District will be provided with software for asset plan management, along with a CD.

*Deliverables: Draft Report (for review and comment); Final Report*

The following provides an estimated schedule by task.

### Estimated Schedule

	Mar	Apr	May	Jun
Task 1. Initial Meeting and Asset Inventory	←→			
Task 2. Asset Evaluation and Prioritization.		←→		
Task 3. Asset Management Plan			←→	
Task 4. Final Meeting and AMP Training				←→
Task 5. Report (Draft and Final)			←→	



### 3.0 Project Team

The District, as the grant applicant, will lead the project team and will retain Comprehensive Environmental Inc. (CEI) to provide engineering services. The District's contact for this project is Marlene McCollem, Director of Planning and Community Development for the Town of Carver. The primary project team members are shown in the following project organization chart.

CEI is a civil engineering and environmental consulting firm that provides comprehensive services to public and private clients in the New England area. Incorporated in 1987, CEI is an employee-owned company that includes a diverse ownership of both professional engineers and scientists. CEI provides extensive civil and environmental engineering services in the areas of wastewater, water supply and stormwater and is an expert with the SWMI Framework. More than 70% of the firm's revenues are derived from public clients including many State agency clients such as MA DCR, MA DOT and MassDEP.

Our diverse staff of civil and environmental engineers, scientists, planners, and computer and field technicians makes us a unique multidisciplinary firm. CEI is a certified small, woman-owned (D/WBE) business.

#### **Michael Ohl, P.E., CFM, Project Director**

Mr. Ohl has nearly 30 years of experience in all areas of municipal engineering and infrastructure management, with a focused expertise in the area of water supply, treatment, distribution and stormwater systems. He has been extensively involved water system master planning, water rate studies including cost projections, analyses of alternative rate structures, and procurement and administration of funding options. Mr. Ohl is the Project Director for completion of the Water Master Plan. Mr. Ohl's breadth of knowledge, many years of experience and his ability to provide exceptional client service make him a highly valuable member of the CEI team.

#### **Kristen Berger, P.E., ENV SP, Project Manager**

Ms. Berger is a civil engineer with 15 years of experience specializing in water supply, treatment, distribution, storage, sewer collection systems and stormwater. Ms. Berger is the Project Manager and Senior Engineer for completion of the Water Master Plan. Ms. Berger is a certified ENVISION™ Sustainability Professional (ENV SP). Ms. Berger holds 4T/4D OIT Drinking Water Facility Operator licenses and is adept at identifying solutions that make the operator's job easier while meeting regulatory and design practice requirements.

#### **Curt Busto, GIS Expert and Staff Engineer**

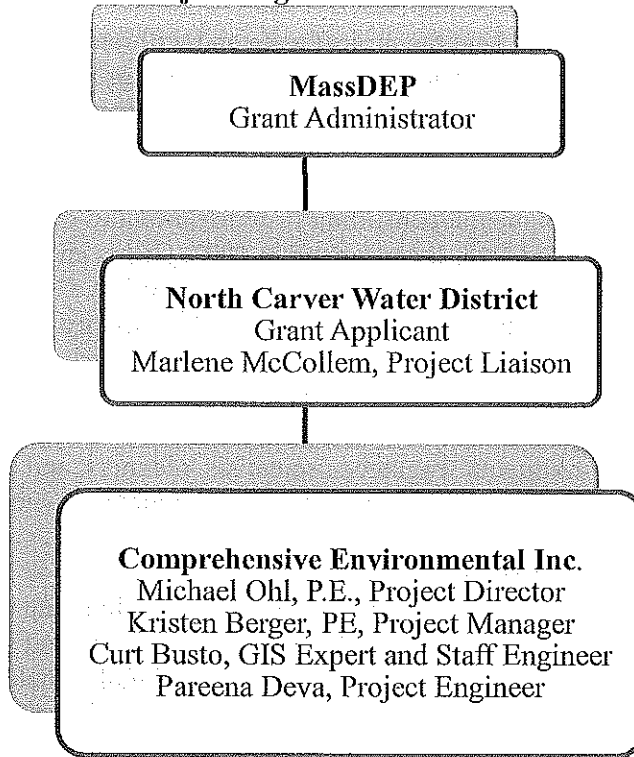
Mr. Busto is a GIS specialist and staff engineer with experience in municipal infrastructure related projects including water supply, wastewater, stormwater management, BMP/LID design and transportation related projects throughout New England. He leads CEI's GIS team, working largely on projects involving outfall investigation, sewer or water infrastructure mapping and nonpoint source pollution investigations. He is experienced both in GIS and in collecting the data that is input to GIS, so there are none of the typical problems with data collection efforts that do not meet the expectations needed for mapping.

#### **Pareena Deva, Project Engineer**

Ms. Deva is a project engineer with experience in water, sewer and stormwater systems. She is the project engineer on the Water Master Plan project, involving the evaluation of system needs and prioritization of recommended capital improvements.



### Project Organization Chart



## 4.0 Estimated Effort/Budget

The proposed estimate for completing the scope of services is \$34,800. The District will provide in-kind labor as their 25% match through participation in meetings, data collection, field work, software training and report review. The following provides a summary of the estimated project cost:

### Summary of Project Cost\*

Item	Total
Grant Request	\$27,400
Town Match	\$7,400**
Total Project	\$34,800

\*Refer to following tables for specifics.

\*\*Town Match is 27% of the Grant Request.



The following table provides a summary of CEI's estimated effort with hours and rates for each task.

Staff	Project Director	Project Manager	GIS Expert	Project Engineer	Expenses	Task Total
Rate	\$195	\$145	\$115	\$90		
Task	Hours					
Task 1. Initial Meeting and Asset Inventory	4	8	0	24	\$80	\$4,180
Task 2. Asset Evaluation and Prioritization.	4	16	8	24	\$80	\$6,260
Task 3. Asset Management Plan	4	16	8	24	\$80	\$6,260
Task 4. Final Meeting and AMP Training	4	16	0	24	\$80	\$5,340
Task 5. Report (Draft / Final)	4	16	0	24	\$100	\$5,360
Total	20	72	16	120	\$420	\$27,400

The following table provides a summary of the District's estimated effort with hours and rates for each task.

Staff	Project Liaison	Water Operator	Expenses	Task Total
Rate	\$70	\$50		
Task	Hours			
Task 1. Initial Meeting and Asset Inventory	12	16	\$0	\$1,640
Task 2. Asset Evaluation and Prioritization.	12	16	\$0	\$1,640
Task 3. Asset Management Plan	12	16	\$0	\$1,640
Task 4. Final Meeting and AMP Training	12	8	\$0	\$1,240
Task 5. Report (Draft and Final)	12	8	\$0	\$1,240
Total	60	64	\$0	\$7,400

## 5.0 Contact List

Contact list including District and consultant contacts, email and telephone numbers:

Contact Name	Organization	Email	Telephone
Marlene McCollem	District/Town	<a href="mailto:marlene.mccollem@carverma.org">marlene.mccollem@carverma.org</a>	508-866-3450
Michael Ohl	CEI	<a href="mailto:mohl@ceiengineers.com">mohl@ceiengineers.com</a>	508-281-5160
Kristen Berger	CEI	<a href="mailto:kberger@ceiengineers.com">kberger@ceiengineers.com</a>	508-281-5160
Curt Busto	CEI	<a href="mailto:cbusto@ceiengineers.com">cbusto@ceiengineers.com</a>	508-281-5160





FY17 NCWD Forecast

	OPERATING	SINKING FUND*	TOTAL
<u>Receipts</u>			
Betterments (current)	40,324.00		40,324.00
Betterments (interest)	75,108.00		75,108.00
Water usage charges	122,000.00		122,000.00
IRS subsidy		45,681.00 [1]	45,681.00
PILOT		25,000.00 [2]	25,000.00
Real estate taxes - DIF - 50% of cumulative		44,222.00 [3]	44,222.00
Transfer from GF for projected shortfall	19,705.00 [9]	240,853.00 [10] see below	260,558.00
<b>TOTAL REVENUES</b>	<b>\$ 257,137.00</b>	<b>\$ 355,756.00</b>	<b>\$ 612,893.00</b>
<u>Disbursements</u>			
Commission salaries	600.00		600.00
Clerical salaries	4,800.00		4,800.00
Sub-total salaries	<b>\$ 5,400.00</b>	<b>\$ -</b>	<b>\$ 5,400.00</b>
Electric	31,000.00 [4]		31,000.00
Propane	6,000.00		6,000.00
Repairs and maintenance	6,575.00 [7]		6,575.00
Legal services	5,000.00		5,000.00
Other professional services (includes fracking svcs)	132,040.00 [5]		132,040.00
Telephone	4,500.00		4,500.00
Supplies	8,750.00 [8]		8,750.00
Municipal insurance	10,000.00		10,000.00
Reserve fund	7,000.00		7,000.00
Equipment/vehicles	3,000.00		3,000.00
Indirect costs	47,800.51 [6]		47,800.51
Sub-total operating expenses	<b>\$ 261,665.51</b>	<b>\$ -</b>	<b>\$ 261,665.51</b>
Debt service principal		229,281.57	229,281.57
Debt service interest		124,474.43	124,474.43
Note interest expense		2,000.00	2,000.00
Sub-total debt service	<b>\$ -</b>	<b>\$ 355,756.00</b>	<b>\$ 355,756.00</b>
<b>TOTAL EXPENDITURES</b>	<b>\$ 267,065.51</b>	<b>\$ 355,756.00</b>	<b>\$ 622,821.51</b>
Operating budget	267,065.51	355,756.00	622,821.51
50% DIF & PILOT		(69,222.00)	(69,222.00) [11]
GF subsidy	(19,705.00)	(240,853.00)	(260,558.00) [11]
NCWD R&A	247,360.51	45,681.00	293,041.51

PLUS: FOR FY17, MUST TRANSFER \$35,090 TO WATER BETTER STAB FUND FOR FY15 PREPAYS

- [1] - 8038 refund only applies to the USDA loan for \$2.9 million, what about the loan for \$1.7 million?
- [2] - Southern Sky 1, will Southern Sky be in play for FY17?
- [3] - Level funded from FY16
- [4] - I have no idea what to have here - \$31,000 in FY16
- [5] - Includes an increase of \$2,040 for Softright annual cost
- [6] - 2% increase from FY16 - this will have to be adjusted once we determine final indirect cost allocation and once we have health insurance rates.
- [7] - Combination of repairs and maint vehicles and buildings & grounds. Review these accounts to see if FY15 expenses were coded correctly.
- [8] - Combination of office supplies and operating supplies.
- [9] - Operational deficit
- [10] - Deficit due to debt
- [11] - Total transfer from GF = \$329,780

\* - We will have to discuss how to present this at Town Meeting and make sure that the funding works out OK.



## NCWD

The water district continues to struggle with adequate revenue generation. Additional town subsidy will be required in FY17 and should continue to be anticipated in out years. I do not intend to remain involved in the day-to-day operation and management of the district after the close of FY16. However, I do have a number of observations that I would like to share with you before I step aside. Three major areas of weakness are: revenue collection, poor asset management, and irregular procurement practices.

First, revenue collection is exceedingly difficult. The system is overly complicated, fragile, and entirely dependent on outside assistance. In-house staff cannot generate the quarterly water bills without significant help from consultants. As a result, the bills are often delayed in being mailed out which has a negative impact on cash flow. I highly recommend that the district be able to generate its own water bills in FY 17.

Furthermore, fees such as backflow testing, broken meter replacement, service calls, service extensions, and the like are not being consistently levied in accordance with the written rules and regulations. It is possible that no attempt is being made to capture a significant amount of revenue. This merits serious inquiry.

Secondly, significant attention should be directed to establishing an asset management system. Currently the system inventory is incomplete. This should include detail on both the treatment plant equipment and the distribution system. Once the assets are inventoried and evaluated, the budget cycles will be able to better anticipate the replacement needs and costs over time. A robust asset management program will help the district make cost-effective capital decisions and provide a sustainable level of service to the users without undue stress on the water rate structure.

Currently knowledge and learning is not being captured and institutionalized in a systematic way. Recordkeeping is not consistent and is difficult to analyze for trends. Equipment life expectancy should be tracked in the future to understand the actual performance realized in the field.

Finally, the district relies on a vast network of consultants and vendors. Procurement practices should be tightened to ensure compliance with public bidding laws and to guarantee that the district is receiving a competitive price for the purchased goods and services. Significant amounts of money are expended by the district, the bidding protocols are cloudy, and there are numerous areas of improvement.

Given the above limitations and a long list of more minor items impacting the management of the district, I cannot give you an opinion about whether or not the proposed FY17 budget is adequate or reasonable.

