The Barnstable County Fiscal Year 13 Annual Report

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Kalliope Egloff, Cape Cod Cooperative Extension
Barnstable County takes great pride in our forward thinking and progressive movement to remain at the forefront of technology and regional advances, while protecting our rich and traditional historical heritage. We work hard to optimize regional impact in Barnstable County by maximizing our programs, support, services and innovation throughout all County departments, enabling us to provide the greatest community contribution through our programs and services. We here at Barnstable County value and respect our regional position in the community and we thank you for the opportunity to serve you while moving forward together.

Please enjoy the Annual Report contained within these pages and see all of the outstanding community programs, services and initiatives offered right here in our community. There’s so much going on right here in Barnstable County.

Barnstable County is... Cape Cod
Barnstable County was founded in 1658 and is the second oldest County in the US. These 15 communities of Cape Cod are connected by more than the geography of this beautiful peninsula. Together they celebrate a shared history, a shared culture, and a shared vision. Barnstable County is a special place, requiring special protection and special services managed cooperatively for the benefit of each community. This Narrow Land has a unique place in the national historical narrative and has been defined by the limitations and expanses of land and water. Cape Cod has always had one foot in the past and one in the future.

Barnstable County government is proud to focus attention on regional issues and resources that impact our coastal waters, environment, and public health and safety. We work hard to develop programs to educate and inform our residents on conserving energy, food safety and nutrition, recycling and household hazardous products. Our departments are vibrant and active across the Cape and beyond, providing information, support and advocacy for environmental issues, technology innovation and emergency preparedness. With a breadth of services offered by our Barnstable County Departments, our communities are strong, informed and supported as we share in the rich, historical and rewarding life here on Cape Cod.
# Barnstable County Annual Report

*Fiscal Year 2013*

## Table of Contents

- Barnstable County Treasurer ................................................................. 5
- Barnstable County Finance ................................................................ 7
- Barnstable County Purchasing............................................................... 11
- Barnstable County Commissioners .................................................... 15
- Barnstable County Assembly of Delegates ......................................... 27
- Barnstable County Retirement Association ......................................... 31
- Barnstable County Department of Health and Environment .............. 35
- Cape Cod Cooperative Extension .......................................................... 61
- Barnstable County Fire Training Academy ........................................... 111
- Barnstable County Human Services ..................................................... 117
- Barnstable County Information Technology ........................................ 129
- Barnstable County Registry of Deeds .................................................... 141
- Barnstable County Resource Development & AmeriCorps Cape Cod .... 145
- Barnstable County Child Advocacy Center / Children's Cove ............. 157
- Barnstable County Facilities ................................................................. 163
- Cape Cod Commission ......................................................................... 167
- Barnstable County Dredge ................................................................. 215
Report of the Barnstable County Treasurer
REPORT OF THE TREASURER
of the
COUNTY OF BARNSTABLE
FISCAL YEAR 2013

To the Citizens of Barnstable County:

I hereby submit the Annual Report of the Treasurer of Barnstable County for the fiscal year ending June 30, 2013. This publication is one hundred and sixteen in the series.

The financial reports that follow include a preliminary statement of receipts and expenditures, the balances at year-end in the General Fund, the Corrections Fund, and the Environmental Protection Fund, and a listing of the tax assessments to the towns of Barnstable County.

All financial records through June 30, 2012 have been examined by Sullivan, Rogers & Company, Certified Public Accountants located in Burlington, Massachusetts and were found to be in good order. The audit report is on file at the office of the County Treasurer and is available for inspection.

Respectfully submitted,

E. Mark Zielinski
Barnstable County Treasurer
Report from the Department of Finance
Statement of Receipts and Expenditures
The Barnstable County Department of Finance hereby submits its Annual Report for Fiscal Year 2013. The Department is responsible for the financial management of the County. Department activities include Treasury Services, Accounting, Payroll, Purchasing, Accounts Payable, and Group Insurance services.

During Fiscal Year 2013, the Finance Department began the process of updating the MUNIS Financial management system. In cooperation with the Information Technology Department, Finance reviewed the software, set up training schedules and prepared for implementation of the new system in FY2014.

The Finance Department continued to manage the accounts for the Cape and Vineyard Electric Cooperative, Inc. (CVEC) during FY2013. Under an Administrative Services Agreement with CVEC, the Finance Department is responsible for managing the financial records and funds of CVEC. The Treasurer also acts as the CVEC Treasurer and is a member of the CVEC Board as appointed by the County Commissioners.

Also in Fiscal Year 2013, the Department worked with the Barnstable County Health and Environment Department to manage the Community Septic Betterment Loan Program and issue bonds through the Water Pollution Abatement Trust. This service provides betterment loans to homeowners in all 15 Cape Cod towns for septic system improvements.

The Finance Department began preparations for the County’s first general obligation bond issue since 1997. The bonds, which will be issued in FY 2014, provided needed capital improvements to County facilities and equipment for the Health and Environment Department’s Water Quality Testing Laboratory.
During Fiscal Year 2013, Barnstable County’s long-term general obligation bond rating continued to be Aa2.

The County’s careful fiscal management continued to ensure that the books were closed on fiscal year 2013 with a positive balance in the General Fund, and the Cape Cod Environmental Protection Fund. Registry of Deeds Excise Tax revenues were up over 20% from the previous fiscal year to approximately $8.1 million and the Registry’s Business revenue increased 8.3% to $3.04 million, thus preserving Barnstable County’s strong financial position at the end of FY2013.

The following reports are submitted by the County Treasurer, and the Chief Procurement Officer for their respective divisions of the Barnstable County Department of Finance.

- Report of the County Treasurer
- Report of the County Procurement Officer

Respectfully submitted,

E. Mark Zielinski
County Administrator/
Director of Finance/Treasurer
# County of Barnstable
## Tax Assessments
### Fiscal Year 2013

<table>
<thead>
<tr>
<th>Town</th>
<th>County Tax</th>
<th>Cape Cod Commission Environmental Protection Tax</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnstable</td>
<td>505,455</td>
<td>528,700</td>
</tr>
<tr>
<td>Bourne</td>
<td>160,748</td>
<td>168,140</td>
</tr>
<tr>
<td>Brewster</td>
<td>137,883</td>
<td>144,224</td>
</tr>
<tr>
<td>Chatham</td>
<td>233,847</td>
<td>244,601</td>
</tr>
<tr>
<td>Dennis</td>
<td>239,737</td>
<td>250,761</td>
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<tr>
<td>Eastham</td>
<td>106,011</td>
<td>110,886</td>
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<tr>
<td>Falmouth</td>
<td>411,570</td>
<td>430,498</td>
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<tr>
<td>Harwich</td>
<td>181,535</td>
<td>189,883</td>
</tr>
<tr>
<td>Mashpee</td>
<td>175,992</td>
<td>184,085</td>
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<tr>
<td>Orleans</td>
<td>143,773</td>
<td>150,384</td>
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<tr>
<td>Provincetown</td>
<td>89,728</td>
<td>93,854</td>
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<tr>
<td>Sandwich</td>
<td>143,426</td>
<td>150,022</td>
</tr>
<tr>
<td>Truro</td>
<td>80,028</td>
<td>83,708</td>
</tr>
<tr>
<td>Wellfleet</td>
<td>81,760</td>
<td>85,520</td>
</tr>
<tr>
<td>Yarmouth</td>
<td>208,557</td>
<td>218,148</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>2,900,050</strong></td>
<td><strong>3,033,414</strong></td>
</tr>
</tbody>
</table>
**The Commonwealth of Massachusetts**  
Department of Revenue-Division of Local Services-Bureau of Accounts  
Statement of the Receipts and Payments of the Treasurer of Barnstable County for the Fiscal Year Ending June 30, 2013

<table>
<thead>
<tr>
<th>Description</th>
<th>7/1/12 Balance</th>
<th>General Fund 0001</th>
<th>Capital Projects Fund 0005</th>
<th>Cape Cod Comm Funds 0010-0015</th>
<th>All Other Receipts</th>
<th>Payments</th>
<th>Fund Balances</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fund Balances:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reserved for Encumbrances</td>
<td>1,068,919.11</td>
<td>873,297.94</td>
<td>215,151.60</td>
<td></td>
<td>0.00</td>
<td></td>
<td>2,157,368.65</td>
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<tr>
<td>Reserved for Continuing Appropriations</td>
<td>1,335,029.32</td>
<td>976,022.07</td>
<td>0.00</td>
<td></td>
<td>0.00</td>
<td></td>
<td>2,311,051.39</td>
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</tr>
<tr>
<td>Statutory Reserve</td>
<td>290,005.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td>0.00</td>
<td></td>
<td>290,005.00</td>
<td></td>
</tr>
<tr>
<td>Reserved for Other</td>
<td>1,786,190.15</td>
<td>0.00</td>
<td>1,102,237.00</td>
<td></td>
<td>0.00</td>
<td></td>
<td>2,888,427.15</td>
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<tr>
<td>Unreserved and Undesignated</td>
<td>6,876.24</td>
<td>(6,208,708.11)</td>
<td>493,573.73</td>
<td></td>
<td>20,246,759.45</td>
<td></td>
<td>14,538,501.31</td>
<td></td>
</tr>
<tr>
<td><strong>Total Fund Balances 7/1/12</strong></td>
<td>4,487,019.82</td>
<td>(4,359,388.10)</td>
<td>1,810,962.33</td>
<td></td>
<td>20,246,759.45</td>
<td></td>
<td>22,185,353.50</td>
<td></td>
</tr>
</tbody>
</table>

**BUDGETED REVENUES**

- Information Tech Support Services: 87,999.96  
- Building Rentals: 17,381.68  
- Courthouse Rental: 1,626,072.73  
- Cooperative Extension Service: 66,516.17  
- County Excise Taxes: 8,072,364.15  
- Registry of Deeds: 3,044,933.73  
- Health & Environmental: 440,625.61  
- Fire Training Academy: 184,999.50  
- License Plate Revenue-Rest Area & Other: 31,881.80  
- County Tax Assessments: 2,900,050.00  
- Miscellaneous Revenues: 29,040.90  
- Interest Income: 31,799.04  
- CC Environmental Protection Tax Assessments: 3,033,414.00  
- Cape Cod Commission Regulatory Fees: 171,665.07  
- Cape Cod Commission Misc Revenues: 13,732.44  
- Cape Cod Commission Grants: 732,059.95  

**TOTAL BUDGETED REVENUES**  
16,533,665.27  
0.00  
3,950,871.46  
20,484,536.73
### Appropriation Expenditures

<table>
<thead>
<tr>
<th>Department</th>
<th>Budgeted</th>
<th>Transferred</th>
<th>Allocated</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Commissioners Office</td>
<td>466,496.66</td>
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<td></td>
<td>466,496.66</td>
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<tr>
<td>Information Technology Services</td>
<td>737,879.73</td>
<td>419,252.24</td>
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<td>1,157,131.97</td>
</tr>
<tr>
<td>Resource Development Office</td>
<td>754,393.43</td>
<td>10,320.00</td>
<td></td>
<td>764,713.43</td>
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<tr>
<td>Cape Light Compact</td>
<td>113.12</td>
<td></td>
<td></td>
<td>113.12</td>
</tr>
<tr>
<td>Assembly of Delegates</td>
<td>268,115.63</td>
<td></td>
<td></td>
<td>268,115.63</td>
</tr>
<tr>
<td>Department of Finance</td>
<td>549,816.65</td>
<td></td>
<td></td>
<td>549,816.65</td>
</tr>
<tr>
<td>Department of Facilities</td>
<td>2,796,435.71</td>
<td>306,961.66</td>
<td></td>
<td>3,103,397.37</td>
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<tr>
<td>Cooperative Extension Services</td>
<td>1,502,505.11</td>
<td></td>
<td></td>
<td>1,502,505.11</td>
</tr>
<tr>
<td>Registry of Deeds</td>
<td>2,501,844.29</td>
<td></td>
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<td>2,501,844.29</td>
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<tr>
<td>Regional Services Initiatives</td>
<td>11,320.22</td>
<td></td>
<td></td>
<td>11,320.22</td>
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<tr>
<td>Health &amp; Environmental</td>
<td>1,793,749.92</td>
<td>646,581.13</td>
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<td>2,440,331.05</td>
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<tr>
<td>Human Services</td>
<td>369,961.20</td>
<td></td>
<td></td>
<td>369,961.20</td>
</tr>
<tr>
<td>Children's Cove</td>
<td>464,148.24</td>
<td></td>
<td></td>
<td>464,148.24</td>
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<tr>
<td>Grants for Human Services</td>
<td>81,250.00</td>
<td></td>
<td></td>
<td>81,250.00</td>
</tr>
<tr>
<td>Fire Training Academy</td>
<td>393,133.62</td>
<td></td>
<td></td>
<td>393,133.62</td>
</tr>
<tr>
<td>Water Quality Initiatives</td>
<td>316,331.62</td>
<td></td>
<td></td>
<td>316,331.62</td>
</tr>
<tr>
<td>Retirement-Retired Sheriff's Employees</td>
<td>1,009,386.00</td>
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<td></td>
<td>1,009,386.00</td>
</tr>
<tr>
<td>Retirement-Early Retirement Incentive</td>
<td>104,048.00</td>
<td></td>
<td></td>
<td>104,048.00</td>
</tr>
<tr>
<td>Group Hlth,Dental &amp; Life Insurance-Retirees</td>
<td>804,494.10</td>
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<td></td>
<td>804,494.10</td>
</tr>
<tr>
<td>Other Fringe Benefits</td>
<td>29,860.43</td>
<td></td>
<td></td>
<td>29,860.43</td>
</tr>
<tr>
<td>Non-Contributory Pensions</td>
<td>3,070.32</td>
<td></td>
<td></td>
<td>3,070.32</td>
</tr>
<tr>
<td>Miscellaneous &amp; Contingent</td>
<td>449,849.55</td>
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<td></td>
<td>449,849.55</td>
</tr>
<tr>
<td>Unpaid Bills</td>
<td>3,968.70</td>
<td></td>
<td></td>
<td>3,968.70</td>
</tr>
<tr>
<td>Cape Cod Commission Programs</td>
<td>3,901,095.86</td>
<td></td>
<td></td>
<td>3,901,095.86</td>
</tr>
<tr>
<td>Workers Comp Premiums/Claims</td>
<td>80,759.74</td>
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<td></td>
<td>80,759.74</td>
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<tr>
<td><strong>Total Appropriation Expenditures</strong></td>
<td><strong>15,492,931.99</strong></td>
<td><strong>1,383,115.03</strong></td>
<td><strong>3,901,095.86</strong></td>
<td><strong>20,777,142.88</strong></td>
</tr>
</tbody>
</table>

### Other Funds

<table>
<thead>
<tr>
<th>Fund</th>
<th>Budgeted</th>
<th>Transferred</th>
<th>Allocated</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0025 Dredge Operating Fund</td>
<td>1,171,087.79</td>
<td></td>
<td></td>
<td>1,171,087.79</td>
</tr>
<tr>
<td>8004 Life Insurance Fund</td>
<td>262,068.87</td>
<td></td>
<td></td>
<td>262,068.87</td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Fund</th>
<th>Budgeted</th>
<th>Transferred</th>
<th>Allocated</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### Summary

- **Total Appropriation Expenditures:** $20,777,142.88
- **Other Funds:**
  - 0025 Dredge Operating Fund: $1,171,087.79
  - 8004 Life Insurance Fund: $262,068.87
### Resource Development

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>2023</th>
<th>2022</th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>8029</td>
<td>AmeriCorps Donations</td>
<td>1,909.26</td>
<td>0.00</td>
<td>0.00</td>
<td>1,909.26</td>
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<tr>
<td>8039</td>
<td>AmeriCorps Grant Match</td>
<td>0.00</td>
<td>182,255.00</td>
<td>182,255.00</td>
<td>0.00</td>
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<tr>
<td>8043</td>
<td>Grant Writing</td>
<td>772.41</td>
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<td>8070</td>
<td>Human Services Grt Management 6/12</td>
<td>11,100.00</td>
<td>0.00</td>
<td>11,100.00</td>
<td>0.00</td>
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<tr>
<td>8086</td>
<td>Human Services Grt Management 6/13</td>
<td>0.00</td>
<td>38,250.00</td>
<td>50,325.00</td>
<td>(12,075.00)</td>
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</table>

### Cape Light Compact

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>2023</th>
<th>2022</th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>0026</td>
<td>Energy Fund 2013</td>
<td>0.00</td>
<td>15,622,361.60</td>
<td>6,119,494.16</td>
<td>9,502,867.44</td>
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<tr>
<td>0027</td>
<td>Energy Fund 2012</td>
<td>929,741.39</td>
<td>7,768,934.81</td>
<td>17,840,149.37</td>
<td>(9,141,473.17)</td>
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<tr>
<td>8038</td>
<td>Energy Efficiency Reserve Fund</td>
<td>106,600.50</td>
<td>0.00</td>
<td>47,841.75</td>
<td>58,758.75</td>
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<tr>
<td>8046</td>
<td>Power Supply Reserve Fund</td>
<td>1,058,076.70</td>
<td>1,671,827.88</td>
<td>1,367,668.00</td>
<td>1,362,236.58</td>
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<tr>
<td>8074</td>
<td>CLC Operating Fund</td>
<td>60,629.57</td>
<td>988,920.00</td>
<td>1,029,108.05</td>
<td>20,441.52</td>
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<tr>
<td>8075</td>
<td>CLC Green/MTC</td>
<td>127,420.91</td>
<td>112,510.01</td>
<td>85,134.70</td>
<td>154,796.22</td>
</tr>
</tbody>
</table>

### Facilities

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>2023</th>
<th>2022</th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>8016</td>
<td>Court Renovations</td>
<td>(27,712.15)</td>
<td>(27,660.15)</td>
<td>52.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

### Cooperative Extension

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>2023</th>
<th>2022</th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>8024</td>
<td>Groundwater Guardian Program</td>
<td>10,816.73</td>
<td>4,956.00</td>
<td>9,855.80</td>
<td>5,916.93</td>
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<tr>
<td>8050</td>
<td>Natural Resources Courses</td>
<td>48,789.06</td>
<td>32,536.72</td>
<td>43,762.75</td>
<td>37,563.03</td>
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<tr>
<td>8051</td>
<td>Calendars/Books/Posters</td>
<td>20,316.23</td>
<td>1,931.50</td>
<td>1,500.00</td>
<td>20,747.73</td>
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<tr>
<td>8052</td>
<td>Food Sanitation Courses</td>
<td>26,781.85</td>
<td>15,307.55</td>
<td>10,167.02</td>
<td>31,922.38</td>
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<tr>
<td>8054</td>
<td>Coastal Explorer Program</td>
<td>104,637.71</td>
<td>7,900.00</td>
<td>5,168.97</td>
<td>107,368.74</td>
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<tr>
<td>8055</td>
<td>Aqua Disease Diagnosis</td>
<td>18,529.81</td>
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<td>5,501.00</td>
<td>13,028.81</td>
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<td>8056</td>
<td>Fin Fish Services</td>
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<tr>
<td>8057</td>
<td>Lyme Disease Administration</td>
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<td>21,009.25</td>
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<tr>
<td>8058</td>
<td>Municipal Shade Tree Nursery</td>
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**Human Services**

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**Children's Coff**

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**Fire Training-2186 Tech Rescue Training**

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**Cape Cod Commission**

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**Total Federal Grants/Contracts**

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**STATE GRANTS/CONTRACTS**

**Resource Development Office**

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**Cape Light Compact**
### BARNSTABLE COUNTY FINANCE

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</table>

#### HEALTH & ENVIRONMENTAL

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Fiscal Year</th>
<th>Amount 1</th>
<th>Amount 2</th>
<th>Amount 3</th>
<th>Amount 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0103 Tobacco</td>
<td>22,413.02</td>
<td>181,178.00</td>
<td>213,333.36</td>
<td>(9,742.34)</td>
<td></td>
</tr>
<tr>
<td>2086 Hazmat Emergency Preparedness</td>
<td>0.00</td>
<td>0.00</td>
<td>2,281.66</td>
<td>(2,281.66)</td>
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</tr>
<tr>
<td>2119 Medical Reserve Corps 12/12</td>
<td>6,606.70</td>
<td>0.00</td>
<td>6,606.70</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>2125 Medical Reserve Corps 6/11</td>
<td>149.97</td>
<td>0.00</td>
<td>149.97</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>2204 Medical Reserve Corps 6/13</td>
<td>0.00</td>
<td>24,995.48</td>
<td>24,556.17</td>
<td>439.31</td>
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</tr>
<tr>
<td>2197 Ask a Nurse-MAHB</td>
<td>500.00</td>
<td>500.00</td>
<td>500.00</td>
<td>500.00</td>
<td></td>
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</tbody>
</table>

#### CHILDREN'S COVE

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Fiscal Year</th>
<th>Amount 1</th>
<th>Amount 2</th>
<th>Amount 3</th>
<th>Amount 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>0104 DSS Child Advocacy Center</td>
<td>0.00</td>
<td>100,000.00</td>
<td>100,000.00</td>
<td>0.00</td>
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<tr>
<td>2076 Mass Children's Alliance</td>
<td>0.00</td>
<td>21,250.00</td>
<td>21,250.00</td>
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#### CAPE COD COMMISSION

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Fiscal Year</th>
<th>Amount 1</th>
<th>Amount 2</th>
<th>Amount 3</th>
<th>Amount 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>2171 Tech Asst to Municipalities 12/11</td>
<td>15,872.08</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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</tr>
<tr>
<td>2184 Tech Asst to Municipalities 12/12</td>
<td>139,938.29</td>
<td>0.00</td>
<td>139,938.29</td>
<td>0.00</td>
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<tr>
<td>2208 Tech Asst to Municipalities 12/13</td>
<td>0.00</td>
<td>155,837.00</td>
<td>7,077.22</td>
<td>148,759.28</td>
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<tr>
<td>2177 MA Geographic Info System</td>
<td>(254.88)</td>
<td>5,618.87</td>
<td>7,583.75</td>
<td>1,710.00</td>
<td>0.00</td>
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<tr>
<td>2182 Capewide Buildout Wastewater</td>
<td>(20,083.49)</td>
<td>73,637.61</td>
<td>93,721.10</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2193 Comm Innov Challenge</td>
<td>200,000.00</td>
<td>225,000.00</td>
<td>475,512.43</td>
<td>(50,512.43)</td>
<td></td>
</tr>
<tr>
<td>2202 Wastewater SmartMap</td>
<td>0.00</td>
<td>197,504.72</td>
<td>207,987.55</td>
<td>(10,482.83)</td>
<td></td>
</tr>
<tr>
<td>8069 MA Housing Partnership</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>

Total State Grants/Contracts: 489,063.88 0.00 0.00 95,128.56 1,185,019.60 1,357,694.38 221,260.54

#### OTHER GRANTS/CONTRACTS
### Resource Development Office

<table>
<thead>
<tr>
<th>Program Title</th>
<th>Budgeted</th>
<th>Appropriated</th>
<th>Transferred</th>
<th>Reimbursed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2137 AmeriCorps Week</td>
<td>0.00</td>
<td>3,000.00</td>
<td>3,000.00</td>
<td>0.00</td>
</tr>
</tbody>
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### Cooperative Extension

<table>
<thead>
<tr>
<th>Program Title</th>
<th>Budgeted</th>
<th>Appropriated</th>
<th>Transferred</th>
<th>Reimbursed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2099 Operation Military Kids</td>
<td>580.00</td>
<td>0.00</td>
<td>0.00</td>
<td>580.00</td>
</tr>
<tr>
<td>2194 CC Drug Initiative</td>
<td>23,680.00</td>
<td>0.00</td>
<td>0.00</td>
<td>23,680.00</td>
</tr>
</tbody>
</table>

### Health & Environmental

<table>
<thead>
<tr>
<th>Program Title</th>
<th>Budgeted</th>
<th>Appropriated</th>
<th>Transferred</th>
<th>Reimbursed</th>
</tr>
</thead>
<tbody>
<tr>
<td>0030 Orleans Sanitation</td>
<td>(19,083.38)</td>
<td>42,858.10</td>
<td>30,059.00</td>
<td>(6,284.28)</td>
</tr>
<tr>
<td>2190 Bladder Cancer Screenings</td>
<td>4,992.00</td>
<td>0.00</td>
<td>4,026.53</td>
<td>965.47</td>
</tr>
<tr>
<td>2191 Health Screening Fairs</td>
<td>15,775.00</td>
<td>0.00</td>
<td>9,510.69</td>
<td>6,264.31</td>
</tr>
<tr>
<td>2199 Safe Sun Initiative</td>
<td>1,600.00</td>
<td>0.00</td>
<td>1,600.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2207 CC Hoarding Task Force</td>
<td>0.00</td>
<td>5,000.00</td>
<td>2,852.47</td>
<td>2,147.53</td>
</tr>
<tr>
<td>2214 Ask a Nurse-United Way</td>
<td>0.00</td>
<td>1,000.00</td>
<td>857.14</td>
<td>142.86</td>
</tr>
<tr>
<td>8064 Wellfleet Sanitation</td>
<td>5,682.32</td>
<td>10,418.74</td>
<td>4,736.42</td>
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<tr>
<td>8081 Emergency Management Fund</td>
<td>1,403.35</td>
<td>646.44</td>
<td>1,403.35</td>
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<tr>
<td>8089 Falmouth Alternative to Sewing</td>
<td>0.00</td>
<td>25,000.00</td>
<td>183.00</td>
<td>24,817.00</td>
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### Human Services

<table>
<thead>
<tr>
<th>Program Title</th>
<th>Budgeted</th>
<th>Appropriated</th>
<th>Transferred</th>
<th>Reimbursed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2164 Reg Netwk to End Homeless-One Family</td>
<td>547.95</td>
<td>0.00</td>
<td>127.85</td>
<td>420.10</td>
</tr>
<tr>
<td>2187 Reg Netwk to End Homeless-Yarmth</td>
<td>20,000.00</td>
<td>0.00</td>
<td>4,380.00</td>
<td>15,620.00</td>
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<tr>
<td>2192 CHNA Navigator Project</td>
<td>34,223.15</td>
<td>0.00</td>
<td>33,546.55</td>
<td>676.60</td>
</tr>
<tr>
<td>2203 CHNA Navigator-CC Healthcare</td>
<td>0.00</td>
<td>10,000.00</td>
<td>1,898.23</td>
<td>8,101.77</td>
</tr>
</tbody>
</table>

### Cape Cod Commission

<table>
<thead>
<tr>
<th>Program Title</th>
<th>Budgeted</th>
<th>Appropriated</th>
<th>Transferred</th>
<th>Reimbursed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2101 2nd Homeowners Survey</td>
<td>5,634.04</td>
<td>0.00</td>
<td>0.00</td>
<td>5,634.04</td>
</tr>
<tr>
<td>2146 Reg Economic Strategy Exec Team</td>
<td>297,886.94</td>
<td>138,902.69</td>
<td>119,009.32</td>
<td>329,974.93</td>
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<tr>
<td>2175 Bike Map Project</td>
<td>0.00</td>
<td>0.00</td>
<td>1,088.89</td>
<td>(1,088.89)</td>
</tr>
<tr>
<td>2179 Water Quality Info Office</td>
<td>33,136.25</td>
<td>0.00</td>
<td>18,116.25</td>
<td>15,020.00</td>
</tr>
<tr>
<td>2200 Rte 28 Corridor Project</td>
<td>0.00</td>
<td>10,000.00</td>
<td>13,160.00</td>
<td>(3,160.00)</td>
</tr>
<tr>
<td>2206 Rte 132 Study</td>
<td>0.00</td>
<td>0.00</td>
<td>4,370.22</td>
<td>(4,370.22)</td>
</tr>
<tr>
<td>8083 Ready Renters Program</td>
<td>14,360.10</td>
<td>5,750.00</td>
<td>5,049.32</td>
<td>13,557.33</td>
</tr>
<tr>
<td>8085 Permits/Licenses/Inspections</td>
<td>2,073.00</td>
<td>0.00</td>
<td>0.00</td>
<td>2,073.00</td>
</tr>
<tr>
<td>Account Description</td>
<td>Amount</td>
<td>Amount</td>
<td>Amount</td>
<td>Amount</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>--------------</td>
<td>--------------</td>
<td>--------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Total Other Grants/Contracts</td>
<td>436,808.40</td>
<td>0.00</td>
<td>0.00</td>
<td>140,406.14</td>
</tr>
<tr>
<td>TOTAL OTHER FUNDS</td>
<td>18,601,075.63</td>
<td>(61,696.15)</td>
<td>0.00</td>
<td>301,066.05</td>
</tr>
<tr>
<td>TRANSFERS</td>
<td>0.00</td>
<td>(1,307.77)</td>
<td>1,307.77</td>
<td>0.00</td>
</tr>
<tr>
<td>TOTAL REVENUES/EXPEND</td>
<td>59,886,525.46</td>
<td>57,617,264.92</td>
<td>0.00</td>
<td>57,617,264.92</td>
</tr>
<tr>
<td>OTHER ACCOUNTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts Receivable</td>
<td>(1,527,096.30)</td>
<td>1,527,096.30</td>
<td>2,655,320.68</td>
<td>(2,655,320.68)</td>
</tr>
<tr>
<td>BCRA &amp; CVEC P/R &amp; Dedctn Reimb</td>
<td>0.00</td>
<td>730,142.95</td>
<td>738,263.63</td>
<td>(8,120.68)</td>
</tr>
<tr>
<td>Septic Loans Receivable</td>
<td>(14,877,969.26)</td>
<td>30,565,011.68</td>
<td>30,679,008.18</td>
<td>(14,991,965.76)</td>
</tr>
<tr>
<td>Deferred Revenue-Septic Loans</td>
<td>14,877,969.26</td>
<td>2,933,536.28</td>
<td>2,819,539.78</td>
<td>14,991,965.76</td>
</tr>
<tr>
<td>Warrants Payable</td>
<td>368,505.39</td>
<td>2,658,197.64</td>
<td>368,505.39</td>
<td>2,658,197.64</td>
</tr>
<tr>
<td>Accrued Expenditures</td>
<td>1,750,368.72</td>
<td>1,675,915.79</td>
<td>1,750,368.72</td>
<td>1,675,915.79</td>
</tr>
<tr>
<td>Accrued P/R &amp; Deductions</td>
<td>737,009.44</td>
<td>7,569,729.40</td>
<td>7,512,239.33</td>
<td>794,499.51</td>
</tr>
<tr>
<td>Escrow Deposits</td>
<td>316,896.57</td>
<td>5,660.31</td>
<td>33,341.61</td>
<td>289,215.27</td>
</tr>
<tr>
<td>Amnt To Be Provided-Obligations-MWPAT</td>
<td>(21,685,789.00)</td>
<td>614,211.00</td>
<td>3,400,000.00</td>
<td>(24,471,578.00)</td>
</tr>
<tr>
<td>Interim Loan Notes Payable-MWPAT</td>
<td>10,600,000.00</td>
<td>3,400,000.00</td>
<td>12,000,000.00</td>
<td>2,000,000.00</td>
</tr>
<tr>
<td>Bonds Payable-MWPAT</td>
<td>11,085,789.00</td>
<td>12,000,000.00</td>
<td>614,211.00</td>
<td>22,471,578.00</td>
</tr>
</tbody>
</table>
### TOTAL FUND BALANCES 6/30/13

<table>
<thead>
<tr>
<th>Fund Type</th>
<th>Balance 1</th>
<th>Balance 2</th>
<th>Balance 3</th>
<th>Total</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statutory Reserve</td>
<td>297,255.00</td>
<td>0.00</td>
<td>0.00</td>
<td>297,255.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Encumbrance Reserve</td>
<td>860,447.80</td>
<td>369,210.13</td>
<td>89,478.15</td>
<td>1,299,136.08</td>
<td>0.00</td>
</tr>
<tr>
<td>Continuing Appropriations Reserve</td>
<td>1,800,244.02</td>
<td>1,470,335.19</td>
<td>0.00</td>
<td>3,270,580.41</td>
<td>0.00</td>
</tr>
<tr>
<td>Capital Fund Debt Offset Reserve</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Fire Training Capital Reserve</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Vehicle Replacement Reserve</td>
<td>200,000.00</td>
<td>0.00</td>
<td>13,000.00</td>
<td>213,000.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Insurance Reserve</td>
<td>121,305.15</td>
<td>0.00</td>
<td>0.00</td>
<td>121,305.15</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**RECEIPTS RESERVED FOR APPROPRIATION:**

| Appropriated for FY14 Budget             | 0.00      | 0.00      | 615,814.00 | 615,814.00 | 0.00 |
| Supplemental Reserve                     | 223,000.00| 0.00      | 0.00      | 223,000.00 | 0.00 |

**STABILIZATION FUND:**

| Legal Reserve                            | 450,000.00| 0.00      | 500,000.00 | 950,000.00 | 0.00 |
| Insurance Reserve                        | 300,000.00| 0.00      | 0.00      | 300,000.00 | 0.00 |
| Unfunded Pension Liability Reserve       | 540,000.00| 0.00      | 0.00      | 540,000.00 | 0.00 |
| Early Retirement Liability Reserve       | 150,000.00| 0.00      | 0.00      | 150,000.00 | 0.00 |
| Project Stabilization Reserve            | 500,000.00| 0.00      | 0.00      | 500,000.00 | 0.00 |
| Other Post Employment Benefits Reserve   | 22,000.00 | 0.00      | 0.00      | 22,000.00  | 0.00 |

**CAPITAL IMPROVEMENTS RESERVE:**

| Building Reserve                         | 0.00      | 0.00      | 225,000.00 | 225,000.00 | 0.00 |
| Unassigned Fund Balances                 | 497.21    | (7,582,048.45)| 719,819.60 | (6,852,418.84) | 0.00 |

**BANK ACCOUNT BALANCES AS OF 6/30/13**

<table>
<thead>
<tr>
<th>Account Type</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD Bank - NOW</td>
<td>524,446.40</td>
</tr>
<tr>
<td>TD Bank - Governmental Investment Account</td>
<td>11,790,320.90</td>
</tr>
<tr>
<td>TD Bank - Payroll</td>
<td>26,033.74</td>
</tr>
<tr>
<td>TD Bank - Septic Loans/Conferences</td>
<td>101,122.84</td>
</tr>
<tr>
<td>TD Bank - Escrow Accounts</td>
<td>189,215.27</td>
</tr>
<tr>
<td>TD Bank - Lockbox</td>
<td>1,183.32</td>
</tr>
<tr>
<td>TD Bank - Escrow-CVEC</td>
<td>100,688.87</td>
</tr>
<tr>
<td>TD Bank - Court Rental</td>
<td>6,969.46</td>
</tr>
<tr>
<td>TD Bank - Money Market</td>
<td>1,341,343.12</td>
</tr>
<tr>
<td>TD Bank - Mitigation Fund-Money Market</td>
<td>3,011,498.49</td>
</tr>
<tr>
<td>TD Bank - Energy Fund-Money Market</td>
<td>4,504,364.42</td>
</tr>
<tr>
<td>TD Bank - Registry of Deeds Cash</td>
<td>2,548,975.31</td>
</tr>
<tr>
<td>Cape Cod 5 Cents Savings Bank-Money Market</td>
<td>1,003,072.93</td>
</tr>
<tr>
<td>Investments</td>
<td>414,007.00</td>
</tr>
<tr>
<td>Petty Cash</td>
<td>75.00</td>
</tr>
<tr>
<td><strong>Total Treasury</strong></td>
<td><strong>25,563,317.07</strong></td>
</tr>
</tbody>
</table>

I HEREBY CERTIFY UNDER PENALTY OF PERJURY THAT THE ENCLOSED STATEMENT AND SUPPLEMENTAL SCHEDULES ARE TRUE ACCOUNTS OF ALL SUMS OF MONEY WHICH HAVE IN ANY WAY BEEN RECEIVED BY ME, OR TO MY USE, BY REASON OR ON ACCOUNT OF MY OFFICE, OR IN MY OFFICIAL CAPACITY, AND OF ALL PAYMENTS MADE FOR THE YEAR ENDING JUNE 30, 2013.

E. Mark Zielinski
Director of Finance/Treasurer
Report of the Purchasing Department
Barnstable County Purchasing continues to work with towns and departments to ensure that the best prices are obtained when purchasing goods and services. Since 1979, the County has maintained a centralized purchasing system, which is utilized by county departments, as well as the towns within Barnstable County. Through the coordination of bids, town and county departments are able to take advantage of the cost savings involved with the procurement of goods and services in large volumes.

The Purchasing Division adheres to the procurement policies for local governments set by the Massachusetts Legislature through Chapter 30B, Chapter 30,39M and Chapter 149 of the Massachusetts General Laws. These regulations were enacted in an effort to foster effective competition and to avoid price discrimination and unfair methods of competition. They also help to prevent “favoritism” in the awarding of contracts as bids are awarded to the responsive, responsible bidder offering the lowest price.

COLLECTIVE BIDS: Many of the towns of Barnstable County partner with County Purchasing to solicit bids collectively. In Fiscal Year 2013, the Purchasing Division took the lead in the coordination of bids for the following goods and services:

Supply and Delivery of Fuel Oil: The Purchasing Division organized a collaborative bid for the supply and delivery of fuel oil for forty-five municipal buildings across the County for a total of 126,000 gallons of heating oil.

Supply and Delivery of Gasoline and Diesel Fuel: Various municipal entities, schools, fire districts, water districts and the County Dredge participated in a collaborative bid for 1,861,882 gallons of gasoline and diesel fuel at an estimated cost of over $5 million.

Roadway Construction and Roadway Construction Materials: This collaborative has grown so large over the past few years, that it has been divided into 5 different bids. Twelve towns participated in these bids for Roadway Materials, Crack-filling, Miscellaneous Public Works and Resurfacing at an estimated value for all bids at $4,705,871.00. The bids for other Roadway Construction items were renewed from the previous year as allowed in the bid documents.

Golf Course Materials and Services: Municipal golf courses and other municipal departments receive discounted prices on a list of over 100 materials such as fertilizers, fungicides, growth regulators and insecticides and services such as topdressing and seed.

Office Supplies, Janitorial Supplies and Toners: The contract for office supplies was awarded to the responsive, responsible bidder offering the highest discount which was WB Mason. This
contract provides a 67.77% discount on most office supplies in the United Stationer’s Catalog, as well as a substantial discount on a market basket of frequently purchased office supplies. A separate bid was solicited for one hundred sixty-one toners of different brands used by county and municipal departments. Also solicited were bids for a list of janitorial items such as cleaners, paper products and plastic liners. All office supplies, toners and janitorial supplies from these bids are published in the Barnstable County Supply Catalog which is produced by the Purchasing Division and is distributed electronically to all county and town departments.

Supply and Delivery of Caustic-Potash (potassium Hydroxide – KOH): Nine water departments participated in this bid for chemicals commonly used by water departments with an estimated value of $440,253.00.

Bulk Purchase of Copy Paper: The Purchasing Division solicited bids for the purchase of 10,120 cases of copy paper for bulk delivery to schools in Barnstable County, Wareham and Nantucket. By purchasing in bulk, the schools save $14.21 per case over the cost of purchasing the cases individually.

Elevator Repair and Maintenance: Six towns participated in this bid for elevator maintenance and inspection services.

Portable Toilets: This bid is for the lease and maintenance of portable toilets for use at special events, in beach or park areas and other applications where temporary or permanent portable units may be required. Five towns participated in this bid.

Remote Set Oysters, Hard Clam (Quahog) Seed and Single Oyster Seed: These bids are procured on behalf of the Barnstable County Division of Marine Fisheries Municipal Shellfish Propagation Program. The product is distributed to participating towns within the county.

On-Call Electric and Plumbing: This bid allows for towns to establish a contract for on-call electrical and plumbing services that cost less than $10,000. Four towns participated along with the County in this bid.

Cotuit Bids: The County signed a Memorandum of Understanding with the Cotuit Fire District Prudential Committee to help with procurement. The Purchasing Division assisted them with bids for a consultant to perform treasury services and rewiring of Freedom Hall in Cotuit.

COUNTY BIDS: Aside from the collective bids, the Purchasing Division also solicited bids for county departments for a variety of items including, but not limited to the following:

- Finish Electrical Work for Renovations at the Former House of Correction
- Fire Alarms at the New Health Lab
- Fire Alarm Replacement at the Former House of Correction
- Technical Project Assistance Related to the Development of an Area Wide Water Quality Management Plan
- Development of a Web-based Tool to Encourage Participation in Developing Wastewater Solutions
- Project Management Related to Development of an Area Wide Water Quality Management Plan
- Regional Market Analysis
- Data Inventory, Gap Assessment and Data Management Plan
- Auditing Services
- Technical Assistance related to Wastewater Management, Nutrient Management and Related Environmental Assessments
- Computer Programming and Maintenance Services for the Registry of Deeds
- Index Verification, Online Correction, Microfilm, Book Printing and Binding for the Registry of Deeds
- Service Desk and Analytical Services for the Information Technology Department
- Fire Alarm System Replacement at the Second
District Courthouse

- Develop a Triple Bottom Line Systems Model
- Communications and Outreach Assistance Related to the Development of an Area-Wide Water Quality Management Plan
- Facilitation Assistance Related to the Development of an Area-Wide Water Quality Management Plan
- Engineering and Related Services to assist in Updating the Area Wide (208) Water Quality Management Plan
- Public Education Web-Based tool to Assist with Wastewater Planning and Implementation
- Administration of the Barnstable County HOME Consortium’s Down Payment and Closing Cost Program (DPCC)

PURCHASE ORDERS: County policy requires County departments to request purchase orders for purchases over $100.00. The Purchasing Division processed 4,215 purchase orders for County departments during Fiscal Year 2013.

WEBSITE: The Barnstable County Purchasing website has proven to be a cost saving and efficient way of posting bids and ordering supplies. Bids are posted on the website for vendors to view and download, thus eliminating the need to send out expensive mailings. Towns are able to order their office, janitorial and toner supplies through the online ordering system, creating a more efficient and dependable method of ordering. Approximately 736 orders for office supplies, toners and janitorial supplies for town departments were placed through the online ordering system this fiscal year. The website can be viewed at: http://purchasing.barnstablecounty.org

CAPE COD ASSOCIATION OF PUBLIC PURCHASING OFFICIALS: The Cape Cod Association of Public Purchasing Officials (CCAPPO) was established by the County in 2006 to provide education and networking for local officials who are involved in the procurement duties in their towns. Participants are able to earn credits toward re-certification for the Massachusetts Certified Public Purchasing Official (MCPPO) designation through attendance at these meetings. CCAPPO met bi-monthly with presenters on topics of interest to procurement officials.

The County also hosted trainings required to receive the MCPPO designation though videoconference with the Massachusetts Office of the Inspector General in Boston. The Purchasing Division coordinated with the Information Technology Department and the Inspector General’s Office to provide these three trainings which were three days each. Over 50 people attended via videoconference in the Harborview Conference Room at the County Complex rather than having to travel to Boston.

In conclusion: The Purchasing Division will continue its goals of encouraging fair competition, obtaining best value, ensuring the ongoing accountability of public funds, educating those who are involved in the public procurement process, and exploring new ways to help the county and towns save money through collective purchasing.

Respectfully Submitted,

Elaine Davis
Chief Procurement Officer
Report of the Barnstable County Commissioners
The County Commissioners are the Executive Body for Barnstable County. “The executive powers of the County shall be vested solely in the Board of County Commissioners and may be exercised either directly by such board, or through the several County agencies under its direction and supervision.” County Charter Sec. 3-2.

There are three County Commissioners. They are elected at large on a partisan basis for four-year staggered terms.

**Responsibilities include:**
Director of County agencies;

Preparation of budgets for submittal to the Assembly of Delegates;

Care of County property;

Supervision of revenue collection and fund disbursement;

Reporting on financial and administrative condition of County;

Proposal of measures for Assembly action;

Power to veto ordinances;

Appointment and removal of County Administrator and all County employees.
REPORT OF THE COUNTY COMMISSIONERS OF BARNSTABLE COUNTY

For the Period July 1, 2012, and Ending June 30, 2013

The County Commissioners of Barnstable County submit the following report upon the affairs of the County in accordance with Section 26 of Chapter 35 of the General Laws. The Commissioners met by adjournment on Wednesdays and on such other days as were necessary.

All taxes due from the fifteen (15) towns within the County are paid to date.

On July 16, 1988, the Governor executed the Barnstable County Home Rule Charter. It was then accepted by the voters of Barnstable County at the November 8, 1988, State Election.

In the November 7, 2000 election, voters overwhelming passed a ballot question that asked “Shall the revisions to the Barnstable County Charter proposed by the Assembly of Delegates establishing a Cape Cod Regional Government be adopted?” With its passage:

Barnstable County Government became the Cape Cod Regional Government, known as Barnstable County.

No changes were made to the existing revenue stream for Barnstable County and no new taxes created.
Existing services and the ability to deliver regional services to towns will be maintained.

The County Budget process is now detailed in the Charter under Article 5 - Fiscal Procedures. The vote of each municipality is proportionate to the percentage of its population is to the total population of the County based on the most recent federal census, or decennial census estimate. The County Tax is based on the towns’ equalized valuation as determined by the State Legislature and Department of Revenue.

For Fiscal Year 2013 revenue, the County Commissioners voted to increase the County Tax by 2 ½ percent as permitted under Massachusetts General Laws. The approved Budget Ordinance 12-04 for Fiscal Year 2013 allowed for expenditures of $23,580,850 and, with additional approved Ordinances throughout the fiscal year, a total Appropriation of $24,220,200 was approved as indicated on the following pages.

Pursuant to Article 3-Executive Branch; Section 3-3(e) (Powers and Duties), the Commissioners file, at least on a semi-annual basis, a report with the Assembly of Delegates informing them of the financial and administrative condition of the County. Also, the Commissioners update the Assembly of Delegates on County issues at their regularly scheduled meetings.

TAX ABATEMENTS

The following petitions were entered and/or completed during this 12-month period:

7628
Georgiy Kuznetsov and Marina Komissarova
Entered: July 13, 2012
All papers in this case were transferred to the Appellate Tax Board in Boston at the request of the Board of Assessors, Town of Harwich.

7656
Robert C. Osterberg
Entered: April 9, 2013
All papers in this case were transferred to the Appellate Tax Board in Boston at the request of the Board of Assessors, Town of Wellfleet.

7663
John and Regina McCarthy
Entered: April 23, 2013
All papers in this case were transferred to the Appellate Tax Board in Boston at the request of the Board of Assessors, Town of Sandwich.
Robert J Hurley
Entered: May 1, 2013
All papers in this case were transferred to the Appellate Tax Board in Boston at the request of the Board of Assessors, Town of Barnstable.

CC Ventures Inc.
Entered: April 23, 2013
All papers in this case were transferred to the Appellate Tax Board in Boston at the request of the Board of Assessors, Town of Bourne.

PENDING LITIGATION FOR BARNSTABLE COUNTY
Ania Kilian v. Barnstable County Department of Health and Environment
OSHA Case No. 1-1270-12-013

Jonathan Perry v. Barnstable County Sheriff’s Dept. et al
Barnstable County Superior Court C.A. No. 2011-00373

Kimberley Frye et al. v. Barnstable County et al.
Bristol Superior Court C.A. No. 2011-499A

Sheila Pina v. Barnstable County Sheriff’s Department et al.
MCAD Docket No. 012-BEM-01013
EEOC/HUD No. 16C-2012-01427
## VALUE OF COUNTY PROPERTY

<table>
<thead>
<tr>
<th>Property Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superior Court House</td>
<td>$6,404,271.00*</td>
</tr>
<tr>
<td>Deeds and Probate Building</td>
<td>$5,190,328.00*</td>
</tr>
<tr>
<td>Jail and House of Correction and other inmate housing (Barnstable)</td>
<td>$5,664,097.00*</td>
</tr>
<tr>
<td>Police Services Center/Antenna</td>
<td>$2,587,153.00*</td>
</tr>
<tr>
<td>East Annex-Work Release Building</td>
<td>$625,140.00*</td>
</tr>
<tr>
<td>Resource Development Offices</td>
<td>$683,498.00*</td>
</tr>
<tr>
<td>Other Structures/Flag Pole</td>
<td>$112,991.00*</td>
</tr>
<tr>
<td>Land (assessed value 26.25 acres)</td>
<td>$20,081,200.00</td>
</tr>
<tr>
<td>Complex land, old Rte. 132 land, and marshland north of Rt. 6A)</td>
<td>$41,348,678.00</td>
</tr>
<tr>
<td>Farm Superintendent’s residence</td>
<td>$216,476.00*</td>
</tr>
<tr>
<td>Farm Buildings</td>
<td>$375,217.00*</td>
</tr>
<tr>
<td>Land (assessed value 99.89 acres)</td>
<td>$1,099,900.00</td>
</tr>
<tr>
<td>Former County Hospital Site (Pocasset)</td>
<td>$1,252,394.00*</td>
</tr>
<tr>
<td>AmeriCorps and Other Related Buildings</td>
<td>$667,100.00</td>
</tr>
<tr>
<td>Land (assessed value 70.34 acres)</td>
<td>$1,919,494.00</td>
</tr>
<tr>
<td>Fire Administration Building</td>
<td>$890,025.00*</td>
</tr>
<tr>
<td>First District Court House</td>
<td>$7,937,551.00*</td>
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<tr>
<td>Second District Court House</td>
<td>$3,146,420.00*</td>
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<tr>
<td>Helms House/Human Service Functions</td>
<td>$274,555.00*</td>
</tr>
<tr>
<td>Cape Cod Commission Offices (contents only)</td>
<td>$300,954.00</td>
</tr>
<tr>
<td>Land (assessed value 11.06 acres)</td>
<td>$1,069,500.00</td>
</tr>
<tr>
<td>Flint Rock Rd. land with adjacent property and Fire Academy land</td>
<td>$13,619,005.00</td>
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</table>

- * Includes contents  

$58,578,770.00
<table>
<thead>
<tr>
<th>Purpose of Loan</th>
<th>Issue Date</th>
<th>Maturity Date</th>
<th>Original Note/Bond</th>
<th>Rate</th>
<th>6/30/2012 O/S Princ</th>
<th>New Debt FY13 Issued</th>
<th>06/31/13 Retirements</th>
<th>O/S Princ Payable in FY14</th>
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</thead>
<tbody>
<tr>
<td>Community Septic Mgt Program Bond T5-05-1685</td>
<td>3/18/2009</td>
<td>7/15/2027</td>
<td>2,850,000</td>
<td>0.00%</td>
<td>2,400,000</td>
<td></td>
<td>150,000</td>
<td>2,250,000</td>
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<tr>
<td>Community Septic Mgt Program Bond T5-05-1685-A</td>
<td>11/22/2010</td>
<td>7/15/2029</td>
<td>2,550,000</td>
<td>0.00%</td>
<td>2,415,789</td>
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<td>134,211</td>
<td>2,281,578</td>
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<td>Community Septic Mgt Program Bond T5-05-1685-B</td>
<td>11/22/2010</td>
<td>7/15/1930</td>
<td>3,600,000</td>
<td>0.00%</td>
<td>3,420,000</td>
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<td>180,000</td>
<td>3,240,000</td>
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<tr>
<td>Community Septic Mgt Program Bond T5-05-1685-C</td>
<td>7/8/2010</td>
<td>7/15/1930</td>
<td>3,000,000</td>
<td>0.00%</td>
<td>2,850,000</td>
<td></td>
<td>150,000</td>
<td>2,700,000</td>
</tr>
<tr>
<td>Community Septic Mgt Program Bond T5-05-1685-D</td>
<td>5/22/2013</td>
<td>1/15/1933</td>
<td>4,000,000</td>
<td>0.00%</td>
<td>4,000,000</td>
<td></td>
<td>4,000,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Community Septic Mgt Program Bond T5-05-1685-E</td>
<td>5/22/2013</td>
<td>1/15/1933</td>
<td>3,000,000</td>
<td>0.00%</td>
<td>3,000,000</td>
<td></td>
<td>3,000,000</td>
<td>150,000</td>
</tr>
<tr>
<td>Community Septic Mgt Program Bond T5-05-1685-F</td>
<td>5/22/2013</td>
<td>1/15/1933</td>
<td>5,000,000</td>
<td>0.00%</td>
<td>3,600,000</td>
<td></td>
<td>1,400,000</td>
<td>5,000,000</td>
</tr>
<tr>
<td>Interim Loan Note from MWPAT T5-05-1685-G</td>
<td>8/15/2012</td>
<td>8/15/2015</td>
<td>5,000,000</td>
<td>0.00%</td>
<td>2,000,000</td>
<td></td>
<td>0</td>
<td>2,000,000</td>
</tr>
</tbody>
</table>

| Total | 21,685,789 | 3,400,000 | 614,211 | 24,471,578 | 1,214,211 |
SALARIES OF ELECTED COUNTY OFFICERS

County Commissioners: $14,178.60 / each
Register of Deeds: $123,081.09
Assembly of Delegates: $1,000.00 / each per calendar year

MARY PAT FLYNN, Chair
WILLIAM DOHERTY, Vice Chair
SHEILA R. LYONS, Member County Commissioners of Barnstable County

CONTRACTS EXECUTED AND OTHER ACTIONS TAKEN AS A RESULT OF AN INVITATION FOR BID OR REQUEST FOR PROPOSAL (RFP) DURING FISCAL YEAR 2012

COUNTY OF BARNSTABLE

Bid #7627 Request for Quotes issued through the Cape Cod Solid Waste Advisory Committee (CC-SWAC) to provide solid waste transportation and/or disposal services. 2 contracts were proposed: SEMASS and New Bedford Solid Waste. Towns will enter into their own contracts with vendors.

Bid #7629 Invitation for Bids issued for the finish electrical work for the renovation of and addition to the existing pre-engineered steel gymnasium at the Former House of Correction. Bid awarded to M-V Electrical Contractors as the responsive, responsible bidder offering the lowest price.

Bid #7630 Invitation for Bids issued for fire alarms for the renovation of and addition to the existing pre-engineered steel gymnasium at the Former House of Correction. Bid awarded to M-V Electrical Contractors as the responsive, responsible bidder offering the lowest price.

Bid #7632 Invitation for Bids issued from MA Certified Suppliers of oyster (Crassostrea virginica) singles seed, to provide bulk shipment of said seed to the Town of the County for the summer of 2013. Bid awarded to Aquacultural Research Corp. as the responsive, responsible bidder offering the lowest price.

Bid #7633 Invitation for Bids issued from MA Certified hatcheries to conduct a regional oyster remote set program for the participating towns of the County. Bid awarded to Aquacultural Research Corp. as the responsive, responsible bidder offering the lowest price.

Bid #7634 Invitation for Bids issued from MA Certified Suppliers of hard clam/quahog (Mercenaria mercenaria) seed, to provide a bulk shipment of said seed to the Towns of the County for the summer of 2013. Bid awarded to Aquacultural Research Corp. as the responsive, responsible bidder offering the lowest price.

Bid #7635 Invitation for Bids issued for golf course materials and services for the municipal golf courses and other political subdivisions in Barnstable County for the period of March 1, 2013 through February 28, 2014. Bid awarded to the following vendors as the responsive, responsible bidders offering the lowest prices: Matrix Turf Solutions, Atlantic Golf & Turf, Hornungs Golf Products, Harrell’s LLC, Aquaturf Irrigation, Agrium Advanced Technologies, Helena Chemical Company, Charles Hart Seed Company, New England Turf & Soil Solutions, Cardinals, Inc., Valley Green, Inc., John Deere Landscapes.

Bid #7636 Invitation for Bids issued on behalf of the Towns of Barnstable, Bourne, Chatham, Dennis, Eastham, Falmouth, Harwich, Orleans, Sandwich, Wellfleet and Yarmouth for crackfilling items for the period of April 1, 2013 through March 31, 2014, with the option to renew for one additional year. Bid awarded to Cracksealing, Inc. and Sealcoating, Inc. as the responsive, responsible bidders offering the lowest prices.
Bid # 7637 Invitation for Bids issued on behalf of the Towns of Harwich, Yarmouth, Barnstable, Dennis and Sandwich for road resurfacing for the period of April 1, 2013 through March 31, 2014. Bid awarded to Lawrence Lynch and PJ Keating as the responsive, responsible bidders offering the lowest prices.

Bid #7638 Invitation for Bids issued on behalf of the Towns of Falmouth, Harwich, Orleans, Sandwich, Yarmouth, Barnstable, Bourne, Chatham, Dennis, Eastham, and Wellfleet for roadway construction materials for the period of April 1, 2013 through March 31, 2014, with the option to renew for one additional year. Bid awarded to the following vendors as the as the responsive, responsible bidders offering the lowest prices: Robert Childs, Inc., Aggregate Industries-Northeast Region, Inc., TL Edwards, Inc., Lawrence Lynch, Inc., G. Lopes Construction, Inc., All States Asphalt.

Bid # 7639 Invitation for Bids issued on behalf of the Towns of Falmouth, Harwich, Orleans, Sandwich, Yarmouth, Barnstable, Bourne, Chatham, Dennis, Eastham, and Wellfleet for miscellaneous public works items for the period of April 1, 2013 through March 31, 2014, with the option to renew for one additional year. Bid awarded to the following vendors as the as the responsive responsible bidders offering the lowest prices: Markings, Inc., Lawrence Lynch Corp., RJ Gabriel Construction Co., Inc., DeLuca Fence Co., Inc., Truax Corporation, Bartlett Consolidated, BTB Construction, Inc., Rafferty Fine Grading.

Bid # 7640 Invitation for Bids issued on behalf of the Cape Cod Commission to provide technical project assistance related to the development of an area wide water quality management plan to assist the Cape Cod Commission in addressing regional wastewater solutions. Bid awarded to Offshoots, Inc. as the bidder offering the most advantageous proposal.

Bid # 7641 Invitation for Bids issued on behalf of the Cape Cod Commission to develop web-based tool to be used in a public education effort to encourage participation in developing planning scenarios for addressing wastewater solutions Cape-wide. Bid awarded to Engagement Game Lab at Emerson College as the vendor offering the most advantageous proposal.

Bid # 7642 Invitation for Bids issued on behalf of the Cape Cod Commission to provide technical and project management assistance related to the development of an area wide water quality management plan to assist the Cape Cod Commission in addressing regional wastewater solutions. Bid was canceled.

Bid #7643 Invitation for Bids issued for consulting to conduct a regional market analysis and to develop a fiscal impact model for use by municipalities on Cape Cod. Bid awarded to TishlerBise as the bidder offering the most advantageous proposal.

Bid #7644 Invitation for Bids issued on behalf of the Towns of Provincetown, Brewster, Harwich, Wellfleet, Barnstable, Barnstable County and Sandwich Schools for a contract for elevator maintenance. Bid awarded to BBE Corporation as the responsive, responsible bidder offering the lowest price.

Bid #7646 Invitation for Bids issued for consulting services to support data inventory, gap assessment and data management plan for Cape Cod Commission. Bid closed without awarding.

Bid #7647 Invitation for Bids issued on behalf of the Towns of Eastham, Harwich, Provincetown, Truro and Wellfleet to provide the leasing and maintenance of portable toilets for use at special events, in beach or park areas and/or other applications where temporary and/or permanent portable units may be required. Bid awarded to Bouse House as the responsive, responsible bidder offering the lowest price.

Bid # 7648 Invitation for Bids issued on behalf of Barnstable County Department of Health and En-
Bid #7649 Invitation for Bids for the supply and delivery of gasoline and diesel fuel to Barnstable County and other Political Subdivisions for the period of July 1, 2013 through June 30, 2014. Bid awarded to Noonan Brothers Petroleum and MJT Enterprises as the responsive, responsible bidders offering the lowest prices.

Bid #7650 Request for Proposals issued for qualified Certified Public Accountants, licensed to practice in the Commonwealth of MA and having sufficient governmental accounting and auditing experience in performing an audit in accordance with the specifications outlined in this request for proposals. Bid awarded to Sullivan, Rogers and Company as the vendor submitting the most advantageous proposal.

Bid #7651 Invitation for Bids issued for the supply and delivery of janitorial supplies for the towns, schools and governmental departments within Barnstable and Duke’s Counties. Bid awarded to HT Berry, MSC, Cape Cod Paper, WB Mason, Banner Systems and New England Office Supply as the responsive, responsible bidders offering the lowest price.

Bid #7652 Invitation for Bids issued for the supply and delivery of office supplies for the County of Barnstable and other political subdivisions, including locations on Martha’s Vineyard for the period of July 1, 2013 – June 30, 2014 with the option of renew for two additional one year periods. Bid awarded to WB Mason as the responsive, responsible bidder offering the highest discount.

Bid #7653 Request for Proposals issued on behalf of the Cape Cod Water Protection Collaborative to provide technical and project implementation assistance related to wastewater management, nutrient management and related environmental assessments to towns within Barnstable County. Contract awarded to Water Resource Associates as the responsive, responsible bidder offering the most advantageous proposal.

Bid #7654 Invitation for Bids for Computer Programming and Maintenance Services for the Barnstable County Registry of Deeds. Bid awarded to Browntech as the responsive, responsible bidder offering the lowest price.

Bid #7655 Invitation for Bids issued for Index Verification, Online Correction, Microfilm, Book Printing & Binding for the Barnstable County Registry of Deeds. Bid awarded to ACS Enterprise Solutions as the responsive, responsible bidder offering the lowest price.

Bid #7657 Request for Proposals issued on behalf of the Information Technology Department to assist IT in providing service desk and analytical services related to augmenting the services provided by the IT staff. Contract awarded to Angela Hurwitz as the most responsive, responsible bidder offering the most advantageous proposal.

Bid #7658 Invitation for Bids issued for the supply and delivery of toner cartridges to the County barnstable and other political subdivisions, including locations in Martha’s Vineyard for the period of July 1, 2013 – June 30, 2014. Bid awarded to WB Mason, Tree House and Kenmark as the responsive, responsible bidders offering the lowest prices.

Bid #7659 Invitation for Bids issued for the bulk delivery of copy paper for schools and towns in Barnstable County. Bid awarded to WB Mason as the most responsive, responsible bidder offering the lowest price.

Bid #7660 Invitation for Bids issued for fire alarm system replacement at the 2nd District Courthouse, 237 Rock Harbor Road, Orleans, MA. Bid awarded to M-V Electrical Contractors, Inc. as the responsive, responsible bidder offering the lowest price.
Bid #7661 Invitation for Bids issued for water chemicals by water departments. Bid awarded to NBC Distributors, Univar and Borden & Remington as the responsive, responsible bidders offering the lowest prices.

Bid #7662 Invitation for Bids issued for the supply and delivery of fuel oil for Barnstable County and other political subdivisions for the period of July 1, 2013 through June 30, 2014. Bid awarded to Peterson's Oil Services, dba Cape Discount Fuel as the responsive, responsible bidder offering the lowest price.

Bid #7665 Invitation for Bids issued for a large scale project to fully overhaul the heating and heating distribution system at the Barnstable County Superior Courthouse, 3195 Main Street, Barnstable, MA. Bid rejected as it was over the project budget.

Bid #7666 Invitation for Bids issued for On-Call Tradespersons for Electrical and Plumbing. All bids rejected.

Bid #7667 Request for Proposals issued for consulting services to develop a triple bottom line systems model for the Cape Cod Commission to assist with wastewater planning and implementation on Cape Cod. All proposals submitted were rejected.

Bid #7668 Request for Proposals issued for a qualified firm to provide communications and outreach assistance related to development of an area-wide water quality management plan to assist Cape Cod Commission in addressing regional wastewater solutions. All proposals rejected.

Bid #7669 Request for Proposals issued for a qualified firm to provide facilitation assistance related to development of an area-wide water quality management plan to assist Cape Cod Commission in addressing regional wastewater solutions. Contract awarded to Consensus Building Institute as the responsive, responsible bidder offering the most advantageous proposal.

Bid #7670 Request for Proposals issued for a qualified firm to provide engineering and related services to assist the Cape Cod Commission in updating the area wide (208) water quality management plan. Contract awarded to AECOM Technical Services, Inc. as the responsive, responsible bidder offering the most advantageous proposal.

Bid #7671 Request for Proposals issued for consulting services to develop a public education web-based tool for the Cape Cod Commission to assist with wastewater planning and implementation on Cape Cod. Proposal rejected as the vendor cannot complete the project within the timeline.

Bid #7672 Invitation for Bids issued for videography services for public meetings held by the County Commissioners, Assembly of Delegates and Cape Cod Commission for the period of July 1, 2013 – June 30, 2014. Bids rejected as the Information Technology Department will consolidate videography services under the contract for I.T. Technical Support Services as it is more financially advantageous.

Bid #7673 Request for Proposals issued to assist Information Technology Department in providing technical support, web support, database support and development, Windows Server Network operating system support and help desk support to Barnstable County. Contract awarded to Matthew Flaherty as the responsive, responsible bidder offering the most advantageous proposal.

Bid #7674 Invitation for Bids issued to provide disposal of construction, demolition wastes from the Towns in Barnstable County. Bid awarded to ABC Disposal as the responsive, responsible bidder offering the lowest price.

Bid #7676 Request for Proposals issued to develop a public education Web-based tool for the Cape Cod Commission to assist the wastewater planning and implementation on Cape Cod. Contract awarded to 20 Mile Interactive as the responsive,
responsible bidder offering the most advantageous proposal.

Bid #7677 Request for Proposals issued for a qualified firm to administer the Barnstable County HOME Consortium’s Down Payment and Closing Cost Program (DPCC). Contract awarded to Housing Assistance Corporation as the sole bidder.

Bid #7678 Invitation for Bids issued on behalf of the Towns of Bourne, Eastham, Truro, Barnstable County and the Sandwich Public Schools for on call tradespersons for maintenance and repair in the following trades: Plumbing and Electrical Work for the period of July 1, 2013 through June 30, 2014 with the option to renew for one additional year. Bid awarded to B&B Electric and Robert W. Irvine & Sons, Inc.

Bid #7679 Invitation for Bids issued for the supply and delivery of hollow metal doors for the Barnstable County Health Lab at the former House of Correction, 3195 Main St., Barnstable, MA. Bid awarded to O’Connor Door.
COUNTY OFFICERS
July 1, 2011 – June 30, 2012

COUNTY COMMISSIONERS
Mary Pat Flynn, Chair  Falmouth
William Doherty, Vice-Chair  Harwich
Sheila R. Lyons, Commissioner  Wellfleet

COUNTY ADMINISTRATORS
E. Mark Zielinski, County Administrator  Attleboro
Margaret T. Downey, Assistant County Administrator  Yarmouth Port

FINANCE DIRECTORS/COUNTY TREASURERS
E. Mark Zielinski, Treasurer/Director of Finance  Attleboro
Patricia D. Rogers, Assistant Treasurer  Bourne
Joanne P. Nelson, County Accountant  Plymouth

REGISTER OF DEEDS
John F. Meade, Register  Centerville
David B. Murphy, Assistant Register of Deeds  Bourne

CAPE COD COMMISSION
John D. Harris, Minority Representative & Chair  Sandwich
Paul Niedzwiecki, Executive Director  Hyannis

GENERAL COUNSEL
Robert Troy, Esq.  Sandwich
COUNTY CLERK

Janice O'Connell, County Clerk

Chatham

DIRECTOR OF FACILITIES

Stephen C Tebo, Director of Facilities

Centerville

DEPARTMENT OF HEALTH & ENVIRONMENT

George R. Heufelder, Director of Health and Environment

Falmouth

DEPARTMENT OF HUMAN SERVICES

Elizabeth Albert, Director of Human Services

East Orleans

COOPERATIVE EXTENSION SERVICE

William F. Clark, Director of Cooperative Extension

Dennis

REGIONAL RESOURCE DEVELOPMENT PROGRAM

Darlene R. Johnson-Morris, Resource Development Director

Dennis Port

DREDGE PROGRAM

Wayne F. Jaedtke, Dredge Superintendent

Marstons Mills

CAPE COD & THE ISLANDS CHILD ADVOCACY CENTER

Stacy Gallagher, Director of Children's Cove

Mattapoisett

ASSEMBLY OF DELEGATES

Ronald Bergstrom, Speaker

Chatham

Teresa Martin, Deputy Speaker

Eastham

Richard Anderson

Bourne
Patrick Princi          Barnstable
Anthony F. Scalese     Brewster
John Ohman             Dennis
Julia C. Taylor        Falmouth
Leo G. Cakounes        Harwich
Marcia King            Mashpee
Christopher W. Kanaga  Orleans
Cheryl Andrews         Provincetown
James J. Killion       Sandwich
Deborah McCutcheon     Truro
Ned Hitchcock          Wellfleet
E. Suzanne McAuliffe   Yarmouth

DEPUTY SHERIFF’S
Serving All Civil Process

Brad Parker, Chief Deputy  Centerville
Jon M. Hunt              Marstons Mills
Kerry Kennedy-Murphy     Marstons Mills
Jean Marshall            Orleans
Thomas R. Pennypacker, II Chatham
Bill Dalton              Mashpee
Francis M. Welby         Centerville
Ronald Chevalier         Centerville
Daniel Tambascia         West Yarmouth
James Gray               Centerville
Scott Kieffer            West Hyannisport
Harry Martin             Falmouth
The following is the budget breakdown for FY13:

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>Encumbrance Car-</th>
<th>Appropriation</th>
<th>Expenditure</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Commissioners</td>
<td>8,616</td>
<td>503,075</td>
<td>466,497</td>
<td>45,194</td>
</tr>
<tr>
<td>Information Technology Services</td>
<td>178,231</td>
<td>1,521,795</td>
<td>1,157,132</td>
<td>542,894</td>
</tr>
<tr>
<td>Resource Development Office</td>
<td>64,149</td>
<td>774,603</td>
<td>764,714</td>
<td>74,038</td>
</tr>
<tr>
<td>Assembly of Delegates</td>
<td>-14,504</td>
<td>304,470</td>
<td>268,116</td>
<td>21,850</td>
</tr>
<tr>
<td>Finance</td>
<td>33,379</td>
<td>579,241</td>
<td>549,817</td>
<td>62,803</td>
</tr>
<tr>
<td>Affordable Housing</td>
<td>5,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Grants to Towns</td>
<td>185,302</td>
<td>0</td>
<td>0</td>
<td>185,302</td>
</tr>
<tr>
<td>Facilities</td>
<td>1,550,943</td>
<td>3,244,334</td>
<td>3,103,397</td>
<td>1,691,880</td>
</tr>
<tr>
<td>Cooperative Extension</td>
<td>400,235</td>
<td>1,669,563</td>
<td>1,502,505</td>
<td>567,293</td>
</tr>
<tr>
<td>Registry of Deeds</td>
<td>-107,944</td>
<td>2,767,171</td>
<td>2,501,844</td>
<td>157,383</td>
</tr>
<tr>
<td>Dredge</td>
<td>7,222</td>
<td>835,284</td>
<td>666,185</td>
<td>176,321</td>
</tr>
<tr>
<td>Regional Services Initiatives</td>
<td>32,481</td>
<td>75,000</td>
<td>11,320</td>
<td>96,161</td>
</tr>
<tr>
<td>Health &amp; Environment</td>
<td>946,586</td>
<td>2,377,525</td>
<td>3,160,487</td>
<td>163,624</td>
</tr>
<tr>
<td>Human Services</td>
<td>119,347</td>
<td>392,477</td>
<td>369,961</td>
<td>141,863</td>
</tr>
<tr>
<td>Children’s Cove</td>
<td>90,697</td>
<td>597,617</td>
<td>639,548</td>
<td>48,766</td>
</tr>
<tr>
<td>Grants For Human services</td>
<td>6,250</td>
<td>75,000</td>
<td>81,250</td>
<td>0</td>
</tr>
<tr>
<td>Public Safety</td>
<td>50,000</td>
<td>0</td>
<td>0</td>
<td>50,000</td>
</tr>
<tr>
<td>Fire Training Academy</td>
<td>27,994</td>
<td>384,084</td>
<td>393,134</td>
<td>18,944</td>
</tr>
<tr>
<td>Cape Cod Commission</td>
<td>118,688</td>
<td>4,858,093</td>
<td>3,901,096</td>
<td>1,075,685</td>
</tr>
<tr>
<td>Water Quality Initiatives</td>
<td>147,675</td>
<td>302,000</td>
<td>316,332</td>
<td>133,343</td>
</tr>
<tr>
<td>Retirement-Retired Sheriff's Employees</td>
<td>0</td>
<td>1,009,386</td>
<td>1,009,386</td>
<td>0</td>
</tr>
<tr>
<td>Retirement-Early Retirement Incentive</td>
<td>0</td>
<td>104,170</td>
<td>104,048</td>
<td>122</td>
</tr>
<tr>
<td>Group Hlth,Dental &amp; Life Insur-Retirees</td>
<td>0</td>
<td>963,507</td>
<td>804,494</td>
<td>159,013</td>
</tr>
<tr>
<td>Other Fringe Benefits</td>
<td>5,000</td>
<td>68,255</td>
<td>29,860</td>
<td>43,395</td>
</tr>
<tr>
<td>Non-Contributory Pensions</td>
<td>5,000</td>
<td>20,000</td>
<td>3,070</td>
<td>21,930</td>
</tr>
<tr>
<td>Workers’ Compensation Premiums</td>
<td>28,771</td>
<td>45,000</td>
<td>52,020</td>
<td>21,751</td>
</tr>
<tr>
<td>Misc &amp; Contingent Expend</td>
<td>315,261</td>
<td>378,550</td>
<td>482,996</td>
<td>210,815</td>
</tr>
<tr>
<td>Debt Service &amp; Interest</td>
<td>0</td>
<td>225,000</td>
<td>0</td>
<td>225,000</td>
</tr>
<tr>
<td>Appropriated Reserves</td>
<td>417,023</td>
<td>145,000</td>
<td>0</td>
<td>562,023</td>
</tr>
</tbody>
</table>

| TOTALS | 4,621,402 | 24,220,200 | 22,339,209 | 6,502,393 |
Report of the Assembly of Delegates
The Assembly of Delegates is the legislative branch of Cape Cod Regional Government (also known as Barnstable County government). Each town within the county is duly represented on the Assembly of Delegates. Delegates are elected by the voters from each town for a two-year (calendar) term.

On Tuesday, November 6, 2012, delegates were elected to serve and on January 2, 2013 assumed their duties and began the thirteenth session (2013 – 2014) of the Assembly of Delegates. Ronald Bergstrom (Chatham) was elected Speaker, Teresa Martin (Eastham) was elected Deputy Speaker, and Janice O’Connell continued as the Assembly

---

### Representation for the Thirteenth Session (2013-2014) of the Assembly of Delegates for Fiscal Year Ending 6/30/13:

<table>
<thead>
<tr>
<th>Delegates</th>
<th>Town</th>
<th>% Weighted Vote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richard Anderson</td>
<td>Bourne</td>
<td>9.15%</td>
</tr>
<tr>
<td>Cheryl Andrews</td>
<td>Provincetown</td>
<td>1.36%</td>
</tr>
<tr>
<td>Ronald Bergstrom</td>
<td>Chatham</td>
<td>2.84%</td>
</tr>
<tr>
<td>Leo Cakounes</td>
<td>Harwich</td>
<td>5.67%</td>
</tr>
<tr>
<td>Ned Hitchcock</td>
<td>Wellfleet</td>
<td>1.27%</td>
</tr>
<tr>
<td>Christopher Kanaga</td>
<td>Orleans</td>
<td>2.73%</td>
</tr>
<tr>
<td>James Killion</td>
<td>Sandwich</td>
<td>9.58%</td>
</tr>
<tr>
<td>Marcia King</td>
<td>Mashpee</td>
<td>6.49%</td>
</tr>
<tr>
<td>Teresa Martin</td>
<td>Eastham</td>
<td>2.30%</td>
</tr>
<tr>
<td>E. Suzanne McAuliffe</td>
<td>Yarmouth</td>
<td>11.02%</td>
</tr>
<tr>
<td>Deborah McCutcheon</td>
<td>Truro</td>
<td>0.93%</td>
</tr>
<tr>
<td>John Ohman</td>
<td>Dennis</td>
<td>6.58 %</td>
</tr>
<tr>
<td>Patrick Princi</td>
<td>Barnstable</td>
<td>20.92%</td>
</tr>
<tr>
<td>Anthony Scalese</td>
<td>Brewster</td>
<td>4.55%</td>
</tr>
<tr>
<td>Julia Taylor</td>
<td>Falmouth</td>
<td>14.61%</td>
</tr>
</tbody>
</table>

100.00%

Delegate contact information may be viewed on the County website at www.barnstablecounty.org/assembly-of-delegates/delegates.
Clerk. Contact information for the Speaker and Deputy Speaker may be viewed on the County website at www.barnstablecounty.org/assembly-of-delegates/speaker and www.barnstablecounty.org/assembly-of-delegates/deputy-speaker. Contact and other information regarding the duties and responsibilities of the Assembly Clerk may be viewed on the County website at www.barnstablecounty.org/assembly-of-delegates/clerk.

The Assembly of Delegates holds regular meetings on the first and third Wednesday of each month at 4:00 p.m. in the Chamber Hall of the Assembly of Delegates, First District Courthouse, Barnstable, MA. The vote of each delegate is a weighted vote based on the 2010 U. S. Decennial Census. Barnstable has the largest weighted vote of 20.92% and Truro has the smallest weighted vote of 0.93%. The Assembly’s Business Calendar (agenda) may be viewed on the County website at www.barnstablecounty.org/assembly-of-delegates/upcoming-calendar-of-business-agenda. Meeting videos, Business Calendars (agendas), and Journals of Proceedings (meeting minutes) for previous meetings may be viewed on the County website at www.barnstablecounty.org/assembly-of-delegates/past-assembly-journals-minutes-meeting-videos-calendars-agendas.

The legislative powers of county government are vested in the Assembly of Delegates, and except as provided in the Barnstable County Home Rule Charter, the acts of the Assembly of Delegates are required to be by ordinance. Barnstable County Home Rule Charter may be viewed on the county website at www.barnstablecounty.org/assembly-of-delegates/home-rule-charter.

Ordinances are brought forward to the Assembly of Delegates and then referred for review and discussion to a Standing Committee of the Assembly by the Speaker. The public has the opportunity to participate in the process when a proposed ordinance is scheduled for a public hearing by the appropriate Standing Committee. Once ordinances are reviewed by the Standing Committee at a public hearing the committee compiles a report to the Assembly with a recommendation for a vote by the full Assembly.

Delegates are appointed to serve on the Standing Committees of the Assembly. A complete list of individual delegates appointed to each committee may be viewed at www.barnstablecounty.org/assembly-of-delegates/committees.

There are six Standing Committees of the Assembly of Delegates:

- **Economic Affairs**: addresses economic development in Barnstable County
- **Finance**: reviews the budget and looks at every major decision rendered by the Barnstable County government that has financial implications including inter-governmental fiscal policies and procedures
- **Governmental Regulations**: address all matters relating to the Regional Policy Plan (committee composition consists of the Chairs of all other Standing Committees)
- **Health and Human Services**: addresses matters relating to public health, social services and housing
- **Natural Resources**: addresses matters relating to environmental matters
- **Public Services**: addresses matters relating to public services

Members of each Standing Committee will review the components of all proposed ordinances assigned to and under consideration by each appropriate committee prior to issuing a report to the full Assembly.

An important and significant responsibility of the Assembly is the review and adoption of the proposed fiscal year budget that is submitted to the Assembly of Delegates by the Board of County Commissioners (executive branch of Barnstable County government). Standing Committees meet with department managers, review their budgets and programs, look at the goals and effectiveness of each program, and consider information that is
gathered through the public hearing process prior to making a recommendation to the full Assembly for a vote. This budget process typically takes place between February and May of each year. Notices of public hearings and meetings held by each committee may be viewed on the County website at www.barnstablecounty.org/assembly-of-delegates/upcoming-committee-meeting.

During Fiscal Year 2013 (July 2012 through June 2013), the Assembly of Delegates adopted seven ordinances (#12-07 through #12-09, and #13-01 through #13-04). A complete list of all ordinances adopted by the Assembly of Delegates is available upon request or may be viewed on the County website at www.barnstablecounty.org/assembly-of-delegates/ordinances.

Below is a list of the Standing Committees and Special Committees, and a description of the ordinances and subject matter that were reviewed by the committees and ordinances adopted by the Assembly during Fiscal Year 2013. Committee reports and meeting minutes may be viewed on the County website at www.barnstablecounty.org/assembly-of-delegates/committee-reports-and-minutes.

**Finance:**

Supplemental appropriation to Fiscal Year 2013 budget for IT Services / Technical Support: $88,000. – Ordinance 12-08 adopted by Assembly on 9/19/12.

Supplemental appropriation to Fiscal Year 2013 budget for County Services to continue conversion of County facility (jail’s former gym) to health laboratory: $494,190. – Ordinance 13-01 adopted by Assembly on 3/6/13.

Supplemental appropriation to Fiscal Year 2013 budget for Public Safety for Fire Training salaries, equipment, and supplies: $45,160 and County Services for Dredge salaries: $12,000. – Ordinance 13-02 adopted by Assembly on 5/1/13.

Appropriations for Barnstable County Fiscal Year 2014 operating budget: $27,875,846. – Ordinance 13-03 adopted by Assembly on 5/1/13.

Supplemental appropriation to Fiscal Year 2013 budget for Miscellaneous & Contingency Legal Services for Special Counsel for Charter review process: $20,000. – As Proposed Ordinance 13-06 failed to pass Assembly on 6/19/13.

**Government Regulations:**

Amendment of the Regional Policy Plan per Section 8H of Chapter 716 of the Acts of 1989 – Ordinance 12-07 adopted by Assembly on 7/18/12.

To create the position of Director of Administrative Services and Finance – Ordinance 12-09 adopted by Assembly on 11/7/12, rejected by Board of County Commissioners and re-passed by Assembly on 12/5/13.

To amend Section 7 (vii) of Chapter A, Enabling Regulations of the Code of Cape Cod Commission to add a rule for qualifications after one missed hearing by member(s) – Ordinance 13-04 adopted by Assembly on 5/15/13.

**Economic Affairs, Health & Human Services, Natural Resources, and Public Services:**

Reviewed and recommended department budgets to the Finance Committee for Fiscal Year 2014 proposed operating budget – adopted by Assembly on 5/1/13 as Ordinance 13-03.

If you have any questions about the operation or structure of the Assembly of Delegates please contact the Assembly Clerk.
Report of the Retirement Association
SUMMARY OF THE ANNUAL REPORT FOR 2012

In accordance with the provisions of Chapter 32, Section 20(5) of the Massachusetts General Laws, you are provided with a summary of the Annual Report of the Barnstable County Retirement Association for the year ending December 31, 2012. The report has been filed with the Executive Director of the Public Employee Retirement Administration Commission in accordance with the provisions of said statute and may be examined at the office of the Retirement Association at 750 Attucks Lane, Hyannis, MA.

BOARD MEMBERS

E. MARK ZIELINSKI:  Chairman/Director of Finance. As the Director of Finance for the County of Barnstable, Mr. Zielinski is the Board Chairman.

C. RANDALL SHERMAN:  Retired Chief of the Yarmouth Fire Department, Mr. Sherman is elected to the Board by the active and retired members of the system.

MARK FOLEY:  Deputy Chief of the Eastham Fire Department, Mr. Foley is the second member to be elected to the Board by the active and retired members of the system.

JUDITH C. SPRAGUE:  As the Treasurer for the COMM Fire District, Ms. Sprague is elected by the Treasurers of all the governmental units which comprise the Association. All 51 Unit Treasurers serve as the Advisory Council to the Board.

MARY PAT FLYNN:  An elected County Commissioner for the County of Barnstable, Ms. Flynn has been appointed by the Commissioners as the fifth member of the Board.

The system's total assets as of 12/31/2012 are $683,553,671.00 reflecting a net gain in assets of $89.58 million. The reported rate of return of the system's assets net of fees was 13.38%. The US equity S&P 500 index finished the year up 16%, while the equities of foreign developed and emerging markets were up 16.7% and 19.2% respectively. The broad fixed income market rose 4.2%.

With the exception of operating and short term cash, the majority of the Barnstable County Retirement Association's portfolio is in the Pension Reserve Investment Trust (PRIT). As of yearend the portfolio was allocated as follows: Allegis Value Trust – $5.8 million real estate; Intercontinental Fund - $1.74 million real estate; PRIT Fund - $672.9 million. As of 12/31/2012 the PRIT Fund assets totaled $51.975 billion with the annual rate of return gross of fees of 13.88%.

The Pension Reserve Fund is the account established for the purpose of funding future pension costs. The balance of this account as of 12/31/2012 is $391,883,077. This fund now represents 57.3% of the Association's total assets.

The Retirement Board members, as fiduciaries of the fund, continue to monitor the investments. In their efforts to achieve a high rate of return to meet the statutory obligations, the Board considers safety and preservation of capital to be of the utmost importance. On the reverse side is a 12/31/2012 assets and liabilities summary.
BARNSTABLE COUNTY RETIREMENT ASSOCIATION 

ASSETS & LIABILITIES STATEMENT

<table>
<thead>
<tr>
<th>Fund</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash - Operating</td>
<td>$ 886,100.85</td>
</tr>
<tr>
<td>- Short term</td>
<td>0.00</td>
</tr>
<tr>
<td>Annuity Savings Fund</td>
<td>223,332,422.31</td>
</tr>
<tr>
<td>Real Estate</td>
<td>7,546,758.93</td>
</tr>
<tr>
<td>PRIT Capital Fund</td>
<td>672,861,620.39</td>
</tr>
<tr>
<td>Fixed Income</td>
<td>0.00</td>
</tr>
<tr>
<td>Sub-total</td>
<td>681,294,480.17</td>
</tr>
<tr>
<td>Due &amp; Acc</td>
<td>0.00</td>
</tr>
<tr>
<td>Receivables</td>
<td>2,259,190.34</td>
</tr>
<tr>
<td>Payables</td>
<td>(0.00)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$683,553,670.51</td>
</tr>
</tbody>
</table>

FUND BALANCES

<table>
<thead>
<tr>
<th>Fund</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annuity Reserve Fund</td>
<td>65,397,675.75</td>
</tr>
<tr>
<td>Military Service Fund</td>
<td>110,570.54</td>
</tr>
<tr>
<td>Pension Fund</td>
<td>2,829,925.13</td>
</tr>
<tr>
<td>Pension Reserve Fund</td>
<td>391,883,076.78</td>
</tr>
<tr>
<td>Expense Fund</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Due & Acc

<table>
<thead>
<tr>
<th>Fund</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreation</td>
<td>3,628.60</td>
</tr>
<tr>
<td>Refunds to Members</td>
<td>3,137,632.79</td>
</tr>
<tr>
<td>Payments to Retirees</td>
<td>57,532,983.48</td>
</tr>
<tr>
<td>Government Reimbursements</td>
<td>1,040,644.27</td>
</tr>
<tr>
<td>Administrative Expenses</td>
<td>1,065,299.76</td>
</tr>
<tr>
<td>Asset Management Expenses</td>
<td>3,425,951.72</td>
</tr>
<tr>
<td>BALANCE - 12/31/2012</td>
<td>$683,553,670.51</td>
</tr>
</tbody>
</table>

MEMBERSHIP SUMMARY - 12/31/2012

<table>
<thead>
<tr>
<th>Membership Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Members</td>
<td>4,705</td>
</tr>
<tr>
<td>Inactive Members</td>
<td>624</td>
</tr>
<tr>
<td>Retirees and Survivors</td>
<td>2,709</td>
</tr>
</tbody>
</table>

ACCRUED ACTUARIAL LIABILITY AS OF 1/1/2012

The Segal Company conducted the most recent actuarial valuation. The accrued liability at 1/1/2012 was:

<table>
<thead>
<tr>
<th>Membership Type</th>
<th>Liability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Members</td>
<td>$570,917,813.00</td>
</tr>
<tr>
<td>Retired &amp; Inactive Members</td>
<td>+602,566,035.00</td>
</tr>
<tr>
<td>Total actuarial liability at 1/1/2012</td>
<td>$1,173,483,848.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Membership Type</th>
<th>Liability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual Value of Assets at 1/1/2012</td>
<td>-651,063,981.00</td>
</tr>
<tr>
<td>Unfunded actuarial liability at 1/1/2012</td>
<td>$522,419,867.00</td>
</tr>
</tbody>
</table>

The next actuarial valuation is scheduled for 1/1/2014.
Report from the Department of Health and Environment
Administration Division
George R. Heufelder, M.S., R.S., Director
Telephone: 508-375-6616
Email: gheufelder@barnstablecounty.org

Barbara Austin, Administrative Supervisor
Telephone: 508-375-6614
Email: baustin@barnstablecounty.org

Water Quality Laboratory Division
Hours: 8:00 am – 4:00 pm, Monday – Friday
Main Telephone: 508-375-6605
Fax: 508-362-7103

Gongmin Lei, M.S., Laboratory Director
Telephone: 508-375-6606
Email: gmlei@barnstablecounty.org

Lacey Prior, B.S., Chemist
Telephone: 508-375-6609
Email: lprior@barnstablecounty.org

Ken Ni, B.S., Chemist
Telephone: 508-375-6608
Email: kni@barnstablecounty.org

Kelby Karnes, B.S., Chemist
Telephone: 508-375-6736
Email: kkarnes@barnstablecounty.org

Ryan Lucier, B.S., Bacteriologist
Telephone: 508-375-6607
Email: rluvier@barnstablecounty.org

Diane Brown, B.S., Laboratory Technician
Telephone: 508-375-6611
Email: dbrown@barnstablecounty.org

Elna Hughes, Laboratory Assistant
Telephone: 508-375-6605
Email: eughes@barnstablecounty.org

Jennifer Doherty, A.A., General Laboratory Assistant
Telephone: 508-375-6674
Email: jdoherty@barnstablecounty.org

Howard Weigel, B.B.A., Information Specialist/Billing
Telephone: 508-375-6675
Email: hweigel@barnstablecounty.org

Environmental Health Division
Environmental Specialists
Marina Brock, B.A., R.S.
Telephone: 508-375-6619
Email: mbrock@barnstablecounty.org

Lee A. Mannillo, B.S., R.S.
Telephone: 508-375-6620
Email: lmannillo@barnstablecounty.org

Lynn Mulkeen, B.A., R.S.
Telephone: 508-375-6676
Email: lmulkeen@barnstablecounty.org

Sean O’Brien, B.S., R.S.
Telephone: 508-375-6618
Email: sobrien@barnstablecounty.org
Email: bcrepc@barnstablecounty.org

Environmental Project Assistants
Baumgaertel, Brian, B.A.
Telephone: 508-375-6888
Email: bbaumgaertel@barnstablecounty.org
Bethany Sadlowski, B.A., R.S.
Telephone: 508-375-6844
Email: bsadlowski@barnstablecounty.org

Lindsey Wright Alternative Septic System Tracking Program
Telephone: 508-375-6901
Email: lwright@barnstablecounty.org

Emergency Preparedness Project Assistant
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In recent years, the Massachusetts Department of Public Health (MDPH) has established initiatives to regionalize health departments in the Commonwealth, thereby confirming the wisdom of our Cape forefathers who established the Barnstable County Department of Health & Environment (BCDHE) under a Special Act of the Legislature in 1926. Since then, the Department routinely assesses specific areas of need that lend themselves to regional efficiencies throughout the 15 towns comprising Barnstable County, while continuing to support the autonomy of local boards of health and maintaining expertise that can be called upon as needed. Many of these efforts are a result of the expanding role of public health which ranges from public health emergency planning, to environmental monitoring (beaches, groundwater near landfills, indoor air quality), disease prevention and even the practical application of providing loans for septic system repair and replacement.

The Department provides these services in the following division structure that reflects the diversity of services in nearly every aspect of public health:

Public Health Administration
Public Health Nursing
Environmental Health & Safety
Water Quality Testing Laboratory
Community Septic Management Loan Program
Emergency Preparedness
Tobacco Control & Compliance

Additionally, the Department manages a number of environmental, public health, and homeland security grants that are funded through state and federal resources. The primary mission of the Department is to protect public health and the environment and to promote the physical and mental health and well-being of Barnstable County’s 215,888 residents.

ADMINISTRATION
The Administration Division oversees the Department’s budget and programs and provides an avenue through which citizens and towns can obtain services and information relative to public health and the environment. In FY2013, the Administrative Division prepared several grants to support the following: bathing beach monitoring, the Massachusetts Alternative Septic System Test Center (MASSTC), homeland security efforts, public health screening for at-risk populations, public health emergency preparedness efforts and the Cape Cod Medical Reserve Corps, which serves the towns in the event of public health emergencies.

ENVIRONMENTAL HEALTH
Inspectional Services

Barnstable County Department of Health and Environment field staff members maintain the readiness and certifications necessary to assume health agent responsibilities in any town whose needs require immediate assistance for any reason. The Department’s close and regular communication with local boards of health and their agents makes any such event seamless to the public. Two examples of the Department’s contribution of direct and continuous sanitation services are annual contracts with the Towns of Orleans and Wellfleet. Senior Staff member Lee Mannillo supplements Town of Orleans staff twice a week throughout the year and Lynn Mulkeen works with the Town of Wellfleet once per week with additional days provided on an as-needed basis.

Under supervision of Senior Environmental Specialist Lynn Mulkeen, the Department provided annual training to three seasonal health inspectors who worked full-time to assist local boards of health in meeting the public health and safety demands of Cape Cod’s summer tourism. Department inspectors conducted approximately 1,100 restaurant/retail food establishment and swimming pool inspections across Barnstable County in FY2013, including complaint follow-up and repeat inspections when necessary. Public health inspections and monitoring were also conducted at the Barnstable County Fair
which serves approximately 90,000 people. In the event of a public health emergency such as a storm, power outage or boil water order, our inspectors are available to provide education and communication to the public and local businesses. Other inspectional services cover hazardous materials, septic systems/perc tests, housing, retail and rental locations.

Massachusetts Alternative Septic System Testing Center

Onsite septic systems are the primary means of wastewater treatment utilized in Barnstable County. Unfortunately, recent studies have shown that septic systems are a major source of nutrients impacting our sensitive marine environments and freshwater ponds. These studies indicate a need to develop new technologies capable of treating various contaminants in an onsite setting. As a third-party verification facility for technologies that purport to remove nutrients from wastewater, the Massachusetts Alternative Septic System Test Center (MASSTC) began operation in 1999 and continues to respond to that need. The Test Center is operated by staff member Keith Mroczka and Department Director George Heufelder, with added assistance from AmeriCorps Cape Cod.

The Test Center is one of only a few facilities in the United States that provides opportunities for research, development and testing of onsite septic system technologies. The Test Center is also equipped to perform a number of internationally recognized and standardized test protocols. Although initial efforts focused on the removal of nitrogen as a contaminant, research at the facility has expanded to include removal of phosphorus, bacterial pathogens and a class of compounds that are collectively referred to as Contaminants of Emerging Concern (CEC) or Pharmaceuticals and Personal Care Products (PPCP).

In addition to performing over five standardized protocols and assisting in the development of a number of other technologies, during FY2013, the Test Center staff completed an extensive review of onsite septic system studies regarding CEC. The paper can be accessed online at: http://www.masstc.org/library/2013/08/TheFinalWhitePaper.pdf.

Test Center staff also completed a report on the use of shallow soils-based drip dispersal systems for the removal of CEC, which can be accessed online at: http://www.masstc.org/library/2013/08/AttempttoIndex1.pdf.

Collectively, these two efforts outline important issues regarding CEC and begin the process of determining practices and strategies to limit their introduction to sensitive receptors such as groundwater and surface water. The work at the Test Center overall continues to identify the efficacy of additional shallow profile dispersal systems in removing CEC and other contaminants and is working to further determine the effects of soil type and hydraulic loading rate on CEC.
reduction. All research and testing activities of the Test Center are available at www.MASSTC.org.

Innovative/Alternative Septic System Education and Tracking

As towns struggle with the necessity to reduce the flow of wastewater-based nitrogen into our shared groundwater, ponds, bays and estuaries, advanced onsite septic system treatment units or Innovative/Alternative Systems (I/A) have been installed in many instances across Cape Cod as a means to control human-produced nutrients. More complex than standard onsite wastewater treatment systems, I/A systems must be regularly monitored to ensure that they meet an established standard.

In 2005, the Department instituted a regional program to assist towns in monitoring their I/A septic systems. An Internet database was developed to provide I/A system operators (state-licensed wastewater treatment operators who are contracted by homeowners for system maintenance) a paperless means of submitting inspectional findings and effluent sample monitoring results. The database also gives regulators the ability to monitor in real-time the compliance of every system.

By FY2013, over 1,685 I/A systems representing 35 different I/A technologies were being tracked via the Department’s web-based system. The Department’s efforts to ensure compliance with state and local regulations are notable with 515 compliance actions taken against 130 non-compliant owners during FY2013 for failure to maintain their I/A systems as required.

In addition to tracking operation and maintenance compliance, the database is also used to track system performance. In FY2013, nearly 1,300 water quality reports were submitted, representing over 9,000 individual data-points. Since the
program’s inception in 2003, 16,674 water quality reports have been submitted, resulting in 107,950 individual water quality data points. These data include various parameters such as effluent total nitrogen, influent biochemical oxygen demand (BOD), water meter readings and others. Water quality data is monitored real-time by Brian Baumgaertel, Environmental Project Assistant, who administers the database and has enabled the ability to quickly identify and flag poorly performing systems and execute follow-up measures. Reports on system performance and the creation and use of the database have been presented at national conferences.

Beginning in FY2013, the Department began to develop a new I/A tracking database that would take the program to the next level. Accountability of all parties involved in I/A maintenance and reporting and the implementation of more efficient business and workflow processes are the focal point of this improved database. The end result—a much faster compliance process—will lead to an increased ability to address more in-depth compliance issues. Additionally, more data will be publicly accessible and individual I/A system owners will have access to the reports for their systems. The new database is set to be rolled out mid-FY2014.

In an effort to make I/A technology performance data and information easily accessible to the public, an interactive online charting system was developed. Performance data from single-family, multi-family and commercial I/A technologies are presented in box-and-whisker format to graphically summarize the multitudes of data for each individual system. Users can “drill in” on performance data for each town, technology type and building use. The underlying data is updated periodically to include the latest samples and new technologies. The application is accessible at http://www.barnstablecountyhealth.org/ia-systems/information-center/data-and-statistics/ia-box-whisker-diagrams.

**Landfill Monitoring**

Consistently stringent requirements for the surveillance of groundwater plumes beneath landfills resulted in the continued sampling and maintenance of well locations in multiple towns across the Cape over the last year. Twelve Cape Cod towns currently depend on Department staff for post-closure or operational monitoring of their landfills. The remaining towns stay in continuous communication with landfill monitoring/sampling staff regarding sampling parameters, procedures and supplies and with the Barnstable County Laboratory staff regarding sample analysis. This results in over 600 well samplings annually. The Department also assists six towns in the specialized monitoring of soil gases required as part of the landfill closure process. This necessitates the use of specialized instrumentation and trained environmental specialists.
staff. The availability of this service through the Department has been financially beneficial to participating towns. Senior Environmental Specialist, Lynn Mulkeen continues to supervise this program with the assistance of Senior Environmental Specialist, Lee Mannillo.

**Bathing Beach Water Quality Monitoring**

Between late May and Labor Day, the Department’s fleet of four beach samplers collect up to 30 marine and fresh water samples and deliver them to the laboratory for bacteriological analysis before the end of every work day. In sometimes inclement weather conditions, samplers drive from one beach to the next collecting samples, taking down valuable observations, and answering questions from curious onlookers. Upon accomplishing their mission they return to the lab where they have been trained to perform analysis on the samples collected.

The Bathing Beach Monitoring Program serves 14 towns Cape-wide; one sample is collected from every operational town beach on a weekly basis per Massachusetts regulations. Semi-public beaches (beaches that have common access and/or common use by an organization such as a homeowner’s association or hotel/motel) also are required to comply with the regulations and many choose to participate in the program as well. When bacteria levels in any one of these samples exceeds the allowable limits, the town health agents and/or semi-public operators are notified to close their beach and samplers immediately gather re-tests to ensure that the beach may be re-opened as soon as results are favorable. Collectively, the samplers are responsible for sampling beach water at over 350 Cape Cod beaches every week.

In 2013, the task of overseeing this extensive program was continued by Bethany Sadlowski, Environmental Project Assistant. Supervising a seasonal staff of four bathing Beach Sampler/Analysts, Ms. Sadlowski coordinated the sampling and reporting necessary to maintain compliance with the Massachusetts State Sanitary Code for Bathing Beaches, which was amended in 2010. The amendments required all towns and semi-public beach operators to permit their beaches and install permanent signs indicating dates of operation, contact information for the beach operator, the permit number, and sampling dates. As in 2010, 2011, and 2012, the Department assisted towns and semi-public operators by offering to permit semi-public beaches in towns that...
chose not to require a permitting fee. Furthermore, the Department provided replacement signs that had been designed, commissioned, and produced in 2010 to meet the new regulatory requirements at the lowest possible cost. The signs were utilized Cape-wide for a fourth year.

Routine monitoring of public and semi-public beaches was performed with follow-up assistance where violations of bacteria standards were observed. Over 4,400 samples were collected and processed during the summer bathing season from 249 marine and 107 freshwater beaches on Cape Cod. Testing results were published real-time and daily on the Department website as well as the state Department of Public Health statewide beach website. During the off season, the Department maintains a yearly summary of information for all public beaches and issues annual reports to the respective town boards of health. Recommendations for follow-up measures in order to reduce public health risks were rendered when necessary.

For more information regarding the Bathing Beach Monitoring Program, please visit http://www.barnstablecountyhealth.org/bathing-beach-water-quality.

### Rabies Awareness and the Cape Cod Oral Vaccine Program

The Barnstable County Department of Health and Environment, in conjunction with the Cape Cod Rabies Task Force, continues to assist towns with maintaining control of terrestrial raccoon rabies on Cape Cod. The raccoon strain of rabies has been identified in all fifteen towns throughout Barnstable County.

![Cape Cod Rabies Task Force Committee Members from left: Lee A. Mannillo, BCDHE, Monte Chandler, Brian Bjorklund, USDA-WS, Karl von Hone, Yarmouth Natural Resource Division, Amy von Hone, Yarmouth Health.](image)

The Cape Cod Rabies Task Force (CCRTF), co-chaired by Department staff member Lee A. Mannillo and Karl Von Hone of the Yarmouth Director of Natural Resources, continues to meet regularly to coordinate with local health directors, animal control officers and natural resource officers Cape-wide. Through these coordination efforts,
the CCRTF works to facilitate the education of residents and visitors throughout Barnstable County in order to implement town policies and procedures and coordinate the semi-annual distribution of the Oral Rabies Vaccine (ORV).

Since 1994, the Department has worked in conjunction with federal, state and local government in the fight against rabies. For over a decade the program was successful in keeping Cape Cod rabies-free, using the canal as a natural barrier. Although the rabies-free barrier was breeched in 2004, baiting continues twice a year. The goal is to vaccinate wildlife against this disease to reduce and then hopefully eliminate rabies Cape-wide. The Cape Cod Oral Rabies Vaccine (CCORV) Program, overseen by the United States Department of Agriculture Wildlife Services (USDA-WS), is praised as one of the longest running, increasingly successful projects to control rabies nationwide.

This fiscal year (FY2013), USDA-WS made some major changes in the bait zone due to favorable surveillance results from the Outer Cape towns. Therefore, baiting was not conducted in Provincetown, Truro, Wellfleet and Eastham. Close to 50,000 baits were distributed via bait stations and hand distribution in the towns of Barnstable, Yarmouth, Dennis, Brewster, Orleans, Harwich and Chatham.

The Barnstable County representative of the CCRTF is active in other areas as well. Ms. Mannillo coordinates trainings for town police departments, health departments, departments of public works and transfer station staff, educating employees about rabies exposure prevention. In addition, communities continue to benefit from the efforts of the CCRTF through annual low cost rabies vaccination clinics as part of a statewide rabies control program.

The Cape Cod Hoarding Task Force

The Cape Cod Hoarding Task Force (CCHTF) was formed in 2010 and consists of a four member steering committee. Chaired by Senior Environmental Specialist Lee A. Mannillo, Task Force members include public health officials, animal control officers, social services employees, elder services employees, professional home organizers, senior move specialists, mental health professionals and fire and private disaster specialists from every town Cape-wide. The mission of the CCHTF is to sensitively raise awareness of compulsive hoarding and provide education and support for those affected by hoarding through accessible tools, referrals and resources. The Cape Cod Hoarding Task Force seeks to develop a coordinated response and to forge a cooperative arrangement among county, town, community organizations and private services.

In FY2013, CCHTF held two very successful educational events. In November, the Task Force held an accredited training for professionals on Legal Issues and Hoarding, which was attended by over 50 specialists. On April 17th, the CCHTF presented a free community event at the Cultural
Center of Cape Cod. The event, entitled Buried in Treasures, introduced the audience to a scientifically based and effective self-help program centered on material from the book Buried in Treasures: Help for Compulsive Acquiring, Saving, and Hoarding. Approximately 80 people affected by hoarding disorder from across Cape Cod attended the event, including those suffering from hoarding disorder, their friends and family, clinicians who treat the disorder and first responders. The CCHTF also identified two clinicians on Cape Cod who agreed to run future Buried in Treasures support groups to local residents suffering from hoarding disorder. The Task Force is actively working on developing an accredited training for town attorneys and first responders, and an additional training on joint service plans for professionals who interface with the issue of hoarding. Finally, the CCHTF maintains their hoarding website, www.hoardingcapecod.org, which includes an ever-increasing list of local resources and services.

The Cape Cod Hoarding Task Force was awarded a $3,500 Community Health Network Area (CHNA) grant and a $5,000 grant from Cape Cod Health Care to continue their work in educating the public about hoarding disorder, promoting the joint service plan model for managing hoarding disorder in the community and collecting data on the effectiveness of the joint service plan model. Currently, the CCHTF is partnered with the Massachusetts Chapter of the Obsessive Compulsive Disorder Foundation and the Statewide Hoarding Steering Committee to accomplish these goals. As a member of the Statewide Hoarding Steering Committee and Chair of the CCHTF, Ms. Mannillo acted as a consultant to three towns in the Commonwealth to help establish and grow hoarding task forces in their communities.

Environmental Health and Safety

The primary goal of the Environmental Health and Safety (EHS) Program is to work collaboratively to promote and enhance environmental, health and safety compliance in the workplace and beyond. This program seeks to push the envelope of more traditional approaches to focus on holistic prevention of the many problems associated with a lack of EHS compliance awareness within our community. Senior Environmental Specialist and Public Health Sanitarian Marina Brock provides site based assistance to municipal and private businesses as well as residents of Cape Cod, addressing comprehensive aspects of environmental protection through environmental code compliance, Occupational Health and Safety (OSHA), National Fire Prevention Association (NFPA) and integrated facility specific approaches to EHS operations.

Specific assistance offered varies with the individual facility/individual and their needs. For example, assistance regarding OSHA might include an evaluation of work processes, writing safe work procedures, identifying correct Personal Protection Equipment (PPE), providing worker training, reconciling worker/union grievances and writing OSHA compliant facility plans. Through the EHS Program, the Department may also recommend and implement work process alternatives to reduce compliance burdens and mitigate potential risk and workplace hazards. On occasion, the Department acts as an informal compliance branch for both state and federal occupational health and safety agencies, enabling the consolidation of resources, resolution of complaints, improvement of helpful assistance and reduction of unproductive and costly enforcement actions and fines.

In the environmental arena, the Program’s focus is on hazardous material and waste management. Applicable Environmental Protection Agency (EPA), State, local, OSHA and NFPA standards are integrated to eliminate redundant compliance activities. By evaluating all EHS issues, it is possible to streamline and reduce the overall compliance burden on facilities, thereby preserving available resources. The primary focus is safe hazardous material management, incorporating all areas of
storage, use and disposal. Staying in line with this prevention focus, the Program encourages the reduction of hazards and risks through the use of non-hazardous or lesser hazard material, re-use or recycling of materials/wastes and lastly, appropriate disposal if no other options exist. Our Indoor Air Quality (IAQ) programs work through all of these applications to assure worker and environmental health and safety. In 2012 80% of staff efforts were allocated to job and work sites in the form of 119 audits/site visits, training for over 1,300 workers and addressing EHS issues in every town across Barnstable County.

The IAQ program works to facilitate and encourage continued awareness and promotion of improved EHS at the workplace. Program results include significant risk reduction and loss prevention in the form of accident and disability avoidance (occupational illnesses/injuries and negligence liabilities) and prevention of environmental degradation through all media (air, water and land). All of these efforts have resulted in significant cost savings whether in the form of reduced Workman’s Compensation claims and insurance premium costs, or cleaner drinking and surface waters, land and air. The program underscores what can be accomplished when existing resources come together as a team towards a unified goal encouraging a safer, cleaner environment. Further, the Department is currently fostering a partnership with regional public works authorities, Massachusetts Maritime Academy and Municipal Insurers groups to develop a regional OSHA training center for conferring basic OSHA certifications to regional Department of Public Works (DPW) workers (as well as student cadets), therefore adding further protection against work related injuries and disability claims.

Most of the several hundred annual residential calls received by EHS cover the spectrum of IAQ, including mold, hazardous material, asbestos, radon, lead paint, insects, allergies and various environmental illnesses. Additionally, the Program can provide real time assessment, identification, analysis and resource assistance for lead paint, asbestos, mold and numerous other household hazardous material issues.

Finally, the EHS Program has a working relationship with numerous state and federal agencies. Increasing the dimensions of Program activities by forming service partnerships with local educational institutions has proved effective, providing applied field assistance in the form of direct program service to facilities, operators and employees. A total of 51 students from Massachusetts Maritime and Cape Cod Community College have provided direct service assistance to 22 municipal entities through applied EHS internships, independent study programs and special projects in the areas of facility audits and the development of written safety and training programs.

WATER QUALITY LABORATORY

The Barnstable County Laboratory is certified by the Massachusetts Department of Environmental Protection’s Laboratory Certification Office and provides analytical services to Barnstable County’s private residents and municipalities alike. One primary directive of the Laboratory is to provide high quality analyses of various contaminants in drinking water. Accordingly, the Laboratory assists water departments on Cape Cod in meeting the monitoring requirements necessary for adherence to state and federal water quality standards. The water departments benefit from the flexibility of the laboratory to assist when periodic problems arise, such as the seasonal and transient occurrences of bacteria. The Laboratory also provides analytical services to owners of private drinking water wells and weekly sample pick-up in Wellfleet, Truro, Eastham, Brewster, Falmouth and Mashpee.

In addition to drinking water, the Laboratory conducted a wide variety of environmental analyses during FY2013 including bathing beach samples (over 4,000 samples processed), shellfish harvesting area samples, pond and lake samples, wastewater samples from the Massachusetts Alternative Septic System Test Center, swimming
pool and spa samples, and samples associated with town-requested special projects such as continuing town-wide assessment of nitrates in Eastham and Truro. Another major effort of the Laboratory is to provide analyses associated with groundwater samples taken from beneath sanitary landfills. These analyses are conducted at significant savings to the towns and are collected by the Environmental Health Division field staff.

In FY2013, the Laboratory purchased a new ion chromatography (IC) instrument for analyzing nitrate, nitrite, fluoride, chloride and sulfate in aqueous samples using EPA Method 300.0. This new IC had been used for routinely analyzing aqueous samples.

In FY2013, the Laboratory was successfully certified by EPA for two new methods: EPA 524.3 and EPA 300.1. The contaminants analyzed using these methods are monitored under EPA’s Unregulated Contaminant Monitoring Rule (UCMR). The contaminants, while known to occur in Public Water Systems (PWSs), are currently unregulated by the Safe Drinking Water Act (SDWA) and may pose a potential health risk. Therefore, the purpose of the UCMR is to require monitoring within the PWSs, which will determine whether or not to regulate a given contaminant. Between 2013 and 2015 the Unregulated Contaminant Monitoring Program will begin the third round of monitoring entitled UCMR 3. During that period, the Laboratory will be prepared to serve Cape Cod’s PWSs by providing analytical capabilities to fulfill the new requirements. More information regarding the Unregulated Contaminant Monitoring Program can be found at http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/index.cfm.

Finally, Barnstable County Laboratory, which has occupied the basement of Barnstable Superior Courthouse for over twenty years, will soon move to its new location in the old Barnstable County Jail gymnasium. The building has been completely redesigned and renovated and will increase the Lab’s workspace by about 50%, allowing opportunities for new analytical capabilities in the future. The Laboratory is planning to officially relocate in FY2014.

COMMUNITY SEPTIC MANAGEMENT LOAN PROGRAM

The Community Septic Management Loan Program (CSMLP), aimed at upgrading failed residential septic systems to Title 5 standards, was made possible by the enactment of the Open Space Bond Bill of 1996. This law appropriated $30 million to the Massachusetts Department of Environmental Protection (MassDEP) to assist qualified homeowners in defraying the cost of complying with Title 5 regulations. In turn, MassDEP used this appropriation to fund loans through the Massachusetts Water Pollution Abatement Trust (MWPAT).

For over a decade, the Barnstable County Department of Health and Environment...
administered this program on behalf of all fifteen Cape towns. During that time CSMLP secured town meeting approval for a typical $200,000 appropriation, allowing qualified homeowners to obtain loans at a 5% interest rate payable over a maximum 20-year term. More than $8.5 million was borrowed by Cape Cod towns for septic system upgrades through the early part of 2006. This revenue provided financial assistance for the installation of approximately 1,400 septic systems.

As a way of streamlining the Program, Barnstable County secured special legislation in 2006 allowing CSMLP to borrow money directly from the MWPAT. In addition to relieving towns of the need to secure town meeting approval for borrowings, this meant towns no longer were required to bill and collect regular payments from homeowners or track loan repayments to the State Revolving Fund. Moreover, the passage of this legislation eliminated funding lapses that occurred when towns ran out of money prior to a town meeting vote. Presently, appropriation of funds by the Assembly of Delegates provides for the Program's uninterrupted service to the citizens in Barnstable County for replacing their septic systems.

To date, CSMLP has provided $27 million in loans for septic system repairs. The interest rate charged to homeowners remains at 5% as does the 20-year repayment term. Further, the Program recently incorporated flexible payment plans (monthly or quarterly) after conducting a survey of borrower needs. Septic system repair projects including sewer hook-ups completed for FY2013 totaled 271. This translates into $2.9 million in project costs. Program funds from the state remain available into the foreseeable future, allowing CSMLP to continue providing an effective and efficient means of assisting area residents with often cost-prohibitive yet essential septic system requirements.

It is important to note that that the CSMLP is self-supporting through interest earned from loan program enrollment, thus saving taxpayers all operation costs including staff salaries for the Administrator, Kendall Ayers, and Assistants Angela Do Carmo, Cinthia Madden and Marissa McKenna. Additional savings include all associated legal expenses such as title searches and recording fees at the Registry of Deeds.

For information about the program please visit our website: [www.barnstablecountysepticloan.org](http://www.barnstablecountysepticloan.org).

PUBLIC HEALTH NURSING DIVISION

The Department’s Public Health Nursing Division operates under the direction of Deirdre Arvidson R.N., B.S.N. Ms. Arvidson brings over twenty years of nursing experience to the Department in a wide variety of health and community related services.


Kendall Ayers, CSMLP Administrator, Angela DoCarmo, CSMLP Assistant, Cinthia Wallace, CSMLP Assistant, Marissa McKenna, CSMLP Assistant

Programs of the Public Health Nursing Division include the Tick Borne Disease Prevention Program, influenza and other immunization clinics, sun safety and skin cancer awareness and prevention, public safety personnel services, municipal health group biometric screenings, subsidized housing health screenings, disease surveillance, blood pressure clinics and the “Ask a Public Health Nurse” program in food pantries. Division outreach efforts also include conducting health fairs, speaking to community groups and taking part in local events such as Windmill Weekend, the Provincetown Year Rounder’s Festival, the Sandwich Wellness Fair, Stony Brook Elementary Wellness Expo, high school science fairs and a wide variety of human service organization meetings.

As the incidence rates of Lyme disease and other tick borne illnesses continue to rise, the need to educate the public has become a necessity. In FY2013, Ms. Arvidson wore her tick costume into six schools to educate 1,302 elementary age children. She also developed a tick and Lyme presentation geared towards teachers and 45 school educators participated. Tick and tick borne illness education was also presented as part of a department training in four towns for the DPW and facilities staff. Outreach education is a staple of all Division health screening programs and health fairs.

The Sun Safety/Skin Cancer Awareness Program continues its success in educating the youth of Barnstable County with the aid of a UV skin analyzer that reveals sun damage unobservable to the naked eye. In FY2013, the Program was invited to five schools including four high schools and one middle school; a total of 367 students participated. Among those participants, 22 admitted to using indoor tanning, a practice with cancer risks that are proven to equal cancer risks for cigarette use in this age particular group. These screenings continue to be a powerful educational tool, as it has long been realized that prevention is the key to both health and well-being of the community as well as overall insurance-cost savings for individuals and municipalities.

In collaboration with the Municipal Health Group, the Division offers vital biometric screenings to all municipal employees through the Municipal Health Group Biometric Screening Program. Biometric screenings include weight and waist measurement, body mass index, blood pressure, pulse, glucose, cholesterol, bone density, skin analysis and hearing tests. All screenings include health counseling and up-to-date informative literature. The County Cooperative Extension nutritionist provides education and samples of healthy eating, while a Good Health Gateway representative utilizes screening data to provide a “heart age” for participants.

A preventative health screening program, initiated in December 2011, continues to be offered in collaboration with town housing authorities to residents in subsidized housing developments. Health screenings were scheduled over 2–3 hour periods for residents in their own building. The screenings included consultations with a nutritionist, blood pressure/pulse readings, glucose/cholesterol/HDL testing, bone density analysis, hearing tests, skin cancer screenings, distribution of informative literature on a variety of other important health-related topics and resources on chronic illness. A total of six towns
participated, including Hyannis, Sandwich, Falmouth, Mashpee, Orleans, and Harwich. In total, over 155 elderly and disabled residents of subsidized housing took part in the screenings. This program was operated under a generous grant by the Cape & Islands Community Health Network Area 27.

The Division’s Ask a Public Health Nurse Program has been in operation for just over one year and continues to grow and develop. The program provides valuable health resources to food pantry clients, and now participates in 10 food pantries including the Salvation Army lunch program, the WIC office and the Baby Center in Hyannis. The program’s expansion has been due to a generous grant from the United Way and ongoing support from the Hunger Network of Cape Cod. In FY2013, this funding has enabled the addition of glucose testing to the Program’s offerings. Last winter free flu shots were offered in 7 food pantries. Of the 172 clients who participated, 38 (22%) had never received a flu shot. The Program continues to provide blood pressure screenings, distribution of relevant educational materials regarding illness prevention and means of tapping into valuable community health resources.

The Division continues to provide immunizations to the public and local college students in need of vaccinations. While the immunizations have been cash only, the Division is currently working toward having the ability to bill insurance companies directly. The Division also offers free state-supplied vaccine for adults without insurance and is enrolled in the federal Vaccine for Children (VFC) program, through which eligible children are provided state-supplied vaccine free-of-charge as well. All immunizations administered are now entered into the Massachusetts Immunization Information System (MIIS).

In an attempt to raise awareness for “preventative maintenance” with regards to chronic disease, the Public Health Nursing Division has begun offering free blood pressure clinics at town halls throughout the County. Chronic disease has been proven to affect health, quality of life, and health care costs. In fact, according to the Centers for Disease Control (CDC), chronic disease accounts for approximately 75% of the nation’s aggregate health care spending – or an estimated $5,300 per person in the U.S. each year. Further, according to the National Association of Chronic Disease Directors (NACDD), blood pressure is poorly controlled in over 70% of Americans with hypertension, when a mere 12–13 point reduction in systolic blood pressure can reduce heart attack risk by 21% and stroke risk by 37%.

Finally, disease surveillance, which can be used to shape educational efforts in order to reach high-risk individuals, is an important aspect of public health. In cooperation with the Massachusetts Department of Public Health (MDPH) and local boards of health, the Division reviews disease surveillance for all Cape & Islands towns. This type of surveillance provides real-time access to incidences of reportable infectious and communicable diseases, which enables nursing staff to support towns in the event of an outbreak or disease cluster. Hepatitis C (HCV), for example, is a highly infectious and often asymptomatic disease, which surpassed HIV in fatalities for 2007. The U.S. Centers for Disease Control and Prevention recommends that anyone born between 1945 and 1965 get tested for the HCV infection, as they are five times more likely than any other age group to be infected. To this end, the Public Health Nursing Division has been providing educational material and presentations on HCV to increase awareness on this serious, yet treatable, illness. Further, the Division is currently pursuing funding to purchase a rapid test that can detect the presence of antibodies in 20 minutes and therefore help to stem transmission. Outreach for HCV testing will target the most affected population of 48 to 68-year-olds, many of whom have no current symptoms but without detection can go on to develop liver disease and liver cancer.
CAPE COD MEDICAL RESERVE CORPS

The blizzard of February 2013, Hurricane Sandy, and the Boston Marathon bombings remind us that we need to be prepared to respond to events on a local level. The mission of the Cape Cod Medical Reserve Corps (CCMRC) is to engage volunteers to strengthen public health and emergency response and build community resiliency.

Throughout Cape Cod, 335 medical and non-medical volunteers carry out the CCMRC’s mission on a daily basis. Volunteers come from a variety of backgrounds and enter the program with varying credentials, capabilities and professional experience. The CCMRC is led by Director Jean Roma.

Since an effective response to any emergency or disaster situation requires a well-trained team not only to provide for the safety of others but also for personal safety, it is pivotal that the CCMRC provide training for the purpose of ensuring the safe delivery of services to our community. This past year we trained CCMRC volunteers in the “Core Competencies”, which are defined by a core or standard of activities that each member should be able to perform, such as 1) protecting the health, safety and overall well-being of themselves, their families, the team and the community; 2) having a personal and family preparedness plan in place; 3) describing the chain of command through the Incident Command System and how the CCMRC integrates into a given incident; 4) describing the role of the CCMRC in public health and emergency response; 5) describing the impact of an event on the mental health of CCMRC members, responders, and others; 6) demonstrating the CCMRC member’s ability to follow procedures for activation, reporting, and deactivation; and 7) identifying limits to their own skills, knowledge, and abilities as they pertain to their CCMRC role. This fiscal year the CCMRC hired a Behavioral Health Team Leader not only to address the “Core Competencies” of all volunteers but also to develop a specialized behavioral health team. The Behavioral Health Team has been preparing and training to respond to events that impact our psychological health. Ongoing trainings are planned by team leader Beth Toomey. Six introductory Psychological First Aid (PFA) courses offering 2.4 Nursing CEU’s have been held in various locations on Cape Cod. These courses have been well attended by volunteers and local community service providers including clergy. This year the CCMRC also participated in an exercise that simulated an active shooting event at a local school. The CCMRC was able to obtain a competitive MRC grant to enhance ongoing development of this pivotal service.

This year the CCMRC responded to several requests to open emergency shelters. The first was in anticipation of Hurricane Sandy. The shelters were opened and medical and non-medical volunteers were deployed to meet the community need. The second shelter deployment took place during the blizzard of February 2013. Over the course of
five days, CCMRC medical volunteers (including 25 nurses) staffed four regional shelters and served 1,153 clients. Challenges were numerous as approximately 90% of the clients were over 80 years of age or needed specialized assistance with functional needs. Many individuals did not bring their medications or medical equipment to the shelter.

Since the blizzard of February 2013 the CCMRC has been working on improving the sheltering plan for all clients, particularly those that need special assistance (with issues that include, for example, poor vision, diabetes, oxygen dependency or need for end of life care). Equipment and supplies have been purchased to meet these types of specialized needs. All of the shelter plans for the CCMRC have been updated to reflect a comprehensive response to meeting the diversity of shelter client health requirements. Further, a major CCMRC recruitment effort is being conducted Cape-wide due to a crucial need for expanding the number of volunteers, which was identified during the blizzard of February 2013.

During the summer of 2012, CCMRC completed its three year Sun Safe Initiative on the beaches of the Cape Cod. Participation was high with 1,512 participants in 13 popular locations. The initiative’s target population this year was children in grades three through six. The February 2012 Journal of Pediatrics reported that at this particular age sun safety behaviors decrease substantially and tanning is perceived to be desirable. We also conducted a pre-survey for risk perception from ultraviolet exposure on teens and adults. A post-survey followed dissemination of the sun safety educational program to measure any change in perceived susceptibility to UV radiation. Over 975 surveys were collected and data are in the process of being analyzed. The Sun Safe Initiative received the Promising Practice Award from the National Association of County and City Health Officials (NACCHO) for its innovative response to teaching sun safety and was supported through a donation from The Glenna Kohl Foundation of Hope in the amount of $2,000, which funded two public health intern positions. Cape Cod Health Care also donated $2,000, which funded the purchase of neon colored tee shirts with safe sun messages.

Choke Saver and Hands Only CPR training was again offered in Cape Cod towns to 357 restaurant staff. Restaurants in Massachusetts with over 25 seats are required to have a staff person certified in Choke Saver skills. The training was provided free of charge and saved community members $17,850 in training costs. A health agent recently reported that one person had been saved this summer by a restaurant employee who participated in our training.

The Junior Medical Reserve Corps, composed of 10 local high school students, has been active in training for emergencies and responding to public health issues. Beginning in February 2012, the group began plans for a Junior Medical Reserve Garden to raise fresh vegetables for donation to food pantries within the Hunger Network. The goal was to provide nourishing food choices in effort to target obesity. The teens planned not only for the plantings but also for the logistics of the site. This involved obtaining manure and soil, building raised beds, building fencing and an irrigation system and planting.

The vegetables were grown from seed under a light in the basement of one teen’s home. In the summer
of 2012 the garden yielded 10 large donations of vegetables to food pantries on Cape Cod. The garden was made possible due to a collaborative effort between the Barnstable County Department of Health and Environment and a small amount of funding from the Barnstable County Human Service Department. The garden attracted national attention from our leaders in Washington and was featured in the summer 2012 edition of IN FOCUS, the national Medical Reserve Corps newsletter. You can view this article with pictures at www.naccho.org/topics/emergency/MRC/newsletter.cfm. All members of the Cape Cod Medical Reserve Corps (junior members included) who participated in the garden project received recognition from the Barnstable County Human Services Department for this effort.

Two CCMRC members received recognition for their work during FY2013. Significant recognition was given to one volunteer, Gerry Tierney, R.N. Out of over 205,000 MRC volunteers, Gerry received the Outstanding Public Health Volunteer Award for his contribution to the CCMRC and was recognized in Washington D.C. Jean Roma, Director of the CCMRC, received the New England Region I Milner Award for Outstanding Leadership of an MRC unit.

The Cape Cod Medical Reserve Corps continues to be one of the most active units in the United States, participating in 180 activities throughout FY2013. These activities include conducting first aid services at road races, teaching emergency preparedness to community groups, staffing health fairs, supporting board of health activities and much more.

**CAPE COD REGIONAL TOBACCO CONTROL PROGRAM**

There are few things more tragic than watching our youth risk death from a disease that can be prevented. Lung cancer is the leading cause of death in both men and women in the United States and yet it is the most preventable form of cancer in our society today. These facts brought about the Cape Cod Regional Tobacco Control Program (CCRTCP).

Under the direction of Robert Collett, CCRTCP is supported through a state grant administered by the Department on behalf of all Cape Cod towns, Martha’s Vineyard, Nantucket, Plymouth, Carver, Kingston, Middleborough, Marion, Rochester, Mattapoisett, Acushnet and Wareham. The Program stresses education and enforcement services to assure compliance with state and local regulations, and technical support for local boards of health relative to tobacco control issues. The regulations pertain to the accessibility of tobacco products to youth and smoking in public indoor areas and workplaces.

The Program’s education efforts include two annual visits to tobacco merchants in all 29 communities within the service area, totaling 1,100+ visits, and assisting local boards of health with promulgation and implementation of tobacco control regulations. A minimum of two tobacco sales compliance checks (utilized to assure compliance with youth access laws) are conducted in each town within the service area for a minimum total of 1,132 checks. Tobacco retailers that are found to illegally sell tobacco to minors are subject to a follow-up compliance check.

During FY2013, the Program also conducted 16 inspections of workplaces in response to public complaints regarding smoking, and ensured smoking law compliance by conducting random inspections of workplaces that have had a history of non-compliance with smoking laws. The CCRTCP was represented on the Falmouth Substance Abuse Commission, and provided educational seminars to local boards of health, boards of selectmen and police departments showcasing “Other Tobacco Products”; items such as little cigars, blunt wraps, dissolvable tobacco products and the like which may be easily concealed and used by young people. The Program’s efforts were featured in two front-page articles in the same edition of the Cape Cod Times in February 2013.
In response to a heightened interest in smoke-free public housing and condominium complexes, CCRTCP has provided guidance throughout FY2013 to several residents and management staff of these entities. As a result, several Cape Cod and Islands housing authorities have adopted smoke-free policies for most or all of their facilities, eliminating second-hand smoke exposure for thousands of residents. The Program has also extended technical assistance, education and support to private landlords and corporate-owned developments that wish to offer smoke-free multi-unit housing. To date, the Program has assisted several such entities with adopting smoke-free policies, providing more than 1,000 tenants with smoke-free housing.

In another policy arena, the CCRTCP has been working with several Cape and Islands boards of health to promulgate regulations that prohibit tobacco sales from health care institutions, including pharmacies. The regulations would also impose tighter restrictions on “Other Tobacco Products” (also referred to as “Nicotine Delivery Products”) on the local level, subjecting them to the same sales restrictions as cigarettes and cigars. These products can sell for as little as 49 cents and come in several fruit, candy or alcohol flavors, making them quite appealing to young people, particularly adolescents. During FY2013, eight towns strengthened local Youth Access to Tobacco and Nicotine Delivery Products regulations, and three adopted language to prohibit the use of electronic cigarettes in areas where tobacco smoke is prohibited.

The CCRTCP consistently serves as a model within Massachusetts, which boasts a state-level program that is held in the highest regard on a national level. The goal of the program is simple; make tobacco-use related illness and death a rarity. For more information regarding the Massachusetts Tobacco Control Program, please visit www.makesmokinghistory.org.

EMERGENCY PREPAREDNESS DIVISION

Regional Emergency Planning Committee

Planning and implementing a regional response to disasters and emergencies on Cape Cod and Nantucket happens cohesively through the cooperative efforts of the Barnstable County Regional Emergency Planning Committee (BCREPC). The initial impetus for the Committee arose when local municipalities realized the advantage of having a regional coordinated approach to municipal compliance with the Superfund Amendments and Reauthorization Act, also known as SARA Title III. As the program demonstrated its success and relationships were developed with emergency response stakeholders, the role of the Committee expanded into to “all hazards” emergency planning to address homeland security, meteorological events, public health matters and regional sheltering issues that affect this region.

"Other Tobacco Products" which may be easily concealed and used by young people
All fifteen communities on Cape Cod and in addition Nantucket are represented on the BCREPC which meets regularly to hone their skills and strategize to address all types of emergencies. The coordinated response of these partners is supplemented by many private and public sector agencies that have membership on the committee including the Barnstable County Sheriff’s Office, the Barnstable County Resource Development Office, Cape Cod Commission, Cape and Islands Chapter of the American Red Cross, Cape Cod Hospital, Falmouth Hospital, American Red Cross, Army National Guard, Coast Guard, 102nd Intelligence Wing, Cape Cod Medical Reserve Corps, Cape Cod Transit Authority, NSTAR, the Massachusetts Maritime Academy and the Massachusetts Emergency Management Agency. Chief George Baker of the Mashpee Fire Department and Chief Michael Whalen of the Dennis Police Department serve as the chair and vice chair respectively.

Cape Cod and Nantucket community members are educated on emergency preparedness planning through ongoing public education provided by the BCREPC. For example, community events such as Halloween Safety Day at a local fire department, Family Preparedness Open House at the County Complex and Building a Family Emergency Kit at KC Coombs Elementary School have provided emergency preparedness education and resources to hundreds of families and children. In FY2013, the Social Media Task Group of the BCREPC worked to re-create the BCREPC website, www.BCREPC.org, by adding new shelter maps and links to family, pet, senior and functional needs resources. Emergency preparedness partners and volunteer groups in this region work cooperatively with the BCREPC to produce new resource guides, educational activities and research projects to supplement the work of our first responders in preparation for storm seasons and “all hazards” response planning.

The Emergency Preparedness Division benefits from ongoing work relationships with numerous state and federal agencies. Emergency mitigation and response efforts, BCREPC meetings, drills, grant endeavors and tabletop exercises over the years have provided a solid foundation of partnerships throughout our region and in Southeast Massachusetts. We are able to call upon our colleagues at the Massachusetts Emergency Management Agency (MEMA), the Massachusetts Department of Public Health (MDPH), the Massachusetts Department of Environmental Protection (MassDEP), the Department of Homeland Security (DHS), the Federal Emergency Management Agency (FEMA) and the Environmental Protection Agency (EPA) to ask for assistance, or to form a service partnership to address disaster planning, exercises, trainings, compliance questions and response efforts in a collaborative and effective manner. The Division’s partnership with these agencies does not create redundancy in the world of “all hazards” preparedness. Rather, it strengthens our region’s resources by developing informed and professional work relationships with agencies we must defer to in times of crisis.

Planning and implementation by the BCREPC before and during a region wide emergency is a process shaped and improved on each year through the annual tabletop exercise of a simulated hazardous chemical spill/incident. This year’s exercise was held in the Town of Dennis in May. The scenario was developed by the Emergency Management Department at the Massachusetts Maritime Academy (MMA). It focused on a complex fire and fuel release at a marina and boat yard on Sesuit Harbor in East Dennis. This training scenario expanded into a mass casualty incident and large fuel release that threatened coastal resources in the community. The exercise was written, planned and implemented by the senior MMA cadets working under the supervision of their instructor and the BCREPC. Participating towns in this exercise included Dennis, Harwich, Barnstable, Yarmouth, Eastham, Brewster, Chatham, and Wellfleet. Multi-level agency participation included town fire departments, local health departments, police departments, the Barnstable County Sheriff’s Office, DHS, MEMA, MassDEP, Cape and
Islands EMS, Cape Cod Hospital, Spaulding Rehab Hospital, BCDHE, the USCG-Sector SE NE, USCG-MSD, CC Disaster Animal Response Team, the C&I Red Cross, the CC Regional Transit Authority, the Mass Air National Guard, Massachusetts State Police and the Centers for Disease Control (CDC).

The 2012 Hurricane season did not become active for our region until October. On October 31, 2012, Hurricane Sandy made landfall in central New Jersey. Though Sandy hit roughly 150 miles to our south, high winds and coastal flooding affected Cape Cod due to the size and duration of the storm. Additionally, the Cape was battered by a blizzard in early February 2013. The County had extensive power loss, up to 24 inches of snow, wind damage and storm surge damage on properties along the coast. Conference calls and meetings with state and local response agencies were coordinated by BCREPC to prepare for both storms. By fostering and encouraging communication, resource sharing and emergency asset identification, the region is continuing to improve its ability to respond to large disasters, making BCREPC an essential element in Barnstable County’s emergency response. This storm event was significant as damage occurred across Massachusetts and strained recovery resources, thus reinforcing the need for our regional collaboration.

As a part of a regional response to “all hazard” emergencies, BCREPC and partners including the Cape and Islands Chapter of the American Red Cross, AmeriCorps Cape Cod, Cape Cod Disaster Animal Response Team and the Barnstable County Incident Management Team completed a draft Regional Emergency Sheltering Plan for Barnstable County. The plan establishes strategically placed shelters on the Upper, Lower and Mid-Cape that will be the first to open and the last to close in response to emergencies and disasters.

In October 2012, five of the six regional shelters were opened in response to Hurricane Sandy. Locations included Sandwich High School, Dennis-Yarmouth Regional High School, Cape Cod Regional Technical High School, Nauset Regional High School and Falmouth High School. Shelters were opened before the storm arrived and operated for approximately 36 hours. The storm caused wind and water damage to the region in addition to scattered power outages. The regional sheltering plan was implemented again in February 2013 when a blizzard struck the region. Initially, three of the six regional shelters were opened for this event, one each in the Upper, Lower and Mid-Cape regions. The impact of the blizzard was significant; much of the Cape was without power and many of the generators used by emergency facilities failed including the generator powering the Sandwich shelter. In response to this equipment failure, a fourth shelter was opened at Falmouth High School and Sandwich shelter clients were transferred with the assistance of the Cape Cod Regional Transit Authority. Over 1,000 clients utilized shelters during this storm, challenging the volunteer capabilities of the partner agencies that staff the shelters. Shortages of supplies and equipment were also stretched due to the length of the storm. Heartfelt appreciation and accolades go out to all of the volunteers who gave countless hours to support the citizens of Barnstable County during the blizzard of February 2013. During both Sandy and the blizzard, the Barnstable County Incident Management Team (IMT) established a Multi-Agency Coordination Center (MACC) at the Massachusetts Military Reservation. Municipal agencies such as emergency management, police, fire and school departments played key roles in opening the shelters in a timely manner. The Amateur Radio Emergency Service (ARES) also coordinated internal shelter communication and external communication with the MACC.

The BCREPC continued to develop and train its own Type 4 IMT. The IMT is deployed during times of widespread cross-jurisdictional emergencies to assist local response agencies with the movement and deployment of response assets. Following Hurricane Sandy, nine of the IMT members were deployed to Citi Field in Queens, New York to assist with recovery efforts and logistical support. In addition to local support
provided during Hurricane Sandy and the blizzard of February 2013, other IMT deployments included assistance to the town of Yarmouth in August 2012 to manage the Marine Corps Marching Band Concert and command support of the Mighty Meehan Road Race in the Town of Dennis, which also took place in August 2012.

As a continued effort to increase the communication capabilities for public safety agencies in the region, BCREPC formed the 911 Dispatch Study Task Group. This committee met consistently to discuss the implementation of a single multi-jurisdictional emergency call center for Barnstable County. The Task Group submitted a grant to the State 911 Board to further develop this concept by addressing governance, fiscal support and policies and procedures.

**Tier II Program**

When businesses and municipalities on Cape Cod and Nantucket use OSHA hazardous or extremely hazardous chemicals that meet or exceed established thresholds at their facilities, they are required to comply with the Emergency Planning Community Right to Know Act (EPCRA) and file a hazardous materials inventory with emergency contact information by March 1st. This federally mandated process allows our communities to be aware of dangerous chemicals being used/stored in their towns. Annual reporting of these hazardous materials also protects first responders who work to mitigate spills or releases, as well as the facility workers, property and the environment of Cape Cod. The BCREPC has been assisting in this vital process for the past eight years by processing an increasing number of Tier II Hazardous Chemical Inventory Reports from facilities in Barnstable and Nantucket Counties.

Emergency Preparedness Project Assistant, Amy L. Wallace, has been providing Tier II hazardous materials reporting coordination and assistance to over 330 municipal and private businesses on Cape Cod and Nantucket since 2005. The bulk of this work is done in a one-on-one instructional setting for each facility emergency representative. Assistance is provided free of charge to any reporting facility in need. Two workshops with 64 participants, 202 phone consultations, 94 Email directions/consultations, three site visits and 39 office visits took place at a non-stop pace from late December to Mid-March. All 333 chemical inventory reports were quality control checked for accuracy and to ensure the locally requested information requirements are being met. Millions of gallons of hazardous chemicals and extremely hazardous substances are accounted for in the Tier II inventory and identification process. The reporting process can be overwhelming, and as such, the compliance assistance program and training options aim to guide local facilities on Cape Cod and Nantucket through the complications of reporting online each year. Providing this much needed guidance saves our region’s private businesses and municipal facilities hundreds of dollars in report filing fees each year. It also empowers over 80 facility representatives to understand their responsibility in emergency preparedness, reduces the potential of costly enforcement actions and fines, lessens a facility’s accident liability and ensures a safer, more prepared, work environment.

**Hazardous Materials Trainings**

A primary function of the Emergency Preparedness Division is to provide innovative, cost-free programs and trainings that promote personal safety and regional preparedness while enhancing environmental health. Many emergency preparedness programs provided by Barnstable County Department of Health & Environment use the mandatory SARA Title III compliance process as a foundation to assist our region's hazardous chemical reporting facilities. Facilities routinely seek counsel and assistance on numerous hazardous materials questions and issues throughout the year. Through this service, Tier II facilities are taught concepts of hazmat awareness through Right-to-Know training, new chemical
identification through the Global Harmonization System (GHS) training and facility emergency planning for chemical spills and releases. In April, a regional hazardous materials education conference was held at Dennis-Yarmouth Regional High School and featured several experts who presented information sessions ranging from Personal Protective Equipment (PPE) to formulating a facility emergency response plan. Commercial Hazmat and Safety Education (CHASE) was provided in a full-day conference to 44 attendees at no charge. To successfully reach the employees of these facilities who handle chemicals on a daily basis, trainings are updated, added and cooperatively promoted with our BCDHE’s Environmental Health & Safety (EHS) Division. These teachings address comprehensive aspects of chemical awareness, response, and environmental protection within the daily routine of a Tier 2 facility worker.

Underground Storage Tank Program

The Barnstable County Department of Health & Environment continues existing efforts to protect groundwater resources from leaking underground storage tanks (USTs). All local boards of health on Cape Cod have implemented regulations requiring that USTs be periodically tested and removed from the ground at specified times, typically when the tank reaches 30 years of age. As a service to the towns, BCDHE tracks tanks that need to be tested and removed and performs soil vapor testing at each site to detect any leakage. While the number of tanks tested is down to only four, the program’s efforts are still ongoing. Specific records of properties with fuel USTs can be hard to locate due to lost hard copy records at different departments, the transfer of property or conversion of record keeping systems. To reach those property owners who need to understand their obligation to remove a UST at the end of its lifecycle but offer a financially sound way to do so, BCDHE offers the Underground Storage Tank 0% Loan Program – or “Yank that Tank”! This new program provides discreet counsel to the homeowner about their UST and guidance to apply for a loan that can be used to remove their old UST or repair the fuel lines to their compliant UST. In 2013, two homeowners began participation by successfully removing their expired USTs and now work within a 10-year payback timeframe to re-pay their loans. Yank that Tank! provides information, sound advice and referrals so our region’s homeowners can mediate a potentially expensive environmental problem.

Cape and Islands Health Agents Coalition

Other collaborations in emergency preparedness take place within the Cape & Islands Health Agents Coalition (C&I HAC). Members of this public health coalition work collaboratively with BCDHE to share resources, information and ongoing trainings that prepare us to respond to public health threats and emergencies, including terrorism and outbreaks of infectious diseases. Since 2006, the C&I HAC has worked to assess and monitor regional emergency planning and response needs in relation to public health. Topics range from regional shelter input to regional flu clinic options to public KI (potassium iodide) distribution. Coalition meetings are open to the public and take place monthly. Planning and facilitation of the meetings is conducted by Amy L. Wallace, Emergency Preparedness Project Assistant. Each meeting/workshop is well attended and enables board of health representatives to share knowledge, lessons learned and best practices, and to coordinate efforts to further emergency preparedness efforts with other existing regional or local emergency planners. Through the efforts of BCDHE, the C&I HAC will have earned approximately 13 continuing education units towards the maintenance of their professional certifications. This saves the majority of towns in the C&I HAC hundreds of dollars in staff time, travel, and conference fees by providing a new training each month at a central Cape Cod location.

With the assistance of their assigned contracted public health nurse from BCDHE, each town
representative of the C&I HAC submits a Public Health Emergency Plan for review by the Massachusetts Department of Public Health's Center for Emergency Preparedness (CEP). Each year, the CEP awards local boards of health with CDC funding and holds them accountable for the use of these grants.

**UTILIZING TECHNOLOGY FOR PUBLIC OUTREACH**

The Department website, [http://www.barnstablecountyhealth.org](http://www.barnstablecountyhealth.org), has continued to grow as a public resource and is intended to better inform the community of the Department’s regional services and activities. Aside from including basic information about each of the programs and divisions within the Department, the website also boasts a host of useful features including: 1) an events calendar to synthesize a list of all public events held by the various programs of the Department; 2) a compliment of Really Simple Syndication (RSS) news feeds; 2) beach water quality monitoring sample results and information; 3) interactive data and statistics pertaining to innovative/alternative septic systems; 4) a resource library featuring information about the various print and digital media such as reports, videos and pamphlets available through the Department; and 5) a comprehensive downloadable library of professional papers and presentations allowing quick access to any of the many documents spread throughout the site.

In 2010, the Department identified a need in many communities for a comprehensive, Internet-based vaccination pre-registration system. This application allowed the ability to pre-register citizens for yearly influenza clinics and also assisted in providing a controlled means of distributing vaccine during a pandemic event such as the 2009/10 H1N1 flu. Now known as “ClinicACE”, this system was developed in-house by Environmental Project Assistant Brian Baumgaertel in 2010. ClinicACE not only gives town health departments control over the number of participants based on the number of doses available by allowing for pre-registration, but also automatically assigns each registrant an appointment time and allows them to pre-print consent forms to be filled out ahead of time. This provides for a smoother-functioning clinic and improved customer service. Furthermore, ClinicACE virtually eliminates bottlenecks caused by registrants having to fill out forms during their appointment, therefore reducing long lines and wait times typical of walk-in style clinics. ClinicACE has been used successfully by four towns in Barnstable County and handled over 1,325 pre-registrations in FY2013, saving towns and taxpayers time and money. The program is administered by Environmental Project Assistant Brian Baumgaertel. When clinics are open for registration, ClinicACE can be accessed at [http://www.ccmedicalreservecorps.org/vaccination-clinics](http://www.ccmedicalreservecorps.org/vaccination-clinics).
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Cape Cod Cooperative Extension, established in Barnstable County in 1916, is the education department for county government. Extension's educational programs focus on agriculture, marine resources, horticulture, aquaculture, shellfish management, natural resources, tick-borne disease, water quality, recycling, household hazardous waste, nutrition, food safety, youth development and environmental education issues facing the county.

The mission of Cape Cod Cooperative Extension is to improve the health, well-being and security of youth, families and communities; conserve and enhance natural resources; and strengthen agriculture and food systems. We fulfill our mission by utilizing the research and teaching capacity of the University of Massachusetts Amherst and Woods Hole Oceanographic Sea Grant program to generate and communicate knowledge while creating approaches, methods, and tools for solving problems. Extension links the Massachusetts land grant university with a larger community of people in collaborative partnerships to address issues of fundamental importance to the people of Barnstable County.

An Act of Congress formed Cooperative Extension nationally in 1914 as a three-way partnership. The three partners were the land-grant university in each state (such as UMass Amherst in Massachusetts), the federal government (through the United States Department of Agriculture), and local government (through Barnstable County).

Cape Cod Cooperative Extension is advised by County Extension trustees, a group of local citizens appointed by the Barnstable County...
Commissioners. Over 400 volunteers complement and extend staff efforts, contributing their time and expertise to Extension in Barnstable County.

Through the use of workshops, conferences, field demonstrations, technical assistance, radio, television, the Internet and more, Extension brings objective, research-based and credible information people can use every day to improve their lives.

**Marine Programs**

**Goals**

To establish, develop and carry out educational programs in marine resource development, to assist with problems concerning coastal industries and the management of coastal resources, and to transfer technological innovations, educational and informational materials to public officials, educators and marine resource user groups.

**Marine Resource Development**

To serve as a resource for reference material and technical assistance concerning coastal landscaping, beach and dune restoration and stabilization, coastal water quality, the implementation of the Wetlands Protection Act, shellfisheries, aquaculture, and other marine issues.

To conduct workshops relevant to marine resource development, such as shellfish resource management, aquaculture, environmental protection, and coastal water quality.

To conduct applied research on coastal resource issues, and to provide this information to the appropriate user groups.

To research, write, develop, and distribute pertinent fact sheets, bulletins, and publications of interest to marine industries, municipalities, individuals and agencies.

Cape Cod Cooperative Extension’s Marine Resources Program cooperates with the Division of Marine Fisheries, the Woods Hole Sea Grant Program, the Massachusetts Maritime Academy, the Marine Biological Laboratory, the Massachusetts Department of Agricultural Resources, NOAA, Massachusetts Coastal Zone Management, local conservation commissions, local shellfish constables, as well as private industry in providing a variety of programs including those listed below.

The Marine Program staff continued to use a team approach to address both research issues and the increasing requests for technical assistance, education programs, and participation at professional meetings. The Aquaculture & Fisheries Specialist, Diane Murphy, is responsible for program administration, directing the applied research, technical assistance, demonstration/field projects, and education programs. The Marine Program Specialist (Josh Reitsma), Coastal Processes Specialist (Gregory Berman), and Marine Resource Specialist (Abigail Franklin) were responsible for research assistance, data analysis, demonstration projects and field implementation, as well as public relations. Extension Educator (Eileen Sonnenberg) directs the Mobile Marine Science Programs and the 4-H Coastal Explorer. Some Marine Extension staff also serves SEMAC (SouthEastern Massachusetts Aquaculture Center); thus, activities may overlap or complement one another.

**Barnstable County Municipal Shellfish Propagation Program**

Marine Program staff continued to oversee the Barnstable County Municipal Shellfish Bid Program. The program was previously funded by the Division of Marine Fisheries, however, the $100,000/year funding for this program was eliminated in 2008. To keep this valuable program going, the Marine Program of Cape Cod Cooperative Extension and Woods Hole Sea Grant provided $40,000 toward a Barnstable County Municipal Shellfish Propagation Program in FY 2013. These funds assisted municipalities with the purchase of over 7.8 million hard clam (quahog) seed and approximately 2,800 bags of remote set oysters. The program also helps towns acquire shellfish seed at a set size and time, helping to streamline these municipal propagation efforts.
This municipal propagation effort benefits both the commercial and recreational shellfisheries of all fifteen towns, with more than 1,200 commercial permits and 17,347 recreational permits within the region. As in recent years, the winning bid for quahog seed and remote set oysters was awarded to the local shellfish hatchery, Aquacultural Research Corporation (ARC) in Dennis.

Since 1999 over 166 million quahog seed have been purchased through this program and since 2003 27,000 bags of remote set oysters have been distributed, representing over 13 million oysters (based on 50% survival estimates). Conservatively, if half of the 166 million (=83 million) quahog seed towns received through this program since 1999 survived to harvest, the value (@$.19/clam) would approach $16 million and the value of the surviving remote set oysters would approach $7 million (@.50/oyster).

Recent reports from the MA State Division of Marine Fisheries (DMF) underscore the importance of shellfish resources to Barnstable County. Illustrative of this are their combined estimates for shellfish dollar values for Barnstable County’s aquaculture and wild harvest: 2009 = $12 million+, 2010 = $16 million+, and 2011 = $20 million+.

In addition, the Marine Program provided funding for the testing of shellfish (quahogs) relayed from the waters of southeast Massachusetts to several communities within Barnstable County.

SouthEastern Massachusetts Aquaculture Center (SEMAC)
The Cooperative Extension Office of Barnstable County remains the administrator of the SouthEastern Massachusetts Aquaculture Center (SEMAC), funded through the Massachusetts Department of Agricultural Resources. The center is directed by a 13 member board of directors and due to continued state budget cutbacks has received reduced contracts in recent years. Funding in the amount of $50,000.00 was awarded to the center by Department of Agricultural Resources and projects will be carried into FY 2014. Ninety percent of the funding has provided for direct industry assistance by supporting a shellfish Research Farm Network (RFN), marketing, improving public perception, investigating shellfish disease and hard clam mortality issues, increased shellfish disease testing, industry mini-grants, and continuing with long term marine water quality monitoring.

A call for SEMAC mini-grant proposals was announced in October of 2012 for projects to be completed by November 2013. A total of 31 applications were received requesting over $114,000. With the $14,500 available in SEMAC funds, 11 projects were funded and range from projects designed to test new gear, including development and construction of improved shellfish sorting machines to developing effective green crab trapping methods adjacent to shellfish growing areas. Final reports on these projects are due November 15, 2013. (see: 2012-2013 SEMAC Final Report)

Research Farm Network (RFN)
Funding was also set aside for the Research Farm Network (RFN), an ongoing yearly program established by SEMAC in 2005 which continues to generate valuable data regarding shellfish culture methodology. The RFN is based on the MA Cranberry Experiment Station concept which addresses farming issues relevant to the region. Funded in FY 2012 through FY 2013 within the SEMAC grant, the network involves shellfish farmers in eleven coastal regions with twelve growers presently participating. The goals of the RFN are to 1) provide high quality, relevant data to local shellfish farmers, 2) provide multiple ‘platforms’ for demonstration and outreach in different communities, and 3) increase communication among shellfish farmers around the County. In FY 2012 twelve participating shellfish growers were chosen to represent specific growing areas and conduct the same controlled experiments through FY2013. There were twelve participants in the 2012-2013 season representing eleven different water bodies: Buzzards Bay (Onset), Barnstable Harbor
(Barnstable), Buzzards Bay (Wareham), Buzzards Bay (Falmouth), Pleasant Bay (Orleans), Wellfleet Harbor (Wellfleet), Nauset Marsh (Eastham), Oyster Pond (Chatham), Lewis Bay (Yarmouth), Provincetown Harbor (Provincetown), and Nantucket. During FY13, growers in the RFN participated in a new study, started in June 2011, designed to field test floating gear (Oyster-Gro™) against traditional bottom cages for oysters. Oysters in both sets of gear were monitored for growth and survival from 2011 through 2012 and results indicate oysters experience growth and survival advantages in floating gear at some sites. Disease testing revealed no difference between the gear types. Nine of the RFN growers also maintained and monitored razor clam (Ensis directus) seed which they received in summer, 2012 and a small subset also received blood ark (Anadara ovalis) seed later in the fall of 2012, and will be followed through 2013. These two ‘new’ species which command good value at the market provide growers a low-risk opportunity to experiment with an alternative species which they would otherwise not have. Staff visits the farms on a regular basis to deliver/exchange gear, monitor procedures and collect data/samples. Results of these studies were disseminated and presented to growers as well as at public meetings and conferences.

Shellfish Disease Response
Emergency shellfish disease testing was made available to towns and growers who were experiencing unexplained shellfish mortalities or unusually slow growth. This testing provides valuable information on disease and helps guide shellfish crop management. Prior to any disease testing, Marine Program staff visit with the grower(s) and their farm(s) before proceeding. These visits provide valuable interaction with the growers and allow accurate farm assessments in the field. The increased mortality of hard clams within Wellfleet Harbor continued to be an area of focus for SEMAC research in FY 2013. Wellfleet was targeted with an extensive disease monitoring project to identify and better understand the disease(s) responsible for continued quahog mortalities. Collaboration with Roger Williams University veterinary pathologist, Dr. Roxanna Smolowitz, led to identification of disease agents and provided information to growers about disease location, abundance, and severity. As of this annual report, disease testing and monitoring of shellfish aquaculture plots is ongoing. Additionally, a water quality monitoring instrument has remained adjacent to the Wellfleet mortality zone(s). Results indicate two primary diseases (neoplasia and QPX) are contributing to the quahog mortalities but further research is warranted to understand the complexity of this condition and how growers can best avoid mortality and economic loss. Working with local growers, quahog seed obtained from several hatcheries were planted to monitor any difference in their response to disease pressures in-situ. Results from this grow-out study will help determine if seed source or genetics play a role.

Since shellfish diseases remain a large factor on farm profitability and viability in addition to the devastating effect they may have on municipal stocks Marine Program staff, through SEMAC, initiated a network of disease monitoring stations, akin to the successful Research Farm Network program. The establishment of the DRN, or Disease Research Network, was designed to collect information on disease occurrence, prevalence, intensity, and seasonality throughout the SEMAC region. The goal of this monitoring is to provide better understanding of disease dynamics in the region and help identify pending outbreaks, giving shellfish growers an opportunity to make better-informed management decisions about their standing crop. Marine staff had originally considered incorporating this into the existing Research Farm Network, but were hesitant to have individual growers shoulder the responsibility of sharing all disease info from their farm. As a more neutral alternative, 3 growers were chosen per site (growing area) to anonymously comprise each DRN, avoiding individual growers perceived as ‘disease carriers.’ The funds SEMAC received for this program paid for disease testing services from Kennebec River Biosciences Lab in Maine. During the 2012 field season twelve (12) DRN stations were established. Three farms were
chosen from each cultured oyster site and each of the 3 growers submitted 30 oysters for a total of 90 oysters per site. The first round of DRN disease sampling was conducted during fall, 2012 and repeated in 2013. Results of the disease testing were shared with growers and towns and presented at informational meetings.

Marine Program staff initiated a new study in response to growing concerns about *Vibrio* in shellfish. The goal was to examine the potential factors that influence the presence or levels of *Vibrio* sp. in shellfish so that interested parties could be more informed. *Vibrio* species have become increasingly problematic for shellfish farmers throughout the US and in response the MA Division of Marine Fisheries and Dept of Public Health have implemented new harvest requirements for both oyster growers and dealers throughout the State. Since harvest restrictions have the potential to become more stringent due to *Vibrio* concerns, Marine Program staff are exploring how seasonality, temperatures and handling affect the levels of *Vibrio* in oysters. An outside lab at Roger Williams University was contracted to perform *Vibrio* analysis using MPN and PCR detection for species. This study was the impetus for the recently funded 2-year $190,360 NRAC grant of which Marine Program staff are collaborators.

**Shellfish Habitat Assessment Programs (SHA and ShORE)**

A tenth year of quantitative Shellfish Habitat Assessment (SHA) was conducted on shellfish growth and survival at 4 long-term sites in Barnstable, Brewster, Orleans, and Wellfleet. Short term effects such as extreme weather events and harmful algal blooms, as well as long term effects on pH and water temperatures from climate change effects on water temperature, or ecosystem effects such as the cycling of predator populations can affect the growth and survival of commercially important shellfish species. Habitat data value affects dock permitting, dredging projects, shellfish restoration efforts, fisheries management and help shellfish farmers understand growth dynamics and maximize yields of cultured shellfish. This tool measures the growth and survival of quahog and oyster seed deployed at 4 long term sites using a standardized methodology. Results are utilized by shellfish growers and natural resource managers to identify optimal sites for shellfish; it also provides a comparison within and across the region as well as among years. Data collected in 2012 shows
a trend in decreased growth rates of quahogs across all sites. This tool has been used along the Massachusetts coastline and is available on a training DVD to interested parties. A presentation of the findings from 10 years of data collection at these sites was made at the Wellfleet “State of the Harbor” conference in November, 2012.

As an outgrowth of the Barnstable County Shellfish Advisory Committee meetings, Marine Program staff continues to work with ShORE, the Shellfish Officer Research & Education group. The program is built upon the concepts of the shellfish Research Farm Network and Shellfish Habitat Assessment Program, and provides a neutral source of information to commonly asked questions, while at the same time increasing communication among shellfish constables within the County and with Extension. Staff, in collaboration with shellfish constables, selected several questions they think needed answers. Marine Program staff then designed protocols to address those concerns, and the participating constables agreed to conduct those experiments. Marine Program staff provided all necessary materials such as oyster seed, racks, temperature loggers and collected the data. In the long-term, data are compared across towns and years. Participating towns in FY13 were Sandwich (5 sites), Chatham (2 site), and Harwich (3 sites). Sandwich is new to oyster propagation and used this program to help evaluate areas to expand their propagation program.

**Water Quality Monitoring**

Water quality data has become increasingly important as research continues into shellfish disease, growth and mortality issues, *Vibrio* bacteria related issues, and coastal eutrophication within the region. In response, the Marine Program, with SEMAC support, continues its 10th year of water quality monitoring program using the long term deployment of YSI instrumentation. Instruments record water conditions at 4 locations on Cape Cod which include Barnstable Harbor/Barnstable, Cotuit Bay/Barnstable, Pleasant Bay/Orleans, and Wellfleet Harbor/Wellfleet. In response to a request by shellfish growers in Wellfleet during...
2010, the Wellfleet Harbor instrument was moved closer to the Egg Island shellfish growing area to monitor conditions there more closely and has remained there through FY13. In addition, the town of Wellfleet has continued a project to evaluate water quality improvements due to town oyster beds and Marine Program staff have cooperated by allowing the town to use equipment to transmit data to the Cooperative Extension website. Water parameters such as temperature, salinity, dissolved oxygen, chlorophyll, and turbidity are recorded every 15 minutes. Two of the sites, Cotuit Bay and Wellfleet Harbor (featuring town collected data as mentioned above), have an additional feature and are able to transmit this data to the website for the public to use. (online data may be viewed at: www.ysieconet.com/public/WebUI/Default.aspx?hidCustomerID=88) Data may be useful to towns, schools, fishermen, shellfish growers, boaters, etc. Live and historic data recorded through these instruments are routinely utilized by Division of Marine Fisheries and MA DPH to assist their temperature monitoring needs. Data are also used to help explain differences in shellfish growth and survival as well as providing long-term data sets on water temperature and pH. This archived data will provide an important benchmark to help document any significant changes that may occur over time. New SEMAC funds in FY2013 were put toward purchase of a new instrument for Duxbury Bay at the request of growers, this instrument will be in place in FY14.

Growing Nutrient Problems and Shellfish

Recent concerns about excess nitrogen in coastal waters and the need for wastewater infrastructure have lead several local municipalities to explore the use of shellfish as a bioremediation tool. Marine Program staff provided technical advice to towns considering the use of oysters to alleviate nitrogen burdens, cautioning that oysters may only augment N reduction goals, not replace traditional means of addressing this problem. With Cape Cod’s long history of shellfish harvest, the propagation or culture of filter feeding bivalves represents a unique opportunity to potentially help alleviate a growing problem and also generate economic activity. In response, Marine Program staff are examining the potential value of nitrogen removal through shellfish culture, harvest or restoration. Recognizing the importance of locally derived information, oysters (Crassostrea virginica) and
quahogs (*Mercenaria mercenaria*) from various Cape Cod area sources were tested during FY13 for nitrogen content stored in tissues which would represent a net removal from a water body if harvested. Results (see table below) showed local oysters have an average of 0.69% nitrogen by total dry weight (about 0.28gN/animal) and quahogs average 0.67% nitrogen by total dry weight (about 0.22gN/animal). However, these values did vary by season and to a lesser extent by location or grow out method (i.e. bottom grown vs. floating). In addition, Marine Program staff are working with their Coastal Process Specialist on a GIS mapping application tool to help towns and prospective growers calculate and visualize numbers of shellfish and area required for grow out.

### River Herring Network

Marine Program staff have been providing information to river herring wardens in the County and southeastern Massachusetts, as well as the volunteers who assist them with maintenance and counting efforts. Building upon existing efforts and working closely with the Division of Marine Fisheries, the Massachusetts Bays Program, and the Cape Cod Commercial Fishermen's Alliance, Marine Program staff maintain an email contact list, maintain the website [www.riverherringnetwork.com](http://www.riverherringnetwork.com), and write informational blog posts on timely management and scientific topics. The website is a resource for reference material and up to date notifications about river herring issues in Barnstable County and the nearby towns. Marine Program staff also coordinated a Steering Committee meeting in March, serve as a resource for wardens with river herring passage questions, and facilitate communication among wardens when herring run maintenance questions arise.

### Commonwealth Quality Program (CQP)

The State Department of Agriculture worked closely with staff to help develop ‘Commonwealth Quality’ standards for the shellfish aquaculture industry. Based on best management practices, this program aims to elevate industry benefits and encourage farms to operate under the highest practical standards. A similar CQP has been effect for terrestrial agriculture in Massachusetts and this program seeks expansion to include aquaculture, as well. The program has begun to be implemented in FY13.

### Town and Regional Organization Technical Assistance

Over the last year technical assistance on coastal processes has been provided in the form of twenty site visits (typically with associated GIS analysis and follow-up written reports) on issues relating to coastal bank stabilization, beach grass for erosion control, proposed revetment construction on coastal banks, and dune restoration. The combined assessed value of

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Adapted from: Newell and Mann 2012

*Summary chart of nitrogen values for oysters and quahogs.*
the properties that were provided information to make sound management decisions was over $120,000,000 (over $275,000,000 since 2009). Site visits were conducted in eight Barnstable County towns (Barnstable, Brewster, Chatham, Dennis, Mashpee, Orleans, Provincetown, & Wellfleet) as well as several other towns throughout Massachusetts. Information, advice, and graphics were also provided to individual homeowners and associations, as well as the press.

Additionally, direct outreach has been provided in the form of fifteen presentations on coastal processes to over 880 people total (over 2,800 since 2009). A wide range of audiences have been reached from Conservation commissions, to town officials, to Audubon, to NOAA, to Harvard, to high school students, to homeowners associations. Presentations range from 20 minutes to an hour and include a mix of graphics, maps, and animations specific to each audience and location. PDFs of the presentations are typically requested so that the host can distribute the information via the internet.

Increasing nitrogen loading to local estuaries and some recent warm summers have highlighted the eutrophication issues in Southeastern MA and have the region as a whole grappling with how to handle nitrogen reduction plans and associated costs. Bivalve shellfish and their filter feeding capabilities continue to come up as a means to reduce the eutrophication stress to coastal waters. The potential use of shellfish for nitrogen removal has its benefits and limitations, so Marine Program staff have responded to requests from local officials for more information. This response has led to large scale testing of nitrogen in locally harvested shellfish tissues to better define what the real numbers are while highlighting the limitations.

\textit{Vibrio parahaemolyticus} or \textit{Vp} has been present in local waters for many years, but increased raw oyster consumption and reporting of several \textit{Vp} illnesses tied to locally harvested oysters has led to increased harvest regulation and concern from oyster harvesters over safety of product and market perception. Marine Program staff have responded by providing some local testing of oysters from waters and practices in question to help give industry a better idea of how to manage the risk. Recognizing the need for information, staff are preparing materials and presentations to educate harvesters at all levels as well as consumers about the potential risks involved with consuming raw or lightly cooked shellfish. A project is planned, partnering with MA State officials and industry, to produce targeted educational materials to get information out about proper shellfish handling to various audiences.

**Education: Courses, Lectures, and Workshops**

\textit{Subtidal Aquaculture Workshops:} Marine Program staff collaborated with Marine Biological Laboratory (MBL) and Provincetown Center for Coastal Studies (PCCS) to present two workshops on subtidal aquaculture for the newly developed Provincetown/Truro Aquaculture Development Area (ADA). The ADA is a new area being developed by both towns to provide an area for shellfish farms to develop. The area is in the final phases of permitting and the gear/techniques available for use in the area are the final discussion, especially in relation to potential protected species interactions. In 2012, a workshop on subtidal aquaculture in the newly formed aquaculture development area (ADA) was presented and in 2013, a follow-up workshop on marine animal entanglement mitigation for subtidal shellfish aquaculture was given. The workshops were attended by many local growers, regulators, town officials, and other stakeholders.

**State Certification Course for Massachusetts Shellfish Officers:**

Collaborating with the Massachusetts Shellfish Officers Association, the Massachusetts Division of Marine Fisheries and the Massachusetts Maritime Academy, CCCE Marine Program helped provide lectures for a training program for the state’s shellfish officers. The intensive course provides participants training in a broad variety of areas. Staff developed and taught the section on shellfish disease and management, as well as shellfish pests and predators. To date, this program
has awarded over 40 state certifications, promoting science-based decision making by these managers.

**Shellfish Biology Workshop:**
In March, 2013, CCCE Marine Program collaborated with Roger Williams University to provide a workshop on Nantucket for shellfish growers on shellfish biology, diseases, pests, and predators. The day’s workshop also included hands-on dissections of clams, oysters and scallops to enhance the anatomy/biology lesson.

**Cape Coastal Conference hosted by WBNERR, Waquoit, MA:**
In 2013 CCCE Marine Program staff presented two talks: “Nitrogen in shellfish and key considerations for aquaculture projects” and “Visualization of oyster aquaculture for N-removal in local waters.” These two talks presented the results of the shellfish nitrogen testing and potential for nitrogen mitigation to local town officials considering the approach.

**World Aquaculture Society meeting, Nashville, TN:**
In February 2013, Marine Program staff presented two talks and a poster outlining work done with razors clams and local shellfish nitrogen mitigation potential. In addition a presentation was made on behalf of a local aquaculturist presenting work done with freshwater prawns so that feedback from experts in attendance might provide some insight as to how to improve results.

**A Virtual Extension Presentation:**
This webinar on clam culture was given in November 2012 through the eXtension network to prospective clam growers near and far. Marine Program staff have been helping the eXtension network develop online resources in the area of marine aquaculture.

**Razor Clam Culture Workshop:**
Marine Program staff co-hosted a workshop in August, 2012 reviewing recent attempts to culture the species in the Northeast. This gave growers an opportunity to learn from one another and scientists researching the razor clam culture techniques.

**NACE, International Conference on Shellfish Restoration, and the Milford Aquaculture Seminar in Mystic, CT:**
In December, 2012, Marine Program staff presented recent results of Research Farm Network projects as well as nitrogen testing results at this joint conference.

**PBS Newshour Interview:**
In 2012, staff provided interview with PBS Newshour on ocean acidification and effects on bivalves.


**Ameri-Corps Training:**
Delivered training course on shellfish aquaculture on Cape Cod to incoming Ameri-Corps volunteers.

Direct outreach has been provided in the form of ten presentations related to coastal processes to over 650 people total. A wide range of audiences have been reached from Conservation Commissions, to town officials, to Audubon, to NOAA, to high school students, to homeowners associations. Presentations range from 20 minutes to over an hour and include a mix of graphics, maps, and animations specific to each audience and location. PDFs of the presentations are typically requested so that the host can distribute the information via the internet.

The local media continues to utilize the coastal expertise of the staff in eight quoted interviews in newspaper (Cape Cod Times, Boston Globe, Falmouth Enterprise and Vineyard Gazette), four quotes in news blogs, fourteen radio interviews (WBUR, WQCR, WGBH, WCAI, WFCC, WKPE, &WOCN), and one TV appearance on WGBH/PBS.

Marine Program co-sponsored a workshop: *Updated Shoreline Change* in September, 2012 at WHOI in Falmouth, MA. Over 40 interested individuals attended and staff helped provide presentations and guest lecturers.
Marine Program co-sponsored a conference: *Chappaquiddick, one of the Most Dynamic Systems In MA* in June, 2013 at Edgartown, MA. Over 80 interested individuals attended and staff helped provide presentations and guest lecturers.

Marine Program co-sponsored a training: *Coastal Community Resilience* in August, 2013 at WHOI in Falmouth, MA. Over 60 interested individuals attended and staff helped provide presentations and guest lecturers.

**Marine Program Outreach**

As part of the development of a new Cape Cod Cooperative Extension website, Marine Program staff reorganized the Marine Program pages by developing a simpler menu system, writing new program and project narratives, adding links to reports and outreach signs, and updating photographs.

The Marine Program also collaborated on two additional NRAC funded grant projects. One is a $277,318 3-year grant: *Genetic marker-assisted selection of Northeastern hard clams for QPX resistance* and the other is a $190,360 2-year grant: *Development of more efficient methods of Vibrio sp. detection and identification of Vibrio sp. abundance in cultured oysters from Northeast U.S. farms and from retail sites post-harvest*. In addition, Marine Program staff assisted an individual with a successfully funded $13,222 NE SARE Farmer grant: *Subtidal oyster aquaculture: creating safe and efficient production techniques through sustainable innovations*. Marine Program staff also submitted a grant proposal to Sea Grant with cooperation from MA DMF and the MA Aquaculture Assoc. to produce improved shellfish handling and safety educational materials.

**Committees**

Marine staff members work with local, state and federal agencies, and are members of, and provide input to a wide range of committees and subcommittees including but not limited to: the Marine Outreach Guidance Group (MOGG) of the Woods Hole Sea Grant Program, the Massachusetts Ocean Partnership (MOP), the Ameri-Corps Advisory Board, the Barnstable County Coastal Resources Committee (CRC), the Barnstable County Shellfish Advisory Committee (BCSAC), the Massachusetts Aquaculture Association (MAA), the Massachusetts Shellfish Officers Association (MSOA), the USDA Northeast Regional Aquaculture Center Extension Network (NRAC), Goldenrod Foundation, Pleasant Bay Alliance Coastal Working Group, Provincetown Beach and Harbor Team, Dennis Beach Management Advisory Taskforce, Adaptation Planning in North Atlantic Steering Committee, the state Rapid Response Coastal Storm Damage Assessment Team, the Taunton NWS Marine Advisory Board, the State of Wellfleet Harbor Conference Planning Committee, and the Ad hoc Committee on Fish Passage - American Society of Civil Engineers Environmental Water and Resources Institute and American Fisheries Society Bioengineering Section.

**Publications**

The Coastal Processes Specialist was a contributing author for The Association of State Floodplain Managers (ASFPM) “No Adverse Impact How To Guides for Mitigation and Infrastructure”. The approaches outlined in the report can encourage planners to address the anticipated long-term effects of local hazard mitigation strategies. This may cause them to revisit the benefits, costs, and overall effectiveness of the strategy, and replace or remove the strategy altogether.

The major Coastal Processes publication accomplished this year was the Homeowner’s Handbook to Prepare for Coastal Hazards. Then handbook is intended to help get families and properties ready and covers hurricanes, as well as the more common coastal hazards for Massachusetts, including nor’easters and flooding. 5,000 copies of the handbook were first made available during Hurricane Preparedness Week (May 26 – June 1) and over half of them were distributed that first week. As of August 1st all
copies have been distributed and another print run is currently being planned for the upcoming year.

Additionally, an Extension Bulletin entitled *What Is That Sticking Out Of The Sand?* was completed in July of this year. The bulletin, produced in conjunction with the Chris Maio (affiliated with UMass, WHOI, and WBNERR), explains that the scouring waves have revealed a scene from the ancient past - the exposure of stumps “growing” out of the beach and a black smelly peat layer poking out through the beach sand and dunes. These recent storms have revealed ancient landscapes to a degree rarely seen and create the opportunity to teach about barrier beach migration and SLR while answering the question posed by the title. After the initial mailing and announcement on SEMCO many requests for hardcopies were received. An exciting addition to this bulletin was the incorporation of an interactive web map. Users can navigate and zoom around Cape Cod looking at various stratigraphic layers exposed by storm erosion, and even submit their own images for incorporation into the web map (http://www.mappingcoastalma.com/).

**Marine Science Education Center**

The Coastal Explorer is a 31-foot Class “A” motor coach that was custom-built as a marine science educational vehicle, and has been in use since September 1998. The Coastal Explorer is now equipped with a new computer for use with interactive CD-ROMs, a TV with new VCR/DVD player for showing marine life videos, microscope with video-flex attachment for viewing marine life on the TV screen, and saltwater aquariums. There are blue shark and dolphin models displaying both external and internal anatomy, preserved specimens, shark jaws, marine life skulls, interactive games, and other hands-on exhibits. Furthermore, the vehicle is handicapped-accessible. The Coastal Explorer program is designed to educate participants of all ages about our unique marine environment in a discovery-learning format.

The “Coastal Explorer” and “Coastal Connections” marine science programs took place in 10 Barnstable County towns in summer, ranging from Falmouth and Bourne to Eastham and Provincetown. The “Explorer” visited libraries, youth camps and museums in 2011. A total of 1,820 adults and children visited the “Explorer,” while an additional 238 children and adults participated in the “Coastal Connections” programs. Attendance for the summer program had a total of 2,058 participants, a slight decrease from last year.

The Coastal Explorer marine science education program had another successful year. The 2012-2013 school year had a total of 17 Barnstable
RFN – alternative species blood ark seed and adult specimen which illustrates origin of common name

Technical assistance to shellfish grower experiencing quahog mortality

ShORE – monitoring 2012 oyster remote set in Sandwich

YSI deployment in secure mooring

Collecting oysters for N-analysis
Participant in the CQP program proudly displays seal on work vehicle

Evaluating modifications at fish passage structure at cranberry bog in Santuit River

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The major publication on Coastal Processes accomplished this year was the Homeowner’s Handbook to Prepare for Coastal Hazards. 5,000 copies of the handbook were first made available during Hurricane Preparedness Week (May 26 – June 1) and over half of them were distributed that first week. As of August 1st all copies have been distributed and another print run is currently being planned for the upcoming year.

As a part of the state Rapid Response Coastal Storm Damage Assessment Team the Coastal Processes Specialist was deployed extensively after Hurricane Sandy and the many Nor’easters that followed during the winter. Reports back to the “bunker” in Framingham, allowed emergency managers to make informed decisions, as well as being incorporated in to the NWS flood forecasting models. Many radio stations, as well as newspapers and blogs, contacted the Coastal Processes Specialist during this time for “on-the-scene” information and interpretation of the storm impacts.
County schools participating in the program over the course of 19 weeks. A total of 259 marine science classes were conducted for 4,723 students in grades K-5. The Coastal Explorer Curriculum Guide was again updated over the winter, with new information added to provide participating teachers with a current marine science resource for their classrooms. Also added was additional information about great white sharks around the Cape. The curriculum follows the science frameworks required for area schools, and the Next Generation Science Standards (NGSS). Exhibits within the Explorer have been cleaned and/or revised, with several new photos, books, models, and shark artifacts added. Ed Enos and David Remsen of the Marine Biological Laboratory (MBL) in Woods Hole again assisted in obtaining specimens for the Coastal Explorer aquariums such as the oyster toadfish pictured below. Doug Smith, aquarist for the Cape Museum of Natural History, also provided some specimens for “Explorer” aquariums.

The “Coastal Explorer” visit to Chatham Elementary during the fall was mentioned in the “Education” section of the Nov. 9th issue of “The Cape Codder” newspaper. The visit to Stony Brook Elementary during spring was featured in the “Nauset Regional School District News” of the May 10th issue of “The Cape Codder” newspaper.

The summer program featuring “4-H Coastal Connections” programs were promoted in a brochure sent to libraries, museums and youth camps (see page 2 of brochure below). Some of the summer programs and “Coastal Explorer” visits were mentioned in the “Cape Week” and “Things to do Today” sections of the “Cape Cod Times,” and “Calendar” section of “The Cape Codder” newspapers in July and August. “Cape Cod Day,” a free publication, also had several listings for “Coastal Explorer” visits throughout the summer. Participating libraries also promoted “Coastal Explorer” visits on their websites, including photos. Visits to the Cape Cod Museum of Natural History in Brewster during summer were publicized in the Museum’s July-August 2013 issue of their newsletter, “Tidings,” and in a color flyer available in the Museum lobby. The “Coastal Explorer” visit to Brewster Conservation Day at Drummer Boy Park was included in a video segment about the event on Brewster’s Channel 18, which included a short interview beginning at approximately the 45-minute mark on the video at www.town.brewster.ma.us/channel-18-video-archive/viewvideo/315/events-a-other-programs/brewster-conservation-day-2012.

A display rack is always on board the Coastal Explorer with further resources available for teachers and/or visitors, including an updated fact sheet about sharks, jellyfish fact sheet, program information about “Whale in the Classroom,” “4-H Coastal Connections Summer Programs 2013” brochure, “Beachcomber’s Guide to Cape Cod Seashores” flyer, 4-H club/recruitment flyer, resource bibliography, tick and Lyme disease information, and a new flyer provided by Cape Cod towns about great white shark safety. Teachers may also borrow books and/or videos about marine life from the Coastal Explorer.

A total of 402 students had participated in the “Whale in the Classroom” program during winter, in grades 3-5. Eight classes took place in three Barnstable County schools, including the towns of Barnstable, Mashpee and Yarmouth. The 33-page “Whale in the Classroom Curriculum Guide” provided 19 participating teachers with further activities and resources about whales. “Whale in the Classroom” features a life-sized pilot whale model that unzips to reveal the internal anatomy (pictured below).

**Household Hazardous Waste, Water Quality, and Recycling Education**

Cape Cod Cooperative Extension’s Household
Hazardous Waste, Water Quality, and Recycling Education staff operate an array of programs in seven focus areas: 1.) household hazardous waste (HHW) education and disposal, 2.) mercury collection, 3.) sharps collection, 4.) road and marine flares collection, 5.) unwanted medication disposal, 6.) WET festivals, and 7.) solid waste and recycling assistance to municipalities.

The program's focus is to provide:

- HHW outreach, education and disposal options to all Cape Cod municipalities
- Cost-effective solutions for Cape Cod towns for difficult-to-manage and hazardous wastes
- Public education on water quality and protection issues to children and adults
- Assistance to towns and residents in solid waste management, recycling, and composting.

The outcomes of the programs are focused on improving public health and the environment by protecting Cape Cod's sole source aquifer and increasing public awareness of the threats posed by HHW and solid waste. Household Hazardous Waste Collections are operated on a calendar year basis, all data reported below reflects information for calendar year 2012.

1.) Household Hazardous Waste Education and Disposal
In the 2012 Household Hazardous Waste collection period, a total of 22 HHW collections were conducted within Barnstable County (Cape Cod). Collections are broken into regions (Upper Cape, Mid-Cape, Lower Cape, and Outer Cape) and are reciprocal with towns within the region. For example: Outer Cape collections occur once during the calendar year in Provincetown, Truro, and Wellfleet. Residents of those three towns can participate in any of the Outer Cape collections thus providing three disposal dates for Outer Cape residents and homeowners.

The cumulative totals of the 22 Cape Cod HHW collections held in calendar year 2012 show 5,242 households participated in the collections (up 2.5% from 5,117 households in 2011), each bringing an average of 56 pounds of materials for disposal. This amounted to 147 tons of hazardous materials removed from Cape Cod’s waste stream at a cost of $139,642 in actual disposal costs to towns. The total volume of hazardous waste removed was 55,121 gallon of waste, or the equivalent of 1,002 fifty-five gallon drums of waste. Additionally, 44% of people that came to the 2012 Cape Cod HHW collections were first time participants and 17% of all collection participants were seasonal residents (1 out of every 6).

The impact of streamlined regional services provided by Barnstable County can be seen in the impact of the $32,000 dollars allocated to defray the cost of HHW collection expenses to towns, including the design, printing and mailing of brochures to every household on Cape Cod; design and printing of promotional signs, newspaper ads, news releases and public service announcements; design and printing of educational materials for residents and small businesses; payment of set-up fees; personnel to survey and educate participants at collections; and data compilation for every collection. Cooperative Extension also staffs an 800-Hazmat telephone hotline to answer hazardous material questions for the public.

Through a partnership with Covanta SEMASS Waste-to-Energy Facility, Barnstable County was reimbursed for the cost of printing and mailing the 2012 and 2013 Household Hazardous Products Collection brochures to residential and business addresses in Cape towns. Covanta also provided 83 digital thermometers and 92 programmable digital thermostats for exchange programs at household hazardous waste collections and public education programs.

Cape Cod Cooperative Extension, Barnstable County Purchasing Department, and Cape Cod Commission staff collaborated to solicit a new regional bid for all 22 HHW collections on Cape Cod in 2012. The winning bidder provided a price structure below the state contract price and well below the previous contract price. As a result of the 2012 bid, Cape Cod towns paid $20,000 less for the waste.
collected in 2012 than they did in 2011 ($139,642 in 2012 vs. $159,841 in 2011) while collecting over a ton more waste (147 tons in 2012 vs. 146 tons in 2011). This HHP contract was renewed in 2013 and is eligible for renewal in 2014.

Outreach to small businesses that generate hazardous materials is promoted by the HHW collection program through a mass mailing to businesses that encourages small businesses to participate in town-sponsored HHW collections. This project focuses on painters, contractors, and pesticide applicators, and resulted in the participation of 22 small businesses in HHW collections. Businesses paid waste disposal costs of $2,885. Very Small Quantity Generator (VSQG) businesses are allowed to participate in the collections at county bid pricing, but are required to pay the entire disposal cost for their waste.

3.) Sharps Collection & Disposal Program
The Barnstable County sharps collection program is a model throughout Massachusetts and fulfills the requirement of Massachusetts General Law mandating sharps collection programs for all Massachusetts communities by July 1, 2012. Cape Cod Cooperative Extension distributes free sharps containers for residential use as well as sharps brochures in each Cape Cod town and through out-patient medical facilities in the region. Funding for purchase of containers and disposal of used containers is provided by Barnstable County.

Sharps (needles, lancets, syringes, etc.) are a common and difficult to manage HHW. Improper disposal of household sharps can lead to accidental “sticks” and disease transmission for transfer station staff, other municipal staff, members of the public, and waste haulers. A common practice was to collect sharps in laundry detergent bottles or similar plastic containers and dispose of them in household trash. Once compacted, these makeshift sharps containers no longer provide adequate protection to staff dealing with crushed waste.

Participation in the sharps program has steadily increased since its inception in 2005, increasing by 22% between calendar year 2010 to 2011 and again by 19% between 2011 and 2012. In 2012, 4,740 one-quart, five-quart and two-gallon containers were distributed to collection locations and 367 thirty-gallon boxes of sharps containers were disposed of through a licensed medical waste disposal contractor.

The 2012 collection year included the installation of a sharps kiosk box in the Falmouth Fire Department that is monitored and maintained by the Falmouth Fire Department, the Falmouth Health Department, and the Cape Cod Cooperative Extension.

2.) Mercury Collection & Disposal Program
The health effects of mercury exposure to humans are well documented including health risks to pregnant women and children. Mercury exposure can lead to birth defects, severe damage to the central nervous system (Mad Hatter’s Disease) and even death. Because of mercury’s unique properties (a metal that is liquid at room temperature), it has many practical applications that have been and continue to be used in common household items. Most notable are the glass ampoules on thermostats and electric relays in home heating systems, float switches on bilge pumps, old-fashioned blood pressure gauges, and older style thermometers.

Mercury containing devices are collected by Barnstable County at all HHW events and are collected every day at all Cape Cod transfer stations, waste management facilities, and at many home heating supply stores (thermostats) and marinas (float switches in bilge pumps). A total of 81.3 pounds of mercury was removed through the Barnstable County program in calendar year 2012. Collected mercury containing items included 2,404 thermostats, 434 thermometers, 29 bilge pump float switches and 53 pounds of mercury in an elemental state. All mercury and mercury containing devices are collected and processed by licensed and permitted mercury processing vendors.
Extension. The addition of the Falmouth sharps location provides another collection point for the program and has allowed the Barnstable County sharps program to be fully operational in all 15 towns on Cape Cod. Free sharps containers are distributed at all collection sites, including the Falmouth Fire Department.

4.) Flares Collection & Disposal Program
Road and marine flares are often carried in vehicles, and are required for ocean going vessels 16 feet or greater. Many flares contain perchlorate, a salt-like chemical used as an accelerant in the flares. Perchlorate is a known human thyroid inhibitor and in 2006 the Commonwealth of Massachusetts was the first state in the country to institute mandatory testing for perchlorate in drinking water.

Working with 19 town fire departments and transfer stations a marine and road flares collection program was started in January 2005. A storage locker for flares was set up in the County complex with approval of the Barnstable Fire Department. For calendar year 2012, a total of 4,115 flares (up 10.5% from 3,685 in 2011) were collected from fire stations, marinas, and recycling centers for disposal including 2,413 handheld, 1,026 shotgun-style, 340 rocket, and 336 smoke flares.

Total disposal cost for the calendar year 2012 flares program amounted to $2,523. In addition to benefiting boaters and residents, the program helps keep public and private wells from being contaminated by perchlorate.

5.) Unwanted Medication Collection Program
Flushing old or unused medications down the toilet was a traditionally recommendation practiced throughout the United States, and has led to water contamination across the country and on Cape Cod. Additionally, illicit diversion of unwanted or unused medication has become a problem of epidemic proportions. Cape Cod Cooperative Extension developed a “Crush It, Don't Flush It” education brochure in 2009, urging residents to place their unwanted medications in household trash in a crushed, unusable form for immediate destruction and has distributed more than 10,000 copies of the “Crush It, Don't Flush It” brochure to date.

In 2012, Cooperative Extension staff wrote and received a grant from the Tower Foundation to purchase drug drop boxes for 10 Cape Cod police departments to provide an additional option to residents wishing to dispose of unwanted medications in a secure fashion. Every police station on Cape Cod (with the exception of Barnstable) now provides an unwanted medication drop box for people wishing to dispose of their unwanted medications. The drop boxes, coupled with twice yearly DEA drug take-back programs at local police departments, and the Crush It, Don't Flush It education program demonstrate a strong multidisciplinary, regional approach to preventing unwanted medication from contaminating groundwater or being diverted for illicit use.

Extension staff remains committed
to assisting local officials in collection and community education on unwanted medication disposal. Federal and state law continues to evolve and Extension staff act as educational resources to distribute information on the changing federal laws and statutes and their impact on local disposal options and programs.

6.) WET Festival
WET water festivals are an interactive method of teaching 4th - 6th grade students on Cape Cod the fundamentals of water and the impacts of water on Cape Cod’s environment and health. Each year Cooperative Extension, in partnership with AmeriCorps Cape Cod, provides 10 – 12 one day education seminars to a total of 2,000 4th – 6th grade school children. Cooperative Extension updates and maintains twenty different education stations at each WET Festival and each station meets MCAS requirements and standards while educating students on groundwater, wastewater, and the water cycle. In small groups, students progress through a series of hands-on stations exploring and learning. Students take home a practical message about how water impacts their daily lives and learn new ideas to save and protect water through simple personal actions.

Over the course of the 2013-2014 school year, 12 festivals will be conducted for 14 Cape Cod schools with a total of 2,135 children participating. The major learning blocks of the WET festivals continue to focus on hydrology and groundwater dynamics, aquatic biology and sustainable fisheries, water pollution sources and solutions, and physical concepts.

7.) Solid Waste & Recycling Assistance to Municipalities
Cape Cod Cooperative Extension applied for and received a continuation grant from the Massachusetts Department of Environmental Protection (MA DEP) to pay for a full time staff member to assist all 15 Cape Cod municipalities with solid waste, recycling, and composting needs. The Regional Waste Reduction Coordinator (RWRC) is also known as the Cape Cod Municipal Assistance Coordinator (MAC) and provides a direct line of communication between MA DEP and Cape Cod towns to discuss solid waste management challenges and initiatives.

The RWRC has provided ongoing assistance to several towns in evaluating a pay-as-you-throw (PAYT) model for municipal solid waste management. PAYT is a unit-based pricing program that incentivizes waste reduction and recycling by charging participants a fee per bag of trash. The RWRC has worked with solid waste committees and DPW officials in Chatham, Brewster, Wellfleet, Barnstable, Dennis and Eastham to conduct a detailed review of each town’s solid waste management program, including cost analyses to assess the feasibility and budget impact of a PAYT model. The RWRC has also assisted with planning and outreach efforts as a part of the transition to PAYT in Brewster and Wellfleet, which will both start PAYT in late 2013.

The RWRC assisted six towns with grant applications through the MA DEP Sustainable Materials Recovery Program (SMRP), which included funding requests for transfer station equipment, recycling education efforts, a feasibility study for transfer station upgrades, and PAYT start-up costs. Awards for the grant applications are expected to be announced in the fall of 2013. In November 2012, MA DEP grants were awarded to eight projects on Cape Cod totaling $197,070.

The RWRC’s provided municipal officials and residents with educational opportunities related to best practices for waste reduction, reuse, recycling, and composting. In FY2013, the RWRC organized three home composting workshops, a DEP grant workshop, two regional recycling workshops, and several tours of solid waste facilities. In addition, the RWRC responded to questions from the public and local officials and frequently attended meetings with local solid waste advisory boards, recycling committees, boards of health, and selectmen to provide guidance a range of solid waste and recycling related topics. In an effort to encourage recycling among seasonal visitors, the RWRC developed a Visitor’s Guide to Recycling with detailed information about recycling options in all 15 towns on Cape Cod. The RWRC also publishes a monthly
electronic newsletter to keep municipalities and local solid waste groups apprised of current topics and opportunities in solid waste management and diversion. The RWRC will continue to monitor the evolving solid waste and recycling needs of the Cape Cod community and adapt to provide service and assistance to municipalities as their needs arise.

8.) Hidden Hazards in the Arts
The CCCE HHW program received funding in the spring of 2013 from the Toxic Use Reduction Institute (TURI)– UMASS Lowell and from the Provincetown Cultural Council to address an emerging area of concern in artist-generated waste streams. Specifically, the funding was given to bring an expert from King County, Washington to discuss hidden hazards in the art studio and to provide three workshops for municipal officials and artists on hazardous materials in art studios. The municipal workshop provided continuing education credits for health agents and general information for other public employees who may encounter artist’s workshops and studios while performing their job responsibilities. The artists workshops focused on covering all of the major mediums (oil painting, pottery, metal work, etc.), covering the most common hazards in those fields and how to protect the artists, their workspace, and Cape Cod’s sole source aquifer.

Two of the workshops were recorded (one by the Barnstable County IT department and one by the Town of Chatham) and those recordings were distributed throughout Cape Cod’s public access television stations for rebroadcast. This project will continue into FY’14, as TURI has awarded Barnstable County with an additional $20,000 in grant funding to develop and distribute educational material for health agents, municipal employees, museums and teaching facilities, throughout the Commonwealth.

Horticulture Program
Goals
To provide educational and research-based information to assist green industry businesses and related natural resource firms to continue to be economically and environmentally sustainable. To provide educational and research-based information to the general public to assist them in making sustainable and environmentally sound decisions about their landscapes and gardens.

Objectives
To serve as a resource for reference materials and technical assistance concerning appropriate plant selection and maintenance practices, and with pesticide information, regulations and requirements for professionals and municipal employees.
To teach practices, principals and proper plant materials which would enable homeowners, commercial landscapers and agricultural producers to reduce inputs of labor, chemicals and water use on landscapes and agricultural lands.
To educate landscape professionals and public grounds maintenance employees in the area of Integrated Pest Management. Integrated Pest Management is a technique which focuses on cultural and biological control to reduce pesticide use to maintain pests below economic thresholds.
To recruit and train Master Gardener volunteers to assist in program delivery to the public, to oversee and supervise the Master Gardener program.
To research, write and distribute fact sheets, bulletins and publications of interest to Green Industry clientele as well as to the public, in the areas related to horticulture.

Educational Programs
Professional Education
Professional education is a crucial way to keep industry professionals properly informed about the latest scientific research and unbiased information. The majority of this education revolves around the practical implementation of Integrated Pest Management (IPM). IPM is a management strategy that uses a holistic approach to pest management that takes into account human and environmental concerns.
Approximately one hundred green industry professionals attended a program on Landscape Pest Identification at the MNLA/MFGA
Summer Conference in which an update on a localized pest issue (Cynipid Gall Wasp) affecting Cape Cod and the Islands was given.

Thirty green industry professionals attended a Pest Management Twilight Meeting at Heritage Museums and Gardens. The twilight meeting provided education for professionals including topics such as; identification of pests, lifecycle information, management strategies, and an update on invasive pests. For professionals to be able to practice IPM they must be able to identify the problem correctly, know the lifecycle of the pest, know the appropriate cultural practices of the host and understand the different management strategies for control. The program qualified for pesticides recertification credits for certified and licensed applicators. The program also provided continuing education credits for those certified by the Massachusetts Association of Landscape Professionals.

Approximately fifty green industry professionals attended a presentation titled Diagnosing Disease in the Landscape. The presentation was given at John Deere Landscapes Winter Seminar Series for industry professionals. The presentation provided attendees with the proper procedure to properly identify diseases and disorders of landscape plants. Proper identification is a crucial part of IPM and necessary to ensure the proper and appropriate use of pesticides. The program qualified for pesticide recertification credits for certified and licensed applicators.

More than seventy green industry professionals attended a presentation titled Current Pest Problems. The presentation was given at the Cape Cod Landscaping Association's winter seminar and trade show. The presentation provided attendees with information about the identification, lifecycle and management of several insect and disease pests of current concern to Cape Cod. The presentation also qualified for pesticide recertification credits for certified and licensed applicators.

Eight interns for Heritage Museums and Gardens received hands on education about identifying problems with plants. Proper identification of plant problems is crucial for successful management and is a crucial step in IPM.

Four municipal employees received hands on training on how to prune. The demonstration covered types of pruning cuts, pruning equipment, and practical pruning practices. Pruning is an extremely important part of maintaining a landscape and controlling plant size, plant vigor, and keeping trees and shrubs healthy.

Composting
Educating the general public about composting is a priority within the Horticulture Program. Composting is an easy way to reduce the amount of trash being handled by the municipal waste system. Compost is also a crucial amendment that improves important soil characteristics. Compost as a soil amendment improves water holding capacity, nutrient holding capacity, aggregation and biological diversity. All these characteristics are crucial for Cape Cod’s soils which generally lack these characteristics.

More than sixty people attended a program taught by Ann McGovern of MassDEP on composting in Sandwich. The program was run to coordinate efforts in Waste Management and Horticulture to improve composting efforts and technique.

More than forty people attended an educational program on composting in the town of Chatham. The program was designed to teach the audience proper composting procedures, troubleshooting issues, and how to use the finished product. The program was also recorded and viewable online.

More than twenty-five attended an educational program on composting in the town of Truro. The program was designed to educate the audience on proper composting procedures, what can and cannot be composted, and how to properly use the finished product.

Horticulture
Educational programs for general horticulture focus
on practical research based information such as proper plant selection and best management practices. This education is crucial for the public to be successful in managing the landscape while remaining environmentally sustainable.

Nine people attended a three class course on woody plant identification held at Heritage Museums and Gardens. Attendees learned how to identify a variety of native and ornamental plant material including deciduous trees, coniferous trees and shrubs. The attendees also gained the skills to be able to properly use plant identification resources. More than seventy-five people attended an educational program on preparing gardens for winter. The program was conducted at three different locations including Mashpee, Barnstable, and Orleans. The audience was educated on the importance of soil testing as well as how to properly take a soil sample. The audience was also educated on the best management practices for fall maintenance of turf, general garden cleanup, pest management, and soil conservation practices including using cover crops.

More than thirty members of the Barnstable Beekeepers Association attended an educational presentation on the other benefits of pollinator gardens. The presentation was designed to educate beekeepers about the benefits of pollinator gardens beyond the resources for honey bees. The program focused on the resources provided for beneficial insects by pollinator gardens, the beneficial insects found in pollinator gardens and plant selection for pollinator gardens.

Food Production

Food production has become an increasingly hot topic as people focus on local produced and health benefits of fresh produce. A large percentage of the population has lost the skills and knowledge associated with both commercial and home food production. Educational programs focus on reeducating the public on how to produce food using unbiased research based information developed at our Land Grant Universities.

More than thirty Sandwich Garden Club members attended an educational presentation on vegetable gardening. Attendees increased their knowledge on numerous topics associated with vegetable gardening. Topics included soil fertility, cultural practices and pest management.

More than thirty people attended an educational presentation on vegetable gardening in Orleans. Attendees increased their knowledge on numerous topics associated with vegetable gardening. Topics included soil fertility, cultural practices and pest management.

Approximately twenty gardeners from Sea Call Farm Community Garden in Orleans attended a presentation on vegetable gardening. Attendees increased their knowledge on numerous topics associated with vegetable gardening. Topics included soil fertility, cultural practices and pest management.

Approximately eighty people attended an educational presentation on Tree Fruit in Mashpee. The presentation was designed to be useful for the general public and for growers thinking about or growing tree fruits. The presentation covered all aspects of tree fruit production focusing on low maintenance and IPM.

More than forty people attended a Tree Fruit Pruning demonstration held at Crow Farm in Sandwich. The workshop was geared to be educational for the causal homeowner and commercial grower. The program included hands on demonstration of pruning and training different types of fruit trees.

More than forty people attended a presentation on Small Fruit in Harwich. The workshop was designed to be educational for the interested homeowner as well as commercial growers. The presentation covered many different types of fruit, cultural practices associated with those fruits, and Integrated Pest Management.

Publications

Norton, R., 2013. The Other Benefits of Pollinator Gardens. Hort Notes 24, 6: 1,3
Norton, R., 2013. Pruning and Training Backyard Apple and Pear Trees. Garden Clippings 33, 1: 2-4
Norton, R., 2013. April is the month to…. Garden Clippings 33, 2: 1
Norton, R., 2013. Cynipid Gall Wasp. Fact Sheet
Weekly updates and data are published in the USDA, National Agricultural Statistics Service, Crop Progress & Condition Publication from May – October. Occasional updates and data are published in University of Massachusetts Vegetable Notes Publication.

Technical Assistance
Technical assistance is provided to industry professionals and municipalities in various ways including diagnostic services, phone/email consultations, and site visits. Diagnostic services are provided at no cost for identification of plants, insects, diseases and other plant problems. This information is crucial for industry professionals and municipal employees to make proper management decisions. Diagnoses also include unbiased research based recommendations that are unique to the mission of Cooperative Extension.

More than fifty farm/site visits were conducted. Farm/site visits offer professionals a unique opportunity to get an outsiders look at the operation and unbiased advice. Farm/site visits are valuable hands on learning experiences that are often eye opening to the professional. Visits are typically followed up with technical assistance and supporting documentation for the topics covered during the visit. Site visits are also valuable for extension educators for developing future educational programming.

Research
Black Oak, Quercus velutina, a common native tree on Cape Cod is suffering severe damage from a small wasp, Bassettia ceropteroides. B. ceropteroides causes damage by ovipositing into soft new twig tissues, the larvae then develop in the twig tissue disrupting the trees vascular system. The disruption to the trees vascular system causes the oak trees to lack foliation in the spring or causes flagging of shoots in the summer. These repeated defoliation events are concerning as they often lead to significant dieback of the tree and possibly mortality.

Very little is known about B. ceropteroides and even less is known about how to manage it. This year a small investigative trial is being conducted at Nickerson State Park to learn more about the insect and how to manage it. The research trial is being conducted in collaboration with Rainbow TreeCare and MADCR to determine the efficacy of several different insecticides. The hope is that the study will result in a possible method for control and provide enough information to construct a larger research project to learn more about the insect and its management.

Master Gardener Program
The Master Gardener Program is a cooperative effort between community volunteers and the Cape Cod Cooperative Extension. The Program is designed to meet the horticulture needs of Barnstable County citizens through education and outreach of unbiased research based information.

The Horticulture Extension Educator coordinates the Master Gardener Program and the recruiting and training of new Master Gardeners.

Training and Education for Master Gardeners
Sixteen Master Gardeners were recruited and trained. This is the largest class in the programs twenty-five year history. Master Gardeners receive approximately sixty hours of technical training and in return are to provide sixty hours of volunteering for Cape Cod Cooperative Extension. The extensive training is necessary for the volunteers to be able to advise and answer Barnstable County citizens’ horticulture questions.

More than forty Master Gardeners received additional training on soil testing. This course was provided as a train the trainer exercise. Master
Gardeners were trained to be knowledgeable about soil testing, the different types of tests, proper sampling procedure and the benefits of soil testing. The Master Gardeners were also retrained on new pH soil testing equipment.

More than forty Master Gardeners attended an educational program about Current Pests effecting Cape Cod. This program focused on educating the Master Gardeners; to recognize and be aware of important pest issues on Cape Cod. The program also included lifecycle and integrated management strategies.

More than thirty Master Gardeners attended an educational program on proper pruning of trees and shrubs. The program went into depth the proper pruning techniques for different types of trees and shrubs. Training, pruning cuts, and pruning philosophies were covered.

Master Gardener Programs
The Master Gardeners had more than sixty attendees for the Backyard Horticulture Program. This program is held in Falmouth and Harwich and consists of eight weeks of education. The program is organized and taught by Master Gardeners and covers a large array of topics applicable to the home gardener.

The Master Gardeners had more than one hundred attendees for the Spring Seminar. The Spring Seminar is an all-day program of horticulture education. The program is organized by the Master Gardeners and included topics such Wild Flowers, Country Gardens, and Disease Identification.

The Master Gardeners operate a Children’s Garden in Brewster. The program offers gardening education for twelve children between eight and twelve years of age. The garden runs from May to September providing children with a hands on learning opportunity to work alongside a Master Gardener. The program will hopefully instill the value of gardening and lead to a lifelong hobby.

The Master Gardeners operate a Speaker’s Bureau program. This program offers Master Gardener’s as speakers to speak on horticulture topics. Speakers are often requested by garden clubs, local libraries and various other organizations.

Technical Assistance
The Master Gardeners operate the Horticulture Clinic located in the Cape Cod Cooperative Extension office. The clinic is open from April thru October three days a week for six hours. The clinic is open in March and November for two days a week for four hours. The clinic requires between 600 – 1200 volunteer hours to operate. The clinic provides unbiased research based information for the general public of Barnstable County. The gardeners can be reached via phone, walk-in, or email. The clinic offers plant identification, insect identification, disease identification, and soil pH testing.

The clinic assisted more than 1100 clients in fiscal year 2013. More than 200 soil tests were conducted, more than 70 insect identifications, and more than 132 plant/disease identifications. The Master Gardeners provide unbiased research based information in the form of fact sheets for any diagnosis or advice given.

Outreach
More than 60,000 people had the opportunity to visit the Master Gardener Demonstration Garden during the Barnstable County Fair. The Garden was staffed by Master Gardeners and Horticulture Extension Educator to help answer the public’s gardening questions. The garden is maintained by a
group of Master Gardeners to showcase sustainable gardening practices. Produce harvested from the garden is provided to local food pantries. The garden is also staffed by Master Gardeners during the Harvest Festival which has the potential to reach nearly 4000 people.

The Master Gardeners also provide outreach thru many other community efforts including; farmers markets, beautification projects, garden tours, and staffing displays at local events.

Barnstable County Land Management Grants were awarded to the towns of Barnstable, Falmouth, Harwich, Wellfleet, Sandwich and Orleans. Grant awards ranged from $500 to $4000 for a total of $18,580. Projects included the restoration of a pick your blueberries farm in Dennis to renovation of a park on Main Street in Hyannis to providing access via the establishment of a parking lot to and a conservation/recreation area on a pond in Mashpee. In most instances, county funds were more than half matched by the municipalities.

Yarmouth, Barnstable, Brewster, Chatham, Orleans and Sandwich natural resource departments received wildfire implementation grants from the county. Each town implemented the highest priority areas determined in their wildfire plan. Funding for the grants was received from the USDA Forest Service and the county.

After completing eighteen individual wildfire preparedness plans from Bourne to Eastham, it was decided to develop a county wide wildfire plan. Northeast Forest and Fire Management was hired to write this countywide plan. An advisory board including fire and natural resource managers throughout the county was appointed to guide the content on this plan.

The objectives of the county wide wildfire plan are to:

- Identify all wildland fire hazard possibilities throughout Barnstable County;
- Develop a county map displaying hazardous areas in Barnstable County;
- Establish a guide for ranking priority properties for developing Wildfire Preparedness Plans;
- Develop a countywide system for rating risk of wildfire;
- Provide information on various strategies appropriate for Barnstable County that will address wildland fire hazards and serve as a guide for future Wildfire Preparedness Planning;
- Assess current wildland fire suppression capacities;
- Identify areas needed to increase effectiveness of wildland fire suppression capacities.

The final document exceeded the requirements of the Federal Community Wildfire Protection Plan which should position Barnstable County to be eligible for federal implementation funds. The plan was distributed to all fire departments and natural resource departments throughout the County. The Regional Plan is also on the Cooperative Extension website. Several towns have begun implementing recommendations in the plan.

Three training workshops were held for Conservation and Natural Resource officials throughout the county. These work-
shops are held periodically and provide training opportunities for public officials and an opportunity for officials to exchange ideas, and learn from each other, and in some instances take a regional approach to land management and regulatory issues.

The Barnstable County Municipal Shade Tree nursery at the Barnstable County Farm continues to be a source of trees and shrubs at below wholesale prices for all the municipalities. Trees and shrubs were purchased by Orleans, Yarmouth, Falmouth, Barnstable, Bourne and Mashpee. During the last ten years, trees from the Barnstable County Municipal Shade Tree nursery have been planted in a variety locations—streets, schools, parks, conservation areas throughout the County. The nursery is maintained by the Extension staff with the help of the Americorp members.

Tick-borne Disease and Entomology Program

The FY2013 Barnstable County tick-borne disease program contains both research and outreach components. Lyme disease is the second most prevalent infectious disease in the state, second only to Hepatitis C. Barnstable and Plymouth County were tied at the third highest rate of incidence in the state behind Nantucket and Dukes Counties.

Note, Babesiosis and Anaplasmosis are two other diseases vectored by deer ticks. While these are well below the rate of Lyme infection they are on the increase as well. Specifically, over half of the Babesiosis cases in the state occurred on the Cape and Islands.
lets. Efforts to expand distribution will continue in FY2014.

Tick Workshops were made to a variety of stakeholder groups including:

- Americorp
- Cape Cod Landscape Association
- National Association of Retired Federal Employees
- Harwich Land Trust
- Waquoit Bay Estuarine National Research Reserve
- Yarmouth Board of Health
- Mashpee Senior Center
- Cape Cod Mosquito Control
- Sandwich Garden Club
- Bourne Community Center
- Orleans Health Department
- Cape Cod Cooperative Extension
- Master Gardeners
- Sandwich Health Department
- Brewster Conservation Day
- Irrigation Association of New England
- MA Association of Public Health Nurses
- Woods Hole Summer Science Camp
- West Falmouth Public Library
- Truro Library
- Dennis Memorial Library
- Woods Hole Library
- Brooks Free Library
- Bourne Public Library

Media coverage was extensive including newspapers, radio as well as two Boston television stations, Fox News [http://www.myfoxboston.com/video?clipId=8759947&topVideoCatNo=238258&autoStart=true](http://www.myfoxboston.com/video?clipId=8759947&topVideoCatNo=238258&autoStart=true) and Channel 5.

Cooperative Extension provided technical support to Nickerson State Park (Brewster). The Park was closed earlier than usual in the late summer of 2012 due to high tick populations. The Park also received complaints from people that contracted Lyme as well as Babesiosis. The Park hosts about 10,000 people annually. Park staff used leaf blowers in the fall of 2012 to clear leaf litter further away from camp sites. Extension provided signage for posting in rest rooms and made a recommendation to stock permethrin in the camp store (they did and also had product on display to show people at check-in).

EPA continues to sponsor research to determine if 4-Poster Deer Feeding Stations are an effective way to reduce tick abundance on an area wide basis. EPA has provided $150,000 to support the project out to December 2013. This was performed in accordance with Letter Permit 049.13LP issued by the Massachusetts Division of Fisheries & Wildlife. The Division was issued a copy of the 2012 interim progress report.

The data on nymph stage tick abundance obtained from baseline years 2007-2008 and from 2009-2013 show a modest but statistically significant reduction in tick populations. Results will be presented to the MA Division of Fish & Wildlife. This agency ultimately is responsible for approving the use of 4-Posters in the State.

The use of remotely activated surveillance cameras was initiated in the fall of 2011 and has continued through the spring of 2013. This is to document and quantify the interaction of stations with wildlife. Significant interaction with raccoons and grey squirrels was observed. 400,000+ frames of imagery (night and day) has been acquired.

Deer Tick Testing
A significant collaboration was developed with Dr. Steve Rich, Director of the Laboratory of Medical Zoology at the University of Massachusetts, Amherst. Ticks from the 14 sample sites have been analyzed for the pathogens that cause Lyme, Babesiosis and Anaplasmosis. The 14 sites are associated with the 4-Poster Study. The distribution and infection rates of the latter two pathogens is wider than previously thought; Babesia infected ticks were found at 13 of the 14 sites in 2012, up from 5 of the 14 sites three years ago.
Lone Star Ticks were found at five sites in Sandy Neck Beach Park. This tick has been steadily moving north in response to climate change. Up to this point it had been found to be established on Cuttyhunk Island. The finding in Sandy Neck could possibly be evidence of the first established population on the MA mainland. Cooperative Extension is providing technical support to Park Staff…surveillance efforts will be increased, including other areas of the County that have similar habitat structure to Sandy Neck. Newspaper coverage by the Cape Cod Times generated several calls from residents who believe that they have seen this species. Ticks collected so far are under analysis at the Laboratory of Medical Zoology, UMass – Amherst. Lone Star Ticks can vector the pathogens that cause Ehrlichiosis and Rocky Mountain Spotted Fever, and have been linked to triggering an allergic response to red meat.

A demonstration project was initiated with the Heritage Museums & Gardens to control hemlock woolly adelgid and hemlock scale. This is an extremely destructive invasive species, due to a lack of natural enemies. Hundreds of thousands of acres have been killed from the Great Smoky Mountains up into New England.

At Heritage approximately 200 specimen hemlocks were at risk; some trees had already been cut down. Based on research at the Connecticut Agricultural Experiment Station a trunk spray application using a combination of Merit/Safari was applied in March 2012. This was a significantly improved alternative from an environmental compared to conventional treatments such as soil drench or foliar applications; use of soil drenches on the Cape creates a groundwater contamination risk while foliar applications creates potential for negative impact on wildlife and surface waters.

A follow-up evaluation was performed in April 2013. 100% control was achieved. We will continue to monitor. Based on current research it is possible that five years of control could be achieved. This works out to $5/tree/year, a significant ROI.

Surveillance was conducted for winter moth egg hatch in March/April 2013. These data are supplied to growers, Cape Cod Landscape Association, the general public as well as to the UMass IPM Landscape message system. Winter moth is a major pest of many tree species and small fruits such as blueberry.

Invasive Species Surveillance
During the summer of 2012, Extension conducted monitoring efforts for two invasive species that were found in part of New England in 2011. Spotted wing drosophila was found all the way from Falmouth to Truro. This is a pest of all small fruits such as strawberry, blueberry, raspberry and grape. Brown Marmorated stink bug was found on three out of four farms and surveillance continues. Cooperative Extension is supporting surveillance efforts as part of a network covering all of Massachusetts. Scout was also conducted for the three major pests of sweet corn (European Corn Borer, Corn Earworm and Fall Armyworm) as part of the UMass IPM vegetable program.

General entomology support to the public is provided on an ongoing basis. Public inquiries range from ticks, wasps and ants to pantry, structure and lawn pests. This includes identification and discussion of management options ranging from nothing to the safe use of a pesticide if warranted. This also provides a number of opportunities to speak in-depth with people about the prevention of tick bites and tick-borne illnesses.

An Introduction to Entomology course was developed and presented to the Master Gardeners. This included a review of the identification/life cycles and management of the major pests of fruits/vegetables.

Nutrition and Food Safety Education

Objectives
To increase nutrition knowledge and improve dietary habits in children and adults.
To increase consumer and food service person-
nel’s knowledge of safe food handling practices. To change practices and decrease the risk of foodborne illness in households, residential and non-residential programs, and food service operations. To increase consumer awareness and improve food purchasing practices for a more economical and healthful diet.

Nutrition educators participated in fifteen Biometric Screening events offered by the Cape Cod Municipal Health Group. Nutrition education through a display, one-on-one conversations, cooking demonstration, and educational materials was made available in conjunction with health screenings.

Nutrition educators participated in seven health screenings at low income housing developments offered in collaboration with Barnstable County Health and Environment. Nutrition education through a display, one-on-one conversations, cooking demonstration, and educational materials was made available in conjunction with health screenings.

Cook Well, Eat Well, Live Well, a nutrition education program targeting food pantry clients and staff has been extended via funding through Mass in Motion and continued collaborations with the Hunger Network of Cape Cod. Over 2000 additional cookbooks have been distributed over the past year including 150 copies to low income families through the YMCA’s Summer Food Service Program. Additionally, two paraprofessionals have been contracted by the Hunger Network and are being overseen by a nutrition educator to extend the reach of these educational materials throughout Barnstable County and the Islands.

Cook Well, Eat Well trainings were offered to 14 food pantry directors of Cape Cod Hunger Network as well as volunteers of the Family Pantry of Cape Cod and 9 staff from the Cape Cod YMCA. Twelve pantries received nutrition education materials and fact sheet resource binders, DVDs of program highlights and cooking demonstrations.

Volunteer training utilizing the Cook Well, Eat Well, and Live Well nutrition education program was offered to 35 food pantry volunteers in Falmouth and 13 in Bourne to promote cooking demonstrations and effective use of the educational tools from the program. Safe Food Handling, Healthy Eating, Health and Dietary Challenges were all discussed in addition to the three cooking demonstrations offered to pantry volunteers and clients.

Eight Clients of Falmouth Service Center attended a presentation introducing Cook Well, Eat Well, Live Well and to observe portions of the DVD and were provided with cookbooks and tastings from a cooking demonstration.

Nutrition educators participated in health fairs held at senior centers in Mashpee, Yarmouth, and Barnstable with a focus on nutrition for the older adult as well as cooking demonstrations. Over 250 older adults were reached through these events.

“Rate MyPlate” was presented for 30 staff and members at Baybridge Clubhouse, a community for people who suffer from mental illness. The presentation focused on the importance of each of the food groups and ways to make better dietary choices within a budget.

A total of 30 older adult women and adolescent girls participated in two separate nutrition label reading activities and healthy snack preparations focused on calcium intake and bone health offered through the Harwich Council on Aging’s intergenerational Girl Power Program.

“Living the Sweet Life: Healthy Desserts” was offered to a total of 36 people through three separate presentations. Participants were introduced to the main concepts of meal planning utilizing ChooseMyPlate.gov materials and were offered dessert samples and recipes featuring fruit as a main ingredient.
Buy Fresh Buy Local Cape Cod sponsored a giveaway holiday dinner!

State Agricultural Day
Bill Clark, Director of Extension; Deval Patrick, Governor; Kim Conra, Extension Educator; Tasha Ramos, Program Coordinator
“Easy, Affordable Summer Meals” was offered to 8 teen parent of Cape Cod Child Development’s Teen Parent Program. Meal planning, preparing and serving were covered and culminated in a sit down family-style dinner.

Two hundred twenty refrigerator thermometers and educational materials on food safety and nutrition were sent home to families participating in the 2012 Summer Food Service home delivery program sponsored by the Cape Cod YMCA in Hyannis, Bourne, and Mashpee. Additionally, food safety training materials were provided for 35 Summer Food Service Program staff and volunteers.

Eight drop-in nutrition and food safety activities were conducted as part of the Summer Food Service Program held at Ezra H. Baker Elementary School making a total of 209 contacts with school-aged youth. Additionally, 300 Ezra H. Baker Elementary students and family members attended the Open House activities which included an interactive nutrition display highlighting simple kid-friendly afterschool snack ideas.

Through SNAP-Ed grant funding, five nutrition presentations for older adults have been conducted as part of Barnstable Senior Center’s Brown Bag program. The talks include material from Cook Well, Eat Well, Live Well and cooking demonstrations. A total of 53 older adults attended the programs. In addition, copies of the monthly Nutrition Notes to Go newsletters were made available to all seniors visiting the Barnstable Senior Center.

Nutrition educator led the Eating Well round table discussions as part of the Councils on Aging Serving Together (COAST) forum for older adults entitled, “Live Your Life Well: Building Resiliency in Aging”. Approximately 50 older adults participated in this program held at the Truro Council on Aging.

The Nutrition Education Program was included as part of the 2012 County Commissioners’ tour focusing on the food pantry projects in the town of Harwich.

Nine food safety workshops entitled, Food Handling is a Risky Business, were held for a total of 143 foodservice employees and volunteers.

Four youth programs were conducted at the Barnstable County Fair with food safety and nutrition information, demonstrations, and activities in the 4-H Youth Building. Additional nutrition activities were conducted for youth at the Harvest Fair with a focus on healthful seasonal produce.

The ‘Snacktivities’ project, a collaboration with Harwich Early Childhood Advisory Council funded through Cape Cod Five Foundation, continues to provide monthly snack and activity calendars to Harwich daycare and preschool programs as a way to incorporate healthy snacks and exercise suggestions into everyday classroom experiences. Ten parents and providers attended a workshop entitled, “Y.E.A.H (Yummy, Easy, Active and Healthy) for Families!!” kicking off the 2012-2013 program for the Monomoy School District. Easy meal ideas and ways to be active in the ‘off’ season were highlights of this workshop. Ninety children participated in a healthy trail mix nutrition activity as part of the Celebration of Young Children event in Harwich.

Twelve issues of Food for Thought, an electronic nutrition newsletter have been distributed to parents and elementary school staff. The newsletter provides subscribers with up-to-date nutrition and food safety articles, video clips, and kid friendly recipes each month. Currently, there are 183 subscribers to this newsletter.

A healthy afterschool snack activity was conducted for 96 youth and families as part of “Lights on After School” events at Cape Cod Child Development’s School-Age Programs in Yarmouth as well as in Falmouth.

Two part-time nutrition educators have been contracted through the Family Nutrition Program (SNAP-Ed) to teach elementary students in an after-school program entitled Kids in the Kitchen. Forty-two children participated in the series of
lessons held at Ezra Baker Elementary School, and Cape Cod Child Development’s School-Aged Centers in Falmouth and Hyannis. A total of 16 school-aged children have participated in two series of 4 lessons each at Cape Cod Child Development’s summer program in Yarmouth. Additionally, 20 children and their families participated in a back-to-school celebration with a nutrition display and sampling of healthy bagged lunch ideas at a separate site in Falmouth. A total of 160 youth and parents participated in nutrition activities conducted as part of two school-wide events at Ezra Baker Elementary School.

“The School Day Just Got Healthier”, a presentation primarily focused on the state’s newly mandated School Nutrition Standards for Competitive Foods and Beverages was presented as an in-service training for Barnstable Public School’s food service staff with 40 employees in attendance.

As part of the Family Nutrition Program, “Nutrition in the Classroom: From Farm to Fork” was offered to 21 Cape Cod Child Development staff as a Professional Development course. Topics covered included ChooseMyPlate.gov resources, the garden to nutrition connection, and easy, affordable activities to do in the classroom to tie both the nutrition and garden themes together.

“Healthy Holiday Cooking for Families” was held for 14 parents and preschool teachers in Brewster. Healthy foods, recipes and cooking demonstrations were main themes of the night.

Nutrition educators have participated in coordination of Buy Fresh Buy Local Cape Cod with the mission of connecting people and businesses on the Cape with locally grown farm and sea products. Buy Fresh Buy Local Cape Cod activities included visits to farmers markets with an educational display, recipes, and member guides. Healthy recipes and over 10,000 member guides have been distributed through attendance at area farmers markets and other food-related community events plus a Fall Harvest Celebration Tour. Additional outreach efforts included a children’s coloring contest, WQRC Shop Local Promotion, sponsorship of five raw bars highlighting local aquaculture, four advertisements in Edible Cape Cod magazine, and radio and online advertisements during National Farmers Market Week, and the annual member networking meeting. Coordination of program objectives and planned activities has been accomplished by working with an appointed advisory group. Distribution of the monthly electronic newsletter has reached 2697 subscribers in addition to a following of approximately 1237 individuals through social media platforms. Membership in Buy Fresh Buy Local has climbed to 114 members.

As part of the Buy Fresh Buy Local project, Nutrition Educators conducted twelve cooking demonstrations at four farmers markets: Bass River Farmers Market, Falmouth Farmers Market, Sandwich Farmers Market, and Orleans Farmers Market throughout the summer months. This project was made possible through grant funding from Massachusetts Department of Agricultural Resources. Through tastings at demonstrations, over 600 consumers were exposed to new and varied products as well as preparation techniques and healthful recipes.

A total of sixty-one people attended six separate food preservation workshops offered through the Buy Fresh Buy Local project. The two-hour workshops focused on freezing and drying techniques, canning tomatoes, and homemade holiday gift giving ideas with an underlying theme of utilizing locally grown ingredients whenever possible.

As part of the Buy Fresh Buy Local project, a local shellfish promotion program was offered in Brewster to approximately 45 people, highlighting shellfish from Dennis Oyster Company.

A display was organized in conjunction with WIC at the Hyannis Farmer’s Market to promote the use of WIC-issued Farmer’s Market checks among a low-income audience including Head Start Parents/families. Educational materials and various recipes were made available as part of the display table.
Twelve healthy cooking demonstrations and displays have reached a total of 176 clients and volunteers at the Falmouth Service Center, Family Pantry of Cape Cod, and Wellfleet’s Grace Chapel Food Pantry. Demonstrations and displays provide recipes and healthy cooking methods to low income families as part of the Family Nutrition Program. Additionally, 3600 copies of Nutrition Notes to Go; a monthly newsletter focusing on healthful, economical recipes and nutrition topics has been distributed to food pantry clients and volunteers.

As part of the Buy Fresh, Buy Local project, a nutrition educator conducted a kid-focused food activity using locally grown strawberries as part of ME Small’s Family Fitness Night.

Fifty-one food pantry workers have been trained through two Pantry Food Safety Workshops. This workshop is a statewide requirement for food pantries in order to receive foods through the Greater Boston Food Bank. Prior to Cooperative Extension offering this class on the Cape, volunteers had to go to Boston for this training.

Six food safety certification and recertification classes have been offered for the food service industry resulting in certification of 106 individuals. ServSafe, a food sanitation certification program through the National Restaurant Association fulfills the 1999 Food Code requirements set forth by the Massachusetts Department of Public Health.

A presentation on Farmers Market Food Safety was presented to Cape and Islands health agents for continuing education credits through the Health Agent Coalition.

Healthy dessert options were the focus of a cooking demonstration conducted for more than one hundred doctors attending a Cape Cod Preferred Physician’s meeting.

“Building Healthy Bones” a series of two nutrition lessons emphasizing consumption of low fat milk and other calcium-rich foods has reached 148 Head Start preschool aged children and classroom teachers in ten separate classrooms. Classroom materials and take-home materials are provided to reinforce the nutrition messages both in the classroom and at home.

Body Walk, an interactive educational exhibit, was conducted at eight elementary schools. Body Walk features an eleven-station tour of the body, from brain to mouth, stomach, small intestine, heart, lungs, bones, muscles, and skin with a focus on the role of nutrition along the way. Approximately 1,177 students experienced the exhibit. Follow-up activities for use in the classroom were provided to each participating teacher. Additionally, take home materials were developed and provided to every student, allowing them to share the messages with parents.

Nutrition educator assisted in planning activities for the annual health fair at Riverview School for students with language, learning and cognitive disabilities. The activities focused on reading nutrition labels as well as choosing healthier beverage options followed by safe food safety practices and proper hand washing.

Nutrition educator participated in the Healthy Together Community Wellness Day sponsored by the Sandwich Partnership for Families and Sandwich Human Services Association. A healthy breakfast youth activity and display was conducted for approximately 500 adults and children in attendance.

Nutrition educator participated in the Live Well Mashpee health fair. Two healthy cooking demonstrations for kids were conducted as part of this community-wide event.

Approximately 60 families including nearly one hundred young children participated in a build-your-own-breakfast nutrition activity as part of the Family Fun Day in Yarmouth sponsored by the Families United Network Program. Two nutrition workshops entitled, “Snacktivities” and “Farm to Fork” were conducted at the Child...
Care Network for a total of 21 early childhood teachers and members of the Cape Cod AECY Chapter.

Two pre-program screenings for the Health Improvement Program have been conducted for municipal employees and spouses in Falmouth in collaboration with the Cape Cod Municipal Wellness Program.

A cooking demonstration highlighting Cape Cod Municipal Health Group’s biometric screenings was conducted for roughly 25 municipal employees at a Benefits Administrators meeting.

“Eating Essentials” was presented to a group at Mashpee Village. The presentation included a hands-on activity and cooking demonstration focused on low sodium cooking and using herbs from the on-site community garden.

“BYOL: Build Your Own Lunch”, an interactive parent and child workshop was held for 50 children at KC Coombs Elementary School as part of the Countdown to Kindergarten program. Children made a brown bag lunch for the following day from a series of healthy choices offered at various ‘stations’. Healthy beverages, food safe lunches and variety were covered.

Three nutrition workshops were held as part of a lunchtime series offered through Cape Cod Municipal Health Group. “Good Mood Food”, “Importance of Family Mealtime”, and “Families & Food: Summertime Strategies for Parents” reached a total of 17 municipal employees.

Nutrition educators conducted a series of four nutrition presentations as part of the Lifetime Learning Series in Orleans. An audience of approximately 30-35 older adults attended the talks.

Approximately 20 preschoolers and their families were presented with ideas for healthy snacks and lunches as part of the Fun Family Night at East Falmouth Elementary School.

Nutrition educator was a guest speaker at four ninth and tenth grade health classes at Sturgis Public Charter School. The focus was on good nutrition when packing a lunch as well as healthier options for purchasing lunch in nearby food establishments.

Nutrition Educator was trained as a Lifestyle Coach for the National Diabetes Prevention Program, a model health program based on research led by the National Institutes of Health and supported by the Centers for Disease Control and Prevention.

Nutrition educators serve as a member on the Health and Wellness Advisory Council for Cape Cod Child Development, the Sandwich Public Schools Wellness Committee, and The Hunger Network and collaborate with Barnstable County Human Services on the Mass in Motion initiative.

4-H Youth Development

Goals
Building strong communities by providing youth with life skills in leadership, citizenship, community service, and communications they will need to become engaged citizens and contributing members of society.

Objectives
To maintain and balance existing 4-H programs, emphasizing outreach to all Barnstable County youth.

To offer and promote educational events and activities, programs and courses in the content areas of Science and Technology, Life Skills, Environmental Stewardship, Communication, Job Readiness, and Teen Issues.

To strengthen, recruit, maintain and manage the 4-H Volunteer Management System.

To provide programs to 4-H members and volunteers through experiential education.

Volunteer Management
The Volunteer Management System ensures the quality and safety of our program for both youth
and volunteers. This is a critical and mandatory requirement of our program. We presently have over 150 screened volunteers who have successfully completed a CORI check and others as occasional, short-term volunteers who work under the guidance of a screened volunteer or staff member. Other volunteers include educators and agency youth workers who have had a CORI check (a criminal background check), and/or screened by their employer and work as collaborators with the 4-H Program. This is a continuing responsibility and requires diligence, patience, time and accountability to ensure the integrity of the 4-H Program. Follow-up includes orientation and training, which is a time consuming but mandatory process in mentoring volunteers.

The re-enrollment process for the 2012/2013 4-H year is underway with 20 enrolled clubs consisting of 187 members and numerous volunteers. To meet the requirements of National, State, and Barnstable County 4-H, participating youth are required to submit completed registration packets that include updated enrollment, health, codes of conduct, and permission/liability forms. Copies of all forms are forwarded to all 4-H club leaders so that they may have complete and up-to-date information on the children they service. The Data Base rolled out by National 4-H Council still offers challenges but for the most part the new web designed data base is a plus to the 4-H program.

To gain an understanding of accountability, the statewide 4-H Volunteer and Member Management System continues to be an ongoing process with Clubs and Advisory Councils. Barnstable County 4-H puts these management goals into practice by working closely with groups seeking teachable moments for life skills needed by both adults and youth. By registering through the 4-H Program, clubs are learning about compliance issues and policies for use of the 4-H name and emblem. The process encourages communication regarding club activities and quality control and leadership opportunities.

Recruitment efforts were held during the Barnstable County Fair, Truro Ag Fair and Harvest Festival and numerous other community events showcasing the 4-H Program to the public through various media. Many people stop by to pick up information or talk about the program either as alumni, as prospective volunteers, or to inquire about getting their children involved with 4-H. Mailings and news releases provided additional information.

The Barnstable County 4-H Advisory Council and the Barnstable County 4-H Horse Advisory Committee’s meet regularly continuing to invite club leaders, volunteers, parents and teens to join them during their meetings. Collaboration is encouraged to plan future programs enriching and expanding the 4-H program. The response has been enthusiastic resulting in quality volunteer/parent involvement.

Youth Development Programs
Over 120 4-Hers participated at the Barnstable County Fair. Fair participants experience hands-on learning opportunities that include: food safety and preparation, consumerism, action exhibits, hands-on demonstrations, public speaking, leadership, etc. Many 4-Hers showcase their 4-H projects and club work by exhibiting in the Youth Building or participating in the 4-H Dog Show, 4-H Animal shows, or the Wonderful World of Horses. 4-H volunteers and families also participate at Fair and working side-by-side to support and mentor their club members.

Barnstable County 4-H launched a new 4-H Ambassador Program last year to provide teens with the skills and resources needed to become active and effective spokespeople while promoting a positive image of the 4-H program. Training sessions are held for teens to learn techniques including writing, giving speeches, setting up 4-H exhibits and promotional displays, communicating with social media’s along with other leadership and communication skills.

Some of the Ambassadors also decided to organize and promote a 4-H Holiday Ball in December for our 4-H teens held at the Federated Church in Hyannis. They learned ballroom dancing and learned about all the behind the scene effort it takes
“To Make the Best Better”

Scenes from 4-H and Operation Military
Kids from around the county and the state.

“I pledge my head to clearer thinking, My heart to greater loyalty, My hands to larger service, and my health to better living, for my club, my community, my country, and my world.”
to sponsor an event.

The annual Harvest Festival held in October, is a popular affordable family event. The 4-H program organizes, coordinates and supports this family activity encouraging 4-H Clubs to participate by providing fun hands-on activities for children. This is a wonderful showcase for the Barnstable County 4-H program and an opportunity for further recruitment efforts.

An effort to continue to expand 4-H programs on the Outer Cape has been very successful with four 4-H clubs and many different programs offered.

Sustainable CAPE's Children's Community/ 4-H Garden Club grows year-round organic produce where children plant, cultivate, eat vegetables – resulting in improved health and a formative early connection to agriculture. Our popular Garden Goodie Bags are in high demand – children take them home to share what they have grown with their families. The young gardeners also deliver excess produce to their local school for the School Lunch Program.

The children themselves increase local food production & demand, and teach their families about what they’ve grown for snacks, school lunches and Goodie Bag dinner contributions. In addition, they learn sustainable, healthy practices for their bodies as well as their environment: At summer’s end, the Children's Community/ 4-H Garden enter produce into the Truro Ag Fair Harvest Contests for ribbons and awards. We then seed and hoop the beds for winter greens.

Winter brings slower garden growth. However an abundance of beautiful paintings, drawings, sculptures and mixed-media work comes into full bloom. Then in February the Truro Public Library and Barnstable County 4-H hosts an exhibition of the children's artwork based on the Children’s Garden. Selections from the exhibit then travel to the Barnstable County Fair as a 4-H Club Exhibit and to the Truro Agricultural Fair.

This year the kids created an entire sustainable working farm and the kids learned felting. Each animal vegetable etc. was hand made through this timeless craft.

This year 4-H also sponsored the Zucchini 500 Race at the Truro Ag Fair for children to make and design their own racecars made of a zucchini! This was an incredibly fun way to celebrate the harvest!

Another effort to increase programs has spurned a 4-H Science / Robotics series of workshops at the Truro Library. So far children have made Eco Bots, mini robots out of toothbrush heads, created Ski Jumps using Balls & Tracks curricula and the Power of Wind making mini wind turbines.

4-H Hands to Larger Service

The Harvest Festival was the kick off for our annual State/County Community Service 4-H Food Drive. We distributed 4-H grocery bags for the Barnstable County 4-H Food Drive and made displays to inform the public about this opportunity. Drop off stations were designated around the county to collect food donations. On December 8th volunteers came together at the Barnstable County Fairgrounds ready to distribute food to local food pantries that were on hand for pickup. It was an incredible experience that generated 3,850 pounds of food for our community as well as an awareness of helping others.

4-H members worked together on several holiday community service projects. Through generous donations they were able to assemble 24 popcorn buckets (gift baskets) that included movie passes, DVDs, gift cards and other various items teens enjoy, then were donated to Independence House for teens affected by domestic violence.

Once again our 4-H clubs putting those “Hands to Larger Service” made hundreds of holiday pins to spread holiday cheer to residents of fourteen nursing homes and/or assisted living homes. This is a collaborative effort with a group of senior citizens who provide entertainment for residents of area retirement and assisted living centers.
Program Collaborations and Delivery Modes

Barnstable County 4-H continues to teach after school programs in numerous locations around the Cape. Several courses were taught and are in the process of being planned for the upcoming year.

Barnstable County 4-H continues to offer two Military 4-H clubs at Air Station Cape Cod on OTIS. The 4-H Adventure club for 5-8 year olds learned about recycling, they grew Sunflowers for the 4-H Sunflower contest and planted a garden, Hatched chick eggs for the embryology program, learned about Bugs, Bugs and more Bugs, made nutritious trail mix, created centerpieces for the Junior Chef Desert party, they painted the windows at the Base Exchange and the Crosswinds highlighting a 4-H activity or season project. They enjoyed Story Walks, scavenger hunts outside based on a story, Pumpkin decorating, A Bike Rodeo featuring safety checks and rules of the road, and lots of other hands on activities!

The 4-H Junior Chef Club for 9-12 year olds helped the Adventure Club make nutritious snacks. They enjoyed making pumpkin and cranberry recipes, learning how to make breakfast, learning to measure, how to set the table, manners, how to create a menu, made nutritious smoothies, trail mix and holiday treats they could give as gifts to their family. They helped make snacks for the Halloween party and the Holiday celebration; they made desserts they served to their invited guests and learned about kitchen safety, clean up and how to properly wash your hands!

The Barnstable County 4-H program helped filled many hours this summer for kids and families through the Otis 4-H Adventure Club hosting programs such as “Christmas in July” when Santa came in flip flops and sunglasses to an “Olympic Swim for the 4-H Gold”, we even had gold medals, National Flip Flop Day and a 4-H Baseball Day exploring America’s favorite pastime, the great 4-H Treasure Hunt with a Pirate theme, and the ever popular Hawaiian Luau, we covered lots of territory! Programs were held outside all summer at the Pool at the Crosswinds Recreation Center and attracted over 200 participants!

We also continued our 4-H Crafters Club “Get Ready for Fair” preparing exhibits that 12 children worked on and entered in the Barnstable County Fair. Thanks to the generosity from the 4-H Military Grant Program we had the resources we needed. The end of the summer featured a Celebrate Back to School event, which provided back to school supplies for children. They could fill their backpacks with pencils, crayons, notebooks, erasers, rulers and more.

4-H Community Service on Base

The 4-Hers actively collected for our annual 4-H Food Drive all donations were kept on base and donated to the Chaplains office for distribution. Also 4-Hers made placemats for the veterans at the VA Hospital in Brockton and a local nursing home; they made book bags for Independence House they made fleece pillows for a local Hospice House and we received a 4-H Community Service Grant from the Massachusetts 4-H Foundation once again for our Memorial Day project where 4-Her’s place 2 American flags on each of the 50 monuments on the Memorial Trail at the National Cemetery on base in Bourne.

Trainings, Workshops and Opportunities

In addition we continue to provide educational opportunities for 4-H Volunteers and were able to receive a grant from the Massachusetts 4-H Foundation to train 11 volunteers and one teen 4-Her in the ServSafe Program. Now we are compliant with State 4-H policies and MA Health code to ensure the well-being of the public we serve. In addition we trained 22 4-Hers on Food Handling is Risky Business thanks to the county’s Nutrition Educator.

Due to popular demand, a “4-H Camping 101” Program in October for 4-Hers and their families was held to participate in an overnight camping experience at 4-H Camp Farley. Workshops were held all day on Saturday including Backpacking, Survival Skills, Exploring the Nature Trail,
Geocache using GPS to locate hidden treasures, Cooking food over the campfire. Pumpkin Carving and, of course, lighting their creations after dark with the campfire telling spooky stories.

Camp Farley also was the location for a 4-H Kick-Off Night in September for all 4-H volunteers to start the new 4-H year off with confidence. All paperwork, forms, policies and calendar of events were distributed and decisions were made for future endeavors.

Operation Military Kids

Operation Military Kids Cape Cod (OMK) applied for and received funding to conduct a weeklong equine day camp at Smithfield Farms in Falmouth, MA. Thanks to Massachusetts Operation Military Kids, the Cape & Islands Youth Community Development Council, the students at Harwich Elementary School and the Youklis Foundation, we were able to host 14 children from military families, most in the deployment cycle, in an experience that we hope will last a lifetime. For a peek at what the week looked like, visit capecodextension.org/4-H.

In preparation for the 2012 Stars, Stripes and Saddles Camp, 4-H spent some time training 8 staff members on the needs and characteristics of children undergoing a deployment. Two clinicians, including one from the Veteran’s Administration attended the training, provided examples, and answered questions. One of the volunteers said she was “absolutely amazed” at what she didn’t know, going into the training.

Due to the success of the summer program, OMK continued a weekly horse club at Smithfield Farms, with 7 local participants attending through December of 2012, and resuming again in March of 2013. Several members also volunteered to help with the upcoming OMK camps scheduled for summer of 2013. The program included education and caring for horses, riding lessons and a holiday community service project. In addition to this, this group completed a holiday community service project-writing letter to service members overseas.

OMK/4-H once again participated in the annual ice cream social at Massachusetts Military Reservation in August, which provides resources to families about after school programs in a very festive family event. In addition to this, we were back again on Family Day at the 102nd Wing, which is a day of recognition that is filled with food, fun and other festivities. We made over 100 military buttons with children in attendance, as well as some of their parents! More importantly, we connected with these families, and helped recognize the efforts they make every day for all of us! (photo)

Barnstable 4-H/OMK was indeed honored to meet the families of the 181st Engineering Unit in early September during their send-off ceremony at Mass. Military Reservation. We helped hand out infant and toddler care packages, hero backpacks, fleece blankets, teen survival kits and more to almost 200 young family members in attendance.

Our connection to this unit remained intact until their return home in July of 2013! Several huge efforts went into taking care of our soldiers … the New Year started off with a bang when we learned that AmeriCorps had accepted our service project application for their annual MLK Day of Service event, on January 21st at the Barnstable Intermediate School in Hyannis. Thanks to the help of AmeriCorps and over 200 volunteers, we were able to fill 75 hero backpacks, makeover 50 fleece blankets, and assemble over 150 care packages for our Cape Cod service men and women serving in Afghanistan. In addition to this, volunteers made cards and a variety of origami cards and other items to offer a little homespun cheer.

As the holidays approached, OMK/4-H partnered local organizations to help support the men and women serving our country and their families. This began with our 5th annual holiday stocking project, which was very specifically focused on 20 children who were experiencing a deployment over the holidays. After that, we joined Cape Cod Cares for the Troops on Thanksgiving weekend in Bourne, where they were packing up care packages that were being mailed overseas for the holidays. A week
later, we were at the Gus Canty Memorial Center in Falmouth, where we helped pack up more care packages, including over 250 cards that were made by local students in a community service project. Barnstable Intermediate School, Barnstable United, Southeast Alternative School and the Stars and Saddles Horse Club all put their best foot forward in the most successful letter writing/card campaign we have ever conducted! Students in 7th grade English classes at Barnstable Intermediate School and in Dale Nickerson’s Afterschool Program wrote formal letters on white lined paper, that were later incorporated into beautiful and original cards created from recycled cards by afterschool students at Barnstable United. One student at the Southeast Alternative School embellished each card with a colorful and uplifting drawing. (Photo) Some of the wives, mothers and other family members cried openly upon seeing the cards before they were shipped out, and many paused to take photos with their cell phones!

Another event, “How to Survive the Holidays” was funded though the boys and Girls Club, and offered in early December. Collaboration between Boys and Girls Club of Cape Cod, OMK/4-H and the VNA Hospice Bereavement Program, this workshop focused on techniques to help individuals and families get through the holidays with a beloved family member absent. It was, ironically, at this event where we were introduced to Gold Star mother, Cyndi Jones, whose non-profit, Heroes in Transition, invited OMK to do a presentation on our idea to offer a family camp in the summer of 2013. This particular event reminded us, that although some of these outreach efforts are not well attended, it is the ripple effect radiating out from the initial contact that makes every appearance that we make valuable to more that those present. It is through these collective voices and experiences that we are able to continue to offer programs that the families specifically need.

In December, Pat Taylor (otherwise know to Cape Cod locals as “the gingerbread lady” spent a magical afternoon making gingerbread barns with the military horse club, much to our delight! The reason behind this is that the holidays can be difficult for military families, and our intention was to create some new memories, which is one of the coping strategies suggested in the lecture described in the lecture on how to survive the holidays. An additional step planned for future gingerbread workshops is that we will also share some of our goodies with others who might be having a hard time, especially in military families.

After learning about our MLK Day effort, Cape Cod Volunteers contacted us to hold a second event at the Mashpee Library, on April 13th. Once again, we filled zip lock bags with items that the troops had requested such as Pop Tarts, gum, granola bars, hand sanitizer, lip balm, sunscreen, etc., all thanks to generous donations from the public, as well as BMC Healthnet, Cape Cod Medical Reserve Corps., Mashpee Library, CC Volunteers and almost 100 volunteers (about 15 youth) who showed up to lend a hand! Eight boxes were packed up, (photo) filled with care packages and a disposable camera to record the happy faces. They received the mailing pretty quickly, and were really thrilled to be remembered.

During the spring of 2013, OMK Cape Cod applied for, and received funding for three separate camps projected to take place over the summer of 2013. The first camp will concentrate on youth with an immediate family member in the deployment cycle, and was funded by Operation Military Kids/Massachusetts. The second camp will reach children in local Air Guard families, and is a competitive grant administered by the 4-H/Air Force Military Partnership through Kansas State University. The third grant is an innovative pilot program for military families and was fully funded by Heroes in Transition, managed by gold Star parents Ken and Cyndi Jones, whose son, Eric, was killed in Afghanistan in 2009. The mission of this non-profit is to support veterans and their families. A full report of all three camps will appear in the 2013-2014 annual report.
4-H also worked with the Barnstable Public Schools and Cape Cod Justice for Youth Collaborative to apply for $54,000.00 in funds for the Barnstable Intermediate School’s RAP Afterschool Program. This was a successful program that had been funded by the 21st Century Grant for a number of years, and was in danger of being cut due to unavailability of funds. Through the relentless efforts of a number of people, including Retired Judge Joseph Reardon, the program was funded through a number of local grants for the 2012-2013 school year. The afterschool program reached 60 kids from Monday and Thursday – Oct. 2012 thru May 2013. 4-H Afterschool provided resources to our Science Teachers who conducted numerous hands on experiments after school, and partnered on a community serve project. Students created 60 gorgeous, colorful baskets (see photo), which were given to the VNA Hospice Bereavement Program for delivery during home visits following the death of a loved one.

For the 5th consecutive year, BIS also participated in the 2012 National 4-H Science Experiment focused on an Ecobot Challenge. The challenge was also met by 12 students in the Robotics Club at Barnstable High School and 30 students at Ezra Baker School in Dennis. This project kicked off the afterschool Science Program at Ezra Baker, which is in its third year of scientific exploration! The club met twice a month until June of 2013, and hopes to resume again in the fall of 2013.

Speaking of which, Barnstable Intermediate School and 4-H teamed up for the 3rd consecutive year to take a group of students to the University of Massachusetts’ Summer of Science (SOS) Camp in Amherst, MA. Eight students and two chaperones (including a BIS Science teacher and a 4-H Afterschool Science leader) attended the two day camp in late June of 2013, and participated in tracks like Veterinary Science, Solving Medical Mysteries (Conducted by Children’s Hospital), and Movie Making. Participants also participated in some experiential Food Science activities, a GIS mapping activity, and several other workshops that were hosted staff at the University. Students received scholarships from the BIS Principal’s Fund and the MA 4-H Foundation, in order to attend, and the Intermediate School and 4-H/Cooperative Extension shared the cost of the bus. In the words of Principal Karen Stonely: “Thank you all for this wonderful opportunity for our kids!”

4-H was pleased to be an invitational grant partner in the Exemplary Grants application to the Department of Elementary and Secondary Education’s 21st Century Community Learning Center. The awards, which are highly competitive, were not made until late October of 2012, so the 4-H afterschool component began in January of 2013. Several projects were planned and conducted in the winter and spring of 2013, including Storybook Aprons. Students used a group process beginning with each group agreeing on a book that they wanted to work with. The denim aprons were cut and basted by another group of students, and sewn by machine by 4-H staff. Once students had reproduced the main characters and other important scenes in the book, they were transferred on to colorful felt and attached to the aprons with adhesive Velcro. Each of the 7 groups then were assigned a reader and an apron wearer, whose job it was to assemble the velcro pieces on the apron as the reader told to story. You can imagine the excitement and pride the students felt as they “told” their story! (photos)

Another well-received project was an autograph pillow. Students helped measure, cut, baste, sew stuff and hand stitch the final opening on their pillows. During the last week of school, participants traded pillows and used colorful fabric markers to commemorate their friendships. A total of 45 students participated in this Exemplary program after school and the program will continue in the fall of 2013.

Sew Many Choices, a 4 day Sewing “camp”, was offered for the first time in late July of 2012. Altogether, eight students participated in this program, which included making a pincushion, a makeup/toiletry bag, a beach cover-up, and hair embellishments. Two mothers assisted our 4-H volunteer in this successful summer program, along
with two new volunteers, one of whom was a retired Home Economics teacher on Cape Cod! Cape Youth Force, a program of the Cape Cod Foundation and Barnstable County 4-H, kicked off our 10 collaborative years by partnering with Sturgis West, on west Main Street in Hyannis. We currently have eight students who are participating in this philanthropic program, where students develop their own priority areas.

A half-day sewing project was completed on December 4th, at which time 8 Barnstable Intermediate School students sewed fleece scarves, neck warmers and hats (photo) on a ½ day of school. The creativity of each student was evident in the uniqueness of each project and all eight asked to be informed of the next sewing project this winter. Photo

We decided to offer another workshop on during school vacation on February 19th at the lovely Mashpee Senior Center. Six young ladies joined 4-H for a really fun day of sewing and were delighted to take home a finished fuzzy fleece pillowcase! The octogenarian and former 4-H Clothing Revue winner, Lorraine Fraser, whose creativity, energy and ideas are endless, offered this sewing workshop!

The Ezra Baker School After school Program in Dennis is also enjoying hands-on science experiments in a after-school club designed for 3rd and 4th graders. Anywhere from 15 – 30 students rotate from station to station, usually working in teams, and experimenting with wind power, solar energy, electrical circuits, energy transfer and more. This After-school science program kicks off every October beginning with the 4-H National Youth Science Day experiment.

The Lights On After School/Alliance for Youth’s Annual Day of recognizing those who keep their lights on after school for children and families was again graciously hosted by the Boys and Girls Club of Cape Cod, with 4-H Youth Development serving as a co-host. Many local organizations set up tables in October of 2012 to highlight activities/events related to youth, and over 100 parents and community members also attended. Each year a member of the community is honored for his/her dedication to youth and families, and this year the honor went to Valerie Perreira Brown, who is a tireless advocate for children and families on Cape Cod and is employed by the WIC and Summer Food Programs.

Barnstable 4-H continued its 13-year strong peer leader partnership with Project Forward at Cape Cod Community College. Maura Weir (Youth Suicide Prevention Project) and a 4-H Educator did a presentation on Bullying to about 60 students (see photo 13) in the spring. The Peer Leadership program has been evolving since its inception about 12 years ago, and in recent years, the subject of bullying and how to deal with it to be relevant and well received.

In addition to this, 4-H conducted annual Infant and Child CPR training with 5 Child Care students who received certificates from the American Heart Association on May 2nd. The Child Care Program uses many pieces from our Babysitting Curriculum, and students, upon receiving their certificate, are able to seek employment at a preschool or day care center (see photo 14). Interestingly, three of the childcare, animal care, and program management programs at Project Forward are all occupied by long-time 4-H volunteers (Joanne McCarthy, Judith Dow and Nancy McDermott). It is no coincidence that they connected their exemplary school to work model with our tried and true project based learning approach.

Director of the Boys & Girls Club asked Barnstable County 4-H for help with her members this past winter. She wanted to put together a program to help them learn how to perform the basics, such as sewing a button or hem, cooking a meal, and performing a variety of other life skills that were once taught in Home Economics classes. Our not-so-retired former Home Economics teacher, Nancy McDermott, put together an amazing lesson plan and participants had a lot of fun learning how to perform a number of activities
such as these. The program will be offered again in the near future, and perhaps some parents will be invited to learn along with their children!

This was the tenth year partnering with the Cape Cod Foundation on this youth grant-making program. This year, we went to the Sturgis West campus to engage students from all over the Cape who were interested in learning more about the grant making process. Over a period of months, students decided to focus on addressing body image issues including nutrition education, healthy lifestyle and awareness; hunger and increasing access to food (including pets) for needy families and children; domestic animal abuse, neglect and abandonment; and education and prevention of alcohol/drugs, and their effect middle and high school aged youth! The funds were administered in the spring, and there is more detailed information on the Cape Cod Foundation website www.capecodfoundation.org.

The 9th annual Youth Summit convened at Cape Cod Community College on March 15, 2013. 4-H has been very involved in the planning of this event, and have always been involved in helping identify the Community Champion. This annual award is given to “a truly dedicated advocate for children, youth and families on Cape Cod” and Kerry Bickford was honored to be named the 2013 recipient! (photo) Ms. Bickford received the award from last year’s recipient, Stefanie Coxe, representing Congressman Keating’s office. Stefanie talked about Caring Adults in the community and about our work with America’s Promise (Stefanie went to Washington DC with us in 2008 when Barnstable County won the 3rd designation as 100 Best Communities for Young People) and the current work with the Cape Cod Foundation, who are overseeing a Cape wide Youth Action Plan that many are helping to shape. It is this collective and widespread partnership that is helping to change things for youth and families who live on Cape Cod.

Local partnerships:

Community Network of Cape Cod
Cape Cod Neighborhood Support Coalition/Advisory Board
Department of Children and Families/Area Board
Cape wide Youth Action Plan/Steering Committee (Cape Cod Foundation)
Cape Cod Justice for Youth Collaborative/Board
Cape & Islands Workforce Investment Board’s Youth Council/Advisory Board
Commission on the Status of Grandparents Raising Grandchildren, vice chair (appointed by the Governor)

FY’13 Grants awarded to Cape Cod Cooperative Extension

Solid Waste Reduction Coordinator - A $58,500 grant was awarded from the MA Department of Environmental Protection for a solid waste reduction coordinator position. The position assists all Barnstable County municipalities with recycling, Pay-as-you Throw, waste reduction, and regional cooperation to increase diversion of municipal solid waste from disposal. This grant will be renewed to provide this position through at least June 30, 2013.

Lyme Disease Grant: $73,484.00 was received from the US EPA to continue our Deer Tick Intervention and Surveillance Projects. The grant will allow us to continue research using the Four Poster Deer Stations, in Barnstable County, Martha’s Vineyard and Nantucket and deer tick surveillance.

Nutrition Education Project: $6,864.00 was received from UMass Extension Family Nutrition Programs to conduct nutrition education programs. The Family Nutrition Program (FNP) provides nutrition education for the benefit of those eligible for the Food Stamp Program, including food pantries, parent/parenting teens, and Head Start
preschoolers, parents, and staff.

Southeastern Massachusetts Aquaculture Center: A $50,000 grant was received from the MA Department of Agricultural Resources to conduct several aquaculture research projects and to conduct water quality monitoring in aquaculture areas.

University of Massachusetts Extension: Through a cooperative agreement with the University of Massachusetts in Amherst, Barnstable County received $57,600.00 for salaries and $1,300 for postage.

Woods Hole Oceanographic Sea Grant Program: Barnstable County received $158,795 as a match for the Aquaculture Specialist, Coastal Processes Specialist, and Marine Program Specialist positions.

Buy Fresh Buy Local Cape Cod: A $8,500 grant was received from the MA Department of Agricultural Resources to promote locally cultured shellfish and to promote good nutrition through locally grown fruits and vegetables sold at farmers’ markets.

Household Hazardous Waste Collections: $32,000.00 was received from American ReFuel’s SEMASS for the printing and mailing of the 2013 Household Hazardous Products Collection brochures to resident and business addresses in Barnstable County.

Water Quality Program: $2,000.00 was received from UMass/Lowell’s Toxics Use Reduction Institute to educate municipal employees and the general public on the ‘Hidden Hazards in the Art Studios’ and to protect Barnstable County’s sole source aquifer from improper disposal of solvents, heavy metals, and other hazardous materials commonly found in art studios.

Marine Program collaborated with University of Maine and Roger Williams University on a $93,616 grant proposal: Optimization of hatchery and culture technology for razor clams through NRAC (NE Regional Aquaculture Center) investigating hatchery and culture technology for razor clams. This grant was awarded in 2011.

Water Quality Program: $500.00 was received from the Provincetown Cultural Council to educate municipal employees and the general
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George Russell
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FIRE AND RESCUE CLASSES HELD

Firefighter Non Fire Skills: one - 1 day class
Firefighter Survival two - 1 day class
Fire Instructor I: one -5 day class
Fire Officer I&II: one - 5 day class
Flashover: four - 1 day class
ICS-300: one- 1 day class
Live Burn: fourteen- 1 day class
Sea Cadets: two - 1 day class
Swat Team Tactic: one - 1 day
Thermal Imaging: two - 1 day

INDUSTRIAL PROGRAMS

Advanced Marine Firefighting
Basic Marine Firefighting
Entergy Nuclear Operations
Industrial Confined Space & HazMat
Massachusetts Maritime Academy

DEPARTMENTS USING THE BURN OR SEARCH BUILDING

Cape Departments
Barnstable Fire District
Falmouth Fire Department
Chatham Fire Department
Harwich Fire Department  
Sandwich Fire Department  
West Barnstable Fire District  

**Off Cape Departments**  
Brookline Fire Department  
Foxboro Fire Department  
Halifax Fire Department  
Hanson Fire Department  
Marion Fire Department  
Mass Department Public Health  
Mattapoisett Fire Department  
New Bedford Fire Department  
Norfolk Fire Department  
North Attleboro Fire Department  
Plainville Fire Department  
Plymouth Fire Department  
Rehoboth Fire Department  
Rochester Fire Department  
Somerset Fire Department  
West Bridgewater Fire Department  
Wrentham Fire Department  

**SELF CONTINDED BREATHING APPARATUS (SCBA) MASK FIT TESTING 2013**

This was a very successful year for the Barnstable County Fit Test Program. The purchase of the new test equipment by the County Fire Chiefs was a great benefit to all county departments and its firefighters. 407 Firefighters were tested using the new faster easier and more precise equipment. 116.5 man hours went into running the machine by the Barnstable County Fire Academy’s staff members a saving of over 100 man hours from the previous year.

The test process only takes about 5 min compared to 15 min on the older machine. Also the new test equipment does not require the use of turnout gear, SCBA pack or Helmet which makes it less of a hassle for the firefighters testing, I really believe the new equipment is a win for all saving time, money and hassle. When the test is complete the fire department receives a copy of the report for the individuals personnel file and we keep a record at the academy.

Massachusetts Firefighting Academy now demands a current FIT test within six months of new hires attending the recruit training. If there is a need to get a FIT test done quickly please contact me on my personal cell phone at 774-212-2408 and I will make arrangements to accommodate your request.

Thank You,  
Scott Smith  
MASK FIT TEST Coordinator  

**AFTER ACTION REPORT FOR FIRE AND PROFESSIONAL DEVELOPMENT PROGRAMS 2013**  

**Professional Development Programs**  

**Incident Command System (ICS) Program**  
The Academy continued to deliver ICS 300 & 400 programs for county personnel as well as off Cape management personnel in a joint effort with Massachusetts Emergency Management Agency. These programs were very well attended and still appear to be in high demand. Our plan for the near future is to continue to deliver these programs on a regular basis.

**Fire Instructor**  
Our fire instructor program continues to be successful in not only benefiting on Cape fire fighters but also building an instructor base for this Academy.

**Fire Officer I & II**  
Since combining the two officer programs into one it has been well received and attended. It allows Fire Fighters and Officers to complete and prepare to test for both certifications in one class.

**Fire Programs**  
All fire programs were well attended this fiscal year and were delivered without incident. Our plan is update fire programs through the next two years.
to keep up with changing technologies and tactics. Our plan is to once again meet with the County Chiefs to review any special requests for training they may have for the current and next fiscal year.

Dennis Macedo
Program Coordinator

RESCUE PROGRAMS

The Delivery of Technical Rescue Programs continues with an emphasis on Water Rescue. Overview of Surface Water Rescue, Water Rescue Awareness and Operational Level Rescue classes were delivered on the lower Cape. Students from Departments including Eastham, Wellfleet and Provincetown participated. In addition, multiple deliveries of training in the dangers of Confined Space Operations were provided to Falmouth Public Works Department.

Thomas Kenney
Program Coordinator

MASSACHUSETTS MARITIME ACADEMY AND FIREFighter I&II PROGRAM

This year we received a contract with Massachusetts Maritime Academy to provide training for their Regiment of Cadets in fire suppression for their STCW (Standards for Training, Certification and Watch keeping). We conducted training at both the campuses of Massachusetts Maritime Academy and at Barnstable County Fire & Rescue Training Academy. We successfully instructed training for 923 cadets in the aspects of SCBA (Self Contained Breathing Apparatus), Hose Line Advancement, Communication, Confined Space, among other disciplines of firefighting. Because of the success of our training, we have had the contract renewed for 2013-2014 and we expect a significant increase in training for both the cadets as well as for adult education.

In the spring of 2012 we conducted a Firefighter I/II program which provide the basic firefighting education for entry level firefighters who are employed with Cape Cod fire departments here at the Barnstable County Fire & Rescue Training Academy. We provided training for 20 students from the towns of: Bourne, Yarmouth, Brewster, Chatham and Wellfleet. Training focuses on every aspect of firefighting from SCBA (Self Contained Breathing Apparatus), Hose Line Advancement, Search and Rescue, Proper use of Ground Ladders, Communication, Hazardous Materials Management, Engine Company Operations, Ladder Company Operations and culminates with the students participating in 3 weeks of intensive live fire training in the burn building. On graduation each student is ready to take their Pro-Board Certification for Firefighter I/II with the Commonwealth of Massachusetts.

Eric Diamond
Program Coordinator

DIRECTOR'S COMMENTS

The Academy continues to be and always will be a vital regional training facility for Fire, Technical Rescue, Emergency Medical Services, Incident Management Team, Regional Emergency Planning Committee, and Police specialty training. Federally mandated ICS (Incident Command System) and NIMS (National Incident Management System) training will continue for all the Towns of Barnstable, Nantucket, and Dukes Counties as the need changes yearly.

This report submitted by the program coordinators again shows the programs developed and delivered in FY2013. Because of the new training program with the Massachusetts Maritime Academy our revenues have almost doubled. This program put high staffing demands on the coordinators and the instructors. I am very proud of the way they handled this program and am happy to report that we continue to be the Training Facility for the Maritime Academy.
Please look at this report closely and see for yourself the amount and type of training we provide with a part time staff. I feel you will find it amazing the volume produced by a very dedicated and to be honest an underpaid staff.

Yours in Service;
Lee W. Pareseau
Director of Fire Training

In 1969 open pit fires were used which are no longer in use.

The Fire Academy has come a long way since 1959.

The Academy training now uses a more environmental friendly method with 0% impact on the environment.

The Flashover Prop was recently used to add Military Firefighters in the behavior of flashover.

The Fire Academy has been supporting our military with their training needs before they deploy overseas in Firefighting.
Human Services
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OVERVIEW

The mission of the Department of Human Service is to plan, develop, and implement programs which enhance the overall delivery of human services in Barnstable County and promote the health and social well-being of County residents through regional efforts that improve coordination of services.

The Department has a record of organizing regional approaches that promote health and wellness for underserved populations by mobilizing a community response to needs identified through community-based research and evaluation. The Department’s primary role is to provide opportunities for exchange of information and encourage growth/improvements in the focus areas identified in the Department’s Human Service Plan. A full copy of the plan can be found on the Human Services website.

HEALTHY CONNECTED CAPE COD

Healthy Connected Cape Cod is the conceptual framework that ties together the work of the Department. The concept began with planning the Department undertook in 2009 and 2010 with its Health and Human Services Advisory Council (HHSAC). The principal aim is to facilitate connectedness by engaging residents, health and human service organizations, and coalitions and networks throughout Cape Cod in collaborations to plan and implement activities that promote health and well-being through community engagement and social connections.

The underpinnings of the Healthy Connected Cape Cod conceptual framework are to: strengthen individual, family and community wellness with a community based health promotion and disease prevention focus guided by the Health Impact Pyramid; identify focus areas based on local qualitative and quantitative data regarding assets and needs; implement evidence based activities and practices that resonate with community members; implement activities that are culturally appropriate and accessible to people with disabilities; and incorporate hope and enjoyment.

Drawing from data collected over a five year period in Monitoring the Human Condition, as well as
from other reliable data regarding the health and wellbeing of Cape Cod residents, several clear priorities have emerged. The following diagram highlights four main focus areas for Healthy Connected Cape Cod.

**BARNSTABLE COUNTY HEALTH AND HUMAN SERVICES ADVISORY COUNCIL**

In 2004, pursuant to an Ordinance proposed by the County Commissioners and adopted by the Assembly of Delegates, the Department convened an advisory group made up of representatives of numerous County health and human services consortia and networks. The Barnstable County Health and Human Services Advisory Council (HHSAC), in conjunction with the Barnstable County Department of Human Services, is responsible for providing advice concerning the human service needs of Barnstable County to County elected officials and administrators.

In order to achieve broad representation on the Advisory Council, representatives from County-wide associations and collaborative networks, working groups, and task forces are appointed by the County Commissioners, in the areas of healthcare services and human services, including, but not limited to:

- Barnstable County Human Rights Commission (HRC)
- Cape & Islands District Attorney’s Office
- Cape & Islands Regional Domestic Violence Council (CIRDVC)
- Cape & Islands Regional Network to Address Homelessness
- Cape & Islands Suicide Prevention Coalition (CISPC)
- Cape & Martha’s Vineyard Community Health Center Network
- Cape Cod Community College, Human Services Program
- Cape Cod Council of Churches
- Cape Cod Grant Makers Collaborative
- Cape Cod Healthcare Community Benefits
- Cape Cod Hunger Network
- Cape Cod Neighborhood Support Coalition (CCNSC)
- CAREER Collaborative
- Children’s Cove
- Community Action Committee of Cape & Islands (CACCI)
- Community Health Network Area 27 (CHNA)
- Community Network of Cape Cod (formerly BCCCYF)
- Councils on Aging Serving Together (COAST)
- Elder Services of Cape Cod & Islands
- Disability Network
- HIV/AIDS/Hepatitis Consortium of Cape and Islands
- Oral Health Excellence Collaborative (OHEC)
- South Coastal Counties Legal Services
- Substance Abuse
- Town Health Agents Coalition
- Upper Cape Human Services
- Wampanoag Tribal Health Center

A full listing of appointed representatives to the Health and Human Services Advisory Council can be found on the [Human Services website](#).
In FY13 the HHSAC held meetings in August, October, April and June. Each meeting focused on in-depth presentations on particular topic area tied to the Department’s Strategic Plan including: Behavioral Health, Aging and Disability Long Term Services and Supports, and statewide health promotion initiatives.

In an effort to improve communication on health and human services needs to elected officials and the public, the Government Liaison Subcommittee developed a survey tool to gather information from HHSAC representatives to assess emerging trends, needs and policies. The information collected was compiled into an Emerging Trends Report which was presented by the Department to the County Commissioners, Assembly of Delegates and County Administrators, Human Rights Commission, and the Kelly Foundation.

AGING AND DISABILITY

AGING AND DISABILITY FORUMS
In FY13 the Department organized and hosted two Aging and Disability Forums attended by over 400 people. The first forum provided an overview of the federal and state long term service and support systems, speakers included the Assistant Secretary of the Executive Office of Elder Affairs and other experts on aging supports and services. The second forum covered local long term service and supports systems. Additional forums are slated to take place in FY14.

NAVIGATOR PILOT PROJECT
The current long term services and supports (LTSS) system involves numerous funding streams, and is administered by multiple agencies using complex, fragmented, and often duplicative intake, assessment and eligibility processes. With funding from Barnstable County Department of Human Services, the Visiting Nurse Association (VNA) of Cape Cod is piloting the Navigator Pilot Project to address this problem for seniors and people with disabilities. Two highly trained “Navigators” provide intensive short term advocacy and assistance to individuals and families and help ‘navigate’ multiple service systems to access and connect to needed services in order to remain as independent and healthy as possible. The program is short term and intensive and does not duplicate existing programs and services. The target population to be served by this pilot is residents of Cape Cod, aged 18 years of age and older, with chronic health issues or disabilities and older adults, regardless of income. We anticipate that the Navigator Pilot will assist 85 individuals over a 12 month period. The Department will evaluate the project and release its findings to the public in FY15.

BEHAVIORAL HEALTH LANDSCAPE
As outlined in the Department’s Human Service Plan, our work in this area includes Suicide Prevention, Substance Abuse and Mental Health.

In FY13 the Senior Project manager undertook a multi-faceted research project which focused on Mental Health and Stigma, the impetus for our work in this area has been to inform the Department and Cape and Islands Suicide Prevention Coalition on a strategy to address stigma. Activities include: convening a Behavioral Health Advisory Group, conducting a literature review, reviewing a resident stigma questionnaire, and holding key informant interviews on the Outer Cape. The work plan for this project is currently under review as it involves a major resource commitment from the County in FY14.
In FY 13 the Department analyzed data on substance abuse treatment for Barnstable County. *Substance Abuse Treatment Statistics 2007 to 2011* contains a summary and discussion of Massachusetts Department of Public Health/Bureau of Substance Abuse Services admission data on substance abuse treatment for Barnstable County residents for fiscal years 2007 to 2011.

Department staff have been active in the planning and promotion of the Behavioral Health Summit scheduled for October 2014.

**SUICIDE PREVENTION**

In the area of Suicide Prevention, the Department continued to work collaboratively with the Massachusetts Departments of Public Health (DPH) and Mental Health (DMH), and the Cape and Islands Suicide Prevention Coalition on a wide range of suicide prevention activities. In FY 13 the Department’s Director continued as co-chair of the Cape and Islands Suicide Prevention Coalition (CISPC) and was on the Massachusetts Coalition Executive Committee. Department staff provide analysis of regional data and statistics and administrative support to the CISPC.

The Department invested significant staff support to regional suicide prevention efforts in the area of data analysis. A comprehensive analysis of data on suicide deaths in Barnstable County (and Dukes and Nantucket counties) for the 5-year period 2005 – 2009 was published by the Department in 2012.

Finally, the Department has been responsible for a county-wide information dissemination strategy which includes maintaining a website for the CISPC, producing Public Service Announcements (PSAs) for local access TV stations, and distributing thousands of pieces of printed suicide prevention materials. The Department completed a large scale mailing of CISPC brochures, available in English, Spanish and Portuguese, to a wide array of health and human organizations, towns, churches, libraries, and schools in Barnstable. In addition, the Department provided the funds to print and distribute Crisis Response Cards to all fire and police departments on Cape Cod.

**SUICIDE POSTVENTION RESPONSE TEAM**

The Director of the Department works closely with Department of Mental Health to coordinate a community postvention response following a suicide completion. While each community response differs, the Department will convene a meeting of key community members if services are requested and provide coordination of follow up activities. Clinical services and psychological first aid are coordinated by DMH.

**HEALTH PROMOTION**

![Image of people engaging in health promotion activities]

**MASS IN MOTION**

In 2011, the Massachusetts Department of Public Health (MDPH) was awarded a Community Transformation grant by the U.S. Department of Health and Human Services, Centers for Disease Control (CDC) to take a prevention-based approach to improving health and wellness in cities and towns across Massachusetts.

Through a competitive process, MDPH awarded the Department a five year Mass in Motion (MiM) Municipal Wellness and Leadership Grant to promote prevention based systems and strategies to encourage healthy eating and active
living to help reduce obesity and associated chronic diseases. The MiM project supports inter-departmental collaboration among four county Departments – Human Services, Cooperative Extension, Health and Environment, and the Cape Cod Commission.

The five primary MiM objectives for Barnstable County are:

1) Implementation of the basic nutritional guidelines in the MDPH regulations of the School Nutrition Bill within the nine public schools in the Town of Barnstable - in collaboration with the Cape Cod Cooperative Extension.

2) Implementation of established guidelines to increase availability of healthier food options at the Cape Cod Hunger Network’s approximately 30 member food pantries and meal programs located throughout Barnstable County - in collaboration with the Cape Cod Cooperative Extension.

3) Adoption of the MDPH established healthy dining program guidelines by a minimum of 18% of full service, non-chain restaurants in the Town of Barnstable such that they offer and promote healthier dining options - in collaboration with the Cape Cod Cooperative Extension.

4) Promotion of the Massachusetts Department of Transportation (DOT) Safe Routes to School program to the Town of Barnstable public schools so that a minimum of 50% of students in kindergarten to 7th grade will be enrolled in a school with an active safe routes to school program - in collaboration with the region’s DOT Safe Routes Outreach Coordinator.

5) Inclusion of one or more specific health elements in the Cape Cod Commission’s comprehensive transportation plan to enhance the bicycling and pedestrian infrastructure for Cape Cod - in collaboration with Barnstable County’s Cape Cod Commission.

The Department established and convened a Barnstable County Mass In Motion Advisory Group. The members represent key partners from other Barnstable County departments, a representative from the Town of Barnstable Land Use Division, YMCA of Cape Cod, and Barnstable School District.

Selected MiM Highlights:

- Provided funds to print and distribute simple and delicious Vegetable Recipe cookbooks to 1,250 K-3 grade students in Barnstable School District.

Building on the Cook Well, Eat Well, Live Well model and cookbook, MiM supported two nutrition educators to train volunteers at 6 food pantries to conduct cooking demonstrations to clients.

- Supported the Bourne Food Pantry to increase fresh produce available to clients through the expansion of patio sized raised beds project.

- Supported the Healthy Foods on Pantry Shelve initiative Partnered with the Cape Cod
Commission on the spring 2013 Cape Walk, particularly assisting with outreach to the ‘disparities population’ and provided funds for Cape Walk brochure and t-shirt printing.

Supported year two of the Cape Cod Medical Reserve Corp garden.

The Superintendent of Barnstable Schools adopts Safe Routes to Schools.

Department’s Director is a member of the State MiM Leadership Team.

For more information, visit the Department’s Mass in Motion website.

HOMELESSNESS

REGIONAL NETWORK TO ADDRESS HOMELESSNESS

The Department, on behalf of Barnstable County, acts as the convening agency for the Cape and Islands Regional Network to Address Homelessness. Regional Networks were created in 2009 by the Massachusetts Department of Housing and Community Development to better coordinate delivery of services to homeless and at-risk households. The Department’s Director is a member of the Executive Committee and Policy Board of the Network and the Department’s Administrative Assistant provides administrative support to the Network.

In FY2013, the Department funded a part time contracted Regional Network Coordinator. In addition, the Department awarded a $10,000.00 contract to hire the grant writer for the Continuum of Care (CoC) Application. On an annual basis, the CoC brings $1.6 million dollars of federal funding into the region for permanent supportive housing and shelter plus care.

In FY13, the Department, on behalf of the Network, continued to administer the Town of Yarmouth Support Program for Persons Moving from Motels. This pilot project provides a coordinated response to assist eligible households being displaced from Yarmouth motels as a result of enforcement of the town’s zoning by-laws. In addition, the pilot provides up to $2,000.00 in financial assistance to eligible households and reimburses organizations providing case management and stabilization to these households to avert homelessness.

A copy of the three year Regional Plan to Address Homelessness serves as a blueprint for a coordinated regional approach to address homelessness. The plan specifically addressed five target populations: Young Adults, Veterans, Families, Chronically Homeless and Older Adults.

INFORMATION SERVICES

DATA, RESEARCH, AND EVALUATION

In 2013, the Department’s Senior Project Manager continued to build a repository of synthesized local data in the key topic areas of:

Socio-demographics
Natality and mortality
Physical and emotional well-being, including mental health and substance abuse
Access to health care and health insurance
Housing security
Food security  
Education and Training  
Employment  
Income/earnings to cost-of-living ratio  
Public Safety  
Transportation  

This repository presents topic-area data by population variables such as gender, age, race/ethnicity, and town of residence. The Department is redesigning this repository as a series of data dashboards to improve electronic accessibility and utilizes the Human Services Advisory Council to provide guidance on content and presentation.

Drawing from this repository, the Department’s researcher responded to a number of specific requests from County Departments, residents, nonprofits, towns and media. Examples include:
- Chatham Disability Commission  
- Mashpee Human Services  
- Falmouth Council on Aging  
- Cape Cod Times Substance Abuse Treatment Data  
- Cape Cod Times - Demographic  
- Cape and Islands Suicide Prevention Coalition  

Examples of local data found on the Department’s website include:
- The MA Department of Public Health’s 2008 – 2010 Behavioral Risk Factor Surveillance System  

prepared by Department staff, provides an overview of the BRFSS and summarizes more than 70 health and behavioral indicators for the years 2008 to 2010, contrasting results for Barnstable County residents with those for Massachusetts as a whole.

**2013 Poverty Data by Town:** Barnstable County and Towns, total households and population with gender and age details.

In addition to technical assistance on data acquisition, the Department’s Senior Project Manager provides technical assistance on research and evaluation methodology and strategies for program quality improvement; e.g., the processes for evaluating and enhancing the Healthy Foods on Pantry Shelves project previously referenced.

In June 2013, the Department published *In Focus: The Demographic and Socioeconomic Landscape of Barnstable County* which provides a broad range of indicators on the demographic and socioeconomic characteristics of Barnstable County that are of particular relevance to the health and human services communities. The report was widely publicized and distributed to elected officials, funders, and nonprofits in the region.

**HUMAN SERVICES WEBSITE**
The Department’s website [http://www.](http://www.)
bchumanservices.net/ is a clearinghouse for health and human service information. The website content is organized around seven major areas: Accessibility Resources; Resource Directories; Department Reports and Publications; Local Statistics and Data; and Mass in Motion. The site also hosts web pages for several of our community partners – CHNA 27, the Human Rights Commission, the Cape and Islands Suicide Prevention Coalition, and the Regional Network to Address Homelessness.

HUMAN SERVICES NEWSLETTER
The Department disseminates a wide range of information through publication of a bi-weekly e-newsletter to over 1300 individuals and agencies. The e-newsletter informs the health and human services community of upcoming events, trainings, grant opportunities, resources, and opportunities for capacity building.

MASS 2-1-1
MASS 2-1-1 is a collaborative project of the Department and the Cape and Islands United Way. In an effort to develop a comprehensive data base of regional health and human service information and reduce non-emergency calls to 911 the Department has supported the promotion of MASS 2-1-1 since 2008. 2-1-1 is a web based health and human services database and also features a 24/7 call-in center staffed by trained I&R specialists. Mass 2-1-1 is the Commonwealth’s primary telephone information call center during times of public safety emergency and disaster response. 2-1-1 is free, confidential, accessible to people with disabilities and multilingual.

RESOURCE DIRECTORIES
In FY13 the Department launched four comprehensive on-line directories of local health and human services on the topic areas of Aging and Disability, Utility Assistance, Housing and Healthy Happy Eating. The Resource Directories offer user friendly, searchable web based directories populated with local data.

OTHER NOTABLE ACTIVITIES
AMERICANS WITH DISABILITIES COORDINATION
The Department’s Director is the Americans with Disability Act (ADA) Compliance Coordinator for the County. There were no ADA complaints in FY 2012. On an annual basis, the Director reviews existing ADA public notices and grievance procedures.

The Department routinely provides training materials to all County Departments and the Assembly of Delegates on use of the MASS RELAY 711 system for people with hearing impairments and on how to use a TTY/TDD. In addition, information about properly posting meeting notices to comply with the ADA and use of accessibility symbols was distributed to County Department Heads and is also available on the Department’s website. With permission from the Massachusetts Department of Public Health, the Department published and disseminated handbooks providing guidance on accessible meetings and print publications. Visit our on-line Accessibility Resource Center for links to ADA information, County Policies and Procedures regarding reasonable accommodations, and required text and accessibility symbols for use on all print materials and meeting notices.

The Department maintains a TTY line for people who are deaf or hard of hearing (508-362-5885) and has two audio amplifiers available for use by all County Departments.
COMMUNITY PARTNERS
In support of its mission, the Department of Human Services staff provide leadership and support to several regional groups and coalitions including the Barnstable County Human Rights Commission, Cape Cod and Islands Community Health Network 27 (CHNA), Lower Cape Forum Steering Committee, the Cape and Islands Regional Network to Address Homelessness, Cape Cod Hospital Community Benefits Committee, Elders Services of Cape Cod and the Islands, the Hunger Network, Postvention Suicide Response Team, and the Cape and Islands Suicide Prevention Coalition.

INTERNSHIPS
In FY2013, the Department’s Senior Project Manager supervised the summer internship of an undergraduate student at University of Massachusetts Amherst studying public health and human services management and the internship of a UMass medical student. These accomplished students produced a considerable amount of work and insight specific to stigma, suicide prevention, substance abuse prevalence, and healthy eating and physical activity. They assisted with acquisition and analysis of secondary data, grant writing, report writing and presentations.

LIMITED ENGLISH PROFICIENCY
In FY13 the Department drafted a County policy ensuring services are available to residents with Limited English Proficiency (LEP). The LEP plan includes a training component for County employees and identification of local interpreter and translation resources. The plan has not yet been adopted by the County.

The Department distributed the Massachusetts Department of Public Health Culturally and Linguistically Appropriate Services manual to over 50 providers in the region.

HUMAN RIGHTS COMMISSION
The Department provides organizational and administrative support to the Barnstable County Human Rights Commission including support to the Chair and Coordinator, assistance during the recruitment and nomination process for new commissioners, and recommending nominees to the County Commissioners. In addition, the Department Administrative Assistant maintains the HRC website, prepares monthly budget reports, and processes all purchase orders and accounts payable.

NACO PRESCRIPTION AND DENTAL PROGRAMS
Department staff continues to assist with the distribution of marketing materials for the National Association of County Organizations (NACO) Dental and Prescription Drug discount programs. The Department continues to periodically monitor the programs and provide feedback to NACO and County Administrator.

GRANTS RECEIVED BY THE DEPARTMENT OF HUMAN SERVICES IN FY2013
Mass in Motion: $60,000.00 awarded, year three of a five year grant (total of $300,000.00) from the Massachusetts Department of Public Health.

Additionally, the Department assisted in securing the following grant funds:
Cape and Islands Suicide Prevention Coalition: $15,000.00 from the Massachusetts Coalition for Suicide Prevention

CONCLUSION
Barnstable County Department of Human Services plays a crucial role in facilitating communication, collaboration, and coordination of human service providers on Cape Cod. The coordination of human services in conjunction with the collection of data from the community provides Barnstable County guidance in setting priorities for needed human service activities.

Our goal is to function as effectively and efficiently as possible in providing coordination and needs assessment data to local human service providers helping them be more effective in their service
provision. We are pursuing this goal by helping to build healthy communities that are responsive to the needs of all people living in Barnstable County.

Respectfully submitted,
Elizabeth Albert
The Human Rights Commission was formed in 2005 by the Assembly of Delegates. The Human Rights Commission continues to grow in scope and to provide services and support to all of the diverse populations of Barnstable County.

The Mission of the Barnstable County Human Rights Commission is to promote equal opportunity for all persons and all populations in Barnstable County regardless of race, color, religious creed, national origin, sex, age, ancestry, sexual orientation, marital, family or military status, source of income, neighborhood or disability where unlawful discrimination exists in housing, employment, education, public accommodations, Town and County services, insurance, banking, credit, and health care.

The Human Rights Commission meets its mandate by providing a variety of education and outreach programs; investigating and mediating discrimination complaints; providing opportunities for community awareness of human rights violations and helping to build more inclusive communities on Cape Cod; and serving as a liaison between individuals, their communities, and governments at local, county, and state levels.

FY-13 began with the hiring of a new coordinator for the Commission. Elenita Muñiz of Brewster began work in July. Her appointment was covered in the Barnstable Patriot, providing publicity for the work of the Human Rights Commission. A summer intern worked with the Commission chair and coordinator to assemble and format a Commissioners' Resource Notebook, which contains information on Massachusetts laws as well as agencies and resources for areas of focus for the Commission's work: elder law, housing, equal employment guidelines, and more. The notebook has been provided to every commissioner as well as to town representatives.

During FY 13, the Human Rights Commission received 23 calls. Two of these requested information about County human services. The

Commissioners:
John L. Reed, West Yarmouth, Chair
Rita Ailinger, Hyannis
Dr. Robert Freedman, Cotuit
Paul Houlihan, East Sandwich
Rev. Malcolm McDowell, Harwich
Ingrid Muzy Murray, Brewster
Alan Milsted, Bourne
Dr. Laura Roskos, Eastham
Dr. Nancy Wiley, Forestdale
Jacqueline Fields, Sandwich, ex officio

Elenita Muñiz, Coordinator

Town Representation Council:
Barnstable: Theresa Santos
Chatham: Rev. Edmund Robinson
Dennis: Joseph Quigley
Falmouth: Scoba Rhodes
Mashpee: Gail Wilson
Orleans: G. Thomas Ryan
Sandwich: Kathy Felt
Yarmouth: Mary Zepernick
others were inquiries about how the HRC might help the caller. All but three of these calls related to housing issues, for elders or for people with mental health issues. The other calls related to health care of a parent in assisted living and to general health care. In addition, a dozen residents of Hyannis walked in to our temporary office in the Zion Union Heritage Museum, bringing concerns about veteran rights, elder housing, immigration, and employment issues. Not all of these calls evolved into formal, signed complaints, yet each required time to hear the caller’s concerns, learn about the situation, and investigate options. The minimum time spent on each complaint is one hour, but more often the time rises to three to twelve hours. The highest amount of time spent on a single complaint (regarding housing issues) was 32 hours.

Early in FY 13, it became clear that the HRC would need the services of trained interpreters for assisting in in-take interviews. The Coordinator investigated options and the HRC now has a list of capable interpreters for both Portuguese and Spanish.

In September, commissioners undertook a review and update of their Strategic Plan, originally written in 2010. This plan guided their work throughout FY 13.

STRATEGIC GOAL: Public Relations and Information: The Human Rights Commission will continue increasing its public presence in the County.

• Acquired a new county telephone number (508-375-6912) and issued press releases announcing change in phone number.

• Redesigned and published Human Rights Commission brochure, “You have rights,” in three languages: English (4,000 copies), Portuguese (3,000), Spanish (1,000). Distributed brochures to town halls, libraries, churches, social service agencies, health facilities, convenience stores. The brochures were also distributed to all members of the Assembly of Delegates and to the County Commissioners.

• Wrote to town administrators about vacancies on the Town Representation Council, requesting their assistance in recruiting town representatives.

• Chair John Reed and Coordinator Elenita Muñiz appeared on Cape Cod Media’s “Sunday Journal” and with Commissioner Malcolm McDowell, on Council of Churches’ cable access television program, “On Good Faith.”

• Issued press releases inviting nominations for the Cornerstone and Rosenthal Awards, presented at the annual celebration of Human Rights Day. A subsequent release announced the Cornerstone Award winners.

• Placed a large ad promoting the work of the BC HRC in the Cape Cod Times to mark International Human Rights Day. This ad was funded by the Friends of Barnstable County Human Rights Commission.

• The Coordinator and a number of commissioners staffed an outreach table at the Shelter from the Storm concert and the Multicultural Fair at Cape Cod Community College and distributed information at the annual Church Women United “Human Rights Breakfast.”

• Held the Human Rights Day Breakfast (postponed due to blizzard) in March, with over 100 guests. Co-sponsored by Concerned Black Men of Cape Cod. Keynote speech by Julian T. Tynes, chair, Massachusetts Commission Against Discrimination. Cornerstone Awards presented to peace activist and educator Barb Steinau of Eastham and to Kathleen Schatzberg, retired president of Cape Cod Community College.

• Cosponsored a presentation of Invisible War, a film detailing sexual assault in the U.S. military, with information table.
• created a Facebook page for the Human Rights Commission on which is posted news items and questions designed to increase knowledge of human rights and promote discussion.

• Co-sponsored a welcome party for J1 summer workers in Orleans, with table of information. Summer interns conducted a survey of J1 workers regarding their experience in coming to work on the Cape, finding housing, and getting around.

STRATEGIC GOAL: Education: The Human Rights Commission will continue to actively support the growth of the Human Rights Academy throughout the County.

• Held the sixth annual Human Rights Academy for high school students, expanding this year to include two middle schools. Participating schools were Barnstable High School, Bourne High School, Cape Cod Academy, Cape Cod Tech, Chatham High School (spring), Dennis-Yarmouth High School, Falmouth Academy, Falmouth High School, Harwich High School, Harwich Middle School, Mashpee High School, Nauset Regional Middle School, Riverview School, Sturgis Public Charter School -- East Campus, Sturgis Public Charter School -- West Campus, Upper Cape Tech.

• Guest presenters at the fall HRA session included Judge Joseph Reardon (keynote), Lemuel Skidmore (citizenship), Paul Bradstreet (homelessness), Steve Brown (youth programs), Lisa McNeil (volunteering), and Officer Reid Hall (teen and police relations).

• Riverview School in Sandwich hosted both the fall and spring sessions of the Human Rights Academy.

• Education for Commissioners and Town Representatives included attendance at the Attorney General’s presentation on Open Meeting Law revisions and a training/orientation program for newly appointed commissioners (February) and town representatives (February and June). In addition, Commissioner Roskos and Coordinator Muñiz took the access television production training offered at Cape Cod Community Media Center.

STRATEGIC PLAN GOAL: Partnerships: The HRC will operate as a collaborative partner on a range of projects and issues affecting the County.

• The Partnerships Committee began work in February 2013 by compiling a list of past and potential agencies and organizations with which the HRC might resume or begin partnerships.

• Given the potential reform of immigration law, the Partnerships Committee hosted a gathering of agencies and groups in Barnstable County which work with our immigrant communities. The gathering was designed as “an initial conversation about how best to prepare to support coming changes in the immigration law.” The invitation included elected representatives (county, state and federal), churches and social groups in the immigrant community, health and human service agencies, members of the legal professions, and potential funders.

• A Portuguese interpreter was retained to attend the meeting.

• The gathering was held on June 27, 2013 at the Zion Union Heritage Museum. Representatives from Barnstable County Human Services, Community Action Committee of Cape and Islands, Church Women United, Catholic Social Services (Citizenship Services and ILEAP), Barnstable County Commissioners, Sen. Dan Wolf, Sen. Therese Murray, Harbor Community Health, Council of Churches, and the Human Rights Commission met. They shared concerns and news, including the appearance of fraudulent advertising aimed at undocumented immigrants.

• As hoped, agencies with a more direct role in assisting immigrants have taken responsibility for continuing this gathering as they proceed with plans for implementing any changes in immigration law.
STRATEGIC PLAN GOAL: Projects: The HRC will identify projects that respond to identified needs in the County.

- Responding to a media report of inappropriate voter identification requirements for a primary election, the HRC undertook a survey of all town clerks' offices in Barnstable County to determine what instructions poll workers are given regarding voter identification. The survey revealed some variation in what instructions were provided.

- A letter signed by HRC Chair John Reed was mailed to each town clerk in the County, summarizing the state law regarding voter identification requirements. As a result, two town clerks contacted the HRC by phone for clarification and Mr. Reed was invited to the Mashpee training for poll workers to explain the voter identification guidelines.

- After discussion, the Projects Committee decided to investigate the ways schools are implementing the state anti-bullying law to determine ways in which the HRC can provide support for this unfunded mandate.

- Summer interns began researching school district websites to locate resources and procedures outlined there in preparation for meeting with school administrations during FY 14.

STRATEGIC PLAN GOAL: Fundraising: The HRC will increase and diversify its financial support in order to better carry out its mission.

- The Friends of BC HRC hosted storyteller Tom Lee at the Cotuit Center for the Arts. The event was publicized in local print and radio media. The goal for the event was to support expansion of the Human Rights Academy to middle school students.

As the Barnstable County Human Rights Commission continues its work into FY 14, paramount issues include rights of elders, especially with regard to housing and employment, rights of veterans and families, and education to reduce discrimination and strengthen our community.
Barnstable County
Information Technology
Department History & Mission

The Barnstable County Information Technology Department (BCIT) was formed in July of 2005. The mission of this Department is to provide the staff and offices of the County of Barnstable with high quality advice, support and leadership in fields of technology and communications, both within Barnstable County departments and regionally across Cape Cod. The BCIT staff maintains computer hardware and software, recommends, designs and implements technology improvements, installs and tests hardware and software, and provides day-to-day troubleshooting and support. The Information Technology Department manages and administers the County’s networks and multi-user systems. The department also provides database administration services and website management services to County Departments. The goal of these services is to ensure that the County’s data and networks are secure and maintained in a suitable fashion. Additionally, it is the goal of the Barnstable County IT Department to strengthen the regional role of Barnstable County in technology as well as in overall support by providing robust services to our local departments so they can in turn provide the necessary support to all Barnstable County municipalities.
Fiscal Year (FY) 2013 was a strong year of growth and advancement for the Barnstable County IT Department. With the technology growing exponentially, opportunities for advancement paired with more complex issues and challenges appear at every turn. The Barnstable County IT Department has continued to answer the changing needs of Barnstable County and has grown over the years with FY2013 being a larger growth year, both in staff and in opportunity. With the addition of more staff as well as leadership changes midway through the Fiscal Year, BCIT maintained and strengthened its regional support role in Barnstable County and across Cape Cod.

Regional Development & Initiatives

Town of Wellfleet Regional Service Agreement July 2012

A major regional opportunity arrived at the end of FY 2012 when a landmark contract between the Barnstable County IT Department and the Town of Wellfleet was signed. The agreement was for contractual IT services to be provided to the Town of Wellfleet by BCIT, slated to begin July 1st, 2012. The exciting regional move began as planned and the Town of Wellfleet became another customer focus for the Barnstable County IT Department, replacing the single town IT the town had contracted with previously. With an entire department team at their service, the Town of Wellfleet was immediately able to not only begin multiple, overdue repair projects but was able to utilize higher scale services such as IT planning, network administration, infrastructure assessment and design. Barnstable County IT Department provided a full scale assessment of IT health and created a service plan for the Town to meet the growing technological demands of a municipality. Projects and upgrades were plotted out to fit within the town’s budget, needs, scope of services and additionally, to align with advanced fiber network initiative, OpenCape.

Some FY13 Town of Wellfleet initiatives by BCIT were:

- Design of a town-wide fiber optic and wireless network to connect all of the Town’s offices
- Planning the consolidation of servers and Internet connections
- Began implementation of hosted email services by the County
- Complete audit of physical cabling and planning for rewiring

In addition to the many projects and upgrades in the Town of Wellfleet, daily IT services and after hours support for critical Police, Fire and other necessary departments also began with FY13. On-site IT services were provided 4 days per week by a team of dedicated Wellfleet IT Support Specialists. The department team approach proved successful with multiple break/fix initiatives performed simultaneously as well as the addition of IT procurement services, which opened up faster turnaround times on customer projects and needs. Additionally, off-hour emergency technical services were added successfully with the average emergency issue being responded to approximately less than 10 minutes after initial Help Desk call and most were also resolved same day.

The terms of the agreement and scope of services for the Town of Wellfleet contract in addition to the growing needs of the department and County necessitated the hiring of another full-time IT Support Specialist and a full-time Service Desk Analyst beginning FY13.

Longtime Barnstable County employee Keri Peters joined the BCIT team in July 2012 as the department’s first official Service Desk Analyst. Keri came to BCIT with approximately 25 years of experience, all served in Barnstable County. Keri’s fiscal knowledge paired with her procurement experience, advanced MUNIS skills and unequivocal administrative experience made her the perfect addition to the BCIT staff. Keri immediately improved the department’s procurement procedure,
streamlining the process for IT related purchases across all County departments and helping to bring the newest technologies into Barnstable County at a faster rate than ever before.

With the need for an additional full-time IT Support Specialist came Earl Harmon. Earl joined BCIT at the beginning of FY13 as part of the Help Desk team as well as the primary IT Support Specialist serving the Town of Wellfleet. Earl came to BCIT with prior IT experience gained at Hanscom Field (DOD) for USAF; Cingular Wireless / AT&T; and NTT data systems. His background encompasses configuration, maintenance and support of both Server systems and Windows and Macintosh Desktop operating systems. This prior experience facilitates the wide range of “backend” and “user facing” support tasks necessary in administrating the complexities of Wellfleet’s IT network, as well as assisting with the needs of the county.

More strength and experience came to BCIT as the Barnstable County Information Technology Department Internship Program’s second year yielded double staff results in FY13. FY12 program interns Mike Bottomley and Matt Flaherty completed their extended internships with each of them officially coming on board with the Barnstable County IT Department. Mike Bottomley was hired as a full-time IT Support Specialist for the Help Desk, serving half of his time in the BCIT office and the other half in the Cape Cod Commission providing on-site IT support in addition to Help Desk services. The concept of having a BCIT Support Specialist located in the Cape Cod Commission facilitated a deeper understanding of their technological needs as well as a faster response time thanks to the consistent on-site experience and daily involvement level. This service model proved successful and will be used as a prototype for variations of the same concept throughout other County departments.

Matt Flaherty was awarded a contractor position to provide IT Support Specialist services for the Help desk in addition to later being designated as the main provider of videography services slated to be provided by BCIT in FY14. Building upon the internship experience, both Mike & Matt were immediately able to provide strong support contributions to the Barnstable County IT Department and continued to do so throughout FY13.

In addition to exceeding technical service standards and offering higher level support services within the department, BCIT also expanded their contractor resources to build upon Service Desk Analyst client features such as technology consulting and service program design. Angela Hurwitz served as a part-time contractor providing quality assurance & statistical analysis, marketing, newsletters & public
relations services for BCIT & other County departments as well as project assistance such as focused department service consulting, digital survey design and County-wide training initiatives. Angela was also awarded a full-time contract to provide further support services in FY14.

A major leadership change came to the department in January 2013. The original longtime IT Director, John Morse, resigned and Billy Traverse stepped into the position as Interim IT Director in March. Billy had already served in a leadership role as the Network Administrator for Barnstable County for over seven years at the time. His technical expertise and intimate knowledge of County Departments and their growth over the years were invaluable and made his transition into the Director position a natural progression. Billy’s transition to Interim Director was also paired with a role change for another leader in the department, Chris Burt. Chris had worked in the Barnstable County Health Department since 2005 prior to joining BCIT as an IT Support Specialist in 2008. Chris became the IT Solutions Manager for BCIT to focus his advanced technical skills on higher level projects and initiatives. The timing couldn’t have been better and both Billy and Chris were able to utilize their understanding and anticipation of the high level, expansive technical needs of the County and apply daily, department level solutions in support of those overall goals. The end result of a new Interim Director, staff role changes and additions, along with an informal, internal reorganization immediately and notably affected the forward reach of BCIT.

CATMAN (Cape & Islands Technology Managers Group) March 2013

The Barnstable County IT Department revived a former Cape Cod technology managers’ effort called the CATMAN (Cape & Islands Technology Managers) Group. The initiative began with BCIT recognizing the need for Cape-wide technology collaboration in order to share information, resources and strengthen the technology presence of Barnstable County by uniting the towns in the effort. Knowing of the prior existence of the group inspired the Barnstable County IT Department to reach out to all of the Cape & Islands 15 towns’ IT Directors and invite them to the Barnstable County Complex for a meeting. The response was overwhelming and IT representatives from every Cape Cod town, Martha’s Vineyard & Nantucket came together in March (2013) and reestablished the CATMAN Group officially. Barnstable County IT Department serves as an equal member of the group, but provides the organizational and communications pieces for the group to continue to meet on a regular basis and discuss regional technology issues as well as share...
solutions between towns to common municipality technology challenges. The CATMAN Group has proved invaluable to not only individual town advancement but has also become a technology force for other organizations to collaborate with. From March through June the group met up for 3 official CATMAN meetings and one additional presentation by OpenCape. CapeNet also presented technology and service plan information to the CATMAN Group. Both OpenCape & CapeNet utilized the CATMAN Group as an opportunity to inform Barnstable County Town IT Directors of the service plan for the fiber network project in addition to answering questions and seeking resources and collaboration on the multimillion dollar ongoing project. The CATMAN Group attendance is strong and the Barnstable County IT Department looks forward to the continued, unified progress of this regional technology initiative in FY14.

Throughout FY13 there were many County-wide technological gains and best practice initiatives, leading to steady IT project growth and advancement for all.

Technical Projects & Initiatives

Enterprise Wireless Project January 2013
The Barnstable County IT Department completed the County campus enterprise wireless project. The wireless network replaced legacy department unmanaged wireless with common hardware that building one wireless network across the main County complex for staff, and one for guests. The centralized enterprise wireless network rollout was a success with the end result providing consistent wireless access for computers and devices in all meeting spaces, as well as most of the County office space. Wireless access will continue to be rolled out for additional coverage as well as to remote offices.

Barnstable County Microsoft Exchange 2010 Upgrade
The Barnstable County IT Department completed the implementation of Microsoft Exchange 2010 and upgraded the County’s email system, which also serves as part of the underlying unified communications infrastructure. This project was a delicate, and lengthy process, but was completed successfully and with minimal impact to email service.

Cape Cod Commission Project Server 2010
The rollout of Microsoft Project Server 2010 was completed for the Cape Cod Commission in FY13. The software enables the Cape Cod Commission to enhance productivity while providing powerful business solutions to deliver projects on time and within budget.

Cape Light Compact Microsoft Customer Relationship Manager (CRM) Software
Barnstable County IT Department successfully completed the rollout of Microsoft’s Customer Relationship Manager (CRM) software to Cape Light Compact in order to improve business processes involving the program administration of the energy efficiency program serviced by Cape Light Compact for their commercial and industrial sector. The CRM system provides: management of customer communications, project tracking, status reports and tools for workflow management and task assignments using the standard Cape Light Compact commercial and industrial workflow.

Cape Cod Cooperative Extension Weather Station April 2013
After many years in the making, the Barnstable County IT department successfully completed the installation and implementation of the Cape Cod Cooperative Extension's Weather Station, located at The Farm. The weather station and corresponding data site provide round the clock information about current weather conditions, moisture levels, soil temperatures, wind speeds and more. The collaborative effort between BCIT and the Cape Cod
Cooperative Extension provided yet another successful project benefitting all of Barnstable County.

Registry of Deeds Workstation Project March 2013
The Barnstable County IT department worked in concert with the Registry of Deeds and BROWNTech to perform a 15 workstation deployment during March of FY13. The 15 workstations were procured, configured and deployed complete with widescreen monitors to match the new computers, BROWNTech software installed and two additional scanners. There were a total of 5 workstations in Land Court and 10 for the main office of the Registry. This was a much needed upgrade to the Registry of Deeds equipment and no doubt increased overall regional strength to their invaluable Barnstable County-wide services.

WebEx
A limited deployment of WebEx Meetings, and WebEx Connect (instant messaging) began in FY13. Among many services, WebEx can be used to facilitate meetings and collaboration as needed such as webinars, trainings, hosting online events and more. Future initiatives to upgrade Cisco based phone system will allow for advanced usage of WebEx services.

State Webinar Trainings
The Barnstable County Finance Department’s Chief Procurement Officer Elaine Davis worked with the Barnstable County IT Department to organize a regional training effort with the Inspector General’s Office in Boston to provide online access to Procurement trainings right here on Cape Cod. Utilizing the technology provided by WebEx and BCIT support staff, Barnstable County was able to host the Inspector General training with part of the training taking place in Boston and part of the training taking place on the Barnstable County Campus. Procurement officers from municipalities across Barnstable County came together on our campus to participate in the hybrid LIVE and online course and take the certification exam without having to leave Cape Cod. The initial three day course was such a success an additional training was also held allowing participants to gain further certifications in their field right here in Barnstable County. Thanks to the collaborative efforts of the Finance Department and Barnstable County IT Department, this regional initiative brought training opportunities back home to multiple towns throughout Barnstable County and proved a successful model for future offerings.

Microsoft SharePoint 2010
SharePoint was deployed to the Cape Cod Commission and the Barnstable County IT Department for pilot use and testing before full County rollout. The complex document and collaboration software provides a central location for different business groups and projects to be worked on collectively and efficiently. BCIT also began creating SharePoint workspaces for County-wide regional groups such as the CATMAN Group as well as a regional MUNIS users group to provide centralized communication and information sharing across Barnstable County.

Paperless Initiatives
Numerous iPads were deployed throughout the County with all procurement, configuration and deployment taking place by the Barnstable County IT Department. In order to further support the need for mobile technologies and cloud computing access, Barnstable County IT Department supported multiple iPad deployments to other County departments. All proved successful
and are just another progressive step forward for Barnstable County. Some notable deployments in FY13 were:

- County Commissioners – 3 iPads were configured and deployed to the County Commissioners to provide a paperless approach to meeting documents and information. County Commissioners’ agendas, meeting minutes, and links to meeting videos are also hosted on SharePoint and accessed using a mobile SharePoint application both off campus and live during official meetings.

- Barnstable County Health & Environment - 30 iPads were configured and deployed for distribution of public health materials. The iPads are used by County health agents to allow them a uniform way of disseminating information about public health issues on the Cape as well as communicating about the Health Agents Coalition to the Health Departments of other towns.

- Cape Cod Cooperative Extension - 2 iPads were configured and deployed with rugged cases for the department’s use at multiple collection sites throughout Barnstable County in an effort to transition to paperless data collection at their Cape-wide Hazardous Waste Recovery Collection sites. Barnstable County IT Department also provided iPad training to Cape Cod Cooperative Extension staff and collection volunteers ahead of time at the County as well as on-site at multiple collection sites.

**Virtualization Software Expansion**

Licensing was expanded for our virtualization platform in late FY13 in order to accommodate for future growth. This will extend the capabilities of the system to host a wide array of systems and services, for departments as well as outside parties, in a secure multi-tenancy environment.

**FY13 BCIT Training Efforts**

Barnstable County IT Department designed and supported the strongest training program of the department thus far. Following need analysis and department survey feedback, training needs were established throughout the County and a breadth of opportunities was provided on campus to County staff. Trainings ranged from basic to advanced levels and included a wide variety of programs to answer individual department needs. In four short months a total of five training sessions were held in FY13 from with approximately 57 attendees representing 11 different departments County-wide. All BCIT trainings were instructed by department staff in a group format utilizing the Harbor View Conference room and individual training laptops, with course documentation made available to all County staff for reference.

**BCIT Trainings March – June 2013**

IT 101 – a basic baseline user course designed to provide a firm understanding of County IT procedures including a Microsoft Outlook overview,
webmail usage, file sharing protocol and Help desk procedures. This course was offered twice throughout FY13 and also became part of a new user procedure for County hires.

**FY13 BCIT Training Course Registration**

SmartBoard/Conference Room Setup – designed to provide County staff a firm grasp of the features and operation of the Harbor View Conference Room technical equipment in order to strengthen their County presentation use. A basic overview of this course is also available to all County staff on an individual basis as needed with a BCIT staff member running through the equipment operations with staff and their presenters before conferences go live.

Advanced Excel – a more intermediate to advanced use of excel was covered in this course to assist in the greater needs for department data analysis. This course was offered twice and is a pre-cursor to individual department Excel training for specific data reporting needs.

True to real department needs based training, Barnstable County IT Department also registered an additional 23 county staff for the FY14 WordPress training designed to enable Barnstable County department website content managers to get the most out of their WordPress site. WordPress is the County standard for websites and the course will include design elements as well as site organization and optimization. Additional training opportunities are also scheduled for FY14 including MUNIS and SharePoint offerings.

**Department Advancement**

**BCIT Service Satisfaction Survey 2012**

In early FY13, the Barnstable County IT Department designed and launched its own internal County-wide department satisfaction survey. Not just to gauge satisfaction ratings but additionally to collect much needed comments and suggestions, the survey was designed in-house and delivered digitally via the online survey software, Wufoo. The survey was prepared and delivered by a contractor via email to County staff. Participation was both voluntary and anonymous.

The data yield was primarily positive with an average total satisfaction rate of almost 90%. The survey covered the areas of: Customer Service, Help Desk Response; Workstation Setup; Email, Webmail & Telephone; and Applications & Equipment. Equally as valuable as the satisfaction rate were the comments and suggestions made by County staff in regard to future needs in software, hardware, training and improved services.
In expectation of these results BCIT had already been moving in the direction of addressing these issues by bringing on more staff so hearing the needs of the County expressed officially through the survey initiated even more program changes and customer service improvements. The Barnstable County IT Department intends to conduct further department needs and satisfaction research and has future survey initiatives planned.

**ITWG (Information Technology Working Group)**

The ITWG continued strong in FY13 and played a much larger role in the later part of the Fiscal Year while the County underwent an IT Assessment. Representatives from all of the Barnstable County Departments meet to share information and discuss various topics in technology affecting the County. The ITWG is a forum for department IT concerns and issues to be raised as well as for BCIT to share current technical information and initiatives as well as garner department needs and opinions. The group meets monthly and during an independent IT Assessment the ITWG was instrumental in assisting with the ongoing review of IT services across all departments, fostering a new atmosphere of cooperation and collaboration.

**BCIT Monthly Newsletter Event Log**

In February of FY13, the Barnstable County IT Department launched its first official County-wide monthly newsletter, BCIT Event Log. The newsletter’s main purpose is to communicate IT related issues across County departments as well as share information, technology and otherwise, between departments. The newsletter was created with an all department approach, sharing events and department successes with the rest of the County Departments and beyond. The newsletter is also leveraged as a public relations and marketing tool for the County, providing current and relevant IT and department related gains relayed in an easy to read and share format. Met with rave reviews by other departments, the BCIT Event Log monthly newsletter is here to stay and growing to include more news from other departments to celebrate the successes of all things Barnstable County.

**IT Surplus Equipment Auctions**

BCIT and Chief Procurement Officer Elaine Davis organized official IT surplus equipment auctions in order to answer the need for proper and timely disposal of outdated IT equipment across County departments. After each individual department has gone through the surplus declaration process, the equipment is then put up for bid in an auction. After the auction ends, the equipment is taken off the premises by the winning bidder and the money generated is returned to County funding. This has been a fantastic and resourceful joint effort by both departments and we expect the program to grow much larger in FY14.

**Online Forms, Survey Design & Implementation Initiatives**

With a more focused customer communications and service delivery goal in mind, the Barnstable County IT Department had utilized the results of their BCIT Satisfaction Survey 2012 to develop department centralized services to improve specific processes throughout individual County Departments. The need for improved data collection and analysis was identified through individual department analysis and BCIT answered the need with online form and survey services. Utilizing the same software used to conduct their own surveys and online training registrations, BCIT began to formulate survey design that could be implemented in other departments to streamline processes. For a typical paper-driven municipality, the instantaneous results were staggering for participating departments and led to a greater need to provide this type of service across the County.
Cape Cod Cooperative Extension Hazardous Waste Digital Data Collections
The Barnstable County IT Department and the Cape Cod Cooperative Extension began and completed full service online digital data collection to improve the longtime Hazardous Waste Collections Program run by Hazardous Materials Environmental Specialist Mike Maguire. The County-wide collections are performed at various station sites throughout all of Cape Cod with data being collected via paper and pencil by volunteers. BCIT analyzed the needs of the collections as well as the use of collected spreadsheet data and came up with a service plan. Using the online survey software, Wufoo, the collection form became digital and was collected on-site with the volunteers using iPads instead of paper. Ease of entry, instant reporting and data availability was a complete game changer for the collections and allowed them to see not only the results but the collection pace and finer details in addition to easily capturing additional information. Cape Cod Cooperative Extension is also able to instantly present collection data to individual towns via online links. BCIT finished up the service plan by writing a macros to convert the new data format into the traditional spreadsheets already kept by the County to allow continuity for the collections’ data transition. This type of specialized service and effort between the Barnstable County IT Department and the Cape Cod Cooperative Extension produced a regional effect felt across every town in Barnstable County.

Medical Reserve Corps Digital Data Collection
Accurate, current data collection of professionals training and availability for the Medical Reserve Corps is a necessity for the Health Department & Emergency Preparedness Disaster Response team to be ready to support Barnstable County during emergencies. Medical Reserve Corps Cape Cod Director Jean Roma consulted with the Barnstable County IT Department on finding a better way to collect this information from qualified professionals across Cape Cod & the Islands. BCIT converted the traditional data collection forms to digital format, allowing them to be sent instantly to multiple resources and mailing lists. Additionally, the forms were posted across multiple websites to increase exposure. The resulting data is provided instantaneously, allowing the program to truly see the various professional resources available to them and from where. Ease of reporting within the software provides easy graphics of the data as well as conversion to spreadsheet format keeps the information easily importable to any database. The Medical Reserve Corps was very satisfied with the results and plans to utilize this collection format further in the future.

High-Definition Live Video Streaming
The Barnstable County IT Department added high-definition quality to the already valuable service of Live streaming Barnstable County meetings and presentations over the internet. BCIT setup the original services and manages them along with the Barnstable County YouTube accounts. In addition to the Live Streaming of County Commissioner and Assembly of Delegates meetings, other County Departments continued to utilize the Livestream option to reach a wider audience and increase regional awareness while the topics and discussions are current. Official Barnstable County meetings can be seen on:

- Barnstable County Livestream
- Barnstable County YouTube
FY BCIT Service Desk Statistics

Statistics: Clients Served
*Help Desk Tickets Completed: 2019 (FY12=1300)
This figure represents a 64% increase over last year.

*Procurement Requests Completed: 274 (FY12=247)
This figure represents a 9% increase over last year.

Types of Help Desk Service Requests
Communications: 33%
Software: 32%
Hardware: 29%

Throughout FY13, Communications support requests (33%) were the most popular type of support requested. Communications support covers a variety of support requests. Issues with email, internet access and connectivity, the Cisco IPT phone system, networking connectivity, web hosting issues, and wireless connectivity make up this category. Email, phone, and connectivity issues again made up the majority of the requests in this support category over the past twelve months as was the trend during FY2012.

Software support requests (31%) remained high throughout FY13. Issues in this category include application support for desktop applications (such as MUNIS, Microsoft Office, and Adobe products), operating systems, and web applications (such as WordPress). As the diversity of software applications continues to rise we would expect the number of support requests to equally increase.

Hardware support requests (29%) remained constant. These requests include the following categories: desktop issues, laptop issues, server issues, network printing/scanning/copying issues, audio/visual issues, and peripheral issues.

The Barnstable County IT Department finished FY13 strong and looks forward to further regional growth, collaboration, promotion and support of the valuable services offered by all Barnstable County Departments, to all of Cape Cod.

Further info can be found at http://it.barnstablecounty.org.
BARNSTABLE COUNTY REGISTRY OF DEEDS
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www.barnstabledeeds.org
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Research Hours: Monday through Friday 7:45am- 4:15pm

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Registry of Deeds
The Registry of Deeds is responsible for maintaining the records of property transfers within Barnstable County. This includes all deeds, mortgages, plans and other instruments which purport to affect the title to real estate on Cape Cod. The registry is used daily by local attorneys, surveyors, title examiners and members of the general public who are trying to determine the status of particular parcels of land. Our goal continues to be one of providing prompt, efficient and courteous service to all those who visit our facility.

Fiscal Year 2013
Fiscal Year 2013 was a solid year from a volume and revenue standpoint. As Calendar 2012 came to a close we saw increased activity due to concern that new tax rates would take effect. Overall, historically low interest rates contributed to a steady volume of sales and mortgages. Technologically, the registry made great strides in using new and innovative ways for handling recordings resulting in quicker processing times for document filings. Under our new system, documents presented for recording are indexed, scanned and returned to the presenter within minutes of filing. In the past we would need to index return address, print labels, stuff envelopes and mail out documents. The net result is a faster, leaner registry of deeds!

Capeview Access
The registry provides use of our internet access Capeview system to all towns within Barnstable County free of charge. The fees that the towns are exempt from are $50.00 annual fee and $1.00 per page copy fee. Capeview enables remote users to access the registry’s database. Users can do title rundowns, search for liens or find records pertaining to any real estate transaction within the county. The system also provides users the ability to have documents printed directly on their own printers without the use of registry personnel. Currently, all Assessors offices and several town departments in the county have active cost free accounts with us. This has enabled them to save valuable tax dollars that can be earmarked for other projects that towns deem necessary. Some departments in Dennis and Yarmouth have begun to utilize electronic download of data and images directly from the registry minimizing their need to print out copies or re-key indexing data. We anticipate more departments and towns will show interest in the coming years.

Declaration of Homestead Forms
The registry and its staff provide valuable assistance to all homeowners in Barnstable County with the preparation of declaration of homestead forms. These forms are available free of charge at our copy counters. The cost to record a homestead is $36.00 in our recorded land section and $35.00 in our registered land (Land Court) section. The Declaration of Homestead under Massachusetts General Laws Ch.188 gives persons up to $500,000.00 protection on their primary residences. It can be a valuable last line of defense and it is recommended to all homeowners in Barnstable County.
Barnstable County Department of Resource Development & AmeriCorps Cape Cod
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AMERICORPS CAPE COD
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The Barnstable County Resource Development Office (RDO) works to build, strengthen, and expand the capacity and resources of Barnstable County departments and the fifteen towns of Cape Cod.

The mission is achieved through Grant Administration & Operation, Grant Development & Outreach, Technical Assistance and Education. The Resource Development Office obtained over $1.2 million in grant funds for community projects in FY2013 and provides development and oversight for several regional projects including the implementation and management of the AmeriCorps Cape Cod program.

The AmeriCorps Cape Cod program is a collaboratively funded grant program created, developed and operated by the Resource Development Office. Fiscal Year 2013 (FY2013), AmeriCorps Cape Cod began year one of a three year grant cycle totaling $425,600 per program year ($1,276,800) provided by the Corporation for National and Community Service through Massachusetts Service Alliance with matching funds provided by Barnstable County.

AmeriCorps members provide individual and group service with over 150 service organizations. AmeriCorps Cape Cod engages 32 college-educated adults in full-time service to address critical community and environmental needs in the areas of natural resource management, volunteer engagement, environmental education and disaster preparedness and response.

Housing for these members is donated by the Cape Cod National Seashore and Barnstable County.

The Year 14 Corps is the latest in a succession of young women and men who have served on Cape Cod since 1999.

The 56,000 volunteer hours logged in FY2013 brings the total of volunteer hours served since 1999 to 612,092. That translates into an estimated program value of nearly $17,000,000 accruing to Cape towns, state and federal agencies, and non-profit organizations engaged in natural resource management (land and water conservation), disaster preparedness and response, and environmental and community education.

The AmeriCorps volunteers contributed their time, talents and energy to a remarkably wide range of projects including shellfish propagation, herring run clearing, wildland fuel reduction, dolphin strandings, environmental programs for school children, coastal erosion control, and inva-
sive species removal. Beyond the usual planned activities, the volunteers rose to the challenge of emergency operations as volunteers and were an invaluable resource assisting in the regional shelter system and the County’s Multi-Agency Coordination Center during Hurricane Sandy in 2012 and the February blizzard of 2013.

Additionally, the program rolled out a new initiative—the AmeriCorps FireCorps—in partnership with the Cape Cod National Seashore Fire Management Team led by David Crary. After the landfall of Hurricane Sandy, the FireCorps members were deployed to New York City where they were assigned to Ellis Island and Liberty Island to assist in the cleanup and rehabilitation of the two national sites.

COUNTY-WIDE/REGIONAL SERVICES
Regional Resource Development Office Services Provided
RDO provided technical assistance and grant writing services to several County departments including the AmeriCorps Cape Cod program, the Cape Cod Cooperative Extension, the Cape Cod Medical Reserve Corps, the Barnstable County Regional Emergency Planning Committee, the Department of Health and Environment, the Department of Human Services, and the Public Health Nurse Division.

RDO provided regional grant writing, administration and oversight services to the towns of Yarmouth, Falmouth, Mashpee, Harwich, Sandwich and Orleans. Municipal projects that received funding with RDO assistance include Domestic Violence Programs in local police departments and the renovations for the Flax Pond Recreation Area in Yarmouth.

RDO staff maintained and upgraded office tools, publications, and online databases to enhance the RDO grant resource library that is available for public use.

RDO staff provided supervision, administration, and operation of the AmeriCorps Cape Cod program that provides services focused on land management, water conservation, environmental education, and disaster preparedness.

RDO staff assisted AmeriCorps members with fund-raising and grant writing activities.

Grant Administration- RDO provided fiscal oversight for 36 grant funds worth over $3 million in FY 2013. The funding provides regional programs with the means to deliver services to residents of Barnstable County without increasing the financial burden on taxpayers.

The Resource Development Office provides thorough fiscal management ensuring compliance, encouraging future grant awards, and strengthening fiscal responsibility for the County. The Resource Development Office also provides grant administration for the Town of Harwich’s Human Service Grant that provides support to 15 human service organizations across the region.

The AmeriCorps Cape Cod FireCorps members pose on the ferry ride to Liberty Island, New York to assist with storm clean-up after hurricane Sandy.
AMERICORPS CAPE COD SERVICES PROVIDED COUNTY-WIDE

In FY 2013, Barnstable County’s AmeriCorps Cape Cod members completed 53,604 hours of service addressing natural resource management, disaster preparedness and response, education, and volunteer generation. Service hours include the 127 group projects completed by the group. Over their 11 months of service the members engaged 550 community volunteers who served 1,099 hours with AmeriCorps Service Partners.

BARNSTABLE
Children’s Cove Holiday party
Members assisted with the Children’s Cove Holiday party.

Meetinghouse Farms Invasive Removal
Members removed invasive plants along the trail to open the trail and allow native species to grow.

Tree Education Blitz
The entire 4th Grade class from Barnstable Horace Mann Charter School were brought on fields trips to Meetinghouse Farm in West Barnstable where AmeriCorps members gave educational tours and taught lessons related to trees, organic and worm composting, and the natural resources at the town-owned farm.

W.E.T. Festival, Barnstable Intermediate School
Members educated children about groundwater topics on Cape Cod using hands on activities.

Oyster and Quahog Propagation
Members assisted the Department of Marine and Environmental Affairs with shellfish propagation and gear maintenance and construction.

County Tree Nursery Rehabilitation
Members assisted with planting, pruning, and other tasks at the County Tree Nursery.

725 Main Street Cleanup
Members served with the Town of Barnstable Growth Management Department to weed and cleanup the community space at 725 Main Street in Hyannis.

Herring Run Cleanup
Members helped the Town of Barnstable to remove debris and brush from herring runs in the Marston’s Mills River and the Santuit River.

Protective Shorebird Fencing
Members assisted Mass Audubon’s Coastal Waterbird Program with installing protective plover fencing.

Coastal Mitigation Nursery Maintenance
Members cleaned and weeded the Town’s Coastal Mitigation Nursery in Centerville and transplanted beach grass from the nursery to Estey Ave. in Cotuit.

Trail Clearing
With the Cape Cod Commission, members cleared trails along the Barnstable Pathways.

Halloween Safety Day
Members educated children about fire and Halloween safety.

Long Pond Community Garden Cleanup
Members assisted in tree clearing and garden cleanup.

AmeriCorps Cape Cod member Jason Ross poses after being “rescued” from mock place wreckage during the disaster preparedness & response drill at Hyannis Airport (Oct. 2012)
Danforth Trails
Members cleared the trails and cleaned the parking lot.

BOURNE
Scusset Beach Boardwalk
Members assisted with removing the old boardwalk and installing a new one.
3 Mile Look
Members served with the Aptuxcet Garden Club to improve the pathways at 3 Mile Look in preparation of the Roland DuPont dedication ceremony.
Heathland Restoration
Members and the US Army Corps of Engineers removed woody material and installed beach grass on Mashnee Dike to assist with the restoration of heathland habitat and reduce erosion.
Herring Run Clearing
Members cleared a herring run in Bourne with the Army Corps of Engineers.
National Marine Life Center
Members assisted in educating the community about sea turtles.
Scusset Beach Fire Road
Members cut back vegetation on the Scusset Beach fire road to allow better access.
Invasive Removal
Members cleared invasive species from the MA Military Reserve.
Canal Cleanup
Members recruited volunteers to remove trash, paint walkways, and paint a new mural along the Cape Cod Canal.

BREWSTER
Environmental Education
Members taught worm farm lessons at the Lower Cape Children's Garden.
Nickerson Park Fire Fuel Reduction
Members removed and chipped downed trees to reduce the threat of wildfire.
Fall Oyster Cull
Members assisted the Brewster DNR with the fall oyster cull.
Spring Oyster Cull
Members assisted the Brewster DNR with the spring oyster cull.
Stony Brook Herring Run Clearing
Members removed overhanging branches and debris from the herring run.
Mother's Bog and Hawk's Nest Farm
Members removed small saplings at both sites to restore grassland habitat.
Breakwater and Little Breakwater Beach
Members installed sand fencing and planted beach grass.
Nickerson State Park
Members removed diseased red pines along access roads through park to mitigate hazards.
Town Beach Cleanup
Members worked with community volunteers to do a town-wide beach cleanup.

**Dream Day Camp Trail Maintenance**
Members improved the accessibility of trails and playground at the camp.

**Eddy Sisters Restoration**
Members assisted the Brewster Conservation Trust and DNR with removing invasives on site.

**Rail Trail Maintenance**
Members removed fallen trees that came down on bike path from Nemo.

**Nickerson State Park Fire Road Maintenance**
Members removed trees that had fallen onto the fire roads and built two retaining walls to control run off into pond and wash out of the fire roads.

**Wing Island**
Members removed invasive species for habitat restoration and prepare area for future Prescribed Burn.

**Punkhorn Park Land**
Members assisted with trail clearing and invasive species control.

**Kingsbury/Matthews Property**
Members assisted with invasive species control.

**CAPE WIDE**

**Martin Luther King Day of Service**
Members recruited 149 volunteers to rehabilitate homes, organize food drives, build garden beds and food collection bins, paint community rooms, and assemble fleece blankets.

**CHATHAM**

**W.E.T. Festival, Chatham 4th and 5th Grades at Harwich Middle School**
Members taught students about the importance of water conservation using hands on activities.

**Chatham Recycles Book and Media Swap**
Members helped to staff a Chatham Recycles...
event featuring a book and media swap.

**Sylvan Gardens Restoration**
Members helped to remove invasive plants and build on existing property trails.

**Chatham Aquaculture**
Members raked and broadcast oysters, dug and broadcasted quahogs and cleaned cages. Repair float bags and build new upweller trays.

**Tern Census**
Members assisted Monomoy NWR staff with the yearly tern census.

**Recycle-fest**
Members taught educational lessons about recycling and composting to children.

**Monomoy Sign Posting**
Members posted signs for shore bird nesting areas.

**Training Field Triangle**
Members laid down wood chips to help cover tripping hazards on trail.

**Town Forest (Upper)**
As part of a fire mitigation project, members thinned a section of the forest that abuts a neighborhood.

**FireWise Community Assessment**
Members assisted in the completion of house assessments for residents of Chatham.

**DENNIS**

**COASTSWEEP – Chapin Beach Clean Up**
Members cleaned debris and trash from Chapin beach in Dennis with the Dennis DNR.

**Dune Restoration**
Members planted beach grass to aid in dune restoration with the Dennis Conservation Trust.

**Hazardous Waste Collection**
Members helped to facilitate a hazardous waste collection.

**EASTHAM**

**Environmental Education**
Members taught lessons about native plants and habitat restoration to students at Nauset Regional High School.

**FALMOUTH**

**Environmental Education**
Members taught geology lessons to 6th grade students from Morse Pond School at Beebe Woods.

**Washburn Island**
Members cleaned up fallen trees and cleared trails on Washburn Island.

**W.E.T. Festival, Mullen Hall and Morse Pond Schools**
Members taught students about the importance of water conservation using hands on activities.

**Falmouth Service Center Garden**
Members participated in fall and spring cleanups of the community garden, doing tasks including weeding, transplanting, tilling soil, and repairing structures.

**SEMAC Oyster Sampling**
Members weighed, measured, and counted oyster samples at the Marine Biological Lab in Woods Hole.
Sea Vegetable Farm
Members measured seaweed samples at the MBL.

Cardoza Farm Invasive Removal
Members served with The 300 Committee to remove invasives at the Farm.

Menahaunt Beach
Members served with the Falmouth Beach Department to plant beach grass on the dunes of Menahaunt Beach.

Santuit Pond Cleanup
Members removed trash and debris from the pond.

ORLEANS

Garden Bed Creation
Members served with the Orleans Elementary School Garden Club to create garden beds.

Nauset Middle School
Members planted native plant gardens with students.

Environmental Education
Members taught native plant and habitat restoration lessons to Harwich High School students at Uncle Harvey’s Landing.

W.E.T. Festival, Orleans Elementary School
Members educated children about groundwater topics on Cape Cod using hands on activities.

Uncle Harvey’s Town Landing Restoration
Members removed invasive plants at the Town Landing site to restore native plant populations.

Putnam Farm Restoration
Members removed invasive species, debris and trash from the property.

Twining’s Pond Trail Maintenance
Members cleared vegetation from trails and laid wood chips to help combat erosion.

White Gift
Members removed invasives and assisted in the ecological restoration of this property with the Orleans Conservation Trust.

Hopkins Garden
Members removed invasives and assisted with garden maintenance.

Sea Call Farm
Members removed invasive plants from property and restored a historic viewshed.

Nauset Beach
Members planted beach grass to restore dune habitat.

Ewald Gift
Members removed vegetation from historic rock wall and cut back invasive species.

Dry Swamp Bog Farm
Members conducted a Prescribed Burn to maintain a local cranberry bog.

Orleans Water Department
Members participated in a prescribed burn to reduce fuel loading.

W.E.T. Festival, Nauset Regional Middle School
Members taught students about the importance of water conservation using hands on activities.
**PROVINCETOWN**

*Conservation Land Kiosks*
Members assembled and installed informational kiosks at conservation lands around Provincetown.

*Oyster Pond*
Members removed phragmites and knotweed with the Oyster Pond Environmental Trust.

**HARWICH**

*Environmental Education*
Members taught worm farm and soil lessons to students at Cape Cod Regional Technical High School.

*Bank Street Bogs*
Members helped with management and removed small woody plants to restore heathlands habitat.

*Live Owl Show*
Members assisted with set-up and running of the Live Owl Show for community members.

*Live Wolf Show*
Members assisted with set-up and running of the Live Wolf Show for community members.

*Thompsons Field*
Members removed invasives and worked on a heathland restoration project

*Herring Run Clearing*
Members removed overhanging branches and debris from the herring run.

*Lee Baldwin Woods*
Members removed invasive plants from the property.

*The Family Pantry*
Members helped in the garden, weeding, harvesting, painting and installing fruit tree supports.

*W.E.T. Festival, Harwich Middle School*
Members educated children about groundwater topics on Cape Cod using hands on activities.

**MASHPEE**

*Scout Fair*
Members delivered safety and preparedness lessons to local Boy and Girl Scouts with the American Red Cross.

*W.E.T. Festival, Quashnet Elementary School*
Members taught students about the importance of water conservation using hands on activities.

*Oyster and Quahog Propagation*
Members assisted the Shellfish Constable with various propagation projects and gear construction.

*Herring Run*
Members cleared herring runs at the Mashpee River and Quashnet River with the Mashpee Conservation Department.

*Trail work*
Members served with Mashpee Conservation Department to clear trails on Mashpee conservation lands.

*County Fairgrounds*
Members revamped the landscape and gardens of the Fairgrounds.

*W.E.T. Festival, Harwich Middle School*
Members taught students about the importance of water conservation using hands on activities.

**SANDWICH**

*Environmental Education*
Members taught lessons to the Riverview School and Upper Cape Tech on farming, invasive species and composting.

*W.E.T. Festival, Forestdale and H.T. Wing Schools*
Members taught students about the importance of water conservation using hands on activities.

*Herring Run*
Members cleared the Mill Creek herring run with the Sandwich Department of Natural Resources.

*Path Reconstruction*
Members mulched paths, trails, and rhododendron gardens at Heritage Museum and Gardens.

*Beach Signage Installation*
Members installed signage and beach fencing on Town Neck Beach.

*Ryder Lands Invasive Removal*
Members cleared a section of the Ryder Conservation Lands at the future site of a Town dog park.

*Trail clearing*
Members cleared a new trail at Joe’s woods.
Tree clearing  
Members removed dead trees in Shawme Crowell State Forest.

TRURO  
**Town Beach Cleanup**  
Members worked with community volunteers to do a town-wide beach cleanup.

**Corn Hill Conservation area**  
Members removed invasive with the Truro Conservation Trust.

WELLFLEET  
**Gull Pond**  
Members cleaned up the area around Gull Pond beach.

**Canoe Rack Construction**  
Members built canoe and kayak racks for the Town of Wellfleet Beach and Conservation Dept.

**Oysterfest Recycling Team**  
Members helped direct festival attendees to recycling stations.

**Hazardous Waste Collection**  
Members helped to facilitate a hazardous waste collection.

**SEMAC Oyster Sampling**  
Members weighed, measured, and counted oyster samples for the Marine Biological Lab in Wellfleet Harbor.

**State of the Wellfleet Harbor Conference**  
Members helped with set-up and clean-up of the conference.

**Grassland Restoration**  
Members cleared invasive and woody plants with the Mass Audubon to help restore the property to native grassland.

**Bird Box Construction**  
Members constructed bird boxes with volunteers for conservation areas around Wellfleet.

YARMOUTH  
**Environmental Education**  
Members taught gardening and worm farm lessons to students at the M.E. Small School.

**Environmental Education**  
Members taught worm farm, invasive species, bird ecology and photosynthesis lessons to students at Mattacheese Middle School.

**W.E.T. Festival, Mattacheese School**  
Members educated children about groundwater topics on Cape Cod using hands on activities.

**Taylor Bray Farm**  
Members worked throughout the farm to clear invasive plant species.

**Trail Clearing**  
Members cleared trails and invasives at the Calley-Darling Conservation area, Pagoda Park, James Pond, and Ray Srjyla conservation area.

CAPE COD NATIONAL SEASHORE  
**Highlands Center Cleanup**  
Members cleared trails and did maintenance at the Highlands Center.

**Highland Light**  
Members planted native plants along a scenic overlook.

**Ponds Project**  
Members installed jute netting to combat erosion,
built split rail fences, and planted native plants at various ponds in Wellfleet

**Highlands Fest Preparation**
Members completed maintenance and preparation for the Highlands Fest Celebration.

**Marconi Site Heathlands**
Members removed and piled scrub oak and pitch pine and burned piles to restore heathlands habitat. Members also participated in several prescribed burns.

**Marconi Treatment Area**
Members conducted several cut, pile and burn projects around the Marconi area in an attempt to reduce the fuel loading.

**Fort Hill Restoration**
Members removed and piled scrub oak and pitch pine and burned piles to restore meadow habitat.

**Skiff Hill Restoration**
Members removed and piled scrub oak, pitch pine and invasive plants and burned piles to restore meadow habitat and reduce fire fuel.

**Penniman House**
Members removed and piled brush and invasive plants and burned piles in order to reduce fire fuel.

**Lombard –Paradise Hollow Research Area**
Members conducted Prescribed Burns and mechanical treatment for research plots.

**Horseleech and Slough Ponds**
Members installed fencing and planted beach grass to mitigate human impact.

**Old Kings Highways**
Members cut back vegetation encroaching onto Old Kings Highway Fire Road.

**Pilgrim Heights**
Members conducted Prescribed Burns to reduce fuels.

**Doane Rock**
Members removed hazard trees and participated in several Prescribed Burns in the Doane Rock area to reduce fuels.

**Highlands Wildfire**
Members of the FireCorps responded to a wildfire in the vicinity of the Highland Center.
Children’s Cove: The Cape & Islands Child Advocacy Center
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Sandy Hebenstreit
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Sandy.Hebenstreit@MassMail.State.MA.US

We offer a safe, welcoming place for children to go if they have been sexually abused, severely physically abused, or witnessed domestic violence. We bring together all of the professionals in this field who have made it their life’s work to help. We treat each child with respect, care, and compassion and make it possible for the trauma to stop and the healing begin.

Children’s Cove, a department within Barnstable County, is a unique collaborative effort between partner agencies including Barnstable County, the Cape and Islands District Attorney’s Office, Department of Children and Families, Department of Mental Health and Cape Cod Health Care. We are one of eleven Child Advocacy Centers (CAC) in Massachusetts and over 700 nationally. Children’s Cove has proven over the past sixteen years that taking a regional approach to helping vulnerable, abused children brings the best out in every agency involved in the recovery of the victim and the prosecution of the offender. As pioneers of a groundbreaking collaborative regional approach, Children’s Cove has gained statewide and national attention, a model organization with programs that has been replicated on a broader scale.

Children’s Cove is a fully operational and accredited Child Advocacy Center with the National Children’s Alliance in Washington DC whose
components include the Sexual Abuse Intervention Network (SAIN) Team, (the investigatory piece of the program); the medical exam, with a Sexual Assault Nurse Examiner (SANE) which utilizes a state of the art video med-scope to utilize evidentiary images in court proceedings; case tracking and team review; family advocacy; specialized therapeutic referrals; education and training; and family program to assist in rebuilding family values once such a tragic event occurs.

Children's Cove strives to help educate the community on issues surrounding child abuse. In this past fiscal year alone, over 3166 individuals were trained, including law enforcement, prosecutors, emergency medical providers, firefighters and child protection professionals. Ninety-one individual trainings were administered throughout the Cape and Islands. Presentations were made to human service providers, community groups, schools, and organizations. Additionally, in the past fiscal year, Children's Cove had been given a permanent slot in the National Registry for EMS, providing First Responder to Child Sexual Abuse and Child Trafficking curriculum.

Children's Cove continues to plan and implement its awareness campaign, including radio ads, news articles, and public service announcements as part of its outreach to the community regarding child sexual abuse. We are dedicated to reaching the various communities that comprise the Cape and Islands in order to educate the public about child sexual abuse.

During the twelve-month period of July 1, 2012 – June 30, 2013, 180 children were seen for services and 126 of the 180 were provided with forensic interviews at Children's Cove. SAIN protocols mandate, the victim must have made some form of disclosure, and that the alleged abuse is thought to have occurred within the jurisdictional area of Cape Cod and the Islands of Martha's Vineyard and Nantucket.

The alleged victim may be from the age of two years old, depending upon the child’s cognitive and developmental abilities, to the age of seventeen years old. The legal guardian of the child must also consent to the interview. Based upon these protocols, Children's Cove received referrals on fifty-four cases from the Department of Children and Families, and seventy-two referrals from police.
For the 126 children referred to Children’s Cove for services, the gender and the age of the victim were as follows:

Children’s Cove serves the same jurisdictional zones as that of the District Attorney’s Office and the area office of the Department of Children and Families. This includes the fifteen towns of Cape Cod, the six towns on Martha’s Vineyard and Nantucket. Fiscal year (FY) 2013 interviews covered consumers from Cape towns and both islands, as well as to children who were visiting these areas and permanently or at the time of disclosure reside elsewhere. The breakdown is as follows:

For the 88 alleged perpetrators, information concerning the alleged perpetrators is broken into age and gender classifications.

The Family Advocacy Program of Children’s Cove assists and supports families throughout the entire process at Children’s Cove. Assistance with outside referrals and resources, court accompaniment, restraining orders and overall support of the child and family are an essential piece of the program. Our Family Advocate provided 469 individual contacts to family members throughout the course of the fiscal year.

Medical examinations were provided for 19 children. It is the goal of the Nurse Practitioner/Pedi SANE to provide comprehensive, compassionate care to child victims and their families. All children referred to the Children’s Cove are offered timely medical examinations with the consent of their parents at no cost. These exams are provided by the Nurse Practitioner/Pedi SANE on site in the medical suite.

Children’s Cove’s clinical component provided individual treatment to 78 clients in 284 sessions. Specialized clinical treatment is offered to all chil-
dren who are referred to Children's Cove. These short term therapeutic sessions assist children in the healing process and guide the families in the right direction in order for the child to make the most out of treatment.

The Family Program seeks to heal the family from within by introducing activities out in the community. The goal of the family program is to strengthen relationships between family members through special events, activities and exercises which allow non-offending parents, child and siblings to spend “quality time” together rebuilding trust, support and acceptance.

All Children's Cove services are free of charge.
DEPARTMENT OF FACILITIES
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Equipment Specialist

Deborah Weekes
Custodial Supervisor

Maintenance Staff
Thomas Butler
Journeyman Plumber/Equipment Specialist

Dana Cook
Equipment Specialist

Jose Couto
Custodian

Brian Hayes
Custodian

David Hoeft
Custodian

Parker Kelley
Repair/Custodian (temp)

Michael Lally
Custodian

Robert Leite
Custodian

Aurelio Lima
Custodian

Jairo Oliveria
Custodian

Richard Pacheco
Custodian

Kevin St. Pierre
General Maintenance/Locksmith

Frank Tavano
Maintenance/Repair

Jason Pratt
Maintenance/Repair

Cynthia Weekes
Custodian

Mail Clerks
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Richard Creedon
On Call Mail Clerk

Joy Potter
On Call Mail Clerk
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Telephone Switchboard Operators
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Anita Amaral
Mary Alvezi

On Call Operators
Karen Boduch
Florence Roberts
On Call Operator
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The Facilities Department is responsible for all physical plant operations, general maintenance and planning within the Barnstable County Complex, Second District Courthouse in Orleans, Children’s Cove, White House Administration Building (formerly the Sheriff’s Administration Building), Extension Farmhouse, certain county residences and the old House of Correction.

The physical plant consists of the following seventeen elements:

1. Superior Courthouse, County Complex
2. Deeds and Probate Court, County Complex
3. First District Courthouse, County Complex
4. Police Service Building, County Complex
5. County Complex Grounds, Barnstable
6. County Residences, Bourne
7. Second District Courthouse, Orleans
8. Children’s Cove, Barnstable
9. Farmhouse (Extension), Barnstable
10. White House Administration Bldg., County Complex
11. Cape Cod Commission, cleaning only
12. Rest Area (seasonal)
13. Recycle Building, Barnstable
14. Old House of Correction
15. Open Cape Building
16. RDO/Americorps Residence – Bourne, MA
17. RDO/Americorps Residence – Wellfleet, MA

The Facilities Department budget provides funding for the following:

1. HVAC, plumbing and electrical systems
2. Utilities
3. Telecommunications system management
4. Grounds and parking lot maintenance
5. General maintenance and custodial services
6. ADA administration and compliance
7. Safety and security programs
8. Mail collection and distribution
9. Rest Area, Route 6, Barnstable, Custodial Services
10. County Recycling Program
## REPAIRS AND COSTS TO BARNSTABLE COUNTY BUILDINGS
### Fiscal Year 2013

<table>
<thead>
<tr>
<th>Building</th>
<th>Description</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Second District Courthouse</td>
<td>Grounds Maintenance</td>
<td>$4,335.00</td>
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<tr>
<td></td>
<td>New Flooring</td>
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<td>Superior Courthouse</td>
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<td>New HVAC System</td>
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<td>First District Courthouse</td>
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<td>County Complex</td>
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<td>Paving Repairs</td>
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<td>Old House of Correction</td>
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<td>Roof Repairs</td>
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<td>ADA Improvements</td>
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<td>Gym Renovations</td>
<td>$866,831.30</td>
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**TOTAL**                           | **$1,123,163.01**
Cape Cod Commission
APPPOINTED REPRESENTATIVES TO THE CAPE COD COMMISSION
Fiscal Year 2013 Officers:
Chair: John D. Harris (Minority Representative)
Vice Chair: Jack McCormack Jr. (Yarmouth)
Secretary: Richard Roy (Dennis)

Fiscal Year 2013 Members
REPRESENTING...
Barnstable Royden Richardson
Bourne Michael Blanton
Brewster Elizabeth Taylor
Chatham Vacant
Dennis Richard Roy
Eastham Joy Brookshire
Falmouth Vacant until December 2012, then Andrew Putnam
Harwich Robert Bradley until mid-September 2012, then vacant until May 203, then Jacqueline Etsten
Mashpee Ernest Virgilio
Orleans Leonard Short
Provincetown Austin Knight
Sandwich Joanne O’Keefe until April 2013, then vacant
Truro Peter Graham until April 2013, then vacant
Wellfleet Roger Putnam
Yarmouth Jack McCormack Jr.
County Commissioner Mary Pat Flynn
Minority Representative John D. Harris
Native American Representative Vacant
Governor’s Appointee Herbert Olsen until mid-March 2013, then vacant
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The Cape Cod Commission pursued the following priorities in Fiscal Year 2013:

1. Wastewater Management
The Commission prepared a Regional Wastewater Management Plan (RWMP) throughout 2012, publishing it online on December 31 (www.capecodcommission.org/regionalplans/RWMP). The RWMP presents a framework and a set of tools for identifying several wastewater solutions for each watershed. The Commission created the RWMP to advance the region’s decision making toward improving Cape Cod’s water quality through sustainable and affordable approaches. The online document describes the Cape’s wastewater problem; provides a baseline assessment of the region’s land use and water quality environment, and the existing regulatory and planning environment; reviews a wide variety of potential solutions, including conventional and green infrastructure and innovative alternatives; explores questions related to the costs for various solutions and makes a preliminary analysis of the affordability of various solutions for Cape residents; and reviews the tools and resources on hand as the region pursues further wastewater management planning.

In preparation for the release of the RWMP, the Commission staff also:

- prepared a guidance document for the agency’s regulatory review of local Comprehensive Wastewater Management Plans (CWMPs);
- conducted a Cape-wide buildout analysis to support local and regional planning;
- developed the Watershed MVP application for technical experts and municipalities to explore various potential management scenarios;
- developed a “green infrastructure” siting tool as a companion to the Watershed MVP; and,
- pursued pilot projects to better understand green approaches to treating wastewater and stormwater.

In late January 2013 the Commonwealth of Massachusetts directed the Commission to prepare an update to the 1978 Area-wide Water Quality Management Plan for Cape Cod, a requirement under Section 208 of the federal Clean Water Act. Calling nutrient contamination “one of the most pressing environmental challenges facing Cape Cod” (see FOOTNOTE 1 at end of report) the state called for the updated plan to “address a critical problem—the degradation of Cape Cod’s water resources from excessive nutrients,
"primarily nitrogen contamination from septic systems, wastewater treatment plants, lawns, and stormwater leaching into the groundwater, flowing underground, and discharging into water bodies.

The Commission’s technical staff, partner organizations, and scientists have pursued water quality planning and analyses for decades to give planners and officials in the region a better understanding of the hydrology and geology of Cape Cod in order to protect the region’s natural resources. Following the scientific analyses prepared for the Massachusetts Estuaries Project during the last decade, the Commission, the University of Massachusetts-Dartmouth, and the Massachusetts Department of Environmental Protection conclude that nitrogen contamination has affected the water quality of more than 90 percent of the Cape’s estuaries, and that 85 percent of the wastewater flow into those embayments and estuaries comes from on-site septic systems.

The state designated the Cape Cod Commission to prepare the 208 Update this year because it considers a regional effort to be one that will:

- facilitate a holistic, watershed-based approach;
- limit the amount of needed infrastructure by sharing facilities in areas of greatest need;
- allow more diverse solutions; and,
- achieve economies of scale.

To support the work that the draft 208 Update will entail, the state also committed $3.35 million from the Massachusetts Water Pollution Abatement Trust to the Cape Cod Commission this spring.

The Commission developed a Program Work Plan for the 208 Update that lays out an ambitious set of tasks in a tight timeframe (three years, with the bulk of the work to be completed in Fiscal Year 2014) to produce an area-wide planning-level document. The Commission and its consultants are tackling the technical analyses, planning, financial, and public participation requirements for the 208 Update simultaneously, engaging stakeholders for the program’s policy, affordability, financing, planning, and implementation issues, as well as stakeholders for watershed- or basin-specific issues, needs assessments, evaluation of alternatives, and evaluation of costs. A range of technologies and management/regulatory solutions are being explored and customized for each watershed to provide the most cost-effective, appropriately scaled, and phased solution for each water body.

A key principle of the Update is to prioritize actions "focusing on the most severely impaired waters and the most easily and affordably implemented solutions while maximizing the use of existing infrastructure.” The entire 208 Program Work Plan can be reviewed online: www.capecodcommission.org/resources/initiatives/208workplan.pdf
The 208 Plan Update will:

- focus primarily on excess nutrients (nitrogen for marine waters and phosphorus for fresh waters)
- be watershed based (57 total watersheds across the Cape)
- rely on previously completed water-quality assessments and data-collection efforts
- use a workshop approach to engage stakeholders Cape-wide and watershed-by-watershed
- assess and redefine the baseline condition for natural systems and for built systems
- summarize water quality impairments and create a prioritized list of needs
- evaluate preliminary financial and affordability assessments
- identify watershed-based wastewater management alternatives that consider a range of technologies, including “green” infrastructure options
- propose implementation planning and performance/compliance monitoring for individual watersheds and Cape-wide
- accommodate an “adaptive management” approach

For information about the Commission’s 208 Plan Update work during Fiscal year 2014, one can monitor the web site: watersheds.capecodcommission.org

2. Strategic Information Office
During Fiscal Year 2013, the Cape Cod Commission helped establish a governance committee for the regional Strategic Information Office (SIO). The “Smarter Government Steering Committee” executed a data-sharing agreement with Cape towns. The SIO is working with others, including the Cape Cod Economic Development Council, to collaborate on digital regionalization opportunities and to recommend potential regional solutions for services and products that increase government efficiency and decrease costs to taxpayers.
With funds from a 2012 state Community Innovation Challenge Grant, the SIO began working with Chatham, Yarmouth, and Nantucket in Fiscal Year 2013 on an ePermitting, Licensing, and Inspection System, starting with inspection services and building/health permitting. By leveraging state funds from the District Local Technical Assistance (DLTA) program, the Strategic Information Office will be able to add ePermitting capabilities in Harwich and Provincetown in Fiscal Year 2014. The Commission hired an applications implementation manager this year to work with communities and the vendor (Accela) on these installations. When fully implemented, the online system will allow Cape Cod municipalities to issue and monitor permits, licenses, and inspections, with a web-based portal for citizens and contractors, using a common technology infrastructure and software adopted regionally but tailored to each town.

4. Economic Development
The Cape Cod Commission continued to pursue the implementation of priority projects that were identified in the Five-year (2009-2014) Comprehensive Economic Development Strategy (CEDS) and were reevaluated through a subsequent yearly process. This year the focus was on:

- wastewater management planning in economic centers, especially in the downtown Buzzards Bay area and Growth Incentive Zone of Bourne, and in the proposed South Sandwich Village area of Sandwich;
- continuation of the SmarterCape Initiative and co-sponsorship of the third annual SmarterCape Summit to promote the use of technology infrastructure to help the region’s economy to evolve from service-based to knowledge-based; and,
- initial work on a comprehensive Cape Cod Canal area transportation study, which includes considering major congestion and safety issues associated with the canal bridges, improvements to Belmont Circle in the downtown Buzzards Bay area, and preliminary planning for improvements and alternatives to the Bourne Rotary. These transportation issues strongly affect economic activities in the Town of Bourne.

The Commission approved and submitted the CEDS annual report for Year 4 to the US Economic Development Agency at the end of Fiscal Year 2013. Spring 2014 will bring a new
five-year review and consensus-based planning process to help the region continue to make economic progress.

Economic development will also be enhanced through a RESET project that is just beginning in Sandwich, partially funded by District Local Technical Assistance (DLTA) funds from the state. The Commission will be a partner with the town to guide growth and development/renovation of the South Sandwich Village area, the industrial park, other town-owned parcels, and YMCA property. The Commission staff has begun to pursue a regulatory analysis and strategy that will involve expedited permitting to benefit this and other communities.

5. Regional Consensus

The Cape Cod Commission coordinated a number of ongoing planning and policy-making endeavors that seek to achieve consensus across the region. Examples from the past include the Five-year CEDS process (see above under “Economic Development”) and this year’s coordination and advancement of regional consensus support for the implementation of ePermitting services for municipalities and the regional government (see above under “Strategic Information Office”).

Culminating a multi-year effort, the Commission staff coordinated and advanced regional efforts – multi-town cooperation – that explored options and crafted a regionally consistent, locally beneficial, long-term contract for the disposal of Cape Cod’s solid waste. In 2015 many of the previously established long-term contracts between Covanta/SEMASS, the off-Cape waste-to-energy facility to which nearly all municipal solid waste is delivered, and Cape towns will expire. Through the formation of the Cape Cod Solid Waste Advisory Committee (SWAC), towns have come together to discuss the future of solid waste disposal and to identify regional solutions to solid waste and recycling. In keeping with the commitment to environmental quality, the Commission has facilitated the group’s efforts for several years. In early May 2013, the regional collaboration process resulted in a proposed term sheet outlining major terms negotiated with Covanta/SEMASS on behalf of Cape Cod and off-Cape communities via the SWAC. Through additional negotiations as the new fiscal year was beginning (August 2013), this regional collaborative effort secured two options from which towns could choose, Covanta/SEMASS and New Bedford Waste Services/Zero Waste Solutions, for competitively priced long-term municipal solid waste disposal contracts. (Online: www.capecodcommission.org/departments/planning/waste and www.capecodcommission.org/departments/technicalservices/DLTA)

Another good example of the Commission’s work toward regional consensus is this year’s efforts to update the 2005 Joint Land Use Study (JLUS) related to the Massachusetts Military Reservation (MMR), recently renamed to Joint Base Cape Cod. The US Department of Defense/Office of Economic Adjustment awarded the Commission a $140,000 grant to complete the JLUS Update for the installation and the surrounding communities of Bourne, Falmouth, Mashpee, and Sandwich. The Army nominated the installation for this cooperative planning effort because of significant changes in military mission and land use related to the 2005 Base Realignment and Closure (BRAC) process, the need for policy and procedures about potential alternative-energy development on and off the base, and mutual interests between the military and communities to investigate opportunities for shared utility services. A program goal is to preserve the sustainability of the military mission by ensuring that future community growth and development is compatible with training and operations. In addition, the JLUS planning process and resulting community dialogue can help reduce the impacts of military operations on the adjacent land. Additional information about the JLUS Update are provided in the Town Services section of this report for the towns of Bourne, Falmouth, Mashpee, and Sandwich. (Online: www.capecodcommission.org/departments/planning/MMR)
Another example of the Commission’s role in helping achieve regional consensus is its work toward development of regional and local Multi-Hazard Mitigation (MHM) Plans. The Federal Emergency Management Agency (FEMA) has recommended the approval of funds for the Commission to help develop six more local plans (for Bourne, Falmouth, Harwich, Mashpee, Sandwich, and Yarmouth) in addition to the current FEMA-certified Regional MHM Plan for Barnstable County and the five existing FEMA-certified local MHM plans (Barnstable, Chatham, Dennis, Provincetown, and Truro). Development of these plans elevates regional awareness to the types of hazards facing Cape Cod and the level of risk associated with impacts from certain types of hazards. Certified MHM plans also open avenues to mitigation funding to reduce vulnerability to impacts from hazards.

Another good example of the Commission’s priority for regional consensus is the finalization this year of the Hyannis Access Study Implementation project. Working with a task force of 45 elected officials, transportation and municipal staff, business representatives, community representatives, and more, the Commission evaluated the design of Route 28 from the Airport Rotary to the Barnstable/Yarmouth town line, taking into consideration large-scale development along sections of Route 132. The study focused on access to and from Hyannis for all users, including those operating automobiles plus pedestrians, bicyclists, and transit riders. The project required extensive public outreach and consensus building among all interested parties and stakeholders. In January 2013, the task force identified a preferred long-term solution. The preferred plan for a new roadway would provide safe and efficient access from Hyannis to Route 6 (at Exit 7) and reduced travel times for emergency providers to the Cape Cod Hospital. The new roadway would also connect downtown Hyannis to the commercial district along Iyannough Road, portions of Route 28, and Route 132. The Cape Cod Commission is continuing to work with area planners and state and federal governmental agencies to advance the proposal through transportation planning and funding processes. (Online: www.capecodcommission.org/departments/technicalservices/transportation/hyannisaccess)

**PRIORITIES FOR NEXT FISCAL YEAR**

The priorities to be pursued by the Cape Cod Commission during Fiscal Year 2014 include:

- completing the draft Update to the Section 208 Area-wide Water Quality Management Plan
- developing a joint Barnstable County/Cape Cod Commission communications plan
- continuing to develop the Strategic Information Office to further explore digital regionalization and move towards “smarter government” on Cape Cod
- initiating the five-year update of the Cape Cod Regional Policy Plan
- pursuing the concept of “expedited permitting” zones

**FY2013 HIGHLIGHTS**

The Cape Cod Commission staff both coordinated and presented at a number of high-visibility local and national conferences and programs this year, most of which focused on land use and water quality management, successful applications of new technology and new, holistic approaches to solving environmental problems, and developing models that take complex data and make them more easily understood.

The Commission cosponsored and staff organized a two-day well-attended conference, Sustainable Cape Cod: New Tools and Practices for Clean Water and Community Benefit, in October 2012. The conference brought participants and presenters from across the country and the globe to review
wastewater management, focusing extensively on nontraditional approaches. Several staff members also attended and made presentations of Cape Cod Commission-developed geospatial technology (Watershed MVP) at the Esri Federal GIS Conference and the ESRI Geodesign Summit. Staff also made presentations at the American Planning Association (APA) Annual Meeting, and participated in the Zofnass Program at the Harvard University Graduate School of Design to explore and promote sustainable infrastructure approaches and solutions.

The Commission’s Executive Director and Deputy Directors remained closely involved with Cape communities; regional, state, and governmental partners; business groups and chambers of commerce; and nonprofit organizations. Some of their FY2013 meetings, seminars, and workshops included (alphabetically listed):

Association to Preserve Cape Cod
Barnstable Citizens Advisory Committee
Barnstable County Assembly of Delegates
Barnstable County Commissioners
Barnstable Town Council
Boston Society of Civil Engineers
Bourne Wastewater Advisory Committee
Brewster Chamber of Commerce
Buzzards Bay Coalition
Cape Cod Business Round Table
Cape Cod Chamber of Commerce
Cape Cod Community Development Partnership
Cape Cod Economic Development Council
Cape Cod Selectmen and Councilors’ Association
Cape Cod State Legislative Delegation
Cape Cod Technology Council
Cape Cod Times newspaper
Cape Cod Town Managers
Cape Cod Water Protection Collaborative
Cape Cod Young Professionals
Cape Community Business Partners
CapeNet
Chatham Board of Selectmen
Community Action Committee of Cape Cod and Islands
Community Leadership Institute of Cape Cod and the Islands
Eastham Board of Selectmen
Emerson College
Enterprise newspapers
Falmouth Board of Selectmen
Falmouth Comprehensive Wastewater Management Planning
Falmouth Planning Board
Falmouth Unitarian Universalist Fellowship
Governing Massachusetts: A Leadership Forum
Harvard University Graduate School of Design – Urban Design for Planners
Harvard University Graduate School of Design – Zofnass Program
Harwich Board of Selectmen
Harwich Comprehensive Wastewater Management Planning
Home Builders and Remodelers Association of Cape Cod
Housing Assistance Corporation
Inter-municipal Cooperation Committee
Losing Cape Cod: Our Wastewater Challenge (Saturday community discussions)
Managing Uncertainties Workshop
Marine Biological Laboratory
Martha’s Vineyard Commission
Massachusetts Association of Regional Planning Agencies (MARPA)
Massachusetts Department of Environmental Protection (DEP)
Massachusetts Digital Summit
Massachusetts Military Reservation (MMR) Military-Civilian Community Council
Metropolitan Area Planning Council
Nauset Unitarian Universalist Fellowship
New England Water Environment Association
New Urban Mechanics - City of Boston Mayor’s Office
OpenCape Corporation

In addition to the 70± public meetings and public hearings required for the review of proposed Developments of Regional Impact (DRIs) and other regulatory matters, the balance of the Commission’s staff also coordinated public meetings and special events as follows (alphabetically listed):

- Annual Cape-wide Historic Preservation Workshop: Preparing for the Future
- Barnstable County HOME Consortium Advisory Council (monthly)
- Barnstable County HOME Consortium Advisory Council (monthly)
- Provincetown Banner newspaper
- Regionalization Toolkit conference
- Rhode Island School of Design
- Sandwich Board of Selectmen
- SmarterCape Partnership and the SmarterCape Summit 3 (2013)
- Smarter Government Steering Committee
- Southeast New England Partnership
- University of Massachusetts-Amherst
- US Environmental Protection Agency (EPA)
- Waquoit Bay National Estuarine Research Reserve
- WCAI/WNAN Public Radio/The Point Program
- Wellfleet Non-Resident Taxpayers Association
- Workforce Investment Board
- Yarmouth Board of Selectmen
Bay State Bike Week (annual)

Cape Cod Joint Transportation Committee (CCJTC; monthly)

Cape Cod Metropolitan Planning Organization (CCMPO)

Cape Cod Pathways Fall 2012 Walking Weekend and Spring 2013 Walking Weekend

Cape Cod Rail Trail Proposed Extension

Cape Cod Regional Bicycle and Pedestrian Committee

Cape Cod Smart Transportation Week (annual)

Cape Cod Solid Waste Contract Advisory Committee

Cape Cod Transportation Improvement Program (TIP)

Good Development in Small Packages: Cottage Housing and Affordable Housing (workshop)

Harvard University Graduate School of Design – Landscape Architecture III Studio

Hyannis Access Study Implementation Task Force

Living Streets Planning Project in Brewster and Orleans

Living Streets Planning Project in Yarmouth

Massachusetts Department of Transportation (MassDOT) “Your Vision, Our Future”

Provincetown-Truro-Wellfleet Bicycle and Pedestrian Master Planning

Regional Ready Renters (RRR) Program

Section 208 Area-wide Water Quality Advisory Board

SmarterCape Summit 3 (annual)

State of the Cape: Changing Waters and Shorelines (two-day conference by the Waquoit Bay National Research Reserve, with poster board sessions)

**FY2013 PROGRAMMATIC GOALS AND ACTIONS**

**REGIONAL PROGRAMS**

**Goal 1:** To increase capacity to manage water and wastewater infrastructure planning

**FY2013 Actions:**

The Commission staff prepared and published the Regional Wastewater Management Plan framework, completed a draft “guidance document” for the Commission’s regulatory review of local Comprehensive Wastewater Management Plans, and provided technical assistance about water supply protection to the Town of Eastham. (See also “Wastewater Management” in the FY2013 Priorities section of this report.)

**Goal 2:** To increase consistent and coordinated geographic data among towns and Barnstable County

**FY2013 Actions:**

The Commission staff made 24 web-mapping applications available through its Geographic Information System (GIS), encouraged cooperation and coordination among the Cape-wide GIS Users Group and organized three meetings of the group during Fiscal Year 2013, expanded the GIS to seven SQL databases with 501 layers, and improved access for non-departmental use of the SQL servers.
**Goal 3:** To promote the creation of affordable housing and equal opportunity in housing

**FY2013 Actions:**

The Commission staff, through the Barnstable County HOME Consortium, administered the US Department of Housing and Urban Development (HUD)-funded HOME Program. Four Consortium-funded rental projects totaling 210 affordable units were completed, and eight down-payment loans to first-time homebuyers were made. The Commission staff also filled nine rental units through the Regional Ready Renters Program and added 17 new applicants to the program (www.capecodcommission.org/departments/planning/housing/renters).

**Goal 4:** To coordinate a regional transportation program to improve safety, relieve congestion, promote alternatives to automobile travel, and encourage roadway construction/modifications that are consistent with community character and historic and scenic resources

**FY2013 Actions:**

The Commission staff continued to help coordinate the activities of the Cape Cod Joint Transportation Committee and the Cape Cod Metropolitan Planning Organization. These efforts secured $23.6 million of federal and state infrastructure capital for the region. In addition, the Commission staff undertook two “Complete Streets/Living Streets” projects this year to design an approach to transportation planning that respects the unique environmental resources of the region and includes roadway improvements with multi-use paths and sidewalks. The staff completed a Living Streets project along a portion of Route 6A between Brewster and Orleans in December 2012 and initiated a Living Streets project along a portion of Route 28 in Yarmouth in March 2013. The Yarmouth project is continuing into Fiscal Year 2014. (Online: www.capecodcommission.org/departments/planning/design/sustainedesign)

**Goal 5:** To implement transportation policies for Barnstable County that are consistent with local, regional, state, and federal transportation plans and policies

**FY2013 Actions:**

The Commission staff continued to work with Cape municipalities, the Cape Cod Joint Transportation Committee, and the Cape Cod Metropolitan Planning Organization to identify and pursue funding for priority projects. About 71 percent of available funds were allocated for roadway infrastructure through the Cape Cod Transportation Improvement Program (TIP), the annual projects list. (More transportation information online: www.capecodcommission.org/departments/technicalservices/transportation) The staff also continued to work on a Cape-wide bicycle network plan to advance cross-border bicycle path connections (www.capecodcommission.org/initiatives/bikeped). The staff worked most actively with local committees and municipal staff this year on Provincetown-Truro-Wellfleet connections and Dennis-Yarmouth-Barnstable connections. In addition, the Commission partnered with the Cape Cod Regional Transit Authority to design and produce 300-plus regionally consistent Cape Cod Bicycle Network signs, and designed and supervised the printing of 20,000 brochures that describe and provide maps for many segments of the bicycle network.

**ENERGY AND ENVIRONMENT PROGRAMS**

**Goal 1:** To increase energy conservation, efficiency, and use of renewable resources in local plans and large-scale development

**FY2013 Actions:**

The Cape Cod Commission staff continues to provide technical assistance to towns toward
adoption of local energy policies and progress on federal/state renewable energy initiatives. The towns of Barnstable and Harwich have incorporated energy policies into their Local Comprehensive Plans, and 15 towns have adopted criteria for siting renewal energy facilities locally (all have solar overlay districts). All large-scale developments undergoing regulatory review by the Commission for energy this year incorporated renewable energy, energy efficiency, and energy conservation initiatives in their proposals.

**Goal 2:** To protect the most sensitive natural resources

**FY2013 Actions:**

The Commission staff continued to support regional efforts that prioritize land areas needing protection and local efforts that protect rare species, wetlands, vernal pools, wildlife habitat, and potential future water supply areas. Ten Cape Cod towns currently have state-approved local Open Space and Recreation Plans, and 11 Cape towns have identified actions and priorities for land acquisition in their Local Comprehensive Plans.

**Goal 3:** To protect historic/cultural resources and community character

**FY2013 Actions:**

The Commission staff continued to provide technical assistance to towns and town committees this year as they developed local design guidelines and reviewed alterations to historic buildings. Planning, design, and technical staff members finalized the guidance document, Complete Streets/Living Streets: A Design Manual for Cape Cod, and shared it with local boards. The planning staff is currently working with the Town of Chatham on a visualization and planning project for land use along a portion of the Route 28 corridor. The staff historic preservation specialist also coordinated with Boston University’s Preservation Studies Graduate Program this year to inventory and map “heritage landscapes” in Falmouth and gave several public presentations on the region’s historic architecture and efforts to preserve it. The historic preservation specialist also organized the Fifth Annual Cape-wide Historic Preservation Workshop (online: www.capecodcommission.org/departments/planning/historic/workshops).

**Goal 4:** To limit development in the coastal zone, particularly high-hazard areas, to protect the natural, beneficial functions of coastal resources

**FY2013 Actions:**

The staff made presentations and provided technical assistance to several Cape towns this year about coastal resource protection and restoration.
proposals. The staff Natural Resources Specialist also continued to serve on the Massachusetts Ocean Advisory Commission.

The Commission staff also worked to promote and assist development and adoption of local Multi-Hazard Mitigation (MHM) Plans and to encourage climate-adaptation planning. Five Cape Cod towns currently have FEMA-certified local MHM plans. (FEMA had already certified Barnstable County’s regional MHM plan in March 2010.) Through the Commission’s efforts, funding has been granted for Fiscal Years 2014 and 2015 to help with the development of six additional local plans. The five existing local MHM plans considered climate-adaptation strategies.

Goal 5: To protect and restore the Cape’s sensitive fresh and marine water resources

FY2013 Actions:

The Commission staff continued to help Cape towns in their efforts to assess and protect freshwater resources, and continued to work with citizen volunteers (Pond and Lake Stewards, or PALS) and the University of Massachusetts-Dartmouth School for Marine Science and Technology (SMAST) to monitor and test the water quality of Cape Cod’s ponds and lakes. In addition, for the ongoing Massachusetts Estuaries Project, the Commission staff continued to work with SMAST and the state Department of Environmental Protection (DEP) on technical issues related to implementation of nitrogen limits. The staff also worked this year with the towns of Chatham and Barnstable on their adaptive management plans (AMPs) for wastewater management.

Goal 6: To maintain a high-quality and sustainable drinking water supply

FY2013 Actions:

The Commission staff assisted 13 towns this year toward the protection of drinking water supplies and 14 towns toward water supply development and management. The staff also helped towns understand low-impact development (LID) stormwater management techniques and incorporate them into town projects and proposals.

The staff continued to monitor the Cape-wide network of observation wells that track the height of the water table (groundwater level) each month and made 240 well measurements for that purpose throughout the year (online: www.capecodcommission.org/departments/technicalservices/water/wells). Among other uses, the measurements are routinely used by engineers, contractors, and municipal staff to design, properly locate, and issue permits for on-site septic systems.

Goal 7: To coordinate local and regional solid waste management efforts and ensure proper handling and disposal of hazardous wastes

FY2013 Actions:

The Commission’s Deputy Director continued to work with the regional Solid Waste Contract Advisory Committee throughout the year to develop a long-term municipal solid waste disposal contract that towns could opt into to receive the benefit of a regionally negotiated, favorable rate beginning in 2015 or earlier. By May 2013, the collaboration process had resulted in a proposed term sheet for 10-year contracts negotiated with Covanta/SEMASS Partnership (operators of the waste-to-energy facility in Rochester, Massachusetts) on behalf of Cape Cod and off-Cape communities. Negotiations were continuing as the new fiscal year began. By August 2013, the SWAC had finalized negotiations with Covanta/SEMASS and New Bedford Waste Services/Zero Waste Solutions, securing favorable rates and terms from which towns may choose. Several Cape towns (Brewster, Sandwich, and Wellfleet) have already entered into contracts with either Covanta or New Bedford Waste Services; Falmouth has an agreement with the Town of Bourne Integrated Solid Waste Management Facility. Other towns are continuing to consider the advisory committee’s successfully negotiated options.
Goal 8: To promote a balanced regional economy capable of supporting year-round livable wage jobs; to retain and attract income to the region; and to increase economic opportunities.

FY2013 Actions:

The Commission continued to work with regional partners such as Barnstable County’s Cape Cod Economic Development Council and the Cape Cod Chamber of Commerce to implement the fourth year of the 2009 Five-year Comprehensive Economic Development Strategy (CEDS) this year. Eleven CEDS priority projects are actively under way. The region received $60,000 this year from the US Economic Development Administration as a result of the CEDS certification. (Annual CEDS reports are available online: www.capecodcommission.org/departments/economicdevelopment/CEDS)

The Commission’s staff also continued to enhance the STATScapeland online data center (www.statscapecod.org) providing data sets and analyses of economic and demographic statistics and information for the region. Currently 20 benchmarks for a balanced economy are available on the site, as are eight data tables presenting up-to-date information on a town-by-town basis.

Goal 9: To promote efficient capital facilities and infrastructure

FY2013 Actions:

The Commission staff worked to develop baseline assessments of existing infrastructure for telecommunications, energy, water, transportation, stormwater, and public safety. The Commission’s GIS department has partially mapped 28 different types of infrastructure. The Commission’s planning, economic development, and transportation staff also continued to promote infrastructure solutions that contribute to “livable communities,” a multifaceted approach to incorporate sidewalks and bicycle amenities, low-impact design (LID) for stormwater management, and more. Twelve Cape Cod towns currently have bylaws or regulations that support LID. Several communities are currently pursuing multi-use paths and sidewalks. The Commission has also continued to promote inter-municipal approaches to shared equipment and infrastructure needs. Two Cape towns (Chatham and Harwich) have executed a memorandum of agreement to explore shared wastewater infrastructure. In addition, a scope of work was developed for infrastructure in the planned Economic Center known as the proposed South Sandwich Village Center through a public-private partnership.

Goal 10: To implement land use planning and growth management programs to guide growth to appropriate areas

FY2013 Actions:

The Commission staff continued to work toward implementation of the 2009 Regional Policy Plan’s growth policy: “To guide growth toward areas that are adequately supported by infrastructure and away from areas that must be protected for ecological, historical, or other reasons.” The staff has completed a Cape-wide buildout analyses to estimate additional development potential under existing zoning, which will assist regional and local land use planning and growth management efforts. The Commission has also permitted 25,000 new square feet of development space in Economic Centers through Development of Regional Impact (DRI) decisions and Development Agreements.

The planning staff has continued to help towns either develop, update, or re-certify their Local Comprehensive Plans; eleven are completed or updated. The staff also continues to help towns with their zoning amendments and bylaws to make those regulations more consistent with regional land use and growth management programs. For example, the Commission planning staff began work with the Town of Chatham on land use concerns along a portion of the Route 28 corridor this year.
INTERNAL OPERATIONS

Goal 1: To increase the Cape Cod Commission's capacity to provide planning and technical services to towns

FY2013 Actions:

The Cape Cod Commission receives funding from a variety of sources to accomplish its objectives. On behalf of the Commission, each town collects a proportional assessment from its taxpayers for the Cape Cod Environmental Protection Fund, which supports Commission work throughout the region. To broaden the agency’s capacity for providing additional, cost-effective services to towns, the Commission also pursues outside grants and other sources of revenue that are then applied to town and regional projects. In Fiscal Year 2013, funds from fee-based services and external grants totaled more than $2.4 million and allowed the staff to pursue targeted tasks for Cape towns. For example, the Commission has received state funds from the District Local Technical Assistance (DLTA) program for several years. Each year’s DLTA funds are then awarded to various town and regional projects to help those communities perform (or establish contracts for) studies and to accomplish planning and technical work that they might not be able to afford otherwise.

The Commission staff also continues to pursue resources necessary to design and develop searchable databases (for example, about proposals undergoing the regional regulatory review process) and data sets that support municipal policy- and decision-making (for example, last year’s Watershed MVP, which helps municipalities and technical professionals compare various water quality protection and wastewater management approaches). The Commission also continues to pursue the resources necessary to implement project and information management technologies, such as the ePermitting system described under “Strategic Information Office” in the FY2013 Priorities section of this report.

The Commission’s primary web site (www.capecodcommission.org) provides a wide variety of information, documents, maps, and other resources for public information and municipal purposes. In Fiscal Year 2013, the site enjoyed use by more than 29,000 unique visitors during which more than 200,000 pages were viewed. Visitation is nearly equally divided between returning visitors and new visitors. The Commission also expanded its web presence this year to offer a portal to the Section 208 Area-wide Water Quality Management Plan Update (www.watersheds.capecodcommission.org) as the planning progresses; the site allows municipal officials, residents, seasonal homeowners, visitors, and policy makers at all levels of government to follow and participate in events and review materials that are under development.

Goal 2: To increase professional development of Cape Cod Commission staff and members

FY2013 Actions:

To keep staff well informed and to maintain their professional skills, the Cape Cod Commission provided funding for professional affiliations and training opportunities. In Fiscal Year 2013, for example, staff attended training offered by:

- Commonwealth of Massachusetts Inspector General – Procurement
- Environmental Systems Research Institute (ESRI) – GIS
- National League of Cities
- Citizens’ Housing & Planning Association
- Massachusetts Housing Partnership
- Home Builders Association
- New England Chapter of the American Public Works Association
Barnstable County Public Works Association

American Planning Association

New England Water Environment Association

Graphics, Desktop Publishing training at Cape Cod Community College

Institute of Transportation Engineers

American Public Transportation Association

Baystate Roads Program

**Goal 3:** To ensure compliance with statutory requirements and regulations while coordinating review of DRI proposals and DCPC and GIZ nominations

**FY2013 Actions:**

The Cape Cod Commission prepares informational jurisdictional determinations, development agreements, Development of Regional Impact (DRI) decisions, modification decisions, technical comments on Environmental Notification Forms and Chapter 40B permit applications, and certificates of compliance for DRI-permitted projects. In Fiscal Year 2013, the Commission issued decisions on 11 DRI project applications and 20 requested “Type 1” minor modifications and one requested “Type 2” minor modification to previously approved DRIs (the former reviewed by the agency’s Executive Director; the latter reviewed by the Commission’s standing Regulatory Committee). The “Town Services” section of this annual report provides more details about these regulatory activities.

**Goal 4:** To manage the Cape Cod Commission financial resources to ensure adequate reserves and zero funding from Barnstable County Regional Government

**FY2013 Actions:**

The Cape Cod Commission oversees budgeting, grants management, procurement, and accounts payable/receivable for its own operations. The agency submitted a balanced budget proposal to Barnstable County Regional Government for Fiscal Year 2014, with no county general funds requested for the fifth consecutive year. The budget includes $500,000 for legal reserves, $225,000 for capital reserves, and $719,819 as the unassigned Cape Cod Environmental Protection Fund balance.

**PUBLIC EDUCATION**

**Goal 1:** To continue to build strong community relationships

**FY2013 Actions:**

The Cape Cod Commission’s Executive Director visited six Boards of Selectmen meetings this year, one Cape Cod Selectmen and Councilors Association meeting, two meetings of Cape Cod Town Managers, and six other meetings with town officials. A more extensive list of public/community outreach by the Executive Director, Deputy Directors, Program Managers, and other staff are offered above in the “FY2013 Highlights” section.

**Goal 2:** To continue to provide education to local officials and the public in the areas of Cape Cod Commission expertise

**FY2013 Actions:**

The staff continues to participate in working sessions with municipal staff on a regular basis to discuss significant growth management, regulatory, and planning issues.

The staff also continued a major initiative to gather and provide information about wastewater management planning through extensive outreach efforts to municipal and other officials, engineers,
and public stakeholders this year. Stakeholder and citizen engagement activities will continue and intensify in FY2014 to increase public awareness about the issue and garner support for the regional Section 208 Area-wide Water Quality Management Plan Update (see “Wastewater Management” in the FY2013 Priorities section of this report). In addition to the planning, technical, engineering, financial, and policy challenges this update presents, the 208 Plan requires region-wide public engagement.

The Cape Cod Commission staff also wrote, compiled, and published six issues of the REPORTER newsletter, distributing each issue to nearly 400 email subscribers and to those who wished to download it from the Commission’s web site this year. The newsletter keeps readers, including many municipal offices, informed about regional activities, decisions, actions, and events relevant to their work. The staff also issued 10 press releases and one op-ed commentary to local media outlets. Media coverage of significant Commission work is a regular feature of local weekly and daily newspapers. As mentioned earlier, more than 29,000 unique visitors enjoyed use of the Commission’s primary web site (www.capecodcommission.org) in FY2013, up from 19,536 unique visitors in FY2012.

FY2013 TOWN SERVICES

Each of the 15 towns on Cape Cod receives a variety of direct assistance from the Cape Cod Commission that is tailored to that community’s specific needs, in addition to benefitting from Cape-wide regional services and programs. The highlights of town-specific activities during Fiscal Year 2013 follow.

Affordable Housing

- The Barnstable County HOME Consortium, coordinated by the Commission’s affordable housing staff specialist, made two down payment/closing cost loans totaling $17,642 to low-income first-time homebuyers.

- The HOME Consortium closed a $200,000 loan of HOME funds and the construction is under way by the Barnstable Housing Authority for its 12-unit affordable rental development on Stage Coach Road.

- The Commission filled three accessory apartment units through the Regional Ready Renters program. (Online: www.capecodcommission.org/departments/planning/housing/renters)

Economic Development

- The Commission’s staff is coordinating a Regional Economic Strategic Executive Team (RESET) project for the Iyannough Road (Route 132) Regional Retail Center Redevelopment Incentive Project. The project includes analysis of four commercial/retail areas on the regional corridor: the Cape Cod Mall, the Capetown Plaza, the Festival Plaza, and the Southwind Plaza). The project will lead to a short-term redevelopment strategy and a long-term concept plan, as well as proposed new zoning to expedite permitting in the area. The goal is to stimulate the redevelopment of the four major retail centers and to increase economic opportunity and the town’s non-residential tax base. (Online: www.capecodcommission.org/initiatives/RESET)

Transportation

- The Commission’s transportation staff completed the final report for the Yarmouth Road Corridor Study in December 2012 and the final report for the Hyannis Access Study Implementation in June 2013. Both projects involved working with a task force of community members, business representatives, and leaders to identify “preferred
alternative” concepts for segments of those heavily travelled roadways and intersections leading into and out of Hyannis. The Yarmouth Road project addressed the design of Yarmouth Road/Willow Street area and developed alternatives to improve access for all modes of transportation along this corridor; online: www.capecodcommission.org/resources/transportation/Yarmouth_Road_2012-report_12272012.pdf

The Hyannis Access Study Implementation project addressed the design of Route 28 from the Airport Rotary to the Barnstable/Yarmouth town line, taking into consideration large-scale development along sections of Route 132; online: www.capecodcommission.org/resources/transportation/hyannisaccess/HASI_2013_final-report06282013.pdf

- Commission staff transportation planners continued to support local work to extend the Cape Cod Rail Trail from Dennis through Yarmouth and Barnstable. The staff hosted an informational meeting in February 2013 for the public to discuss the proposed project. As envisioned, the proposed project may extend the Cape Cod Rail Trail from Old Town House Road Park in Yarmouth to Iyannough Road (Route 132) in Barnstable, with improvements such as the construction of a continuous, paved shared-use path with grassed shoulders. The project may also include construction of parking areas, rest stops, and pedestrian road crossings at public and private roadways. The design, if approved and funded, would conform to all Massachusetts Department of Transportation (MassDOT) design guidelines and engineering directives.

- The Commission’s transportation staff provided technical assistance to the town to improve traffic flow within the Barnstable Transfer Station and near Pearl Street in Hyannis.

- The Commission’s transportation staff conducted annual summer traffic counts in Barnstable, including automatic traffic recorders (ATRs) and turning movement counts (TMCs). Traffic data are available online: www.capecodcommission.org/departments/technicalservices/transportation/counts

Roadway segments and intersections in Barnstable included Route 28 east of the Airport Rotary, Route 28 east of Bearses Way, Route 28 at the Mashpee/Barnstable town line, Route 28 east of Old Stage Road, Route 6 at the Barnstable/Yarmouth town line, Route 6 at the Sandwich/Barnstable town line, Route 6A at the Barnstable/Yarmouth town line, Route 6A east of Hyannis Road, Route 6A at the Sandwich/Barnstable town line, Airport Road north of Route 132, Bearses Way north and south of Route 28, Bridge Street east of the drawbridge, Bumps River Road east of Lumbert Mill Road, Center Street north of Main Street, Fuller Road east of Wedgewood Drive, Huckins Neck Road west of Route 132, Hyannis Road south of Route 6A, Independence Park Drive north of Route 132, Kids Hill Road east of Phinneys Lane, Lewis Bay Road north of South Street, Lumbert Mill Road south of Westminster Road, Main Street (Hyannis) west of Cedar Street, Main Street (Hyannis) west of Winter Street, Nye Road north of Lumbert Mill Road, Old Colony Road north of South Street and south of South Street and Ocean Street, Old Mill Road at the Mashpee/Barnstable town line, Parker Road south of Third (3rd) Avenue, Phinneys Lane south of Kids Hill Road, Race Lane at the Sandwich/Barnstable town line, Service Road at the Sandwich/Barnstable town line, and West Main Street south of Route 28.

- In January 2013, the transportation staff also established a permanent counting station at the intersection of Route 28 and Lumbert Mills Road in Barnstable. Traffic counts from this location are updated monthly and made available online: www.capecodcommission.org/resources/transportation/counts/pdf_count/bar_28_Lumbert.pdf
Water Resources

- The Commission’s water staff continued to support the town in its pursuit of wastewater management, including review of Barnstable’s nutrient-management plan and Comprehensive Wastewater Management Plan. The town submitted an Alternatives Screening Analysis Draft Environmental Impact Report (EIR)/Environmental Notification Form (ENF) for joint Massachusetts Environmental Policy Act (MEPA)/DRI review in May 2012. The Needs Assessment and Alternatives Screening Analysis reports concluded with five alternative plans. MEPA has required the preparation of a Final EIR, for which the town must engage in a targeted-watershed approach.

- The Commission water and planning staff continued to support the town’s work to address wastewater management in a comprehensive way and to pursue measures to restore the water quality in the Lewis Bay and Parkers River watersheds. With an award from the US Environmental Protection Agency, the Commission worked this year with the towns of Barnstable and Yarmouth on a “green infrastructure” pilot project in the two nitrogen-impacted watersheds. An EPA contractor, the Commission, and the towns worked to (1) identify suitable green infrastructure techniques in the target locations; (2) develop conceptual designs from site inventories, aerial photography, GIS data and mapping analyses, and watershed modeling to quantify water-quality benefits; and (3) identify preliminary cost estimates. The initiative in these watersheds may result in a cost-effective model for other towns as they attempt to implement sustainable wastewater options.

- The Commission partnered with the Town of Barnstable and a consulting and engineering company (Ecolotree) and worked with a graduate student to conduct a research project on the use of trees to mitigate excess nitrogen in groundwater. The process involved “phytoremediation,” a potential green-infrastructure solution that uses plants to clean up soils. In 2012, the staff installed test cells at the Barnstable Water Pollution Control Facility. In the cells they planted three species of trees. As the saplings grew and their roots filled the cells, the staff took periodic water samples to determine how well the trees removed nitrogen, phosphorus, and heavy metals from the effluent at the facility. Samples were tested at the University of Massachusetts-Dartmouth School for Marine Science and Technology. In January, the staff moved the project from Barnstable’s facility to Barnstable County’s Alternative Septic System Test Center. More information is available online:  www.capecodcommission.org/initiatives/wastewater/phytoremediation

- The Commission’s water staff supported the town’s use of the Watershed MVP application to evaluate targeted-watershed approaches for Three Bays.

- The Commission’s water staff conducted the annual Pond and Lake Stewardship (PALS) freshwater ponds water-quality sampling snapshot for Aunt Betty’s, Bog, Eagle, Garrett’s, Hamblin, Hathaway, Hinckley, Joshua, Lewis, Little Parker, Long, Lovell, Lumbert Mills, Mary Dunn, Micah, Middle, Mill, Muddy, Neck, Parker, Red Lily, Round, Rushy Marsh, Schoolhouse, Shallow, Shubael, and Stoney ponds; Crystal and Mystic lakes; and Lake Elizabeth.

Geographic Information System (GIS)

- The Commission’s GIS staff supported all of the above as necessary. For the Iyannough Road (Route 132) Regional Retail Center Redevelopment Incentive (RESET) Project, the GIS staff is using Barnstable County LiDAR data from the Northeast LiDAR Project, which was funded by the NRCS and is being hosted by MassGIS. The Commission is using the county LiDAR data set to develop surfaces for the possible development of 3D imagery. The GIS staff also provided mapping support to the Hyannis Access Study Implementation project, and draft maps of wildfire hazard areas and regional vulnerability assessment to municipal staff for review and update of the local Multi-Hazard Mitigation Plan.
REGULATORY ACTIVITIES

DRI Mitigation Funds in Fiscal Year 2013
- The Commission provided $40,000 to support planning, design, and construction of the Bearse's Way Multi-Modal Path project.

DRI Decision in Fiscal Year 2013
- Cape Cod Healthcare/Cape Cod Hospital Emergency Department Expansion – On 10/11/12, the Cape Cod Commission approved a Hardship Exemption/Project of Community Benefit (POCB) application for the proposed 26,500-sq.ft. single-story expansion to the Cape Cod Hospital for an enlarged emergency center with new and reconfigured parking lots within the main hospital campus and at several parcels on Park Street.

DRI Minor Modifications – Type #1
- The Commission’s executive director approved requested minor modifications to the following previously approved decisions:
  - Rose Motel Redevelopment/Lakeside Commons (CU-HDEX07018) – approved 7/2/12
  - Cotuit Landing Redevelopment and Expansion (JR99013) – one approved 8/9/12, another 1/3/13, and another 3/28/13
  - Cape Cod Mall Renovation and Expansion (TR96025) – one approved 8/30/12 and another 1/15/13
  - Barnstable Municipal Airport Improvements Project (DRI/EIR06011) – one approved 9/5/12 and another 3/25/13
  - Industrial Communications & Electronics Tower/Barnstable (TR20069) – one approved 10/2/12, another 10/3/12, another 1/30/13, and another 2/14/13
  - Cape Cod Hospital Emergency Center Expansion (HDEX12031) – one approved 1/25/13 and another 5/29/13

DRI Minor Modifications – Type #2
- The Commission’s Regulatory Committee approved a requested minor modification to the previously approved decision for the Rose Motel Redevelopment/Lakeside Commons (CU-HDEX07018) on 9/13/12.

DRI Certificates of Compliance
- Final Certificates of Compliance:
  - Atlantis Stop & Shop (JR20035) – Issued on 7/19/12
  - Airport Way Nominee Trust Photovoltaic Project (TR11016) – Issued on 11/7/12
  - Cape Cod Mall Renovation and Expansion (TR96025) – Issued for T. Murphy’s Sports Bar on 1/29/13
  - Cape Cod Commercial Linen Service (TR11017) – Issued on 4/5/13

- Preliminary Certificates of Compliance:
  - NSTAR Lower SEMA 345kV Transmission Project (TR11014) – Issued on 8/23/12
  - Cape Cod Hospital Emergency Center Expansion (HDEX12031) – Issued on 1/29/13

DRI Reviews Pending at Year End
- Barnstable Comprehensive Wastewater Management Plan – The Town of Barnstable’s proposal to assess wastewater needs, evaluate
mitigation measures, and develop a recommended plan. The DRI review is pending the issuance of a Massachusetts Environmental Policy Act (MEPA) certificate for an Environmental Impact Report.

**Development Agreements**

- On 11/29/12, the Cape Cod Commission approved the Barnstable Municipal Airport Commission’s filing of a Notice of Intent to File a Development Agreement Application for the Barnstable Municipal Airport Master Plan.

**Other Regulatory Assistance**

- The Commission provided technical comments to the Massachusetts Environmental Policy Act (MEPA) office on an Environmental Notification Form for the proposed Mill Pond Improvements (Marstons Mills). Comment letter submitted on 8/14/12.

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**TOWN OF BOURNE**

**PLANNING, COMMUNITY DEVELOPMENT, AND TECHNICAL SERVICES**

**Planning**

- The Commission’s planning and technical staff pursued an update to the Massachusetts Military Reservation (MMR) Joint Land Use Study (JLUS), including collecting and analyzing data, plans, studies, shared-services agreements, and land use/zoning and buildout analyses. The staff convened meetings of policy and technical advisory committees, completed a report on community-military partnerships, and held several workshops to identify potential shared-services opportunities. Commission staff members are now completing initial feasibility studies for several potential shared services, and the staff will develop a model agreement and a final report by the end of September 2013. Online: [www.capecodcommission.org/departments/planning/MMR](http://www.capecodcommission.org/departments/planning/MMR)

The Commission’s GIS staff has provided locus maps for the JLUS Update project showing features such as owners/occupants and land use, the boundary of Camp Edwards, protected open space and energy projects, buildout potential, and location of 40B affordable housing sites near the study area. Cooperative work with the military base’s GIS staff resulted in a GIS layer that more closely matched the defined boundary of the Upper Cape Water Supply Reserve of the MMR.

**Affordable Housing**

- The Barnstable County HOME Consortium, coordinated by the Commission’s affordable housing staff specialist, made one down payment/closing cost loan totaling $9,000 to a low-income first-time homebuyer.

- Construction was completed and units occupied at Clay Pond Cove, a development with 45 units of affordable age-restricted rentals done by the Housing Assistance Corporation with the assistance of $150,000 in HOME funds.

**Economic Development and Transportation Planning**

- The annual planning process for the region’s Comprehensive Economic Development Strategy (CEDS) identified an assessment and study of potential transportation improvements in the Cape Cod Canal Area as one of the top priorities this year. (Online: [www.capecodcommission.org/departments/economicdevelopment/CEDS](http://www.capecodcommission.org/departments/economicdevelopment/CEDS))

**Transportation**

- The Cape Cod Commission’s annual Unified Planning Work Program (UPWP) for transportation activities has also identified data collection and analysis and implementation/coordination of Intelligent Transportation Systems (ITS), real-time traveler information, and “smart”...
travel initiatives aimed at congestion management in the Canal Area as significant program activities this year. (Online: [www.capecodcommission.org/departments/technicalservices/transportation/UPWP](http://www.capecodcommission.org/departments/technicalservices/transportation/UPWP))

One study will address congestion management in the area of the Bourne Rotary, one of the most serious traffic safety problem areas on Cape Cod. The study area includes the roadways leading to the rotary, including the Bourne Bridge, MacArthur Boulevard, Sandwich Road, and Trowbridge Road. Another study will address transportation safety at the Belmont Circle in Buzzards Bay. Traffic queues affect the village and can back-up onto Scenic Highway (Route 6 north of the Canal). This study will look at Belmont Circle, the Bourne Bridge ramps, Scenic Highway, the Route 6 Bypass, Main Street Route 6 and 28, Head of the Bay Road, and the intersection of Nightingale Road and Scenic Highway. The staff is analyzing at least four alternatives, including a “no-build” scenario against which to compare any “build” scenarios for these two study areas.

Although not managed by the Cape Cod Commission, the agency supports the trial CapeFlyer passenger-train summer weekend service, which launched successfully this year, attracting riders to and from Boston on Fridays, Saturdays, and Sundays, as one effort to alleviate traffic congestion in the Canal Area.

- The Commission's transportation staff conducted annual summer traffic counts in Bourne, including automatic traffic recorders (ATRs) and turning movement counts (TMCs). Traffic data are available online: [www.capecodcommission.org/departments/technicalservices/transportation/counts](http://www.capecodcommission.org/departments/technicalservices/transportation/counts)

Roadway segments and intersections in Bourne included Route 28 at the Bourne/Falmouth town line, Route 28 south of the Bourne Rotary, Route 28 north of the Otis Rotary, Route 28A at the Bourne/Sandwich town line, Adams Street south of Sandwich Road, Andy Olivia Road south of Route 6 Scenic Highway, Clay Pond Road west of Route 28, County Road north of Route 28A, County Road south of Barlows Landing Road, County Road south of Old Dam Road and south of Valley Bars Road, Head of the Bay Road north of Belmont Circle, Meetinghouse Lane west of Old Plymouth Road, Nightingale Pond Road north of the Scenic Highway, Sandwich Road west of Sagamore Bridge, and Trowbridge Road west of the Bourne Rotary.

Water Resources

- The Town of Bourne recently completed a targeted wastewater planning effort for the Buzzards Bay downtown area. The Commission’s water, planning, and technical staff supported the town’s Wastewater Advisory Committee as it prepared the proposed wastewater management plan and water supply report in FY2012. The report provided a detailed assessment of the needs, alternatives, facility siting, and estimated costs of providing wastewater infrastructure to support the revitalization of Buzzards Bay. The staff also made a presentation to the Bourne Sewer Commissioners early in FY2013. The town has since voted to approve the report’s recommendations to pursue the appropriate next steps.

Geographic Information System (GIS)

- The Commission’s GIS staff supported all of the above as necessary, and provided some analysis and map clarifications related to the proposed New Generation Wind Joint Venture DRI project. The staff is also developing a variety of concepts to support the efforts of the Commission’s transportation department in its work to improve the Bourne Rotary.
REGULATORY ACTIVITIES

DRI Minor Modifications – Type #1

- The Commission’s executive director approved requested minor modifications to these previously approved decisions:
  - ICE Tower/Sagamore Beach (TR99016) on 9/12/12
  - Hydroid, Inc. (HDEX/EX11018) on 9/19/12

DRI Certificates of Compliance:

- Preliminary Certificates of Compliance:
  - NSTAR Lower SEMA 345kV Transmission Project (TR11014) – Issued on 8/23/12
  - Hydroid, Inc. (HDEX/EX11018) – Issued on 9/20/12

Other Regulatory Assistance

- The Commission provided technical comments to the Massachusetts Environmental Policy Act (MEPA) office on an Environmental Notification Form for the proposed MMR Small-arms Range Improvements project. Comment letter submitted on 9/19/12.

- The Commission provided technical comments to the Massachusetts Environmental Policy Act (MEPA) office on an Environmental Notification Form for the proposed Solar Array on MacArthur Boulevard. Comment letter submitted on 9/24/12.

- The Commission provided a comment letter on the Chapter 40B proposal for the Coady School Redevelopment/Residences, the redevelopment of a school building into a 58-unit affordable rental apartment facility. Comment letter submitted on 11/28/12.

TOWN OF BREWSTER

PLANNING, COMMUNITY DEVELOPMENT, AND TECHNICAL SERVICES

- The Commission's planning and technical staff completed the “Living Streets” study of a 1.7-mile segment of the Route 6A corridor through Orleans and Brewster in October 2012 and issued a final report in December. The study identified conceptual designs and “best management practices” to address traffic safety, stormwater management for wet weather conditions, accessibility and safety for pedestrian and bicycle uses, historic considerations, and community character in that area. (Online: www.capecodcommission.org/departments/planning/design/sustainabledesign/livingstreets_brewsterorleans)

Transportation

- The Commission's transportation staff conducted annual summer traffic counts in Brewster, including automatic traffic recorders (ATRs) and turning movement counts (TMCs). Traffic data are available online: www.capecodcommission.org/departments/technicalservices/transportation/counts

Roadway segments and intersections in Brewster included Route 124 north of Route 137 and at the Harwich/Brewster town line, Route 137 west of Route 124 and at the Harwich/Brewster town line, Route 6 at the Brewster/Orleans town line, Route 6A east of Route 124, Route 6A at the Brewster/Orleans town line and at the Dennis/Brewster town line, Airline Road at the south end at the Dennis/Brewster town line, Freemans Way west of Route 6, Millstone Road north of Route 137, and Satucket Road west of Red Top Road.

Water Resources
- The town produced a Draft Integrated Water Resources Management Plan (Phase II) report in November 2012, which recommended alternatives for coastal nitrogen reduction in the Pleasant Bay watershed. The Commission continues to support the town’s efforts to protect drinking water through its bylaws and the Brewster Water Protection District of Critical Planning Concern.


Geographic Information System (GIS)

- The Commission's GIS staff supported the “Living Streets” project as necessary, and provided some analysis and maps to promote discussion at local meetings with concerned citizens and municipal staff.

REGULATORY ACTIVITIES

DRI Decision in Fiscal Year 2013

- MP Renaissance LLC – The Cape Cod Commission approved with conditions a DRI for the proposed facility off Route 124, which will have one 131,877-sq.ft. building with 132 units (66 memory-care units, 65 assisted-living units, and one manager’s unit) on 8/2/12.

DRI Minor Modifications – Type #1

- The Commission's executive director approved requested minor modifications to a previously approved decision for Cape Cod National Golf (TR95022) on 9/13/12, 9/19/12, and 10/12/12.
Stepping Stones Road, Queen Anne Road east and west of Route 137, and Sam Ryder Road north of Middle Road.

**Geographic Information System (GIS)**

- The Commission's GIS staff supported all of the above as necessary, including providing continued mapping support and buildout analysis for the Commission's planning department as it pursues the land use planning/visioning study for a portion of the Route 28 corridor.

**Water Resources**

- The Commission's water staff continues to support the town's work to implement its long-range Comprehensive Wastewater Management Plan and Adaptive Management Plan. The town completed the treatment facility and main sewer trunk-line construction in 2012 and is seeking State Revolving Loan Fund funding for the next stage of sewer expansion in the nitrogen-sensitive Stage Harbor watershed system. The town also signed an agreement with the Town of Harwich to evaluate using a portion of the Chatham plant’s treatment capacity for the eastern portion of the shared Pleasant Bay watershed.

**Strategic Information Office**

- The Cape Cod Commission, with funding from a 2012 state Community Innovation Challenge Grant, began working with the town on an E-Permitting, Licensing, and Inspection System. (The towns of Chatham, Yarmouth, and Nantucket were the first to be involved in development of the system; Harwich and Provincetown will also become involved in Fiscal Year 2014.) When fully implemented, the online system will allow Cape Cod municipalities to issue and monitor permits, licenses, and inspections, with a web-based portal for citizens and contractors, using a common technology infrastructure and software adopted regionally but tailored to each town.

The Commission's GIS staff continues to support the regional e-permitting project by providing right time standardized datasets to Accela, the vendor for the project. Working with a third-party contractor, GIS staff created a procedure for receiving bi-weekly feeds from the assessing vendors in the towns of Chatham and Yarmouth. Those weekly feeds are processed into a standardized format and delivered to Accela. The automation process can be applied to other towns as they implement e-permitting. GIS also spent effort on standardizing the GIS layers that Accela access in their Online map service. GIS hosts these maps on their Online Server for Accela to access.

**REGULATORY ACTIVITIES**

**DRI Minor Modifications – Type #1**

- The Commission's executive director approved a requested minor modification to the previously approved decision for the Chatham Airport Solar Array (TR04012) on 5/8/13.

**DRI Certificates of Compliance**

- Final Certificates of Compliance for the Chatham Revetments, Phase 1 (TR92055) was issued on 8/3/12.

- Preliminary Certificates of Compliance:
  - Commerce Park/Chatham Cellular Tower Extension (HDEX10003) – Issued on 6/13/12 for the Verizon Installation
  - DuPont Historic Residence – 3 Main Street (TR12005) – Issued on 11/14/12

**Other Regulatory Assistance**

- The Commission provided technical comments to the Massachusetts Environmental Policy Act (MEPA) office on an Environmental Notification Form for the proposed 174 Eastward Road Beach Nourishment project. Comment letter submitted
TOWN OF DENNIS

PLANNING, COMMUNITY DEVELOPMENT, AND TECHNICAL SERVICES

Planning

- The Commission’s planning and technical staff provided technical support for the town’s Development of Regional Impact (DRI) threshold relief (“Chapter H”) application for the Dennisport Village Center/Economic Center. The town submitted the application on 6/26/12, proposing to revise commercial, residential, mixed use, and economic center requirements. Pending the town’s compilation of additional information, the Commission will process the application in FY2014.

Affordable Housing

- The Barnstable County HOME Consortium, coordinated by the Commission’s affordable housing staff specialist, made one down payment/closing cost loan totaling $8,853 to a low-income first-time homebuyer.

- The HOME Consortium made a conditional commitment of $175,000 in HOME funds to the Housing Assistance Corporation to assist in the new construction on town-leased land of its 27-unit, 100% affordable, family rental project known as Route 134 Community Housing.

- The Commission filled one accessory apartment unit through the Regional Ready Renters program. (Online: www.capecodcommission.org/departments/planning/housing/renters)

Transportation

- The Commission’s transportation staff conducted annual summer traffic counts in Dennis, including automatic traffic recorders (ATRs) and turning movement counts (TMCs). Traffic data are available online: www.capecodcommission.org/departments/technicalservices/transportation/counts

Roadway segments and intersections in Dennis included Route 134 south of Route 6A, north of Airline Road, south of Exit 9, south of Setucket Road, and north and south of Upper County Road; Route 28 west of Sea Street and east of Telegraph Road; Route 6 at the Dennis/Harwich town line and at the Yarmouth/Dennis town line; Route 6A at the Dennis/Brewster town line, east of Old Bass River Road, and at the Yarmouth/ Dennis town line; Airline Road east of Route 134 and at south end at the Dennis/Brewster town line; Highbank Road west of Main Street; Market Place west of Main Street and west of Route 134; Old Bass River Road south of Route 6A, north of Highbank/Upper Road, and north of Main Street; Old Chatham Road east of Route 134; Scargo Hill Road south of Route 6A; Setucket Road at the Yarmouth/Dennis town line; South Gages Way north of the Cape Cod Rail Trail; and Trotting Park Road south of Route 28.

Water Resources

- The Commission’s water staff continued to support the work of the Dennis Water and Sewer District on wastewater management planning issues, especially for the Herring River, Swan Pond, and Bass River watersheds and to support the economic redevelopment needs of Dennisport.

- The Commission’s water staff conducted the annual Pond and Lake Stewardship (PALS) freshwater ponds water-quality sampling snapshot for Bakers, Cedar, Coles, Eagle, Flax, Fresh, N. Simmons, Scargo, Run, and White’s ponds.

Geographic Information System (GIS)

- The Commission’s GIS staff supported all of the above as necessary, including map analyses related
to the town's DRI threshold relief/Chapter H application for the Dennisport area.

REGULATORY ACTIVITIES

DRI Minor Modifications – Type #1

- The Commission's Executive Director approved a requested modification to the previously approved decision for the Crowell Golf Driving Range/Longest Drive (TR90037) on 12/13/12.

DRI Reviews Ongoing at Fiscal Year End

- Lowe's of Dennis – On 2/5/13, the Cape Cod Commission received an application for the proposed construction of an approx. 100,000-sq. ft. retail Lowe's Home Improvement Store with an adjacent 28,000-sq.ft. garden center near the intersection of Theophilus F.Smith Road and Route 134 in South Dennis. The applicant withdrew the proposal on 5/6/13, but then resubmitted it with additional transportation information on 5/13/13.

Other Regulatory Assistance

- The Commission provided technical comments to the Massachusetts Environmental Policy Act (MEPA) office on an Environmental Notification Form for the proposed Ramp/Float/Dredging project at 98 Merchant Avenue. Comment letter sent 2/6/13.

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TOWN OF EASTHAM

PLANNING, COMMUNITY DEVELOPMENT, AND TECHNICAL SERVICES

Planning

- The Commission's planning staff supported the town's work toward recertification of its Local Comprehensive Plan (LCP).
- The planning staff continues to provide technical assistance to the town on zoning issues, particularly for the North Eastham area.

Planning and Transportation

- The Commission's planning and transportation staff continue to support the work of Outer Cape towns and the Cape Cod National Seashore to improve bicycle and pedestrian amenities in the area. Pending funding, the National Seashore is working to correct hazards and to redesign and overhaul the Nauset Bike Trail from the Salt Pond Visitor Center to Coast Guard Beach. In addition, the National Seashore plans to install a self-activated warning beacon, signage, and a crosswalk at the intersection of Nauset Trail and Ocean View/Cable roads and at the Route 6/Governor Prence Road intersection.

Transportation

- The Commission's transportation staff conducted annual summer traffic counts in Eastham, including automatic traffic recorders (ATRs) and turning movement counts (TMCs). Traffic data are available online: www.capecodcommission.org/ departments/technicalservices/transportation/counts

Roadway segments and intersections in Eastham included Route 6 at the Eastham/Wellfleet town line, south of Hemenway Road, north of Kingsbury Beach Road, north of the Orleans/Eastham Rotary, and south of Samoset Road; the north and south ends of Nauset Road east of Route 6; Old Orchard Road south of Glacier Hills Road; Samoset Road west of Route 6; and West Road at the Eastham/Wellfleet town line.

Affordable Housing

- The Eastham Affordable Housing Trust filled one new accessory apartment unit via a lottery through the Commission's Regional Ready Renters program. (Online: www.capecodcommission.org/departments/planning/housing/renters)
Water Resources

- The Commission's water staff supported the town in its analysis of options for drinking water and in its work to protect and restore the water quality of freshwater ponds.

- The Commission's water staff conducted the annual Pond and Lake Stewardship (PALS) freshwater ponds water-quality sampling snapshot for Bridge, Depot, Great, Herring, Jemima, Little Depot, Minister, Molls, Muddy, Schoolhouse, and Widow Harding ponds.

Geographic Information System (GIS)

- The Commission's GIS staff supported all of the above as necessary, and provided draft maps of wildfire hazard areas and regional vulnerability assessment to municipal staff for review and update of the local Multi-Hazard Mitigation Plan.

REGULATORY ACTIVITIES

Other Regulatory Assistance

- The Commission provided technical comments to the Massachusetts Environmental Policy Act (MEPA) office on an Environmental Notification Form for the proposed Beach Association Stairway project. Comment letter sent 3/5/13.

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TOWN OF FALMOUTH

PLANNING, COMMUNITY DEVELOPMENT, AND TECHNICAL SERVICES

Planning

- The Commission's planning and technical staff pursued an update to the Massachusetts Military Reservation (MMR) Joint Land Use Study (JLUS), including collecting and analyzing data, plans, studies, shared-services agreements, and land use/zoning and buildout analyses. The staff convened meetings of policy and technical advisory committees, completed a report on community-military partnerships, and held several workshops to identify potential shared-services opportunities. Commission staff members are now completing initial feasibility studies for several potential shared services, and the staff will develop a model agreement and a final report by the end of September 2013. Online: www.capecodcommission.org/departments/planning/MMR

The Commission's GIS staff has provided locus maps for the JLUS Update project showing features such as owners/occupants and land use, the boundary of Camp Edwards, protected open space and energy projects, buildout potential, and location of 40B affordable housing sites near the study area. Cooperative work with the military base's GIS staff resulted in a GIS layer that more closely matched the defined boundary of the Upper Cape Water Supply Reserve of the MMR.

- The Commission provided RESET (Regional Economic Strategy Executive Team) assistance to Falmouth to conduct a planning analysis of its Spring Bars Road property and the surrounding area. The work included an assessment of the infrastructure and transportation needs and the financial viability of a 30 rental-unit affordable housing project proposed on the property and an analysis of broader land use issues and opportunities in the area. (Online: www.capecodcommission.org/initiatives/RESET)

- The Commission's historic preservation and planning staff worked with the GIS department to help map heritage landscapes in Falmouth in cooperation with graduate students from Boston University. The graduate student interns identified historical "pockets" that may not be designated a historic district. Maps of the Falmouth-designated heritage landscapes and seasonal communities were completed.
Affordable Housing

- The Barnstable County HOME Consortium, coordinated by the Commission's affordable housing staff specialist, made a conditional commitment of $105,000 in HOME funds to The Resource Inc. to assist in the acquisition and rehabilitation of a foreclosed property at 20 Shore Street to create three affordable rental units.

- The HOME Consortium also made a conditional commitment of $175,000 in HOME funds to the Falmouth Housing Corporation to assist in the redevelopment of its 11-unit, 100% affordable, family rental project known as Notantico Woods in Woods Hole.

Transportation

- The Commission's transportation staff collected data and made observations about the accommodation of bicyclists on Woods Hole Road, issuing a memorandum report in late September 2012.

- The Commission's transportation staff conducted annual summer traffic counts in Falmouth, including automatic traffic recorders (ATRs) and turning movement counts (TMCs). Traffic data are available online: www.capecodcommission.org/departments/technicalservices/transportation/counts Roadway segments and intersections in Falmouth included Route 151 east of Route 28, east of Route 28A, and at the Falmouth/Mashpee town line; Route 28 north of Lakeview Avenue, east of Spring Bars Road, north of Thomas Landers Road, and at the Bourne/Falmouth town line; Brick Kiln Road east of Sandwich Road; Carriage Shop Road east of Collins Street, north of Fresh Ponds Road, and west of Old Barnstable Road; Church Street south of Woods Hole Road; Gifford Street north of Jones Road; Hatchville Road north of Sandwich Road; Jones Road between Route 28 and Beacon Street; Jones Road west of Dove Cottage Road; Katherine Lee Bates Road east of Route 28; Locust Street south of Route 28; Maravista Avenue east of Route 28; Maravista Extension south of Route 28; Old Barnstable Road south of Carriage Shop Road; Palmer Avenue west of Hewins Street; Red Brook Road at the Falmouth/Mashpee town line; Sandwich Road at the Falmouth/Mashpee town line; Shoreview Drive north of Whittier Road; Surf Drive east of Elm Road; and Woods Hole Road south of Oyster Pond.

Water Resources

- The Commission's water staff supported the town's effort to develop its Comprehensive Wastewater Management Plan (CWMP) and exploration of traditional and non-traditional nutrient/nitrogen management methods and participated in the joint MEPA/DRI process for the draft CWMP/Draft Environmental Impact Report (DEIR). The town has proposed a collection system, facility upgrades, and pilot project implementation for the Little Pond
watershed. The Commission staff also supported the additional evaluation of the Massachusetts Military Reservation as a potential shared regional facility for the Upper Cape as one the town's alternatives.

Geographic Information System (GIS)

- The Commission's GIS staff supported all of the above as necessary, including the heritage landscapes work and RESET analyses project for the Spring Bars Road area. The GIS department also continues to support the Massachusetts Estuaries Project (MEP), providing GIS analysis of the Salt Pond watershed to the UMASS-Dartmouth School for Marine Science and Technology this year.

REGULATORY ACTIVITIES

DRI Mitigation Funds in Fiscal Year 2013

- The Commission provided $137,551 toward the design and construction of intersection improvements at Worcester Court/Jones Road and Davisville Road/Route 28; and $50,300 to support the Massachusetts Estuaries Project work at Wild Harbor.

DRI Decisions in Fiscal Year 2013

- Teledyne Instruments Inc. Expansion of 49 Edgerton Drive – The Cape Cod Commission approved a Hardship Exemption on 7/19/12 for the proposed construction of up to 44,850 sq.ft. of new commercial space to be added to an existing 27,750-sq.ft. facility in North Falmouth.

- Green Cove, LLC, and Falmouth Airpark Homeowners Association – The Cape Cod Commission approved a DRI Exemption on 8/30/12 for the proposed modification of a Definitive Plan/Special Permit to re-divide and re-combine more than 52 acres of land.

- F.W. Webb – The Cape Cod Commission approved a DRI with conditions on 9/13/12 on the proposed demolition of an existing block-and-steel building and the construction of a 24,652-sq. ft. building for a wholesale, retail, and warehouse plumbing facility.

- Martha’s Vineyard Hybrid Cable Project – The Cape Cod Commission approved on 5/23/13 a Limited DRI with conditions for the proposed submarine installation of a 4.5-mile hybrid fiber-optic/electric cable between Falmouth on Cape Cod and Tisbury on Martha’s Vineyard. The Commission’s review was limited to coastal and marine resource issues.

DRI Minor Modifications – Type #1

- The Commission’s executive director approved several requested minor modifications to previously approved decisions:

DRI Certificates of Compliance

- Final Certificates of Compliance:
  - WHOI LOSOS Building (TR11001) – Issued on 7/3/12
  - Falmouth Self Storage (CU07012) – Issued for Phase One on 9/18/12

- Preliminary Certificates of Compliance:
  - Teledyne Instruments, Inc., Expansion (HDEX12018) – Issued on 9/27/12
  - F.W. Webb (TR12020) – Issued on 2/21/13
DRI Reviews Pending at Year End

- Falmouth South Coast Watersheds Comprehensive Wastewater Management Plan/Draft Environmental Impact Report (DEIR) – The Town of Falmouth's draft plan for the south coast watersheds and recommendations for the West Falmouth watershed identifies a preferred scenario for wastewater management and several demonstration projects for non-traditional wastewater and nitrogen management methods. The DRI review is pending the issuance of a Massachusetts Environmental Policy Act (MEPA) certificate for the DEIR.

Development Agreements

- On 12/13/12, CCC approved a modification to the Falmouth Technology Park Development Agreement to enable the Falmouth Economic Development Industrial Corporation to sell a parcel within the park to the Woods Hole, Martha's Vineyard, and Nantucket Steamship Authority.

Other Regulatory Assistance

- The Commission provided technical comments to the Massachusetts Environmental Policy Act (MEPA) office on a Notice of Project Change for the proposed Comcast Fiber Optic Cable project. Comment letter submitted on 8/14/12.

Roadway segments and intersections in Harwich included Route 124 north of Route 39, at the Harwich/Brewster town line, north of Long Pond Drive, and north of Queen Anne Road; Route 137 at the Harwich/Brewster town line; Route 28 at the north and west ends at the Harwich/Chatham town line; Route 28 east of Sisson Road (Route 39); Route 39 west of Route 137; Route 6 at the Dennis/Harwich town line; and Queen Anne Road west of Route 124, east and west of Route 137, east and west of Route 39, east of Main Street, and east of Oak Street.

Water Resources

- The Commission's transportation staff continued to conduct traffic counts remotely at the intersection of Routes 137 and 39 and at the intersection of Route 124 and Queen Anne Road.

- The Commission's transportation staff conducted annual summer traffic counts in Harwich, including automatic traffic recorders (ATRs) and turning movement counts (TMCs). Traffic data are available online: [www.capecodcommission.org/departments/technicalservices/transportation/counts](http://www.capecodcommission.org/departments/technicalservices/transportation/counts)

The Commission provided technical comments to the Massachusetts Environmental Policy Act (MEPA) office on an Environmental Notification Form for the proposed project at 85 Associates Road (Chapoquoit Island). Comment letter submitted on 8/23/12.

The Commission provided technical comments to the Massachusetts Environmental Policy Act (MEPA) office on an Environmental Notification Form for the proposed MMR Small-arms Range Improvements project. Comment letter submitted on 9/19/12.

The Commission provided a comment letter on a Chapter 40B proposal for 55 Stephens Lane, a rehab of a single-family house. Comment letter submitted on 5/31/13.

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TOWN OF HARWICH

PLANNING, COMMUNITY DEVELOPMENT, AND TECHNICAL SERVICES

Transportation

- The Commission's transportation staff continued to conduct traffic counts remotely at the intersection of Routes 137 and 39 and at the intersection of Route 124 and Queen Anne Road.

- The Commission's transportation staff conducted annual summer traffic counts in Harwich, including automatic traffic recorders (ATRs) and turning movement counts (TMCs). Traffic data are available online: [www.capecodcommission.org/departments/technicalservices/transportation/counts](http://www.capecodcommission.org/departments/technicalservices/transportation/counts)
Comprehensive Wastewater Management Plan (CWMP). Options for regional infrastructure, for example with the Town of Chatham, are encouraged, especially for shared watersheds such as Pleasant Bay.

**Geographic Information System (GIS)**

- The Commission’s GIS staff supported all of the above as necessary, and provided draft maps of wildfire hazard areas and regional vulnerability assessment to municipal staff for review and update of the local Multi-Hazard Mitigation Plan.

**Strategic Information Office**

- The Cape Cod Commission, with funding from a 2012 state Community Innovation Challenge Grant, began working on an E-Permitting, Licensing, and Inspection System for the towns of Chatham, Yarmouth, and Nantucket in Fiscal Year 2013. Harwich and Provincetown will also become involved in Fiscal Year 2014. When fully implemented, the online system will allow Cape Cod municipalities to issue and monitor permits, licenses, and inspections, with a web-based portal for citizens and contractors, using a common technology infrastructure and software adopted regionally but tailored to each town.

The Commission’s GIS staff continues to support the regional e-permitting project by providing right time standardized datasets to Accela, the vendor for the project. Working with a third-party contractor, GIS staff created a procedure for receiving bi-weekly feeds from the assessing vendors in the towns of Chatham and Yarmouth. Those weekly feeds are processed into a standardized format and delivered to Accela. The automation process can be applied to other towns as they implement e-permitting. GIS also spent effort on standardizing the GIS layers that Accela access in their Online map service. GIS hosts these maps on their Online Server for Accela to access.

**REGULATORY ACTIVITIES**

**DRI Decisions in Fiscal Year 2013**

- Harwich Landfill Land Division (ANR) – The Cape Cod Commission approved a DRI Exemption on 2/14/13 for the proposed division of the town’s capped landfill/recycle center into three parcels. As proposed, the larger parcel is to be retained by the town for its current use (as authorized by Harwich Town Meeting), and the two smaller parcels are to be sold or leased or used in conjunction with abutting commercial and industrial properties.

**DRI Minor Modifications – Type #1**

- The Commission’s executive director approved requested minor modifications to a previously approved decision for Cape Cod National Golf (TR95022) on 9/13/12, 9/19/12, and 10/12/12.

**DRI Reviews Pending at Year End**

- Harwich Comprehensive Wastewater Management Plan (CWMP) – The Town of Harwich’s proposed CWMP for a town-wide wastewater collection and treatment system involves a traditional wastewater program with about 92 miles of sewer pipes, 30 pumping stations, and two centralized treatment facilities, to be phased over 40 years. The DRI review is pending the issuance of a Massachusetts Environmental Policy Act (MEPA) certificate for a Draft Environmental Impact Report (DEIR).

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**TOWN OF MASHPEE**

**PLANNING, COMMUNITY DEVELOPMENT, AND TECHNICAL SERVICES**

Planning
The Commission’s planning and technical staff pursued an update to the Massachusetts Military Reservation (MMR) Joint Land Use Study (JLUS), including collecting and analyzing data, plans, studies, shared-services agreements, and land use/zoning and buildout analyses. The staff convened meetings of policy and technical advisory committees, completed a report on community-military partnerships, and held several workshops to identify potential shared-services opportunities. Commission staff members are now completing initial feasibility studies for several potential shared services, and the staff will develop a model agreement and a final report by the end of September 2013. Online: www.capecodcommission.org/departments/planning/MMR

The Commission’s GIS staff has provided locus maps for the JLUS Update project showing features such as owners/occupants and land use, the boundary of Camp Edwards, protected open space and energy projects, buildout potential, and location of 40B affordable housing sites near the study area. Cooperative work with the military base’s GIS staff resulted in a GIS layer that more closely matched the defined boundary of the Upper Cape Water Supply Reserve of the MMR.

Affordable Housing

- The Barnstable County HOME Consortium, coordinated by the Commission’s affordable housing staff specialist, made one down payment/closing cost loan totaling $7,337 to a low-income first-time homebuyer.

- The HOME Consortium closed a $225,000 loan of HOME funds and the construction is under way by the Housing Assistance Corporation for its 10-unit 100% affordable rental development known as Breezy Acres on land leased from the Mashpee Housing Authority.

Transportation

- The Commission’s transportation staff conducted annual summer traffic counts in Mashpee, including automatic traffic recorders (ATRs) and turning movement counts (TMCs). Traffic data are available online: www.capecodcommission.org/departments/technicalservices/transportation/counts

Roadway segments and intersections in Mashpee included Route 130 at the Sandwich/Mashpee town line; Route 151 at the Falmouth/Mashpee town line, west of the Mashpee Rotary, and east of Old Barnstable Road; Route 28 at the Mashpee/Barnstable town line; Cotuit Road at the Sandwich/Mashpee town line; Great Neck Road North north of the Mashpee Rotary; Great Neck Road South south of the Mashpee Rotary; Lowell Road west of Great Neck Road North; Mashpee Neck Road south of Quinaquisset Avenue; Meetinghouse Road north of Route 28; Old Barnstable/Falmouth Road south of Route 151; Old Barnstable Road north of Route 151; Old Mill Road at the Mashpee/Barnstable town line; Orchard Road south of Route 28; Red Brook Road at the Falmouth/Mashpee town line; and Sandwich Road at the Falmouth/Mashpee town line.

Water Resources

- The Commission’s water staff continued to support the work of the town on its wastewater management planning. The town has reformulated its Sewer Commission Wastewater Committee and has an in-house coordinator for the wastewater project as the town proceeds with selecting a preferred alternative. New considerations include the MMR treatment facility and disposal site as long-term regional solutions are being evaluated in addition to a potential inter-municipal agreement between Mashpee and surrounding towns on responsibilities and potential nutrient-trading opportunities for the shared Popponesset Bay.

- The Commission’s water staff conducted the annual Pond and Lake Stewardship (PALS) freshwater ponds water-quality sampling snapshot for Santuit Pond.
REGULATORY ACTIVITIES

DRI Mitigation Funds in Fiscal Year 2013

- The Commission provided $1,500 toward development of a Watershed Nitrogen Management Plan and Massachusetts Estuaries Project work; and $60,389 for the Great Cove Community affordable housing project.

DRI Minor Modifications – Type #1

- The Commission’s executive director approved several requested minor modifications to the previously approved decision for ICE Tower/Echo Road (TR02013) on 1/31/13, 2/14/13, and 5/7/13.

DRI Reviews Pending at Year End

- Holland Mills Well and Pumping Station – the town’s previously proposed installation of a new water supply well/pump station. The DRI review is pending the issuance of a Massachusetts Environmental Policy Act (MEPA) certificate.

DRI Certificates of Compliance

- Final Certificates of Compliance for the Mashpee Community Health Center (HDEX11009) was issued on 9/17/12.

Other Regulatory Assistance

- The Commission provided technical comments to the Massachusetts Environmental Policy Act (MEPA) office on an Environmental Notification Form for the proposed MMR Small-arms Range Improvements project. Comment letter submitted on 9/19/12.

DEVELOPMENT, AND TECHNICAL SERVICES

Planning

- The Commission’s community design staff remained involved with the Orleans Village Center Subcommittee in their ongoing work to implement the 2011 Orleans Village Center Streetscape Plan. The staff provided assistance with a cultural designation application and continues to work with the Massachusetts Department of Transportation (MassDOT) on furthering components of the streetscape plan.

The Commission’s planning and technical staff completed a “Living Streets” study of a 1.7-mile segment of the Route 6A corridor between Orleans and Brewster. The study identified planning and design approaches for a retrofit to improve safety, bicycle and pedestrian accommodations, and increase connections between transportation modes, and to enhance stormwater management along 6A between Nickerson State Park and Orleans village center. The Commission held several public meetings and finalized a report with conceptual design plans, standard details, and plant lists in December 2012. (Online: www.capecodcommission.org/departments/planning/design/sustainabledesign/livingstreets_brewsterorleans)

Affordable Housing

- With the assistance of $150,000 in HOME funds from the Barnstable County HOME Consortium (which is coordinated by the Commission’s affordable housing staff specialist), the Preservation of Affordable Housing organization completed the rehabilitation of Rock Harbor Village, a project that preserved 100 units of affordable age-restricted rentals.

Transportation

- The Commission’s transportation staff conducted

TOWN OF ORLEANS

PLANNING, COMMUNITY

- The Commission’s transportation staff conducted
annual summer traffic counts in Orleans, including automatic traffic recorders (ATRs) and turning movement counts (TMCs). Traffic data are available online: www.capecodcommission.org/departments/technicalservices/transportation/counts.

Roadway segments and intersections in Orleans included Route 28 north of Route 39, south of Route 6A, and south of Main Street; Route 6 at the Brewster/Orleans town line and west of the Orleans/Eastham Rotary; Route 6A at the Brewster/Orleans town line; Routes 6A/28 east of Route 28; Brewster Cross Road east of Route 6A; Eldredge Parkway east of Route 6A; Lots Hollow Road south of Eldredge Parkway; Main Street west of Route 28, east and west of Route 6A, and east of Locust Road; and Old Colony Way east of Old Tote Road.

Water Resources

- The Commission’s water staff continued to support the town’s efforts for comprehensive wastewater management planning. The six-phase CWMP, approved by the Commission as a DRI in Fall 2011, aims to meet nitrogen-loading limits for Pleasant Bay, embayments to Cape Cod Bay, and Nauset Marsh/Town Cove. The CWMP accommodates sewage and sludge handling and proposes five cluster treatment systems. The DRI approval contained several conditions for sharing the town’s wastewater facility with the neighboring towns of Brewster and Eastham. Local debate about implementation of the CWMP is ongoing.

- The Commission’s water staff conducted the annual Pond and Lake Stewardship (PALS) freshwater ponds water-quality sampling snapshot for Bakers, Bolands, Cedar, Critchett’s, Deep, Gould, Ice House, Meadow Bog, Reuben’s, Sarah’s, Shoal, Twinings, Uncle Harvey’s, Uncle Israel’s, and Uncle Seth’s ponds, and Crystal and Pilgrim lakes.

Geographic Information System (GIS)
- The Commission’s GIS staff supported the “Living Streets” project as necessary, and provided some analysis and maps to promote discussion at local meetings with concerned citizens and municipal staff.

REGULATORY ACTIVITIES

DRI Mitigation Funds in Fiscal Year 2013
- The Commission provided $82,600 toward the John P. Hinckley Jr. affordable housing project.

DRI Minor Modifications – Type #1
- The Commission’s executive director approved several requested minor modifications to the previously approved decision for the Cape Cod Five Cents Savings Bank Operations Center (TR98019) on 5/6/13.

TOWN OF PROVINCETOWN

PLANNING, COMMUNITY DEVELOPMENT, AND TECHNICAL SERVICES

Planning
- The Commission’s planning and technical staff continued work with the Outer Cape towns and the Cape Cod National Seashore on the Outer Cape Bicycle and Pedestrian Master Plan, which will address improved bicycle and pedestrian connections between Provincetown and the end of the Cape Cod Rail Trail in South Wellfleet. The staff also continue to support the National Seashore’s work to improve bicycle and pedestrian amenities within and near the park, including plans to connect the Province Lands Trail with downtown Provincetown. (Online: www.capecodcommission.org/initiatives/bikeped)
Affordable Housing

- With the assistance of $125,000 in HOME funds from the Barnstable County HOME Consortium (which is coordinated by the Commission’s affordable housing staff specialist), The Community Builders, Inc., completed the construction of Province Landing. The project has 50 units of 100% affordable family rentals, all now occupied, on town-leased land.

- With the assistance of $100,000 in HOME funds, the Community Housing Resources organization completed the rehabilitation of 83 Shank Painter Road. The project has 15 units of 100% affordable rentals, all now occupied.

Transportation

- The Commission’s transportation staff conducted annual summer traffic counts in Provincetown, including automatic traffic recorders (ATRs) and turning movement counts (TMCs). Traffic data are available online: www.capecodcommission.org/departments/technicalservices/transportation/counts

Roadway segments and intersections in Provincetown included Route 6A at the Truro/Provincetown town line; Bradford Street between Ryder and Alden, west of Shank Painter Road, and between Winslow and Prince; and Conwell Street north of Route 6A.

Water Resources

- The Commission’s water staff continued to support the town’s work on its phased Comprehensive Wastewater Management Plan, presently Phase 3, which included expanding sewer lines and upgrading the water pollution control facility to its planned capacity. The town has recently applied to the state for sewer extension/connection permits and actions related to Phase 4, which will expand current service to the west end of town.

Strategic Information Office

- The Cape Cod Commission, with funding from a 2012 state Community Innovation Challenge Grant, began working on an E-Permitting, Licensing, and Inspection System for the towns of Chatham, Yarmouth, and Nantucket in Fiscal Year 2013. Harwich and Provincetown will also become involved in Fiscal Year 2014. When fully implemented, the online system will allow Cape Cod municipalities to issue and monitor permits, licenses, and inspections, with a web-based portal for citizens and contractors, using a common technology infrastructure and software adopted regionally but tailored to each town.

The Commission’s GIS staff continues to support the regional e-permitting project by providing right time standardized datasets to Accela, the vendor for the project. Working with a third-party contractor, GIS staff created a procedure for receiving bi-weekly feeds from the assessing vendors in the towns of Chatham and Yarmouth. Those bi-weekly feeds are processed into a standardized format and delivered to Accela. The automation process can be applied to other towns as they implement e-permitting. GIS also spent effort on standardizing the GIS layers that Accela access in their Online map service. GIS hosts these maps on their Online Server for Accela to access.

Regulatory Activities

Other Regulatory Assistance

- The Commission provided technical comments to the Massachusetts Environmental Policy Act (MEPA) office on an Environmental Notification Form for the proposed 131A Commercial Pier (Flyer’s Boat Shop) project. Comment letter sent 1/8/13.

TOWN OF SANDWICH
PLANNING, COMMUNITY DEVELOPMENT, AND TECHNICAL SERVICES

Planning

The Commission’s planning and technical staff pursued an update to the Massachusetts Military Reservation (MMR) Joint Land Use Study (JLUS), including collecting and analyzing data, plans, studies, shared-services agreements, and land use/zoning and buildout analyses. The staff convened meetings of policy and technical advisory committees, completed a report on community-military partnerships, and held several workshops to identify potential shared-services opportunities. Commission staff members are now completing initial feasibility studies for several potential shared services, and the staff will develop a model agreement and a final report by the end of September 2013. Online: [www.capecodcommission.org/departments/planning/MMR](http://www.capecodcommission.org/departments/planning/MMR) The Commission’s GIS staff has provided locus maps for the JLUS Update project showing features such as owners/occupants and land use, the boundary of Camp Edwards, protected open space and energy projects, buildout potential, and location of 40B affordable housing sites near the study area. Cooperative work with the military base’s GIS staff resulted in a GIS layer that more closely matched the defined boundary of the Upper Cape Water Supply Reserve of the MMR.

Affordable Housing

The Barnstable County HOME Consortium, coordinated by the Commission’s affordable housing staff specialist, made one down payment/closing cost loan totaling $6,343 to a low-income first-time homebuyer.

Economic Development

The Commission’s staff developed a scope of work with the town for a Regional Economic Strategy Executive Team (RESET) project that will begin in Fiscal Year 2014. The project involves an evaluation of development/redevelopment options within a study area that includes the industrial park, the South Sandwich Village area, the town-owned properties in South Sandwich, and the YMCA property. The Commission will complete baseline research and a market analysis to determine existing and future demand for retail and office space. Three scenarios of possible future land use patterns will be presented, the first based on current zoning. The study will also include a fiscal impact analysis for each scenario to better predict taxes, levels of services, and types of taxpayers affected. The study will also include an impact analysis for transportation, water and natural resources, and the regional economy, and a regulatory analysis. A final report is expected later in FY2014. (Online: [www.capecodcommission.org/initiatives/RESET](http://www.capecodcommission.org/initiatives/RESET))

Planning, Economic Development, and Transportation

The Commission’s transportation and planning staff helped promote local work to establish a bicycle path/route from the Cape Cod Canal into Sandwich village. The Board of Selectmen approved the concept, pending funding.
Transportation

- The Commission’s transportation staff conducted annual summer traffic counts in Sandwich, including automatic traffic recorders (ATRs) and turning movement counts (TMCs). Traffic data are available online: www.capecodcommission.org/departments/technicalservices/transportation/
counts

Roadway segments and intersections in Sandwich included Route 130 north of Quaker Meetinghouse Road and at the Sandwich/Mashpee town line; Route 6 between Exits 3 and 4; Route 6 at the Sandwich/Barnstable town line; Route 6A at the Bourne/Sandwich town line and at the Sandwich/Barnstable town line; Route 6A east and west of the east end of Tupper Road; Cotuit Road south of Quaker Meetinghouse Road and at the Sandwich/Mashpee town line; Main Street east of Route 130; Quaker Meetinghouse Road east of Cotuit Road, south of Kiah’s Way, and east of Peters Pond Drive; Race Lane at the Sandwich/Barnstable town line; and Service Road east of Quaker Meetinghouse Road and at the Sandwich/Barnstable town line.

Water Resources

- The Commission’s water staff continues to support the town’s work on wastewater planning and solutions, including plans that accommodate economic development in the South Sandwich Village Center, a proposed 50-acre private development that includes a public-private wastewater component. The project is moving through the Massachusetts Environmental Policy Act (MEPA) process and the Cape Cod Commission regulatory and development agreement process. The Commission’s staff also has supported the town’s discussions with the Massachusetts Military Reservation about the potential use of the base’s wastewater infrastructure as a regional option with other Upper Cape towns.

- The Commission’s water staff conducted the annual Pond and Lake Stewardship (PALS) freshwater ponds water-quality sampling snapshot for Lawrence and Triangle ponds.

Geographic Information System (GIS)

- The Commission’s GIS staff supported all of the above as necessary, including the RESET project through the use of Barnstable County LiDAR data from the Northeast LiDAR Project, which was funded by the NRCS and is being hosted by MassGIS. The GIS staff is using the county LiDAR data set to develop surfaces for the possible development of 3D imagery. Currently, this work is in support of potential development projects in so-called “Golden Triangle” area.

REGULATORY ACTIVITIES

DRI Decisions in Fiscal Year 2013

- Greenwood Meadows – The Cape Cod Commission approved a Limited DRI with conditions on 1/31/13 for the proposed large-scale ground-mounted solar photovoltaic field on more than 16.5 acres in Forestdale.

- Sagamore Line Reinforcement Project, Western Segment, Phases I and II – The Cape Cod Commission approved a DRI with conditions on 2/28/13 for the proposed installation of 23,000 feet of 20-inch diameter gas pipeline from the Spectra Energy Station west of Route 130, across Route 130, and along Service Road to Quaker Meetinghouse Road.

DRI Minor Modifications – Type #1

- The Commission’s executive director approved several requested minor modifications to the previously approved decision for Olde Harbor Estates (HDEX05006) on 10/26/12.

DRI Reviews Pending at Year End

- Sandwich Beach Nourishment Dredging – a proposed beach nourishment and maintenance
dredging project. The DRI review is pending the issuance of a Massachusetts Environmental Policy Act (MEPA) certificate.

**DRI Certificates of Compliance**

- Final Certificates of Compliance:
  - Bay View Farm Estates (TR05015) – Issued on 7/18/12
  - Olde Harbor Estates (HDEX05006) – Issued on 10/26/12

- Preliminary Certificates of Compliance for the NSTAR Lower SEMA 345kV Transmission Project (TR11014) was issued on 8/23/12.

**Development Agreements**

- On 7/19/12, CCC approved the Tsakalos Realty Trust’s filing of a Notice of Intent to File a Development Agreement Application for the South Sandwich Village, a proposed 50-acre mixed-use village center off Route 130 and Cotuit Road. The proposal includes retail, office, and residential buildings, a community center, a sports complex, and a library, and will involve the redevelopment of three existing shopping plazas. The Massachusetts Environmental Policy Act (MEPA) office issued a certificate on the project’s Final Environmental Impact Report on 11/14/12. In July 2013, the CCC approved an extension to the period for filing a Development Agreement Application for another year.

**Other Regulatory Assistance**

- The Commission provided technical comments to the Massachusetts Environmental Policy Act (MEPA) office on an Environmental Notification Form for the proposed MMR Small-arms Range Improvements project. Comment letter submitted on 9/19/12.

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**TOWN OF TRURO**

**PLANNING, COMMUNITY DEVELOPMENT, AND TECHNICAL SERVICES**

**Affordable Housing**

- The Barnstable County HOME Consortium, coordinated by the Commission’s affordable housing staff specialist, closed a $125,000 loan of HOME funds and the construction is under way by Community Housing Resource for its 16-unit 100% affordable family rental development known as Sally’s Way on town-owned land.

**Planning and Transportation**

- The Commission’s planning and technical staff continued work with the Outer Cape towns and the Cape Cod National Seashore on the Outer Cape Bicycle and Pedestrian Master Plan, which will address improved bicycle and pedestrian connections between Provincetown and the end of the Cape Cod Rail Trail in South Wellfleet. The staff also continue to support the National Seashore’s work to improve bicycle and pedestrian amenities within and near the park. (Online: [www.capecodcommission.org/initiatives/bikeped](http://www.capecodcommission.org/initiatives/bikeped))

**Transportation**

- The Commission’s transportation staff conducted annual summer traffic counts in Truro, including automatic traffic recorders (ATRs) and turning movement counts (TMCs). Traffic data are available online: [www.capecodcommission.org/departments/technicalservices/transportation/counts](http://www.capecodcommission.org/departments/technicalservices/transportation/counts)

Roadway segments and intersections in Truro included Route 6 south of Route 6A, north of Truro Central School, and south of Union Field Road; Route 6A south of Pond Road/Higland
Road and at the Truro/Provincetown town line; Old County Road south of Prince Valley Road; and Truro Center Road north of Castle Road.

Water Resources

- The Commission’s water staff supported the town’s work on its Comprehensive Wastewater Management Plan, begun in 2012. The town is assembling data and developing a program to compile land and water data, historic septic-system management information, and key areas for additional analysis.

- The Commission’s water staff conducted the annual Pond and Lake Stewardship (PALS) freshwater ponds water-quality sampling snapshot for Great Pond.

REGULATORY ACTIVITIES

DRI Reviews Ongoing at Year End

- Herring River Tidal Restoration Project – the proposed reestablishment of tidal flow to the 1,100-acre Herring River estuary and floodplain. The DRI review is pending the issuance of a Massachusetts Environmental Policy Act (MEPA) certificate.

Other Regulatory Assistance

- The Commission provided technical comments to the Massachusetts Environmental Policy Act (MEPA) office on an Environmental Notification Form for the proposed project at 596 Shore Road (Unit 4). Comment letter sent 6/4/13.

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TOWN OF WELLFLEET

PLANNING, COMMUNITY DEVELOPMENT, AND TECHNICAL SERVICES

Planning and Transportation

- The Commission's planning and technical staff continued work with the Outer Cape towns and the Cape Cod National Seashore on the Outer Cape Bicycle and Pedestrian Master Plan, which will address improved bicycle and pedestrian connections between Provincetown and the end of the Cape Cod Rail Trail in South Wellfleet. The staff also continue to support the National Seashore’s work to improve bicycle and pedestrian amenities within and near the park. (Online: www.capecodcommission.org/initiatives/bikeped)

Transportation

- The Commission's transportation staff conducted annual summer traffic counts in Wellfleet, including automatic traffic recorders (ATRs) and turning movement counts (TMCS). Traffic data are available online: www.capecodcommission.org/departments/technicalservices/transportation/counts

Roadway segments and intersections in Wellfleet included Route 6 at the Eastham/Wellfleet town line and south of Lecount Hollow Road; Chequessett Neck Road south of Duck Harbor Road; Cove Road west of Route 6; Lecount Hollow Road east of Route 6; Lieutenant Island Road west of Route 6; Long Pond Road east of Lawrence Road, Main Street west of Route 6 and at the Methodist Church; and West Road at the Eastham/Wellfleet town line.

Water Resources

- The Commission’s water staff supported the town’s continued work related to its Comprehensive Wastewater Management Plan (CMWP) Needs Assessment and Alternatives Analysis. The town completed those reports in June 2012 with objectives to protect and enhance the ecosystem of Wellfleet Harbor, promote aquaculture-based water quality management solutions, identify low-cost and sustainable remedies, develop least-cost
alternatives and, only as a final resort, engage in structured solutions. The town has pursued and implemented pilot aquaculture solutions that have increased the shellfish harvest.

- The Commission's water staff conducted the annual Pond and Lake Stewardship (PALS) freshwater ponds water-quality sampling snapshot for Ryder and Snow ponds.

**Geographic Information System (GIS)**

- The Commission's GIS staff supported all of the above as necessary, and assisted the Wellfleet Conservation Trust in the development of a priority matrix for acquisition of undeveloped land. In addition, the GIS staff conducted a line-of-sight analysis in Wellfleet to help OpenCape site its microwave technology.

**REGULATORY ACTIVITIES**

**DRI Decisions during Fiscal Year 2013**

- Chequessett Yacht and Country Club – The Cape Cod Commission approved a Limited DRI with conditions on 11/29/12 for the proposed division of a 1.1-acre lot from a larger 106-acre parcel.

**DRI Minor Modifications – Type #1**

- The Commission's executive director approved requested minor modifications to previously approved decisions for the Nextel Tower/ Monopole, Gross Hill Road (TR98047) on 11/1/12 and 3/28/13.

**DRI Certificates of Compliance**

- Final Certificate of Compliance for the Chequessett Yacht and Country Club (TR12037) was issued on 2/21/13.

**DRI Reviews Ongoing at Year End**

- Herring River Tidal Restoration Project – the proposed reestablishment of tidal flow to the 1,100-acre Herring River estuary and floodplain. The DRI review is pending the issuance of a Massachusetts Environmental Policy Act (MEPA) certificate.

**Other Regulatory Assistance**

- The Commission provided technical comments to the Massachusetts Environmental Policy Act (MEPA) office on an Environmental Notification Form for the proposed project at 150 and 160 Third Street Shorefront. Comment letter submitted on 9/11/12.

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**TOWN OF YARMOUTH**

**PLANNING, COMMUNITY DEVELOPMENT, AND TECHNICAL SERVICES**

**Affordable Housing**

- The Barnstable County HOME Consortium, coordinated by the Commission's affordable housing staff specialist, made two down payment/closing cost loans totaling $17,921 to low-income, first-time home buyers.

- The HOME Consortium also closed a $150,000 loan of HOME funds and construction is under way by the Stratford Capital Group for its 65-unit Simpkins School Residences development project. Fifty-eight of those 65 units will be affordable, age-restricted rentals.

- The Commission filled four apartment units through the Regional Ready Renters program. (Online: [www.capecodcommission.org/departments/planning/housing/renters](http://www.capecodcommission.org/departments/planning/housing/renters))

**Planning and Transportation**

- The Commission's planning and technical staff initiated a “Living Streets” project for a two-mile
section of Route 28 (from West Yarmouth Road to Forest Road) in Yarmouth. The study is exploring transportation improvement alternatives that will reduce conflicts, improve traffic flow, and incorporate multi-modal transportation options along the corridor. It aims to further the creation of vibrant, pedestrian- and bicycle-oriented mixed-use centers along the corridor. The study will explore the potential impact of proposed land use and zoning changes under consideration by the town and make recommendations for roadway changes that accommodate traffic volumes and all users of the roadway. The project will establish a preferred roadway redesign that incorporates “Complete Streets” design strategies and low-impact development (LID) techniques to mitigate stormwater runoff. The Commission staff will conduct public workshops, make presentations, and develop a final report in Fall 2013. (Online: [www.capecodcommission.org/departments/planning/design/sustainabledesign/livingstreets_yarmouth](http://www.capecodcommission.org/departments/planning/design/sustainabledesign/livingstreets_yarmouth))

Transportation

- The Commission’s transportation staff completed the final report for the Yarmouth Road Corridor Study in December 2012 and the final report for the Hyannis Access Study Implementation in June 2013. Both projects involved working with a task force of community members, business representatives, and leaders to identify “preferred alternative” concepts for segments of those heavily travelled roadways and intersections leading into and out of Hyannis. The Yarmouth Road project addressed the design of Yarmouth Road/Willow Street area and developed alternatives to improve access for all modes of transportation along this corridor; see [http://www.capecodcommission.org/resources/transportation/Yarmouth_Road_2012_report_12272012.pdf](http://www.capecodcommission.org/resources/transportation/Yarmouth_Road_2012_report_12272012.pdf)

- The Commission’s transportation staff conducted a Road Safety Audit of a segment of Route 6A in the Yarmouth Port area.

- The Commission’s transportation staff conducted annual summer traffic counts in Yarmouth, including automatic traffic recorders (ATRs) and turning movement counts (TMCs). Traffic data are available online: [www.capecodcommission.org/departments/technicalservices/transportation/counts](http://www.capecodcommission.org/departments/technicalservices/transportation/counts)

Roadway segments and intersections in Yarmouth included Route 28 west of Long Pond Drive, west of Lyman Lane, east of North Main Street, east of Seaview Avenue, east of South Sea Avenue, and east of Wood Road; Route 6 at the Barnstable/Yarmouth town line, between Exits 7 and 8, and at the Yarmouth/Dennis town line; Route 6A at the Barnstable/Yarmouth town line, west of Setucket Road, and at the Yarmouth/Dennis town line; Abells Road east of Higgins Crowell Road; Buck Island Road west of Pumphouse Lane and...
east of West Yarmouth Road; Camp Street north of Route 28; Forest Road north of Route 28 and south of Constance Avenue; Great Western Road over Route 6; Higgins Crowell Road north of Abells Road, north of Buck Island Road, and east of Willow Street; Highbank Road west of Great Western Road; Long Pond Drive west of Station Avenue and north of Route 28; North Main Street north of Regional Avenue; Setucket Road at the Yarmouth/Dennis town line; and Strawberry Lane south of Route 6A.

**Water Resources**

- The Commission water and planning staff continued to support the town’s work to address wastewater management in a comprehensive way and to pursue measures to restore the water quality in the Lewis Bay and Parkers River watersheds. With an award from the US Environmental Protection Agency, the Commission worked this year with the towns of Barnstable and Yarmouth on a “green infrastructure” pilot project in the two nitrogen-impacted watersheds. An EPA contractor, the Commission, and the towns worked to (1) identify suitable green infrastructure techniques in the target locations; (2) develop conceptual designs from site inventories, aerial photography, GIS data and mapping analyses, and watershed modeling to quantify water-quality benefits; and (3) identify preliminary cost estimates. The initiative in these watersheds may result in a cost-effective model for other towns as they attempt to implement sustainable wastewater options.

**Geographic Information System (GIS)**

- The Commission’s GIS staff supported all of the above as necessary, including supporting the Living Streets project. The GIS staff also provided draft maps of wildfire hazard areas and regional vulnerability assessment to municipal staff for review and update of the local Multi-Hazard Mitigation Plan.

**Strategic Information Office**

- The Cape Cod Commission, with funding from a 2012 state Community Innovation Challenge Grant, began working with the town on an E-Permitting, Licensing, and Inspection System. (The towns of Chatham, Yarmouth, and Nantucket were the first to be involved in development of the system; Harwich and Provincetown will also become involved in Fiscal Year 2014.) When fully implemented, the online system will allow Cape Cod municipalities to issue and monitor permits, licenses, and inspections, with a web-based portal for citizens and contractors, using a common technology infrastructure and software adopted regionally but tailored to each town.

The Commission’s GIS staff continues to support the regional e-permitting project by providing right time standardized datasets to Accela, the vendor for the project. Working with a third-party contractor, GIS staff created a procedure for receiving bi-weekly feeds from the assessing vendors in the towns of Chatham and Yarmouth. Those weekly feeds are processed into a standardized format and delivered to Accela. The automation process can be applied to other towns as they implement e-permitting. GIS also spent effort on standardizing the GIS layers that Accela access in their Online map service. GIS hosts these maps on their Online Server for Accela to access.

**REGULATORY ACTIVITIES**

**DRI Decision in Fiscal Year 2013**

- Mayflower Place Expansion and Memory Care Facility – The Cape Cod Commission approved a DRI with conditions on 3/28/13 for the proposed construction of independent living and memory care facilities on a redeveloped site (the former Mill Hill Club on Route 28 and several adjacent house lots) and on the Mayflower Place Continuing Care Retirement Community campus near Buck Island Road, Route 28, and Mill Pond.
Road in West Yarmouth. The project will construct a new, connected building wing in the northwest portion of the campus to house 50 independent living units plus one caretaker’s apartment. The project will also construct a memory care building in the expanded southeast portion of the campus to house 75 memory care units.

**DRI Minor Modifications – Type #1**

- The Commission’s executive director approved requested minor modifications to the previously approved decision for the Simpkins School Redevelopment (TRHDEX10018) on 8/9/12.

**DRI Certificates of Compliance**

- Final Certificate of Compliance for the Owl Club/Cultural Center of Cape Cod (TR08026) was issued on 1/14/13.

- Preliminary Certificate of Compliance for the Simpkins School Redevelopment (TR/HDEX10008) was issued on 10/3/12.

**DRI Reviews Pending at Year End**

- Parker’s River Marine Park – a proposed marine park on a 22-acre site of the former drive-in theater. The DRI review is pending issuance of a Massachusetts Environment Policy Act (MEPA) certificate.

**Other Regulatory Assistance**

- The Commission provided a comment letter on the Chapter 40B proposal for Laban Lane, a two-lot, two-house Habitat for Humanity affordable ownership project. Comment letter submitted 10/18/12.

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**FOOTNOTE IN “FY2013 PRIORITIES – 1. WASTEWATER MANAGEMENT” SECTION IN TEH BEGINNING OF THIS REPORT:**

County Dredge
“The Codfish”
I. INTRODUCTION:

In 1993 Barnstable County conducted a needs assessment and cost benefit analysis of operating a municipal dredge program on behalf of the towns. This report documented that a County operated maintenance-dredging program would be both beneficial to the towns and cost effective to operate.

The County and its legislative delegation approached the Massachusetts Department of Environmental Management (DEM) and requested financial assistance in the form of a $1 million capital grant for the purchase of a dredge and ancillary equipment. Prior to this grant, the state was responsible for funding 75% of the cost of municipal dredge projects and the town was responsible for the remaining 25%. However, funding constraints at the state level meant that much of the dredge work was not completed on a timely basis or was never accomplished. As stipulated in the grant Agreement, the provision of a capital grant replaces the state funding for municipal dredge projects here on the Cape.

The Barnstable County Dredge Advisory Committee was established in October of 1994. The Committee has representation from all of the Cape towns, except Brewster, which has no navigable harbors, DEM and County staff. The Advisory Committee is responsible for developing the dredge schedule and recommending the dredge rate each fiscal year.

II. COMPLETED DREDGE PROJECTS:

To date the County has dredged 1,504,215 cubic yards of material from the waterways in 15 Cape and Island towns. Barnstable County dredged these waterways at a rate approximately 65% below the market rate. The cost per cubic yard to dredge this material was between $7.00 and $11.00 per cubic yard. The average market rate for dredge services is over $16.00 per cubic yard.

If there were no Barnstable County dredge program, it would have cost the taxpayers an additional $867,972 to complete the dredge projects that the County has completed on behalf of the towns on the Cape and Islands in FY 2013. This amount is based on the state paying 75% of the cost of town dredge projects at $16.00 per cubic yard.
The following projects were completed this fiscal year totaling 72,331 cubic yards of material:

Harwich-Allen Harbor Channel  
Chatham – Mill Creek  
Mashpee – Popponesset Bay Channel  
Barnstable-Cotuit Town Pier  
Falmouth Inner Harbor Inlet Channel  
Harwich- Herring River  
Harwich-Allen Harbor Mooring Basin  
Mashpee- Popponesset Bay Channel  
Falmouth – Eel River  
Truro - Pamet River  
Dennis/Yarmouth- Bass River  
Yarmouth- Parkers River  
Dennis – Sesuit Harbor

In addition to a reduced rate for dredging services, the County conducts before and after dredge surveys at a savings of approximately $6,000 per project to the towns. These surveys are invaluable records in the event of a major hurricane for submission to the Federal Emergency Management Agency as documentation of storm damage.

III. FISCAL STATUS:

The operating budget for FY 2013 was $835,284. As of June 30, 2013 the dredge enterprise account has a reserve fund balance of $453,042. The purpose of the reserve fund balance is to establish a fund to replace the dredge.