Board of Directors Report

on

Key Indicators of MWRA Performance

for

Fourth Quarter FY2017

Frederick A. Laskey, Executive Director
Michael J. Hembrock, Chief Operating Officer
September 20, 2017
## Summary of Hiring Processes

<table>
<thead>
<tr>
<th></th>
<th>New Hires</th>
<th>Promotions</th>
<th>Transfers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY12</td>
<td>26</td>
<td>19</td>
<td>22</td>
<td>67</td>
</tr>
<tr>
<td>FY13</td>
<td>47</td>
<td>58</td>
<td>24</td>
<td>129</td>
</tr>
<tr>
<td>FY14</td>
<td>57</td>
<td>73</td>
<td>38</td>
<td>168</td>
</tr>
<tr>
<td>FY15</td>
<td>65</td>
<td>85</td>
<td>48</td>
<td>198</td>
</tr>
<tr>
<td>FY16</td>
<td>60</td>
<td>65</td>
<td>34</td>
<td>159</td>
</tr>
<tr>
<td>FY17</td>
<td>72</td>
<td>105</td>
<td>45</td>
<td>222</td>
</tr>
</tbody>
</table>

![Pie chart showing distribution of hiring processes]
## Turnover

<table>
<thead>
<tr>
<th></th>
<th>Retired</th>
<th>Resigned</th>
<th>Dismissed</th>
<th>Deceased</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY12</td>
<td>23</td>
<td>15</td>
<td>3</td>
<td>2</td>
<td>43</td>
</tr>
<tr>
<td>FY13</td>
<td>43</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>51</td>
</tr>
<tr>
<td>FY14</td>
<td>41</td>
<td>15</td>
<td>3</td>
<td>3</td>
<td>62</td>
</tr>
<tr>
<td>FY15</td>
<td>40</td>
<td>11</td>
<td>8</td>
<td>8</td>
<td>67</td>
</tr>
<tr>
<td>FY16</td>
<td>37</td>
<td>16</td>
<td>2</td>
<td>4</td>
<td>59</td>
</tr>
<tr>
<td>FY17</td>
<td>52</td>
<td>13</td>
<td>5</td>
<td>3</td>
<td>73</td>
</tr>
</tbody>
</table>
Keeping Up With The Turnover

Over the past four years, the MWRA has hired and trained critical entry level employees:

• **40** OMC Laborers were hired  
  – **15** were subsequently promoted

• **23** Buildings & Grounds Workers were hired  
  – **8** were subsequently promoted (4 additional anticipated this month)

• **18** Senior Lab Technicians were hired  
  – **12** were subsequently promoted

• **10** Staff Engineers were hired  
  – **3** were subsequently promoted
The MWRA has developed and provided training aimed at promoting employees:

• **21** employees participated in the Operator shadow program
  – **14** were subsequently promoted to an operator vacancy

• **12** employees participated in the M&O Specialist shadow program
  – **8** have been promoted to M&O Specialist vacancy

• **20** employees participated in the IMI Mechanical Certification program to ready them for promotion
  – **10** have been promoted

• **30** employees participated in the preparatory training to obtain a CDL License
  – **28** employees have obtained their licenses
• **109** employees participated in the wastewater collections systems preparatory programs

• **120** employees participated in the basic or intermediate wastewater operator license preparatory programs

• **52** employees participated in the advance wastewater operator license preparatory programs
Water Use

Total Water Use: MWRA Core Communities

Arlington, Belmont, BWSC, Brookline, Chelsea, Everett, Framingham, Lexington, Malden, Medford, Melrose, Milton, Newton, Norwood, Quincy, Reading, Revere, Somerville, Stoneham, Waltham, Watertown, Winthrop

CY2015
CY2016
CY2017
Yield and precipitation for the quarter were above the quarterly long-term averages. System withdrawal for the quarter was below the 10-year monthly average.
## Water Distribution System Valves

<table>
<thead>
<tr>
<th>Type of Valve</th>
<th>Inventory #</th>
<th>Operable Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>FY17 to Date</td>
</tr>
<tr>
<td>Main Line Valves</td>
<td>2,159</td>
<td>95.7%</td>
</tr>
<tr>
<td>Blow-Off Valves</td>
<td>1,317</td>
<td>97.4%</td>
</tr>
<tr>
<td>Air Release Valves</td>
<td>1,380</td>
<td>94.6%</td>
</tr>
<tr>
<td>Control Valves</td>
<td>49</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**Main Line Valves Exercised**

Target = 1,100 main line valves annually

**Blow-Off Valves Exercised**

Target = 500 blow off valves annually
Wachusett Aqueduct Pumping Station
BHD/BEC JV 15, A Joint Venture
Contract 7157, Change Order 21

September 20, 2017
Construction Update: Front Entrance Modifications
Construction Update: Front Entrance
Construction Update: Pump Station
Construction Update: Pump Station
Change Order 21: Carroll Fire Alarm System Upgrade

- Carroll Operations monitors all Fire Alarm Systems

- Systems must be compatible

- Carroll Operations Building (EST2)
- Wachusett Aq PS (EST3)
- Post Treatment and UV (EST2)
- Guard House (EST3)
- Generator Building (EST2)
Change Order 21: Carroll Fire Alarm System Upgrade

- Existing Edwards EST2 discontinued
- Support and parts availability ends on 9/30/2017
- EST 2 does not communicate with EST 3
- Replacement is required to integrate CWTP Campus
Change Order 21: Carroll Fire Alarm System Upgrade

• Change Order Amount - $285,385

• Work on this contract is 62% complete
Wachusett Aqueduct Pumping Station Design, Construction Administration and Resident Inspection Services
Contract 7156, Amendment 4

September 20, 2017
### Amendment 4: Engineering Work Summary

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional Shop Drawings</td>
<td>$289,257</td>
</tr>
<tr>
<td>Additional Change Order Assistance</td>
<td>$115,507</td>
</tr>
<tr>
<td>Geotechnical Investigation and Surge Tank Foundation Design</td>
<td>$79,826</td>
</tr>
<tr>
<td>Correction of Computational Error</td>
<td>$50,576</td>
</tr>
<tr>
<td>Design of Power Fluctuation Ride-Through</td>
<td>$34,028</td>
</tr>
<tr>
<td>Services for the Fire Alarm System</td>
<td>$32,064</td>
</tr>
<tr>
<td>Seven Other Items</td>
<td>$110,359</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$711,617</strong></td>
</tr>
</tbody>
</table>
• Additional geotechnical investigation and surge tank foundation design
Amendment 4 Work

- Redesign of air/vacuum valves
Alewife Brook Pump Station Rehabilitation
Barletta Engineering Corporation
Contract 6797, Change Order 2

September 20, 2017
CONGRATULATIONS!

Henry Vitale
Executive Director, Boston Water and Sewer Commission (BWSC)

Occasionally the Shattuck Awards Committee selects a public official at the department head level for prudent management and inspired leadership. The recipient of the Shattuck Chairman’s Award for 2017 is Henry Vitale, Executive Director of the Boston Water and Sewer Commission (BWSC).

Henry Vitale takes pride in those who serve New England’s oldest and largest water, sewer and storm water systems. He makes certain each employee feels appreciated, and is well trained for the complex duties of providing water and sewer services to more than one million people per day.

The Water and Sewer Commission’s services are crucial to the growth and safety of the City. In recognition of this, Henry implemented programs that assure citizens easy access for reporting difficulties, asking questions or learning more about the Commission’s services. He also regularly attends community meetings to bring transparency and understanding to BWSC operations.

Another example of Henry’s commitment to citizens is the implementation of the water trailer. The trailer, a tool for educating residents on water conservation and pollution prevention, also supplies the community with clean, free water at city events.

Since his 2014 arrival at the Water and Sewer Commission, Henry has been a respected leader who stands with his team during times of crisis and works for their benefit and safety. Many view Henry’s unending efforts to create unity and support among the five departments of BWSC as the major contributor to the Commission’s increased excellence.

Henry’s initiation of the All-Star program, through which employees nominate and vote on the Star of the Month, builds morale and promotes appreciation of fellow workers. The annual Christmas party he hosts is another unity builder, and his reaching out to staff who have lost a loved one demonstrates his deep concern for BWSC employees.

One measure of Henry’s influence is that the BWSC with its large customer base receives little, if any, negative press regarding difficulties with water and sewer services. Under Henry’s leadership, BWSC has become a distinguished and deeply appreciated organization that has received awards for consistent performance of excellence. The Massachusetts Department of Environmental Protection acknowledged the Commission with its Regional Recognition for Outstanding Performance and Achievement and for consistency in delivering safe drinking water. The American Water Work Association listed the Commission in its “Best of the Best” Tap Water category.

Thank you, Henry Vitale for your outstanding commitment to Boston, and congratulations on receiving the 2017 Shattuck Chairman’s Award.
Quabbin End of Month Storage

Percent Full

Jan    Feb    Mar    Apr    May    Jun    Jul    Aug    Sep    Oct    Nov    Dec

2016

2017
Quabbin Reservoir Daily Storage

Crossed higher than 2016 on 7/17/2017

85.7% full on 9/11/2017, about 6.5 billion gallons and 1.6% higher when compared to 2016

Crossed into Normal on 6/11/2017