$M \sim$ ssachusetts Water Pollution Abatement Trust or Pollution Abatement Revenue Bonds
(r voll Loan Program Bonds)
Series 3


Hinal Loan Structuring Analysis

Estimated Net Borrower Debt Service

|  | Principal Outstanding | Debt Service <br> [Net of <br> Accrued <br> Interest] | $\begin{aligned} & \text { LESS } \\ & \text { DSRF } \\ & \text { Earnings@ } \\ & 5.404600 \% \end{aligned}$ | LESS <br> Contract Assistance | Estimated <br> Net <br> Debt Service | PLUS <br> Administrative Fee Payable @ 0.075\% | Estimated <br> Total Payment | Estimated <br> Total Payment [Fiscal Year ending] 30-Jun |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date |  |  |  |  |  |  |  |  |
| 29-Apr-97 |  |  |  |  |  |  |  |  |
| 01-Aüg-97 | \$7,104,616.00 | \$95,691.06 | \$49,063.61 | \$4,468.09 | \$42,159.36 | \$2,723.44 | \$44,882.80 |  |
| 01-Feb-98 | 7,104,616.00 | 467,079.64 | 95,994.02 | 140,966.36 | 230,119.26 | 5,328.46 | 235,447.72 | \$280,330.52 |
| .01-Aug-98 | 6,824,758.00 | 180,924.83 | 92,212.72 | 6,702.14 | 82,009.97 | 5,118.57 | 87,128.54 | \$280,330.52 |
| 01-Feb-99 | 6,824,758.00 | 465,981.83 | 92,212.72 | 140,966,36 | 232,802.75 | 5,118.57 | 237,921.32 | 325,049.86 |
| 01-Aug-99 | 6,539,701.00 | 174,796.11 | 88,361.17 | 6,702.14 | 79,732.80 | 4,904.78 | 84,637.58 | 325,049.86 |
| 01-Feb-2000 | 6,539,701.00 | 464,835.11 | 88,361.17 | 140,966.36 | 235,507.58 | 4,904.78 | 240,412.36 | 325,049.94 |
| 01-Aug-2000 | 6,249,662.00 | 168,270.23 | 84,442.31 | 6,702.14 | 77,125.78 | 4,687.25 | 81,813.03 | 32,,049.94 |
| 01-Feb-2001 | 6,249,662.00 | 463,958.23 | 84,442.31 | 140,966.36 | 238,549.56 | 4,687.25 | 243,236.81 | 325,049.84 |
| 01-Aug-2001 | 5,953,974.00 | 161,469.41 | 80,447.12 | 6,702.14 | 74,320.15 | 4,465.48 | 78,785.63 | 32,049.84 |
| 01-Feb-2002 | 5,953,974.00 | 463,212.41 | 80,447.12 | 140,966.36 | 241,798.93 | 4,465.48 | 246,264.41 | 325,050.04 |
| 01-Aug-2002 | 5,652,231.00 | 154,303.01 | 76,370.12 | 6,702.14 | -71,230.75 | 4,239.17 | 75,469.92 | 325,050.04 |
| 01-Feb-2003 | 5,652,231.00 | 462,678.01 | 76,370.12 | 140,966.36 | 245,341.53 | 4,239.17 | 249,580.70 | 325,050.62 |
| 01-Aug-2003 | 5,343,856.00 | 146,902.01 | 72,203.51 | 6,702.14 | 67,996.36 | 4,007.89 | 72,004.25 | 325,050.62 |
| 01-Feb-2004 | 5,343,856.00 | 462,208.01 | 72,203.51 | 140,966.36 | 249,038.14 | 4,007.89 | 253,046.03 | 325,050.28 |
| 01-Aug-2004 | 5,028,550.00 | 139,019.36 | 67,943.25 | 6,702.14 | 64,373.97 | 3,771.41 | 68,145.38 | 325,050.28 |
| 01-Feb-2005 | 5,028,550.00 | 462,043.36 | 67,943.25 | 140,966.36 | 253,133.75 | 3,771.41 | 256,905.16 | 325,050.54 |
| - 7 -Aug-2005 | 4,705,526.00 | 130,943.76 | 63,578.71 | 6,702.14 | 60,662.91 | 3,529.14 | 64,192.05 | 325,050.54 |
| 1-Feb-2006 | 4,705,526.00 | 461,873.76 | 63,578.71 | 140,966.36 | 257,328.69 | 3,529.14 | 260,857.83 | 325,049.88 |
| 01-Aug-2006 | 4,374,596.00 | 121,015.86 | 59,107.35 | 6,702.14 | 55,206.37 | 3,280.95 | 58,487.32 | 325,049.88 |
| --01-Feb-2007 | 4,374,596.00 | 463,355.86 | 59,107.35 | 140,966.36 | 263,282.15 | 3,280.95 | 266,563.10 | 325,050.42 |
| - Aug-2007 | 4,032,256.00 | 110,745.66 | 54,481.83 | 6,702.14 | 49,561.69 | 3,024.19 | 52,585.88 | 325,050.42 |
| 1-Feb-2008 | 4,032,256.00 | 464,888.66 | 54,481.83 | 140,966.36 | 269,440.47 | 3,024.19 | 272,464.66 | 325;050.54 |
| 01-Aug-2008 $01-\mathrm{Feb}-2009$ | 3,678,113.00 | 101,449.41 | 49,696.82 | 6,702.14 | 45,050.45 | 2,758.58 | 47,809.03 | 325,050.54 |
| 01-Feb-2009 | 3,678,113.00 | 465,145.41 | 49,696.82 | 140,966.36 | 274,482.23 | 2,758.58 | 277,240.81 | 325,049.84 |
| 01-Aug-2009 $01-\mathrm{Feb}-2010$ | 3,314,417.00 | 91,811.46 | 44,782.75 | 6,702.14 | 40,326.57 | 2,485.81 | 42,812.38 | 325,049.84 |
| 01-Feb-2010 | 3,314,417.00 | 465,501.46 | 44,782.75 | 140,966.36 | 279,752.35 | 2,485.81 | 282,238.16 | 325,050.54 |
| 01-Aug-2010 | 2,940,727.00 | 81,721.83 | 39,733,63 | 6,702.14 | 35,286.06 | 2,205.55 | 37,491.61 | -- |
| 01-Aug-2011 | 2,940,727.00 | 466,052.83 | 39,733.63 | 140,966.36 | 285,352.84 | 2,205.55 | 287,558.39 | 325,050.00 |
| 01-Feb-2012 | 2,556,396.00 | 71,344.90 | 34,540.74 | 6,702.14 | 30,102.02 | 1,917.30 | 32,019.32 | -- |
| 01-Aug-2012 | 2,161,120.00 | 60,474.81 | 29,199.97 | 4 |  | 1,917 | 293,031.10 | 325,050.42 |
| 01-Feb-2013 | 2,161,120.00 | 467,401.81 | 29,199.97 | 140,966.36 | 297,235.48 | 1,620.84 | 298,856.32 | 325,04986 |
| 01-Aug-2013 | 1,754,193.00 | 49,284.31 | 23,701.78 | 6,702.14 | 18,880.39 | 1,315.64 | 20,196.03 | 325,049.86 |
| 01-Feb-2014 | 1,754,193.00 | 468,206.31 | 23,701.78 | 140,966.36 | 303,538.17 | 1,315.64 | 304,853.81 | 325,049.84 |
| 01-Aug-2014 | 1,335,271.00 | 37,554.50 | 18,041.51 | 6,702.14 | 12,810.85 | 1,001.45 | 13,812.30 | 325,049.84 |
| 01-Feb-2015 | 1,335,271.00 | 469,244.50 | 18,041.51 | 140,966.36 | 310,236.63 | 1,001.45 | 311,238.08 | 325,050.38 |
| 01-Aug-2015 | 903,581.00 | 25,413.22 | 12,208.73 | 6,702.14 | 6,502.35 | 677.69 | 7,180.04 | 325,05.38 |
| 01-Feb-2016 | 903,581.00 | 470,367.22 | 12,208.73 | 140,966.36 | 317,192.13 | 677.69 | 317,869.82 | 325,049.86 |
| 01-Aug-2016 | 458,627.00 | 12,898.88 | 6,196.74 | 6,702.14 | 0.00 | 343.97 | 3173.97 | 325,049.86 |
| 01-Feb-2017 | 458,627.00 | 471,525.88 | 6,196.74 | 140,966.36 | 324,362.78 | 343.97 | 324,706.75 | 325,050.72 |
| 01-Aug-2017 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - 0.00 | 325,050.72 |
| 01-Feb-2018 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 01-Aug-2018 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 01-Feb-2019 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 01-Aug-2019 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 01-Feb-2020 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 01-Aug-2020 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  |  | 428,215.82 | \$2,139,559.15 | \$2,951,136.01 \$ | 337,520.72 | \$118,763.22 | \$6,456,283.94 | \$6,456,283.94 |

Massachusetts Water Pollution Abatement Trust
Water Pollution Abatement Revenue Bonds
AMENDED SCHEDULEC
(Pool Loan Program Bonds)
Series 5
Manchester by the Sea
96-49A
Final Loan Structuring Analysis
G.E. $50.00 \%$

Schedule of Loan Repayments
Initial Loan Obligation: $814,991.00$

| Date | Loan Subsidy Amounts |  |  |  |  |  | Net Loan Repayment |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Scheduled Loan Repayments |  |  | $\begin{array}{r} \text { DSRF } \\ \text { Earnings } \end{array}$ | Contract Assistance | Total |  |  |  |
|  | Principal | Interest | Total |  |  |  | Principal | Interest | Total |
| 01-Feb-05 | 0.00 | 19,288.03 | 19,288.03 | 10,852.01 | 0.00 | 10,852.01 | 0.00 | 8,436.01 | 8,436.01 |
| 01-Aug-05 | 44,643.00 | 20,085.99 | 64,728.99 | 10,852.01 | 19,517.27 | 30,369.28 | 34,359.71 | 0.00 | 34,359.71 |
| 01-Feb-06 | 0.00 | 21,174.74 | 21,174.74 | 10,257.57 | 921.99 | 11,179.56 | 0.00 | 9,995.18 | 9,995.18 |
| 01-Aug-06 | 45,719.00 | 18,185.21 | 63,904.21 | 10,257.57 | 19,405.28 | 29,662.85 | 34,241.35 | 0.00 | 34,241.35 |
| 01-Feb-07 | 0.00 | 20,646.95 | 20,646.95 | 9,648.80 | 921.99 | 10,570.79 | 0.00 | 10,076.16 | 10,076.16 |
| 01-Aug-07 | 46,996.00 | 17,477.21 | 64,473.21 | 9,648.80 | 19,995.76 | 29,644.56 | 34,828.65 | 0.00 | 34,828.65 |
| 01-Feb-08 | 0.00 | 20,102.13 | 20,102.13 | 9,023.02 | 921.99 | 9,945.01 | 0.00 | 10,157.12 | 10,157.12 |
| 01-Aug-08 | 48,197.00 | 14,361.16 | 62,558.16 | 9,023.02 | 19,408.73 | 28,431.75 | 34,126.41 | 0.00 | 34,126.41 |
| 01-Feb-09 | 0.00 | 19,653.75 | 19,653.75 | 8,381.26 | 921.99 | 9,303.25 | 0.00 | 10,350.50 | 10,350.50 |
| 01-Aug-09 | 49,436.00 | 13,675.12 | 63,111.12 | 8,381.26 | 20,042.91 | 28,424.16 | 34,686.95 | 0.00 | 34,686.95 |
| 01-Feb-10 | 0.00 | 19,153.72 | 19,153.72 | 7,722.99 | 921.99 | 8,644.98 | 0.00 | 10,508.74 | 10,508.74 |
| 01-Aug-10 | 50,000.00 | 8,553.59 | 58,553.59 | 7,722.99 | 18,015.08 | 25,738.07 | 32,815.52 | 0.00 | 32,815.52 |
| 01-Feb-11 | 0.00 | 17,671.88 | 17,671.88 | 7,057.22 | 921.99 | 7,979.21 | 0.00 | 9,692.68 | 9,692.68 |
| 01-Aug-11 | 50,000.00 | 8,564.09 | 58,564.09 | 7,057.22 | 18,977.07 | 26,034.29 | 32,529.80 | 0.00 | 32,529.80 |
| $01-\mathrm{Feb}-12$ | 0.00 | 16,991.63 | 16,991.63 | 6,391.44 | 921.99 | 7,313.43 | 0.00 | 9,678.20 | 9,678.20 |
| 01-Aug-12 | 55,000.00 | 9,362.27 | 64,362.27 | 6,391.44 | 19,483.19 | 25,874.63 | 38,487.64 | 0.00 | 38,487.64 |
| 01-Feb-13 | 0.00 | 14,349.42 | 14,349.42 | 5,659.09 | 921.99 | 6,581.08 | 0.00 | 7,768.35 | 7,768.35 |
| 01-Aug-13 | 55,000.00 | 8,487.47 | 63,487.47 | 5,659.0s | 19,965.15 | 25,624.24 | 37,863.23 | 0.00 | 37,863.23 |
| 01-Feb-14 | 0.00 | 13,163.16 | 13,163.16 | 4,926.74 | 921.99 | 5,848.73 | 0.00 | 7,314.44 | 7,314.44 |
| 01-Aug-14 | 55,000.00 | 7,628.51 | 62,628.51 | 4,926.74 | 19,517.68 | 24,444.42 | 38,184.09 | 0.00 | 38,184.09 |
| 01-Feb-15 | 0.00 | 10,102.18 | 10,102.18 | 4,194.38 | 921.99 | 5,116.37 | , 0.00 | 4,985.81 | 4,985.81 |
| 01-Aug-15 | 60,000.00 | 6,626.77 | 66,626.77 | 4,194.38 | 19,464.47 | 23,658.85 | 42,967.91 | 0.00 | 42,967.91 |
| 01-Feb-16 | 0.00 | 7,910.00 | 7,910.00 | 3,395.45 | 921.99 | 4,317.44 | 0.00 | 3,592.55 | 3,592.55 |
| 01-Aug-16 | 60,000.00 | 5,783.18 | 65,783.18 | 3,395.45 | 19,549.86 | 22,945.31 | 42,837.87 | 0.00 | 42,837.87 |
| 01-Feb-17 | 0.00 | 5,624.35 | 5,624.35 | 2,596.52 | 921.99 | 3,518.51 | 0.00 | 2,105.84 | 2,105.84 |
| 01-Aug-17 | 65,000.00 | 4,655.28 | 69,655.28 | 2,596.52 | 19,798.73 | 22,395.25 | 47,260.03 | 0.00 | 47,260.03 |
| 01-Feb-18 | 0.00 | 3,170.13 | 3,170.13 | 1,731.02 | 678.93 | 2,409.95 | 0.00 | 760.19 | 760.19 |
| 01-Aug-18 | 65,000.00 | 3,524.30 | 68,524.30 | 1,731.02 | 20,401.67 | 22,132.69 | 46,391.62 | 0.00 | 46,391.62 |
| 01-Feb-19 | 0.00 | 1,319.39 | 1,319.39 | 865.51 | 453.88 | 1,319.39 | 0.00 | 0.00 | 0.00 |
| 01-Aug-19 | 65,000.00 | 1,787.50 | 66,787.50 | 865.51 | 20,233.59 | 21,099,10 | 45,688.40 | 0.00 | 45,688.40 |
| 01-Feb-20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 01-Aug-20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 01-Feb-21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 01-Aug-21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 01-Feb-22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 01-Aug-22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 01-Feb-23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  | 814,991.00 | 359,079.11 | 174,070.11 | 85,406.01 | \$305,973.14 | (91,379.16 | 577,269.20 | 105,421.76 | 682,690.96 |

Massachusetts Water Pollution Abatement Trust
Water Pollution Abatement Revenue Bonds
(Pool Loan Program Bonds)
Series 5
Manchester by the Sea
96-49A
Final Loan Structuring Analysis
Administrative Fee Schedule




## Notes:

**This project may qualify for principal forgiveness in accordance with schedule B to the Loan Agreement. Principal forgiveness shown on this schedule is an estimate, and is not a guarantee.

Prepared by Public Financial Management, Inc.


| Date | Principal | Interest | Total Debt Service | Admin Fee (0.15\%) | Loan Origination Fee | Total Debt Service | Annual Debt Service |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4/13/2017 |  |  |  |  |  |  |  |
| 7/15/2017 |  | 7,360.00 | 7,360.00 | 552.00 | 7,920.00 | 15,832.00 |  |
| 1/15/2018 | 58,248.00 | 14,400.00 | 72,648.00 | 1,080.00 |  | 73,728.00 | 89,560.00 |
| 7/15/2018 |  | 13,817.52 | 13,817.52 | 1,036.31 |  | 14,853.83 |  |
| 1/15/2019 | 59,515.00 | 13,817.52 | 73,332.52 | 1,036.31 |  | 74,368.83 | 89,222.67 |
| 7/15/2019 |  | 13,222.37 | 13,222.37 | 991.68 |  | 14,214.05 |  |
| 1/15/2020 | 60,809.00 | 13,222.37 | 74,031.37 | 991.68 |  | 75,023.05 | 89,237.10 |
| 7/15/2020 |  | 12,614.28 | 12,614.28 | 946.07 |  | 13,560.35 |  |
| 1/15/2021 | 62,131.00 | 12,614.28 | 74,745.28 | 946.07 |  | 75,691.35 | 89,251.70 |
| 7/15/2021 |  | 11,992.97 | 11,992.97 | 899.47 |  | 12,892.44 |  |
| 1/15/2022 | 63,481.00 | 11,992.97 | 75,473.97 | 899.47 |  | 76,373.44 | 89,265.89 |
| 7/15/2022 |  | 11,358.16 | 11,358.16 | 851.86 |  | 12,210.02 |  |
| 1/15/2023 | 64,861.00 | 11,358.16 | 76,219.16 | 851.86 |  | 77,071.02 | 89,281.04 |
| 7/15/2023 |  | 10,709.55 | 10,709.55 | 803.22 |  | 11,512.77 |  |
| 1/15/2024 | 66,270.00 | 10,709.55 | 76,979.55 | 803.22 |  | 77,782.77 | 89,295.53 |
| 7/15/2024 |  | 10,046.85 | 10,046.85 | 753.51 |  | 10,800.36 |  |
| 1/15/2025 | 67,710.00 | 10,046.85 | 77,756.85 | 753.51 |  | 78,510.36 | 89,310.73 |
| 7/15/2025 |  | 9,369.75 | 9,369.75 | 702.73 |  | 10,072.48 |  |
| 1/15/2026 | 69,182.00 | 9,369.75 | 78,551.75 | 702.73 |  | 79,254.48 | 89,326.96 |
| 7/15/2026 |  | 8,677.93 | 8,677.93 | 650.84 |  | 9,328.77 |  |
| 1/15/2027 | 70,686.00 | 8,677.93 | 79,363.93 | 650.84 |  | 80,014.77 | 89,343.55 |
| 7/15/2027 |  | 7,971.07 | 7,971.07 | 597.83 |  | 8,568.90 |  |
| 1/15/2028 | 72,222.00 | 7,971.07 | 80,193.07 | 597.83 |  | 80,790.90 | 89,359.80 |
| 7/15/2028 |  | 7,248.85 | 7,248.85 | 543.66 |  | 7,792.51 |  |
| 1/15/2029 | 73,792.00 | 7,248.85 | 81,040.85 | 543.66 |  | 81,584.51 | 89,377.03 |
| 7/15/2029 |  | 6,510.93 | 6,510.93 | 488.32 |  | 6,999.25 |  |
| 1/15/2030 | 75,395.00 | 6,510.93 | 81,905.93 | 488.32 |  | 82,394.25 | 89,393.50 |
| 7/15/2030 |  | 5,756.98 | 5,756.98 | 431.77 |  | 6,188.75 |  |
| 1/15/2031 | 77,034.00 | 5,756.98 | 82,790.98 | 431.77 |  | 83,222.75 | 89,411.51 |
| 7/15/2031 |  | 4,986.64 | 4,986.64 | 374.00 |  | 5,360.64 |  |
| 1/15/2032 | 78,708.00 | 4,986.64 | 83,694.64 | 374.00 |  | 84,068.64 | 89,429.28 |
| 7/15/2032 |  | 4,199.56 | 4,199.56 | 314.97 |  | 4,514.53 |  |
| 1/15/2033 | 80,419.00 | 4,199.56 | 84,618.56 | 314.97 |  | 84,933.53 | 89,448.05 |
| 7/15/2033 |  | 3,395.37 | 3,395.37 | 254.65 |  | 3,650.02 |  |
| 1/15/2034 | 82,167.00 | 3,395.37 | 85,562.37 | 254.65 |  | 85,817.02 | 89,467.05 |
| 7/15/2034 |  | 2,573.70 | 2,573.70 | 193.03 |  | 2,766.73 |  |
| 1/15/2035 | 83,952.00 | 2,573.70 | 86,525.70 | 193.03 |  | 86,718.73 | 89,485.46 |
| 7/15/2035 |  | 1,734.18 | 1,734.18 | 130.06 |  | 1,864.24 |  |
| 1/15/2036 | 85,777.00 | 1,734.18 | 87,511.18 | 130.06 |  | 87,641.24 | 89,505.49 |
| 7/15/2036 |  | 876.41 | 876.41 | 65.73 |  | 942.14 |  |
| 1/15/2037 | 87,641.00 | 876.41 | 88,517.41 | 65.73 |  | 88,583.14 | 89,525.28 |
| 7/15/2037 |  |  |  |  |  |  |  |
|  | 1,440,000.00 | 315,886.14 | 1,755,886.14 | 23,691.46 | 7,920.00 | 1,787,497.60 | $\underline{1,787,497.60}$ |

## Notes:

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[^0]:    **This project may qualify for principal forgiveness in accordance with schedule B to the Loan Agreement. Principal forgiveness shown on this schedule is an estimate, and is not a guarantee.

