



July 22, 2021

Memorandum

To: Nicolette Bateson, Great Lakes Water Authority
Kim Garland, Great Lakes Water Authority

From: Dan Hartman, Managing Director
Kari Blanchett, Managing Director
Eric Brown, Director

CC: Bart Foster, The Foster Group
Laura Bassett, Dickinson Wright PLLC

RE: State Revolving Fund Loan 7484-01 Amortization Recommendation

The purpose of this memorandum is to outline GLWA's options and PFM's recommendation regarding the amortization of Drinking Water Revolving Fund loan 7484-01. The loan is being obtained by GLWA on behalf of DWSD to fund DWSD Project WS-713 (Jefferson Chalmers Water Main Replacement) in the amount of \$12,845,000, and is scheduled for closing on August 30, 2021. Of the total amount, \$1,316,050 is scheduled for loan forgiveness (net amount of \$11,528,950).

GLWA and DWSD will need to make a decision on amortization expediently, as a determination is expected on Friday July 23, 2021.

History of Program Interest Rates and Terms

While each loan that has been obtained on behalf of DWSD in the prior five years has been structured with a 30-year amortization at the subsidized disadvantaged community rate, the options available to GLWA and DWSD have now changed, and this option is no longer available (disadvantaged rate for 30-year term). Below is a summary of interest rates and terms that have been available through the DWRF and CWRP program.

STATE OF MICHIGAN DWRF & CWRP PROGRAM RATE HISTORY

| State's FYE* | DWRF | | | | CWRP | | | |
|--------------|----------|----------|----------|-----------|----------|----------|----------|----------|
| | | | 30 Year | | | | 30 Year | |
| | 20 Year | 30 Year | Disadvan | Disadvan | 20 Year | 30 Year | Disadvan | Disadvan |
| | Maturity | Maturity | taged ? | taged | Maturity | Maturity | taged ? | taged |
| 2021 | 1.875% | 2.125% | n/a | 1.875% | 1.875% | 2.125% | | 1.875% |
| 2020 | 2.000% | | 2.000% | 2.000% ** | 2.000% | | 2.250% | |
| 2018 - 2020 | 2.000% | | 2.000% | | 2.000% | | 2.250% | |
| 2017 | 2.500% | | 2.500% | | 2.500% | | 2.750% | |
| 2016 | 2.500% | | 2.500% | | 2.500% | | 2.500% | |
| 2014 - 2015 | 2.500% | | | | 2.500% | | 2.500% | |
| 2013 | 2.000% | | | | 2.000% | | 2.000% | |
| 2008 - 2012 | 2.500% | | | | 2.500% | | 2.500% | |
| 2005 - 2007 | 2.125% | | | | 1.625% | | 1.625% | |
| 2004 | 2.125% | | | | 2.125% | | 2.125% | |
| 1999 - 2003 | 2.500% | | | | 2.500% | | 2.500% | |
| 1998 | 2.500% | | | | 2.250% | | 2.250% | |
| 1995 - 1997 | | | | | 2.250% | | 2.250% | |
| 1990 - 1994 | | | | | 2.000% | | 2.000% | |

* Source: State Fiscal Year Annual Reports for DWRF and CWRP and Michigan.gov/EGLE web site.

** Benton Harbor 8/7/2020 #7464-01



Options Available to GLWA and DWSD

Under current program terms, there are three amortization options available to GLWA and DWSD for Loan 7484-01, with corresponding impacts on the available interest rate:

1. 20-year amortization at an interest rate of 1.875%
2. 30-year amortization at an interest rate of 2.125%
3. 40-year term at the disadvantaged interest rate of 1.875%.

Each of the options presented is consistent with GLWA's Debt Management Policy, which specifies a maximum term of 40 years. A summary of the average annual payments and total estimated debt payments under the three options are provided below, with further detail attached as an appendix.

| <u>Option</u> | <u>Interest Rate</u> | <u>Average Annual Payment*</u> | <u>Total Debt Payments</u> |
|---------------|----------------------|--------------------------------|----------------------------|
| 20 Year | 1.875% | \$691,403 | \$14,368,485 |
| 30 Year | 2.125% | \$514,111 | \$16,024,639 |
| 39.08* Year | 1.875% | \$432,034 | \$16,525,672 |

**Average debt service payments after initiation of operation of project.*

PFM Recommendation

PFM recommends that GLWA and DWSD pursue the 20-year amortization at an interest rate of 1.875% for this loan. Use of this option achieves the lowest interest rate available to GLWA and DWSD and the lowest total debt service payments available to the System. Furthermore, pursuit of the 20-year option is consistent with GLWA efforts to deleverage the system in the coming years. Finally, with the relatively modest size of this loan, the annual cash flow benefit of what would be a significant extension of the average life is also modest and less than \$300,000.



**GREAT LAKES WATER AUTHORITY
AUGUST 2021 LOAN 7484-01---FINAL BOND TERM OPTIONS**

| Option | Average Annual Payment* | Total Debt Payments | | |
|-------------|-------------------------------|------------------------|------------------------------|---------------------|
| 20 Year | \$691,403 | \$14,368,485 | Principal Amount of Loan | \$12,845,000 |
| 30 Year | \$514,111 | \$16,024,639 | Less: Principal Foregiveness | (\$1,316,050) |
| 39.08* Year | \$432,034 | \$16,525,672 | Adjusted Bond Amount | <u>\$11,528,950</u> |

| 20 Year Option | | | |
|---------------------------|---------------------------|------------------|-------------------------------|
| Principal Mat. Year | Principal Due 1-Oct | Interest Rate | Total P&I From Revenues |
| 2021 | 0 | 1.875% | 108,084 e |
| 2022 | 0 | 1.875% | 216,168 e |
| 2023 | 0 | 1.875% | 216,168 e |
| 2024 | 478,950 | 1.875% | 690,628 |
| 2025 | 485,000 | 1.875% | 687,641 |
| 2026 | 495,000 | 1.875% | 688,453 |
| 2027 | 505,000 | 1.875% | 689,078 |
| 2028 | 515,000 | 1.875% | 689,516 |
| 2029 | 525,000 | 1.875% | 689,766 |
| 2030 | 535,000 | 1.875% | 689,828 |
| 2031 | 545,000 | 1.875% | 689,703 |
| 2032 | 560,000 | 1.875% | 694,344 |
| 2033 | 570,000 | 1.875% | 693,750 |
| 2034 | 580,000 | 1.875% | 692,969 |
| 2035 | 590,000 | 1.875% | 692,000 |
| 2036 | 600,000 | 1.875% | 690,844 |
| 2037 | 615,000 | 1.875% | 694,453 |
| 2038 | 625,000 | 1.875% | 692,828 |
| 2039 | 635,000 | 1.875% | 691,016 |
| 2040 | 650,000 | 1.875% | 693,969 |
| 2041 | 660,000 | 1.875% | 691,688 |
| 2042 | 675,000 | 1.875% | 694,172 |
| 2043 | 685,000 | 1.875% | 691,422 |
| 2044 | 0 | 0.000% | 0 |
| 2045 | 0 | 0.000% | 0 |
| 2046 | 0 | 0.000% | 0 |
| 2047 | 0 | 0.000% | 0 |
| 2048 | 0 | 0.000% | 0 |
| 2049 | 0 | 0.000% | 0 |
| 2050 | 0 | 0.000% | 0 |
| 2051 | 0 | 0.000% | 0 |
| 2052 | 0 | 0.000% | 0 |
| 2053 | 0 | 0.000% | 0 |
| 2054 | 0 | 0.000% | 0 |
| 2055 | 0 | 0.000% | 0 |
| 2056 | 0 | 0.000% | 0 |
| 2057 | 0 | 0.000% | 0 |
| 2058 | 0 | 0.000% | 0 |
| 2059 | 0 | 0.000% | 0 |
| 2060 | 0 | 0.000% | 0 |
| TOTAL | <u>\$11,528,950</u> | | <u>\$14,368,485</u> |

| 30 Year Option | | | |
|---------------------------|---------------------------|------------------|-------------------------------|
| Principal Mat. Year | Principal Due 1-Oct | Interest Rate | Total P&I From Revenues |
| 2021 | 0 | 2.125% | 122,389 e |
| 2022 | 0 | 2.125% | 239,465 e |
| 2023 | 0 | 2.125% | 239,465 e |
| 2024 | 278,950 | 2.125% | 515,451 |
| 2025 | 285,000 | 2.125% | 515,509 |
| 2026 | 290,000 | 2.125% | 514,400 |
| 2027 | 300,000 | 2.125% | 518,131 |
| 2028 | 305,000 | 2.125% | 516,703 |
| 2029 | 310,000 | 2.125% | 515,169 |
| 2030 | 315,000 | 2.125% | 513,528 |
| 2031 | 325,000 | 2.125% | 516,728 |
| 2032 | 330,000 | 2.125% | 514,769 |
| 2033 | 335,000 | 2.125% | 512,703 |
| 2034 | 340,000 | 2.125% | 510,531 |
| 2035 | 350,000 | 2.125% | 513,200 |
| 2036 | 360,000 | 2.125% | 515,656 |
| 2037 | 370,000 | 2.125% | 517,900 |
| 2038 | 375,000 | 2.125% | 514,984 |
| 2039 | 385,000 | 2.125% | 516,909 |
| 2040 | 390,000 | 2.125% | 513,675 |
| 2041 | 400,000 | 2.125% | 515,281 |
| 2042 | 405,000 | 2.125% | 511,728 |
| 2043 | 415,000 | 2.125% | 513,016 |
| 2044 | 425,000 | 2.125% | 514,091 |
| 2045 | 435,000 | 2.125% | 514,953 |
| 2046 | 445,000 | 2.125% | 515,603 |
| 2047 | 450,000 | 2.125% | 511,094 |
| 2048 | 460,000 | 2.125% | 511,425 |
| 2049 | 470,000 | 2.125% | 511,544 |
| 2050 | 480,000 | 2.125% | 511,450 |
| 2051 | 490,000 | 2.125% | 511,144 |
| 2052 | 500,000 | 2.125% | 510,625 |
| 2053 | 510,000 | 2.125% | 515,419 |
| 2054 | 0 | 0.000% | 0 |
| 2055 | 0 | 0.000% | 0 |
| 2056 | 0 | 0.000% | 0 |
| 2057 | 0 | 0.000% | 0 |
| 2058 | 0 | 0.000% | 0 |
| 2059 | 0 | 0.000% | 0 |
| 2060 | 0 | 0.000% | 0 |
| TOTAL | <u>\$11,528,950</u> | | <u>\$16,024,639</u> |

| 39.08** Year Term Option | | | |
|---------------------------|---------------------------|-----------------------------|-------------------------------|
| Principal Mat. Year | Principal Due 1-Oct | DISADV. Interest Rate | Total P&I From Revenues |
| 2021 | 0 | 1.875% | 108,084 e |
| 2022 | 0 | 1.875% | 216,168 e |
| 2023 | 0 | 1.875% | 216,168 e |
| 2024 | 218,950 | 1.875% | 433,065 |
| 2025 | 225,000 | 1.875% | 434,953 |
| 2026 | 230,000 | 1.875% | 435,688 |
| 2027 | 230,000 | 1.875% | 431,375 |
| 2028 | 235,000 | 1.875% | 432,016 |
| 2029 | 240,000 | 1.875% | 432,563 |
| 2030 | 245,000 | 1.875% | 433,016 |
| 2031 | 250,000 | 1.875% | 433,375 |
| 2032 | 255,000 | 1.875% | 433,641 |
| 2033 | 260,000 | 1.875% | 433,813 |
| 2034 | 265,000 | 1.875% | 433,891 |
| 2035 | 265,000 | 1.875% | 428,922 |
| 2036 | 270,000 | 1.875% | 428,906 |
| 2037 | 275,000 | 1.875% | 428,797 |
| 2038 | 280,000 | 1.875% | 428,594 |
| 2039 | 285,000 | 1.875% | 428,297 |
| 2040 | 295,000 | 1.875% | 432,859 |
| 2041 | 300,000 | 1.875% | 432,281 |
| 2042 | 305,000 | 1.875% | 431,609 |
| 2043 | 310,000 | 1.875% | 430,844 |
| 2044 | 315,000 | 1.875% | 429,984 |
| 2045 | 320,000 | 1.875% | 429,031 |
| 2046 | 330,000 | 1.875% | 432,938 |
| 2047 | 335,000 | 1.875% | 431,703 |
| 2048 | 340,000 | 1.875% | 430,375 |
| 2049 | 345,000 | 1.875% | 428,953 |
| 2050 | 355,000 | 1.875% | 432,391 |
| 2051 | 365,000 | 1.875% | 435,641 |
| 2052 | 370,000 | 1.875% | 433,750 |
| 2053 | 375,000 | 1.875% | 431,766 |
| 2054 | 385,000 | 1.875% | 434,641 |
| 2055 | 390,000 | 1.875% | 432,375 |
| 2056 | 400,000 | 1.875% | 434,969 |
| 2057 | 405,000 | 1.875% | 432,422 |
| 2058 | 410,000 | 1.875% | 429,781 |
| 2059 | 420,000 | 1.875% | 432,000 |
| 2060 | 430,000 | 1.875% | 434,031 |
| TOTAL | <u>\$11,528,950</u> | | <u>\$16,525,672</u> |

* Average debt service for years with principal repayment.

*Term 39.08 years in order to comply with State law limitation of 40 year maximum term.

e = estimated. Interest payments during the construction draw period will be based on the actual amount drawn.

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