



## North Carver Water District

# Financial Analysis

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Division of Local Services/Technical Assistance Section

April 2014



April 17, 2014

Board of Water Commissioners  
North Carver Water District  
108 Main Street  
Carver, MA 02330

Dear Commissioners:

It is with pleasure that I transmit to you the enclosed Financial Analysis completed by the Division of Local Services for the North Carver Water District. In this report, we provide recommendations designed to strengthen the district's financial position and mitigate any negative financial impacts on the town of Carver. We also provide recommendations on the proper handling of betterment revenue and the correct application of District Improvement Financing revenues under MGL c.40Q.

As a routine practice, we will forward a copy of the report to the district's state senator and representative. We will also post the report to our website a week or two after it is released to district and town officials.

If you have any questions or comments regarding our findings and recommendations, please feel free to contact Rick Kingsley, Bureau Chief of the DLS Municipal Data Management and Technical Assistance Bureau at 617-626-2376 or at [kingsleyf@dor.state.ma.us](mailto:kingsleyf@dor.state.ma.us).

Sincerely,

Robert G. Nunes  
Deputy Commissioner &  
Director of Municipal Affairs

Cc: Senator Marc R. Pacheco  
Representative Susan Williams Gifford  
Michael Milanoski, Carver Town Administrator

## **Financial Analysis of the North Carver Water District**

### **Introduction**

At the request of the Commissioners of the North Carver Water District (NCWD), the Division of Local Services has prepared this analysis of the district's financial condition. The Division provides municipal consulting services regularly through its technical assistance section. In this case, the project team was led by a staff member from the Division's technical assistance section and included the town's field representative from the Bureau of Accounts. The purpose of this report is to provide the district and the town with guidance and recommendations on how to best manage district finances while, at the same time, minimizing any negative impacts on town finances.

To complete the review, we interviewed two of the district's water commissioners, the contract water system operators, the planning director and his assistant, and the town administrator and the town finance officers. We examined the special legislation creating the district and the subsequent amendment to this act. We analyzed district revenues including the billing and collection of system user fees and reviewed the billing, collection and expenditure of special assessment or betterment revenue. We evaluated the district's debt obligations and federal interest subsidies through the documentation and debt schedules provided by the district's financial advisor. We also researched the District Improvement Financing (DIF) agreement related to an area within the NCWD to provide direction on the proper handling of these revenues as they relate to the NCWD.

### **Background**

Prior to the creation of the North Carver Water District, certain properties in the northwest corner of Carver, including sections of Plymouth Street, Lakenham Drive and North Main Street, received their water service from the town of Middleborough. Sometime in the spring of 2005, Middleborough informed the town that it would no longer permit any new water service connections in Carver.

The lack of a public town water supply was cited as the town's foremost weakness at a town planning workshop in 2005; with high residential tax bills the second most frequently cited weakness. Residents identified the potential for commercial growth around Route 44 and water development as the primary areas of opportunity for the town. Shortly thereafter, the town engaged FXM Associates, an economic planning and research firm, to evaluate the development potential in the vicinity of the Routes 44 and 58 interchange.

The FXM study, completed in March of 2006, concluded that if the town could supply public water to the area, the development potential would yield more than \$66 million in new property valuation and upwards of \$1.2 million in additional property taxes. At Annual Town Meeting in June of 2007, the town approved special legislation to establish the North Carver Water District (See district map in Appendix 1). The special act was approved by the state legislature in June of 2008 (<https://malegislature.gov/Laws/SessionLaws/Acts/2008/Chapter124>).

The NCWD wells and water treatment facility are located on a parcel in north Carver known as the Cole property. Carver Town Meeting authorized the purchase of this parcel in December of 2006 and appropriated \$1 million from the Community Preservation Fund to partially fund a 99 acre portion of the property for open space and recreational purposes (Parcel 1) under the control of the conservation commission. The remaining 123 acres of the purchase (Parcel 2) was acquired for public water supply purposes and today serves as the location for the NCWD water treatment facility.

The property also supports two wells located in close proximity to the treatment facility. The water drawn from the wells is processed using technology from General Electric called the Zenon ZeeWeed ultra filtration membrane system to filter and provide biological treatment to the water drawn from the wells. The system is state of the art technology and well suited to treat area groundwater which is high in iron and other mineral content.

The system is operated by Small Water Systems Services (SWSS), LLC, a contract operator of water and wastewater systems. As required by the Department of Environmental Protection (DEP), SWSS provides a licensed operator four hours per day, seven days a week and is available to respond to any emergencies. The water operator also conducts meter readings quarterly for NCWD customers using radio read technology. Annual reports to the DEP on water quality are also completed by SWSS. The contractor appears to be well qualified to operate this modern treatment facility.

The system is permitted by the state DEP to draw up to a total of 100,000 gallons a day from its two wells. This is sufficient capacity to serve the roughly 70 current customers of the district. However, current consumption can be as high as 55,000 gallons per day if the system's largest user, Decas Cranberry, draws as much as 36,000 gallons in a day. A limiting factor on future system growth is the relatively small clearwater tank (28,000 gallons) for storing treated system water. Given the large daily draws by Decas, the lack of clearwater storage appears to be the most immediate capital need of the district to both retain Decas as a customer and further expand its user base. The relatively small DEP daily draw limits appear to be a longer term issue if significant district expansion occurs in the future.

## NCWD Finances

The North Carver Water District (NCWD) was established to provide water service to a limited area in Carver's northwest corner. The rationale behind the legislation was that providing public water service to the area would stimulate economic development around the intersection of Routes 44 and 58 and result in additional property tax revenue for the town. The area includes a mix of residential and commercial properties, with significant tracts of vacant land that are zoned for commercial use.

The district is a separate political subdivision and is governed by a three-member board of water commissioners elected from the town as a whole. In many respects, however, the special legislation is written such that ultimate responsibility for the district's finances rests with the town of Carver. For example, the district is required to set rates and other charges sufficient to cover all operating costs of the district, including all debt service as well as town bonds issued on the district's behalf. To the extent that district revenues are insufficient to cover debt issued for district purposes, the special act stipulates that the bonds are a general obligation of the town.

The town influences district finances in other ways as well. District budgets must be submitted to the selectmen for their review and recommendation; then they are subject to the approval of town meeting. Debt issued for district purposes, whether issued by the district or the town, requires the sign-off of a majority of the selectmen. Town finance officers also serve in their corresponding roles with regard to district finances. A subsequent amendment to the original special act in 2010 provided for a stronger role for the selectmen and town voters in deciding to expand the district service area.

The decision to establish a district to deliver water service was made to meet the population restrictions necessary to qualify for U.S. Rural Development Administration (RDA) loans. The town's population exceeded the 10,000 population maximum to qualify for these forty year federal loans, so the district, with a much smaller population, was established. Under the legislation, the district may issue bonds or notes provided they are sold to the RDA or similar state or federal entity. If this is not the case, then the town is to issue the bonds or notes on behalf of the district.

When system construction was complete in December of 2010, the district issued \$4.6 million in bonds through the RDA and the town issued \$525,000 in general obligation bonds to retire \$4.78 million in bond anticipation notes. The district also received more than \$2.1 million in state grants to help finance system construction. Of the \$4.6 million bonds issued through the RDA, \$2.9 million was issued as Recovery Zone Economic Development Bonds (RZEDB), with a forty-five percent interest subsidy provided by the federal government. The other \$1.7 million issued through the RDA was unsubsidized. A portion (\$300,000) of the \$525,000 in bond proceeds from the town issue was for "working capital" to fund initial district operating costs and, as such, was sold as a taxable issue.

According to the special act, district finances are consolidated into an enterprise fund so that all district revenues and expenditures are recorded in a single fund. As such, the NCWD enterprise fund budget is submitted to the Division of Local Services for approval as part of Carver's annual tax rate submission. The act stipulates that the district cover its costs by issuing special assessments or betterments and setting user fees to fund district operating and capital costs.

In the initial years of the district's operation (FY2011 thru FY2014), it relied heavily on the proceeds from the \$300,000 borrowed for working capital and about \$350,000 of revenue from the lump sum payoffs of betterments. The borrowing for working capital, normally illegal under Massachusetts municipal finance laws, was authorized by the district's special act. Use of these one-time funding sources masked the true fiscal condition of the district up until FY2014, when the town was forced to subsidize the district for the first time.

The district closed FY2013 with a negative fund balance and a retained earnings deficit of \$31,319. Strong retained earnings balances in previous years (\$246,692 on 7/1/2011 and \$240,209 on 7/1/2012) were accomplished largely on the strength of one-time bond proceeds and betterment payoffs. The town had to raise the \$31,319 deficit on the FY2014 tax rate from general fund revenue and, when retained earnings proved to be negative, needed to appropriate \$100,000 from free cash to balance the district's budget. In addition to the \$131,319 subsidy provided by the town for FY2014, the district relied on \$167,109 in lump sum betterment payoffs to balance its budget.

Revenue from user fees has been a less significant revenue source for the district as the number of users has grown more slowly than anticipated, in part, a byproduct of the recent severe recession and slow recovery. The district has a new three year contract for large volume usage with Decas Cranberries beginning in FY2014. The company makes several trips each weekday morning to fill a 9,000 gallon water tanker at a special hydrant created for this purpose. Additional annual user fee revenue for a full year of the Decas contract projects to be about \$45,500 based on 28,000 gallons per day. However, the significant draws required each morning to fill the tankers may present problems for the district in the future as its customer base grows. The limited amount of treated water that can be stored in the clearwater storage tank (28,000 gallons) at the treatment facility is an impediment in this regard.

The district has other potential revenue sources as well. On June 30<sup>th</sup> of 2010, the state's Economic Assistance Coordinating Council (EACC) approved an application from the town to create the North Carver Development District (NCDD). The development district was established to stimulate economic activity in an area that includes the intersections of Routes 44 and 58. The NCDD consists essentially then of the northwestern corner of the NCWD that was most likely to experience new development due to the provision of water service. The provision of water service to this area was identified as the most serious constraint to development in the NCDD and, as such, was identified as the project best suited to encourage this economic stimulus.

Using the district improvement financing (DIF) mechanisms outlined in MGL c.40Q, the plan was to use incremental tax revenue associated with new development in the district to offset NCWD debt service costs. The use of district improvement financing allowed the town to use some or all of the incremental tax revenue generated by future development within the NCDD as a revenue source to support the cost of constructing the NCWD system. The town approved the NCDD application at a special town meeting in June of 2010 with the intent that 50 percent of the incremental tax revenue from new development go toward the NCWD debt service.

Another revenue source for the NCWD is the federal reimbursement for the annual interest subsidy associated with the \$2.9 million RZEDB bond. To receive reimbursement for 45 percent of the annual interest, the treasurer must file Internal Revenue Service Form 8038-CP. According to the treasurer, these reimbursement forms had not always been filed in the past and she recently filed for both the 2012 and 2013 reimbursements. With regular and timely annual filing for this reimbursement, the district should begin to include this as an estimated revenue within the NCWD enterprise fund to offset associated interest costs.

District operating expenses relate primarily to the operation of the treatment facility by a contract operator and the associated utility costs and other expenses. The largest component of the district's budget is the annual debt service costs associated with district and town borrowings for water purposes. Together, these costs are relatively fixed and, to the extent possible, must be covered by district revenues.

## **Conclusion**

Although the NCWD has been operating since FY2011, until recently, the true extent of its structural financial shortfall has been masked by various factors including the use of bond proceeds for operating costs as allowed by the special act and the budgeting of lump sum betterment payoffs. For the first time in FY2014, the town had to subsidize district operations by \$131,319, even though the district relied on a \$167,109 betterment payoff to balance the remainder of the budget. Going forward, when all annual district revenues are included, the structural gap projects to be approximately \$164,500 per year (see table on page 9).

Given that the terms for the two RDA bonds extend through 2046 and 2048, we believe that the NCWD and the town have little choice but to collaborate on ways to encourage development and grow the district's customer base. However, both parties will need to work closely on all aspects of district finances to mitigate negative impacts on town finances and to maximize the chances that the NCWD will ultimately be a successful endeavor.

There is promise that the NCWD revenues will improve in future years. The establishment of the development district (NCDD) within the NCWD in the area best suited for economic growth holds potential as a significant revenue source to balance future NCWD budgets. In particular, the pilot payments for the Southern Sky solar installation within the development district are

being billed for the first time this fiscal year. The negotiated payment for this facility in FY2015 is \$50,000, with the payments increasing to \$75,000 per year by FY2018. Fifty percent of any incremental tax growth in the NCDD (including the pilot payments on the Southern Sky solar) will be available to finance NCWD debt.

## **District Revenues**

User Fees - The NCWD bills customers for their water use on a quarterly basis. Until recently, the town of Middleborough handled the meter reading and billing of user accounts. In January of 2014, the town acquired new billing software and has begun doing the readings and billings in-house. In prior years, billing for water use was not as prompt as it could have been with bills issued about five or six weeks after the end of each quarter in FY2012 and no interest charged on overdue accounts. Recent billings in FY2013 and FY2014 have typically been within one week of the readings.

There are about 70 current users of the system that are billed at a rate of \$9.71 per 1,000 gallons. The rate is reviewed annually by the water commissioners and was increased to its current level as of October of 2013. In FY2013, actual collections from user fees totaled almost \$50,000. For FY2014, the district has collected close to \$62,000 for three quarters while only billing a little less than \$52,000. With more timely billing and the charging of interest on delinquent amounts, the district is catching up on past due accounts and actual collections in FY2014 project to be at least \$75,000.

The district supplements the above user fee revenues by selling additional water to the town's largest private employer, Decas Cranberry Company. Through the use of a special hydrant fill station on Marion Drive, Decas is able to fill 9,000 gallon water tankers. The company has committed to a three year contract to draw at least 28,000 gallons a day, five days a week. Decas is billed for its usage on a quarterly basis, but because it did not start drawing NCWD water until September of 2013, it is on a different billing cycle than the other customers. Due to the timing of the Decas billings, it appears that only two quarters of bills (about \$23,600) are likely to be collected by fiscal year-end. For a full year, Decas revenues project to be about \$45,500.

Betterments – To offset the cost of installing the water distribution system, the NCWD issued betterments to about 68 property owners (not all properties subject to betterment are actual water users) under the authority of MGL c.40, §40G through 40I.. Previous recipients of service from Middleborough could not be issued betterments as their property had already realized the benefit of public water service. The initial commitment of betterments totaled \$2,726,334 and the list of impacted properties was recorded at the Registry of Deeds in January of 2010. The special legislation allowed property owners to apportion these assessments over 40 years rather than the 20 year apportionment allowed under general law.



Subsequent to the initial commitment, district water commissioners issued abatements totaling more than \$575,000. In addition, there is current litigation around the betterments as applied to two large parcels that are zoned commercial highway parcels at the intersection of Routes 44 and 58. To date, the district has received about \$350,000 in lump sum payoffs and billed more than another \$200,000 in apportioned betterment principal. About another \$40,000 has been deferred under MGL c.40, §40J. Together with the lump sum payoffs received to date, abatements, deferrals and apportioned betterments, there is roughly \$1.55 million in remaining betterments outstanding. These revenues are intended to cover the debt service on the two RDA bonds where payment terms span another thirty-two and thirty-four years.

DIF revenue - The use of district improvement financing allowed the town to use some or all of the incremental tax revenue generated by future development within the North Carver Development District (NCDD) as a revenue source to support the cost of constructing the NCWD system. Town meeting approved the NCDD application with the intent that fifty percent of the incremental tax revenue from new development go toward NCWD debt service. This includes half of the payment in lieu of taxes (pilot) for the Southern Sky solar installation which is located within the district. These pilot payments are considered tax revenue since the associated valuations and payments are included as part of the tax base and Proposition 2 ½ levy limit calculations.

Going forward, annual DIF revenue related to the Southern Sky solar pilot should play a more prominent role in NCWD finances. For FY2015, the total Southern Sky pilot is \$50,000, with \$25,000 considered to be DIF revenue for NCWD. By FY2018, these pilot payments rise to \$75,000, with \$37,500 directed to NCWD. Revenue from other new development in the NCDD was estimated at \$2,000 in FY2014 and according to the assessor will be approximately \$3,000 in FY2015.

According to MGL c.40Q, §3(c), DIF revenues shall be deposited into a development program fund, which in this case would be an account established within the NCWD enterprise fund. The statute directs that the revenue be deposited into either: (1) a development sinking fund to pay debt service for the project (in this case, the RZEDB debt service of the NCWD) or (2) a project cost account to pay project costs (this doesn't apply here as construction of NCWD has already been completed and financed). The town should be crediting the NCWD with its 50 percent share of these revenues and the district should deposit these revenues in the statutory development sinking fund for debt service. This account then operates essentially as a receipt reserved for appropriation account, with actual account balances available for subsequent appropriation to offset the RZEDB debt service.

Federal interest reimbursement – The NCWD receives a 45 percent reimbursement of the interest due each year on the Recovery Zone Economic Development Bonds (RZEDB) from the federal

government. The district budgets the gross debt service for the RZEDB and should begin budgeting the federal reimbursement each year as well. According to the treasurer/collector, she recently filed for reimbursement with the Internal Revenue Service for both 2012 and 2013. The 2012 reimbursement (\$31,992) has been paid and the 2013 amount of \$47,700 should be paid by the end of April.

### **District Expenses**

Operating costs – District operating costs include the cost of the contract with system operator Small Water Systems Services (SWSS) and the cost of supplies, utilities and maintenance. A portion of the salary of the assistant to the town planner that now handles NCWD billing is also included. Operating costs are projected to be about \$215,000 in FY2015.

Debt Service – All NCWD debt issued through the RDA has level debt service each year. Total debt service on these bonds, plus those issued by the town for district purposes, totals \$256,506 for FY2015. Together with the operating costs above, the NCWD budget is estimated to be about \$466,500 in FY2015.

### **Town Subsidy**

When total projected annual NCWD expenses (\$471,730) are compared with total recurring annual revenues available for FY2015 (\$307,279), the town subsidy projects to be close to \$164,500 (See table on the next page). Although additional revenue from the Southern Sky pilot and federal RZEDB interest reimbursements related to prior years may be available if collected by the end of FY2014, these amounts have not been regarded as recurring revenues in this analysis. To the extent possible, the district should avoid spending any retained earnings in the NCWD enterprise fund that may arise from the collection of the above mentioned receivables.

**North Carver Water District  
Projected FY2015 Town Subsidy**

<b>Revenues</b>	<b>FY2015</b>
<u>User fees</u>	
Other usage	63,400
Decas Cranberry	45,500
<u>Betterments</u>	
Principal	45,000
Interest	79,000
<u>DIF Revenue</u>	
Southern Sky pilot	25,000
Other DIF	3,000
<u>Federal reimbursement</u>	46,379
<b>Total Revenue</b>	<b>307,279</b>
<b>Expenses</b>	
Operating costs	215,224
Debt service	256,506
<b>Total Expenses</b>	<b>471,730</b>
<b>Town Subsidy</b>	<b>-164,451</b>

**Assumptions**

**User fees** - Based on a review of billed and collected user fees for FY2012, FY2013 and FY2014, we project that the NCWD will bill about \$66,715 in FY2014. Assuming that FY2015 billed amounts will be similar, and with a 95 percent collection rate, the district should collect about \$63,400 in FY2015. No rate increases are assumed.

**Decas Cranberry** - Based on actual billings for FY2014 and the 28,000 gallon daily draw over 250 days, we project that annual revenues from Decas over a full year will total \$45,500.

**Betterments** - Based on the remaining balance of betterments, we project that apportioned betterment principal and interest will be about \$45,000 and \$79,000, respectively. We include no lump sum payoff in these estimates.

**District Increment Financing (DIF)** - This estimate is based on half of the scheduled pilot payment for Southern Sky solar and another \$3,000 of incremental tax revenue associated with other development.

**Federal Interest Reimbursement** - This estimate is based on the debt schedule provided by the district financial advisor.

**Operating Costs** - Includes \$6,000 for the planning department staff salary and the FY2014 operating costs increased by 2.5 percent.

**Debt Service** - Reflects the gross principal and interest for existing NCWD debt according to the schedule provided by the district's financial advisor.

**Town Subsidy** - Estimated amount of NCWD structural deficit when subtracting estimated annual recurring expenses from estimated annual recurring revenues.

## Recommendations

**1. We recommend that the town play a more prominent role in the oversight and financial planning of the NCWD.** Given that district bonds are backed by the full faith and credit of the town and district finances are handled as an enterprise fund of the town for tax rate setting purposes, Carver's financial interests are very much intertwined with the NCWD. Therefore, to ensure that any negative impacts on town finance are understood and managed as carefully as possible, town finance officials must work closely with the district on fiscal issues over the next several years.

Town oversight and awareness of district finances has been set-back temporarily due to the recent turnover in several key town offices including the town administrator, accountant and treasurer/collector. As a consequence, at our recent meeting with town fiscal officers, the district's financial advisor from UniBank appeared to be the lead person for district finances. We believe that the town administrator and the finance officers are the logical town personnel to assume fiscal planning responsibilities going forward and that the district will benefit from their attention and expertise over time.

**2. We recommend that the district resist the past practice of applying lump sum betterment payoffs to balance the budget.** For example, to balance the FY2014 budget, in addition to the annual commitment of apportioned betterments plus interest, the district relied on a \$167,000 betterment payoff. This practice will result in a shortfall of betterment revenue available to service district debt in the latter years of the forty year bond issues.

**We also recommend that the district attempt to match betterment revenues proportionately to the associated annual debt service costs.** With the majority of district property owners electing to apportion their betterment assessments equally over the forty years, principal payments should be fairly steady from year to year in the absence of lump sum payoffs. However, the interest associated with these apportioned betterments will decline to very minimal amounts over the last few years. As this interest income declines, the district should apply betterment revenues previously collected from any lump sum payoffs, such that betterment revenues cover as close to the same proportion of debt service each year as possible to the end of the borrowings.

In order to accomplish this, however, the district needs to generate a stronger fund balance and positive retained earnings. Without a positive retained earnings balance, the NCWD will not have a mechanism to reserve and later appropriate betterments paid as a lump sum. To avoid this problem, when necessary, town subsidies should be budgeted upfront as part of the regular budget process, so that any lump sum payoffs made will be available as certified retained earnings that can later be appropriated to offset future debt. These betterment revenues should be tracked separately as a component of NCWD's retained earnings. A stronger role for the town's finance team as recommended above should help in this regard.

**3. We recommend that Carver carefully consider the treatment of DIF revenues to be credited to the NCWD when setting its tax rate.** Since these DIF revenues are also general tax revenues that are included as part of the town's total tax levy, for tax rate setting purposes, the town needs to avoid double counting these revenues. Therefore, the annual amounts to be credited to the NCWD should be pulled out of the regular revenue stream by raising the 50 percent share of DIF revenues to be credited to the NCWD on page two of the tax rate recapitulation sheet. The 50 percent share of the Southern Sky solar pilot revenue to be credited to NCWD is also considered to be part of the DIF and should be treated as recommended above.

**We also recommend that DIF revenues for the NCWD be deposited in a development program sinking fund as required by MGL c.40Q, §3.** This statute directs that the DIF revenue be deposited into either: (1) a development sinking fund to pay debt service for the project (in this case, the RZEDB debt service of the NCWD) or (2) a project cost account to pay project costs. In this case, the project cost account is not relevant since the NCWD construction is complete and the project costs have been permanently financed. All DIF revenues related to the NCWD should then be placed in a development account within the enterprise fund and treated essentially as a receipts reserved account for future appropriation.

Looking ahead then, rather than using estimated DIF revenues as a revenue source within the enterprise fund budget, appropriations should be made from the balance on hand in the development account. DIF revenue should be deposited in this account each year as they are collected and then appropriated to offset the RZEDB annual debt service for the following year. Although the NCWD only budgeted \$2,000 in DIF revenues in FY2014, actual collections due to the three years of pilot payments for the Southern Sky solar array should be substantially higher. The NCWD's 50 percent share of these DIF revenues received in FY2014 should be credited to the development account within the enterprise and a portion appropriated this spring to support the FY2015 budget.

**4. We recommend that the town commit to filing timely federal reimbursement forms for the annual interest credit from the U.S. Treasury.** These reimbursements need to be requested each year by filing Internal Revenue Service (IRS) Form 8038-CD. According to the instructions on IRS Form 8038-CD, for fixed rate interest borrowings, the form must be filed at least 45 days ahead of the relevant interest payments. Since this reimbursement is almost as great as the NCWD's user fees each year, it is critical to the district's fiscal health that the town finance team insures that these forms are filed timely each year going forward.

**5. We recommend that the district develop a reasonable capital plan in concert with town fiscal officers.** In spite of the lack of adequate district revenues, it appears that only through modest additional investment will the district be able to expand its customer base so that it can be more self-supporting. Capital needs such as expanding the clearwater storage capacity at the water treatment plant should be considered when they support the goal of expanding the system. It also looks like Department of Environmental Protection limits on the amount of water that can

be drawn from district wells will be a limiting factor to future expansion efforts.

**6. We recommend that the NCWD prioritize the replacement of older water meters in the district.** Although most of the district meters are fairly new, there are some that are more than 20 years old. After about ten years of use, depending on total usage over its lifetime, an older water meter will tend to understate the amount of water consumed. Since the costs are fairly low to replace these meters and equity in billing will improve as a result, we support the installation of new meters.

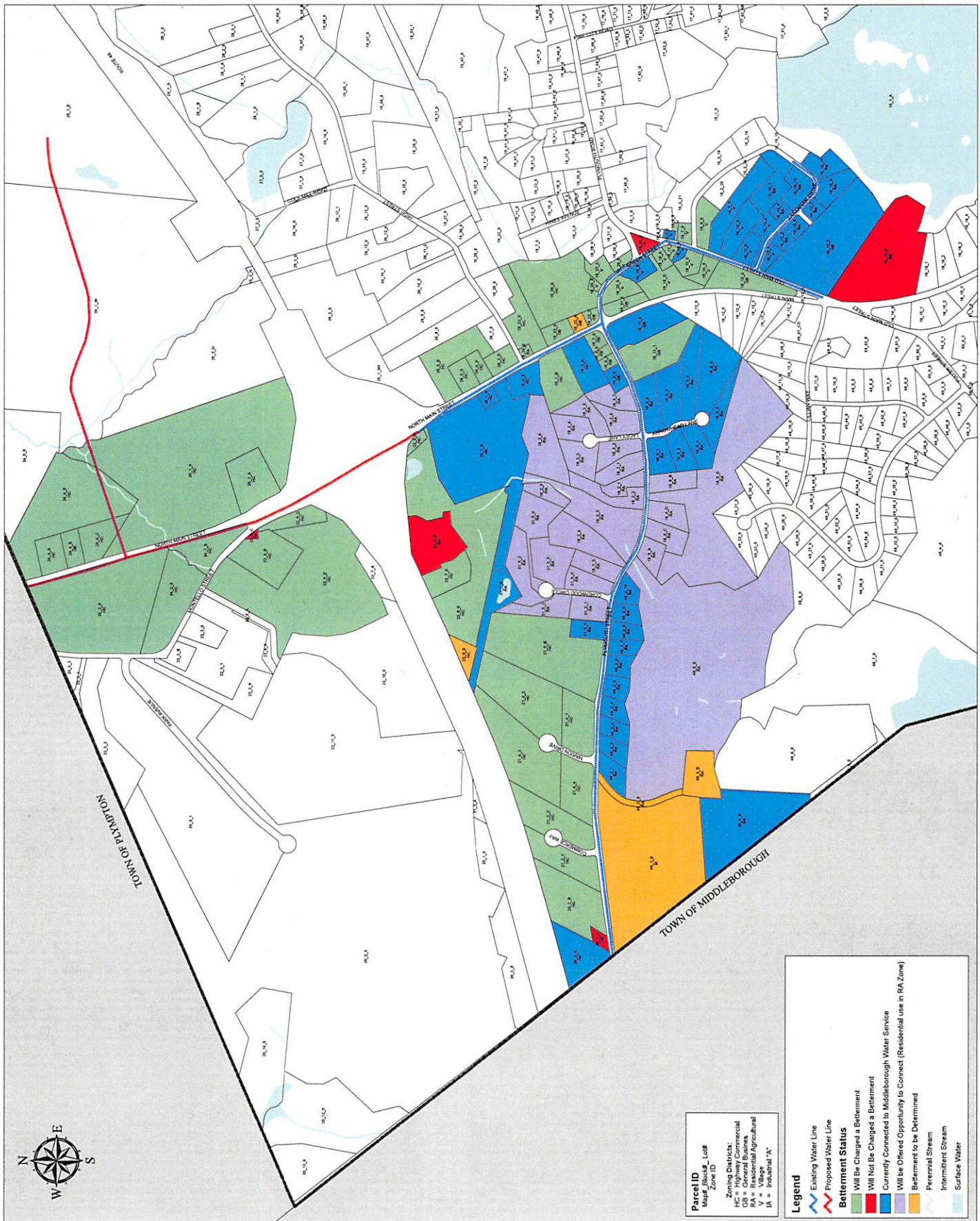
**7. We recommend that the NCWD utilize all of the collection mechanisms available to it to pursue delinquent user fees.** As noted earlier, the district has taken over the billing process this fiscal year and has begun to assess 14 percent interest charges on delinquent accounts from the due date as specified in the district's rules and regulations. The district's rules and regulations call for a demand fee as well, but this has not been charged as yet. We recommend that the water commissioners vote to establish the amount of the demand fee and begin to assess this fee if the bill has not been paid by the due date as required by the district rules and regulations.

Although the district has a water shut-off policy for non-payment, this method cannot be used in all cases according to the Department of Public Utilities. In the event that amounts are still unpaid when the assessors prepare the annual tax commitment, the delinquent user fees plus interest and demand fee should be liened on the tax bills as allowed by the NCWD special act. While the district has done fairly well with collections given the small sample of users, it is important for the NCWD to approach collections in a determined and methodical manner. Good collection practices are important from the perspective of the district's fiscal outlook and serve to demonstrate to users that the district is serious about collecting amounts due.

**8. We recommend that the NCWD investigate whether it is feasible to bill Decas Cranberry for their usage on a monthly basis.** Billing the district's largest customer every month would improve district cash flow and result in a one-time revenue enhancement. The quarterly billing process used during FY2014 presented some problems as only two quarters are likely to be collected by June 30<sup>th</sup>.



# Appendix 1



**Parcel ID**  
MapE\_Blocks\_Lot  
Zone ID

**Zoning Districts:**  
 GS = General Commercial  
 RA = Residential Agricultural  
 V = Village  
 IA = Industrial A\*

- Legend**
- Existing Water Line
  - Proposed Water Line
  - Betterment Status**
  - Will Be Charged a Betterment
  - Will Not Be Charged a Betterment
  - Currently Connected to Middleborough Water Service
  - Will Be Offered Opportunity to Connect (Residential use in RA Zone)
  - Betterment to be Determined
  - Perennial Stream
  - Intermittent Stream
  - Surface Water

**NORFOLK RAM**  
ENGINEERING SOLUTIONS  
FOR THE ENVIRONMENT

300 150 0 300 600  
Scale: 1" = 300'

**NORTH CARVER WATER SUPPLY PROJECT**  
**PROPOSED BETTERMENT MAP**  
CARVER, MASSACHUSETTS  
AUGUST 2009

Map Date: 8/10/09  
Map Scale: 1" = 300'  
Map Author: Norfolk RAM