Warren County School District

Refinancing Discussion

August 26, 2019

Prepared by: Jamie Doyle

Managing Director

&

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Senior Analyst



PFM Financial Advisors LLC

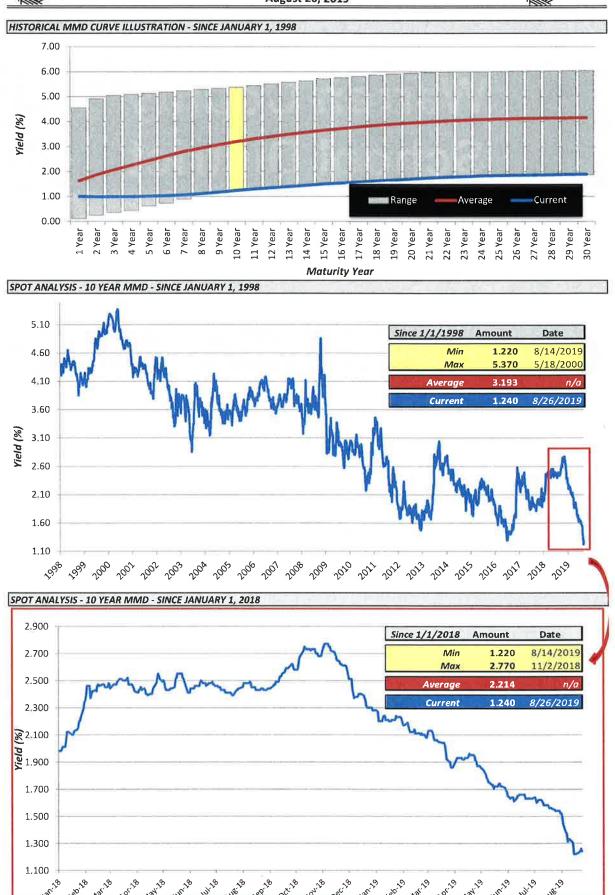
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MUNICIPAL MARKET UPDATE

August 26, 2019





Warren County School District

Series A of 2019 Financing Plan Discussion

Refinancing Opportunity

- General Obligation Bonds, Series of 2013
 - \$9,675,000 currently outstanding
 - Coupons range from 2.40%-3.05%
 - o Call date: May 15, 2018

SAMPLE MOTION

Resolved: The Board of School Directors of the Warren County School District does hereby authorize the Administration to work with PFM Financial Advisors LLC (as Independent Financial Advisor), Knox, McLaughlin Gornall & Sennett, P.C. (as Bond Counsel) and Stapleford & Byham, LLC (as Solicitor) to begin the process of issuing General Obligation Bonds, Series of 2019, for the purpose of refinancing all or a portion of the outstanding General Obligation Bonds, Series of 2013, with a minimum net savings target of \$50,000.

ESTIMATED TIMELINE

	Discussion at Committee	August 26
•	Discussion at Committee	/\u_bu_1 = 0

Authorization to Proceed
September 4 or later

Adopt Parameters Resolution
October 7 or later

Bond Sale (Lock in Rates)
 October 9 or later

Settlement November 13 or later

1	of Series of 2018 2018 2019 2019 2019 2019 2019 2019 2019 2019	13 G.O. Bonds Series of 2019 333,320 332,420 336,445 335,395 334,345 877,420 1,081,345 1,140,620 1,217,045 1,775,158 1,837,638 1,437,640	14 Total Deb Service 5,457,706 5,398,420 5,379,172 5,355,904 5,345,252 5,411,05 5,388,434 5,174,612 5,148,111 5,114,652 5,094,500 4,942,352 4,934,037 4,925,122 4,816,500
Year Ended Series of Ended Series of Ended Series of 2011 (1) Series of 2012(2) Series of 2014 Series of 2015 Series of 2015 Series of 2016 Series of 2017 Series A of 2018 Series A of 2018 Series A of 2018 Series A of 2018 Series A of 2017 Series A of 2018 Series A of 2018 <t< td=""><td>of 2018 2018 2019 2019 2019 2019 2019 2019 2019 2019</td><td>Series of 2019 333,320 332,420 336,445 335,395 334,345 877,420 1,081,345 1,140,620 1,217,045 1,726,645 1,775,158 1,837,638</td><td>Deb Service 5,457,706 5,398,422 5,379,17; 5,355,90 5,345,25; 5,411,05 5,388,431 5,174,61; 5,148,111 5,114,65; 5,094,500 4,942,35; 4,934,03; 4,934,03; 4,925,12;</td></t<>	of 2018 2018 2019 2019 2019 2019 2019 2019 2019 2019	Series of 2019 333,320 332,420 336,445 335,395 334,345 877,420 1,081,345 1,140,620 1,217,045 1,726,645 1,775,158 1,837,638	Deb Service 5,457,706 5,398,422 5,379,17; 5,355,90 5,345,25; 5,411,05 5,388,431 5,174,61; 5,148,111 5,114,65; 5,094,500 4,942,35; 4,934,03; 4,934,03; 4,925,12;
Ended 2011 (1) 2012(2) 2013 2014 2015 2015 2016 2017 2017 2 6/30/2020 1,366,058 1,272,235 295,583 16,170 125,521 710,807 159,000 351,246 172,000 346, 6/30/2021 762,100 1,825,000 295,463 16,050 125,421 704,166 159,000 351,159 172,000 346, 6/30/2023 789,000 1,764,254 295,343 15,900 125,321 706,321 188,000 351,071 172,000 346, 6/30/2024 702,000 1,802,781 295,223 15,750 125,221 711,159 172,000 350,984 172,000 346, 6/30/2025 684,000 2,559,846 294,883 59,125 125,021 712,000 350,753 172,000 346, 6/30/2026 666,000 2,016,867 792,273 96,863 124,921 172,000 350,628 172,000 346, 6/30/2027 648,000 639,871 1,397,523 137,700 124,821 172,000 350,538 172,000 346, 6/30/2028 630,000 599,733 1,383,323 124,721 172,000 350,538 172,000 346, 6/30/2029 612,000 559,595 1,329,123 124,621 172,000 350,378 172,000 346, 6/30/2030 594,000 514,639 1,294,923 124,621 172,000 350,378 172,000 346, 6/30/2031 479,501 1,260,723 124,421 173,000 350,378 172,000 346, 6/30/2031 479,501 1,260,723 124,421 173,000 350,378 172,000 346, 6/30/2031 479,501 1,260,723 124,421 173,000 349,934 172,000 346, 6/30/2031 479,501 1,260,723 124,421 173,000 349,934 172,000 346, 6/30/2032 439,363 1,231,448 124,321 173,000 349,934 172,000 346, 6/30/2033 399,225 1,197,098 124,221 349,429 6/30/2034 359,087 1,162,461 284,121 349,476 6/30/2035 6/30/2036 439,363 1,231,448 124,321 173,000 349,876 172,000 346, 6/30/2036 439,363 1,231,448 124,321 173,000 349,874 172,000 346, 6/30/2036 439,363 1,231,448 124,321 173,000 349,874 172,000 346, 6/30/2036 439,363 1,231,448 124,321 173,000 349,874 172,000 346, 6/30/2036 439,363 1,231,448 124,321 173,000 349,876 172,000 346, 6/30/2036 439,363 1,231,448 124,321 173,000 349,874 172,000 346, 6/30/2037 429,420 439,363 1,231,448 124,321 173,000 349,874 172,000 346, 6/30/2036 439,363 1,231,448 124,321 173,000 349,874 172,000 346, 6/30/2036 439,363 1,231,448 124,321 173,000 349,874 172,000 346, 6/30/2037 429,420 439,363 1,231,448 124,321 173,000 349,874 172,000 346, 6/30/2036 439,476 2,477,5821 847,275 148,475 148,475 148,475 148,475 148,475 148,47	17 2018 2018 201 309,768 202 309,643 203 309,518 203 309,268 203 309,268 203 308,705 203 308,705 203 308,705 204 308,705 205 308,293 206 308,293 207 308,293 207 308,293 208,705	2019 333,320 336,445 335,395 334,345 877,420 1,081,345 1,140,620 1,217,045 1,775,158 1,837,638	Service 5,457,706 5,398,427 5,379,177 5,355,904 5,345,252 5,411,05 5,148,111 5,114,652 5,094,500 4,942,352 4,934,03 4,925,12 4,816,50
6/30/2020	00 309,768 309,643 309,643 309,518 00 309,393 00 309,268 00 308,790 308,455 00 308,850 00 308,293 00 308,293 00 308,293 10,17,318 1,276,593 1,276,593 1,276,593 1,278,250 2,041,813	333,320 332,420 336,445 335,395 334,345 338,220 41,945 877,420 1,081,345 1,140,620 1,217,045 1,728,645 1,775,158 1,837,638	5,457,706 5,398,420 5,379,177 5,355,904 5,345,255 5,411,05 5,388,436 5,174,617 5,114,650 4,942,35 4,934,03 4,925,12 4,816,50
6/30/2021 762,100 1,825,000 295,463 16,050 125,421 704,166 159,000 351,159 172,000 346, 6/30/2022 789,000 1,764,254 295,343 15,900 125,321 706,321 168,000 351,071 172,000 346, 6/30/2023 720,000 1,802,781 295,223 15,750 125,221 711,159 172,000 350,984 172,000 346, 6/30/2024 702,000 1,797,494 295,103 35,300 125,121 705,745 172,000 350,878 172,000 346, 6/30/2026 684,000 2,559,846 294,983 59,125 125,021 172,000 350,753 172,000 346, 6/30/2026 666,000 2,016,867 792,273 96,863 124,921 172,000 350,628 172,000 346, 6/30/2026 630,000 599,733 1,363,323 124,721 172,000 350,378 172,000 346, 6/30/2029 612,000 559,595 1,399,123 124,621 172,000 350,378 172,000 346, 6/30/2030 594,000 514,639 1,294,923 124,621 172,000 350,239 172,000 346, 6/30/2031 479,501 1,260,723 124,421 173,000 349,934 172,000 346, 6/30/2032 439,363 1,231,448 124,321 173,000 349,781 172,000 346, 6/30/2034 359,087 1,260,723 124,421 173,000 349,781 172,000 346, 6/30/2034 359,087 1,260,723 124,421 173,000 349,781 172,000 346, 6/30/2034 359,087 1,260,723 124,421 173,000 349,781 172,000 346, 6/30/2034 359,087 1,260,723 124,421 173,000 349,781 172,000 346, 6/30/2034 359,087 1,260,723 124,421 173,000 349,781 172,000 346, 6/30/2034 359,087 1,260,723 124,421 173,000 349,781 172,000 346, 6/30/2034 359,087 1,260,723 124,421 173,000 349,781 172,000 346, 6/30/2034 359,087 1,260,723 124,421 173,000 349,781 172,000 346, 6/30/2034 359,087 1,260,723 124,421 173,000 349,781 172,000 346, 6/30/2034 359,087 1,260,723 124,421 173,000 349,781 172,000 346, 6/30/2034 359,087 1,260,723 124,421 173,000 349,781 172,000 346, 6/30/2034 359,087 1,260,723 124,421 173,000 349,781 172,000 346, 6/30/2034 359,087 1,260,723 124,421 173,000 349,781 172,000 346, 6/30/2034 359,087 1,260,461 284,121 349,476 853,288 6/30/2036 2,290,200 2,290,7700 2,299,7700	00 309,643 00 309,518 00 309,393 00 309,268 00 309,105 00 308,790 00 308,790 00 308,618 00 308,293 00 308,293 10,77,318 1,276,593 1,276,593 1,276,593 1,278,250 2,041,813	332,420 336,445 335,395 334,345 338,220 341,945 877,420 1,081,345 1,140,620 1,217,045 1,728,645 1,775,158	5,398,420 5,379,172 5,355,904 5,345,252 5,411,05 5,388,430 5,174,612 5,148,110 5,114,652 4,942,352 4,934,032 4,925,122 4,816,500
6/30/2022 789,000 1,764,254 295,343 15,900 125,321 706,321 168,000 351,071 172,000 346, 6/30/2023 720,000 1,802,781 295,223 15,750 125,221 711,159 172,000 350,984 172,000 346, 6/30/2025 684,000 2,559,846 294,983 59,125 125,021 172,000 350,628 172,000 346, 6/30/2026 666,000 2,016,867 792,273 96,863 124,921 172,000 350,628 172,000 346, 6/30/2027 648,000 639,871 1,397,523 137,700 124,821 172,000 350,550 172,000 346, 6/30/2028 630,000 599,733 1,363,323 124,721 172,000 350,533 172,000 346, 6/30/2028 612,000 559,595 1,329,123 124,621 172,000 350,533 172,000 346, 6/30/2030 594,000 514,639 1,294,923 124,621 172,000 350,239 172,000 346, 6/30/2031 479,501 1,260,723 124,421 173,000 349,934 172,000 346, 6/30/2031 479,501 1,260,723 124,421 173,000 349,934 172,000 346, 6/30/2031 399,225 1,314,48 124,321 173,000 349,831 172,000 346, 6/30/2033 399,225 1,197,098 124,221 173,000 349,781 172,000 346, 6/30/2036 594,000 514,639 1,294,481 124,211 349,629 173,000 349,781 172,000 346, 6/30/2033 399,225 1,197,098 124,221 349,476 1,162,461 284,121 349,476 6/30/2036 594,000 514,639 1,294,461 284,121 349,476 6/30/2038 2,777,621 847,75 5,6/30/2036 2,777,621 847,75 5,6/30/2036 6/30/2039 2,897,700 5,892,200 2,897,700 5,892,200	00 309,518 309,393 00 309,268 00 309,105 00 308,493 00 308,618 00 308,618 00 308,619 00 308,300 00 308,300 10,173,318 1,276,593 1,276,593 1,276,593 1,276,550 2,041,813	336,445 335,395 334,345 338,220 341,945 877,420 1,081,345 1,140,620 1,217,045 1,728,645 1,775,158 1,837,638	5,379,172 5,355,904 5,345,252 5,411,05 5,388,436 5,174,611 5,114,652 5,094,500 4,942,352 4,934,037 4,925,124 4,816,507
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6/30/2025 684,000 2,559,846 294,983 59,125 125,021 172,000 350,753 172,000 346, 6/30/2026 666,000 2,016,867 792,273 96,863 124,921 172,000 350,628 172,000 346, 6/30/2028 630,000 599,733 1,363,323 137,700 124,821 172,000 350,503 172,000 346, 6/30/2028 630,000 599,733 1,363,323 124,721 172,000 350,378 172,000 346, 6/30/2029 612,000 559,595 1,329,123 124,621 172,000 350,338 172,000 346, 6/30/2030 594,000 514,639 1,294,923 124,621 172,000 350,239 172,000 346, 6/30/2031 479,501 1,260,723 124,421 173,000 349,934 172,000 346, 6/30/2032 439,363 1,231,448 124,321 173,000 349,781 172,000 346, 6/30/2033 399,225 1,197,098 124,221 173,000 349,781 172,000 346, 6/30/2034 359,087 1,162,461 284,121 349,476 6/30/2034 359,087 1,162,461 284,121 349,476 6/30/2036 2,777,621 847,275 6/30/2036 2,777,621 847,275 6/30/2036 2,777,621 847,275 6/30/2038 2,997,700 6/30/2039 2,897,700 6/30/2040 6/30/2041	00 309,105 308,843 00 308,618 300 308,618 300 308,618 301 308,293 00 308,130 00 322,968 1,127,6,1593 1,276,593 1,276,593 1,278,250 2,041,813	338,220 341,945 877,420 1,081,345 1,140,620 1,217,045 1,728,645 1,775,158 1,837,638	5,411,05 5,388,434 5,174,611 5,148,114 5,114,655 5,094,500 4,942,35; 4,934,03 4,925,12 4,816,50
6/30/2026 666,000 2,016,867 792,273 96,863 124,921 172,000 350,628 172,000 346,6/30/2027 648,000 693,871 1,397,523 137,700 124,821 172,000 350,503 172,000 346,6/30/203 363,0720 599,733 1,363,323 124,721 172,000 350,378 172,000 346,6/30/203 6/30/203 599,595 1,329,123 124,621 172,000 350,239 172,000 346,6/30/203 594,000 514,639 1,294,923 124,521 173,000 350,086 172,000 346,6/30/203 449,501 1,286,073 124,421 173,000 350,086 172,000 346,6/30/203 349,934 172,000 346,6/30/203 349,934 172,000 346,6/30/203 349,934 172,000 346,6/30/203 349,934 172,000 346,6/30/203 349,781 172,000 346,6/30/203 349,781 172,000 346,78 349,629 349,629 349,629 346,78 349,629 346,78 349,629 349,629 349,629 346,78 349,47	00 308,943 00 308,780 00 308,618 00 308,455 00 308,293 00 322,968 1,017,318 1,223,723 1,276,593 1,276,250 2,041,813	341,945 877,420 1,081,345 1,140,620 1,217,045 1,728,645 1,775,158 1,837,638	5,388,436 5,174,611 5,148,116 5,114,652 5,094,506 4,942,353 4,934,03 4,925,12 4,816,50
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6/30/2028 630,000 599,733 1,363,323 124,721 172,000 350,378 172,000 346, 6/30/2029 612,000 599,595 1,329,123 124,621 172,000 350,239 172,000 346, 6/30/2030 594,000 514,639 1,294,923 124,521 173,000 350,086 172,000 346, 6/30/2031 479,501 1,260,723 124,421 173,000 349,934 172,000 346, 6/30/2032 439,363 1,231,448 124,321 173,000 349,781 172,000 346, 6/30/2033 399,225 1,197,098 124,221 349,629 6/30/2034 359,087 1,162,461 284,121 349,476 6/30/2035 2,777,621 845,475 6/30/2036 2,777,621 847,275 6/30/2037 2,777,621 847,275 6/30/2038 2,777,621 847,275 6/30/2038 2,777,621 847,275 6/30/2039 2,897,700 6/30/2039 2,897,700 6/30/2040 2,894,788	00 308,618 308,455 00 308,293 00 308,300 00 322,968 1,017,318 1,223,723 1,276,593 1,276,593 1,278,250 2,041,813	1,081,345 1,140,620 1,217,045 1,728,645 1,775,158 1,837,638	5,148,110 5,114,652 5,094,500 4,942,353 4,934,03 4,925,12 4,816,50
6/30/2029 612,000 559,595 1,329,123 124,621 172,000 350,239 172,000 346,6730/2030 594,000 514,639 1,284,923 124,521 173,000 350,086 172,000 346,6730/2031 479,501 1,260,723 124,421 173,000 349,934 172,000 346,6730/2032 439,363 1,231,448 124,321 173,000 349,781 172,000 346,6730/2033 399,225 1,197,098 124,221 349,629 349,629 349,629 349,476 6/30/2034 359,087 1,162,461 284,121 349,476 349,476 349,476 6/30/2035 6/30/2035 2,775,821 847,275 847,275 6/30/2036 2,777,621 847,275 847,275 6/30/2038 2,892,200 2,897,700 6/30/2039 2,897,700 2,894,788 6/30/2040 2,894,788 6/30/2041 2,894,788 4,894,788 4,894,788 3,894,788 3,894,788 3,894,788 4,894,788 4,894,788 4,894,788 4,894,788 4,894,788 4,894,788 4,894,788 4,894,788 4,	00 308,455 00 308,293 00 308,130 00 322,968 1,017,318 1,223,723 1,276,593 1,276,058 1,278,250 2,041,813	1,140,620 1,217,045 1,728,645 1,775,158 1,837,638	5,114,652 5,094,500 4,942,353 4,934,03 4,925,12 4,816,50
6/30/2030 594,000 514,639 1,294,923 124,521 173,000 350,086 172,000 346,6/30/2031 479,501 1,260,723 124,421 173,000 349,934 172,000 346,6/30/2032 439,363 1,231,448 124,321 173,000 349,871 172,000 346,6/30/2033 349,821 172,000 346,6/30/2033 349,629 349,629 349,629 349,629 6/30/2034 359,087 1,162,461 284,121 349,476 349,476 349,476 6/30/2035 6/30/2036 2,775,621 847,275 847,275 6/30/2037 2,771,910 853,288 847,275 6/30/2039 2,892,200 6/30/2037 2,897,700 6/30/2034 2,894,788 6/30/2041 349,478 349,478 349,478 349,478 349,476	00 308,293 00 308,130 00 322,968 1,017,318 1,223,723 1,276,593 1,276,058 1,278,250 2,041,813	1,217,045 1,728,645 1,775,158 1,837,638	5,094,500 4,942,35 4,934,03 4,925,12 4,816,50
6/30/2031 479,501 1,260,723 124,421 173,000 349,934 172,000 346, 6/30/2032 439,363 1,231,448 124,221 173,000 349,781 172,000 346, 6/30/2033 399,225 1,197,098 124,221 349,629 6/30/2034 359,087 1,162,461 284,121 349,476 6/30/2035 2,777,621 845,475 6/30/2036 2,777,621 847,275 6/30/2037 2,777,621 847,275 6/30/2038 2,777,621 847,275 6/30/2038 2,771,910 853,288 6/30/2038 2,892,200 6/30/2040 2,892,700 6/30/2040 2,894,788	00 308,130 00 322,968 1,017,318 1,223,723 1,276,593 1,276,058 1,278,250 2,041,813	1,728,645 1,775,158 1,837,638	4,942,35 4,934,03 4,925,12 4,816,50
6/30/2032 439,363 1,231,448 124,321 173,000 349,781 172,000 346, 6/30/2033 399,225 1,197,098 124,221 349,629 6/30/2034 359,087 1,162,461 284,121 349,476 6/30/2035 2,775,821 845,475 6/30/2036 2,777,621 847,275 6/30/2037 2,771,910 853,288 6/30/2038 2,892,200 6/30/2039 2,897,700 6/30/2040 2,894,788	322,968 1,017,318 1,223,723 1,276,593 1,276,058 1,278,250 2,041,813	1,775,158 1,837,638	4,934,03 4,925,12 4,816,50
6/30/2033 399,225 1,197,098 124,221 349,629 6/30/2034 359,087 1,162,461 284,121 349,476 6/30/2035 2,775,821 845,475 6/30/2036 2,777,621 847,275 6/30/2037 2,771,910 853,288 6/30/2038 2,892,200 6/30/2039 2,897,700 6/30/2040 2,894,788 6/30/2041	1,017,318 1,223,723 1,276,593 1,276,058 1,278,250 2,041,813	1,837,638	4,925,12 4,816,50
6/30/2034 359,087 1,162,461 284,121 349,476 6/30/2035 2,775,821 845,475 6/30/2036 2,777,621 847,275 6/30/2037 2,771,910 853,288 6/30/2038 2,892,200 6/30/2039 2,897,700 6/30/2040 2,894,788 6/30/2041 2,894,788	1,223,723 1,276,593 1,276,058 1,278,250 2,041,813		4,816,50
6/30/2035 2.775,821 845,475 6/30/2036 2.777,621 847,275 6/30/2037 2.777,621 847,275 6/30/2038 2.892,200 6/30/2039 2.897,700 6/30/2040 2.894,788 6/30/2041	1,276,593 1,276,058 1,278,250 2,041,813	1,107,010	
6/30/2036 2,777,621 847,275 6/30/2037 2,771,910 853,288 6/30/2038 2,892,200 6/30/2039 2,897,700 6/30/2040 2,894,788 6/30/2041	1,276,058 1,278,250 2,041,813		
6/30/2037 2,771,910 853,288 6/30/2038 2,892,200 6/30/2039 2,897,700 6/30/2040 2,894,788 6/30/2041	1,278,250 2,041,813		4,900,95
6/30/2038 2,892,200 6/30/2039 2,897,700 6/30/2040 2,894,788 6/30/2041	2,041,813		4,903,44
6/30/2039 2,897,700 6/30/2040 2,894,788 6/30/2041			4,934,01
6/30/2040 2,894,788 6/30/2041			4,562,88
			2,894,78
TOTAL 8,173,158 17,029,489 12,800,586 392,858 10,357,662 3,538,198 2,209,000 16,487,468 2,236,000 4,498,			
	00 13,809,818	13,447,600	104,979,83
Pita A Bassianna A			
ocal Effort Requirements 15 16 17 18 19 20 21 22 23 24	25 26	27	2
Fiscal QZAB QZAB GO Bonds QZAB GO Notes QZAB GO Bonds QZAB Q		G.O. Bonds	Tota
Year Series of S		Series of	Loca
	17 2018	2019	Effor
		318,900	4,361,67
6/30/2020 1,025,608 1,027,787 245,070 15,470 106,075 538,398 134,368 303,807 137,913 268. 6/30/2021 572,169 1,474,344 244,970 15,356 105,990 533,367 134,368 303,731 137,913 268.		318,039	4,348,42
6/30/2022 592.365 1,425,269 244,871 15,212 105,906 535,000 141,973 303,655 137,913 268		321,890	4,332,13
6/30/2023 540,561 1,456,394 244,771 15,069 105,821 538,664 145,354 303,580 137,913 268,		320,885	4,316,99
6/30/2024 527,047 1,452,122 244,672 33,773 105,737 534,564 145,354 303,488 137,913 268,		319,881	4,312,43
6/30/2025 513,533 2,067,996 244,572 56,567 105,652 145,354 303,380 137,913 268		323,588	4,406,31
6/30/2026 500,019 1,629,345 656,880 92,672 105,568 145,354 303,271 137,913 268,		327,152	4,405,81
6/30/2027 486,505 516,926 1,158,697 131,743 105,483 145,354 303,163 137,913 268		839,462	4,332,75
6/30/2028 472,991 484,500 1,130,342 105,399 145,354 303,055 137,913 268	79 239,204	1,034,565	4,321,50
6/30/2029 459,477 452,074 <mark>1,101,986</mark> 105,314 145,354 302,935 137,913 268	79 239,078	1,091,276	4,303,58
6/30/2030 445,963 415,756 1,073,631 105,230 146,199 302,803 137,913 268	79 238,953	1,164,394	4,299,02
6/30/2031 387,369 1,045,275 105,145 146,199 302,671 137,913 268,		1,653,862	4,285,44
6/30/2032 354,943 <mark>1,021,003</mark> 105,061 146,199 302,540 137,913 268,		1,698,362	4,284,52
6/30/2033 322,517 <mark>992,523</mark> 104,976 302,408	788,506	1,758,139	4,269,07
6/30/2034 290,092 963,806 240,105 302,276	948,488	1,375,446	4,120,21
6/30/2035 2,345,789 731,284	989,466		4,066,53
6/30/2036 2,347,310 732,841	989,052		4,069,20
	990,751		4,071,27
6/30/2037 2,342,484 738,042			4,084,15
6/30/2038 2,501,577	1,582,576		3,796,99
6/30/2038 2,501,577 6/30/2039 2,506,334	1,582,576 1,290,660		2,503,81
6/30/2038 2,501,577 6/30/2039 2,506,334 6/30/2040 2,503,815			
6/30/2038 2,501,577 6/30/2039 2,506,334 6/30/2040 2,503,815 6/30/2041	1,290,660	12,865,842	87,291,88
6/30/2038 6/30/2040 6/30/2041 TOTAL 6,136,242 13,757,435 10,613,071 375,862 8,753,047 2,679,994 1,866,780 14,260,657 1,792,866 3,486,	1,290,660 27 10,703,766		
6/30/2038 2,501,577 6/30/2039 2,506,334 6/30/2040 2,503,815 6/30/2041	1,290,660 27 10,703,766	12,865,842 9,945,000	
6/30/2038 6/30/2040 6/30/2041 TOTAL 6,136,242 13,757,435 10,613,071 375,862 8,753,047 2,679,994 1,866,780 14,260,657 1,792,866 3,486, Principal*: 16,200,000 23,180,000 9,675,000 320,000 8,449,000 3,373,000 2,209,000 9,915,000 2,236,000 4,498, PE%: 35.89% 27.67% 24.61% 6.23% 22.31% 34.93% 22.31% 19.45% 28.54% 32.39%	1,290,660 27 10,703,766 20 8,455,000 32.39%		
6/30/2038	1,290,660 27 10,703,766 20 8,455,000 32.39%	9,945,000	
6/30/2038	1,290,660 27 10,703,766 00 8,455,000 32.39% d Estimated	9,945,000 6.23% Temporary	87,291,88 98,455,00
6/30/2039 2,501,577 2,506,334 2,506,344 2,506,334 2,506,344 2,506,	1,290,660 27 10,703,766 00 8,455,000 32.39% Estimated 69.44%	9,945,000 6.23%	
6/30/2038	1,290,660 27 10,703,766 20 8,455,000 32,39% d Estimated 69,44% le 11/1/2023	9,945,000 6.23% Temporary 69.44%	

^{*}Outstending as of August 26, 2019

(1) QZAB debt service is net of Fed. Reimbursement Subsidy 5.138% & est. sinking fund earnings of 2.00%

(1G) Assumes Fed. Reimbursement Subsidy for 9/1/2019 payment reduced by 6.20% (\$25,803.04 per payment)

(1H) Assumes Fed. Reimbursement Subsidy for 3/1/2020 payment reduced by 5.90% (\$24,554.04 per payment)

(2) QZAB debt service is net of Fed. Reimbursement Subsidy 4.185% & sinking fund earnings of 3.14%

(2G) Assumes Fed. Reimbursement Subsidy for 11/1/2019 & 5/1/2020 payments reduced by 5.90% (\$28,617.45 per payment)

WARREN CO SERIES OF 2		OOL DISTRICT			Ontion	nal Redemption	n: May 15, 2018
					Option	iai Nederripiloi	. way 10, 2016
1	2	2 3	4	. 5	6	7	8
				Semi-Annual			
<u>Date</u>	Principa	<u>Rate</u>	Interest	Debt Service	Debt Service	Aid	Effort
11/15/2019	5,000	2.400	145,321.25	150,321.25			
5/15/2020			145,261.25	145,261.25	295,582.50	50,512.64	245,069.86
11/15/2020	5,000	2.400	145,261.25				
5/15/2021			145,201.25			50,492.13	244,970.37
11/15/2021	5,000	2.400	145,201.25	·	•	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
5/15/2022			145,141.25	*		50,471.62	244,870.88
11/15/2022	5,000	2.400	145,141.25	•	•	,	,
5/15/2023	,		145,081.25			50,451.12	244,771.38
11/15/2023	5,000	2,400	145,081.25		•	,	,
5/15/2024	,		145,021.25			50,430.61	244,671.89
11/15/2024	5,000	2.400	145,021.25		·	,	,
5/15/2025	-,		144,961.25	,		50,410.10	244,572.40
11/15/2025	510,000	3.000	144,961.25	,	0.470	00,,0	, 0
5/15/2026			137,311.25			135,392.91	656,879.59
11/15/2026	1,140,000	3.000	137,311.25			•	·
5/15/2027	,		120,211.25	. ,	1,397,522.50	238,825.19	1,158,697.31
11/15/2027	1,140,000	3.000	120,211.25		.,,		.,,
5/15/2028	, ,		103,111.25		1,363,322.50	232,980.69	1,130,341.81
11/15/2028	1,140,000	3.000	103,111.25	1,243,111.25		·	
5/15/2029			86,011.25		1,329,122.50	227,136.19	1,101,986.31
11/15/2029	1,140,000	3.000	86,011.25	1,226,011.25	.,,	,	, ,
5/15/2030	, ,		68,911.25	68,911.25	1,294,922.50	221,291.69	1,073,630.81
11/15/2030	1,140,000	3.000	68,911.25	1,208,911.25	.,,	,	.,,
5/15/2031			51,811.25	51,811.25	1,260,722.50	215,447.19	1,045,275.31
11/15/2031	1,145,000	3.000	51,811.25	1,196,811.25		·	
5/15/2032	, .,		34,636.25	34,636.25	1,231,447.50	210,444.33	1,021,003.17
11/15/2032	1,145,000	3.000	34,636.25	1,179,636.25	.,== .,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
5/15/2033			17,461.25	17,461.25	1,197,097.50	204,574.19	992,523.31
11/15/2033	1,145,000	3.050	17,461.25	1,162,461.25	.,,		,
5/15/2034			,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1,162,461.25	198,655.14	963,806.11
TOTALS	9,675,000		3,125,586.25	12,800,586.25	12,800,586.25	2,187,515.74	10,613,070.51
				1			
PE% CARF%	24.61% 69.44%	(Temporary) (2019-2020)					

PFM Financial Advisors LLC.

17.09%

Effective Reimbursement

Net

8/26/2019

WARREN COUNTY SCHOOL DISTRICT								
SERIES OF 2013 Bonds to be Refunded Optional Redemption: May 15, 2018								
Borius to be in	returided				Option	iai rredemption.	Way 15, 2016	
1	2	3	4	5	6	7	8	
				Semi-Annual	Fiscal Year	State	Local	
Date	Principal	Rate	Interest	Debt Service	Debt Service	Aid	Effort	
<u> </u>	Thicipal	11010	morast	30510011100	2021 0011100	2.00		
11/15/2019			144,661.25	144,661.25				
5/15/2020			144,661.25	144,661.25	289,322.50	49,442.85	239,879.65	
11/15/2020			144,661.25	144,661.25	,	•		
5/15/2021			144,661.25	144,661.25	289,322.50	49,442.85	239,879.65	
11/15/2021			144,661.25	144,661.25				
5/15/2022			144,661.25	144,661.25	289,322.50	49,442.85	239,879.65	
11/15/2022			144,661.25	144,661.25				
5/15/2023			144,661.25	144,661.25	289,322.50	49,442.85	239,879.65	
11/15/2023			144,661.25	144,661.25				
5/15/2024			144,661,25	144,661.25	289,322.50	49,442.85	239,879.65	
11/15/2024			144,661.25	144,661.25				
5/15/2025			144,661.25	144,661.25	289,322.50	49,442.85	239,879.65	
11/15/2025	490,000	3.000	144,661.25	634,661.25				
5/15/2026			137,311.25	137,311.25	771,972.50	131,923.80	640,048.70	
11/15/2026	1,140,000	3,000	137,311.25	1,277,311.25				
5/15/2027			120,211.25	120,211.25	1,397,522.50	238,825.19	1,158,697.31	
11/15/2027	1,140,000	3.000	120,211.25	1,260,211.25				
5/15/2028			103,111.25	103,111.25	1,363,322.50	232,980.69	1,130,341.81	
11/15/2028	1,140,000	3.000	103,111.25	1,243,111.25				
5/15/2029			86,011.25	86,011.25	1,329,122.50	227,136.19	1,101,986.31	
11/15/2029	1,140,000	3,000	86,011.25	1,226,011.25				
5/15/2030			68,911.25	68,911.25	1,294,922.50	221,291.69	1,073,630.81	
11/15/2030	1,140,000	3.000	68,911.25	1,208,911.25				
5/15/2031			51,811.25	51,811.25	1,260,722.50	215,447.19	1,045,275.31	
11/15/2031	1,145,000	3.000	51,811.25	1,196,811.25				
5/15/2032			34,636.25	34,636,25	1,231,447,50	210,444.33	1,021,003.17	
11/15/2032	1,145,000	3.000	34,636.25	1,179,636.25				
5/15/2033			17,461.25	17,461.25	1,197,097.50	204,574.19	992,523.31	
11/15/2033	1,145,000	3.050	17,461.25	1,162,461.25		100.055.11	000 000 44	
5/15/2034					1,162,461.25	198,655.14	963,806.11	
TOTALS	9,625,000		3,119,526.25	12,744,526.25	12,744,526.25	2,177,935.54	10,566,590.71	
PE%	24.61%	(Temporary)						
PE% CARF%	24.61% 69.44%	(Temporary) (2019-2020)						

17.09% Effective Reimbursement

Net

WARREN CO SERIES OF 2 Bonds Remain	013	HOOL DISTRICT			Optiona	al Redemption: I	May 15, 2018
1		2 3	4	5	6	7	8
				Semi-Annual	Fiscal Year	State	Local
<u>Date</u>	Principa	l Rate	Interest	Debt Service	Debt Service	Aid	Effort
11/15/2019	5,000	2.400	660.00	5,660.00			
5/15/2020			600.00	600.00	6,260.00	1,069.78	5,190.22
11/15/2020 5/15/2021	5,000	2.400	600.00 540.00	5,600.00 540.00	6 140 00	1 040 20	5 000 70
11/15/2021	5,000	2.400	540.00	5,540.00	6,140.00	1,049.28	5,090.72
5/15/2022	3,000	2.400	480.00	480.00	6,020.00	1,028.77	4,991.23
11/15/2022	5,000	2.400	480.00	5,480.00	0,020.00	1,0=0	1,001120
5/15/2023			420.00	420.00	5,900.00	1,008.26	4,891.74
11/15/2023	5,000	2.400	420.00	5,420.00			
5/15/2024			360.00	360.00	5,780.00	987.75	4,792.25
11/15/2024	5,000	2.400	360.00	5,360.00			
5/15/2025			300.00	300.00	5,660.00	967.25	4,692.75
11/15/2025	20,000	3.000	300.00	20,300.00		0.400.40	42.000.00
5/15/2026					20,300.00	3,469.10	16,830.90
11/15/2026							
5/15/2027 11/15/2027							
5/15/2028							
11/15/2028							
5/15/2029							
11/15/2029							
5/15/2030							
11/15/2030							
5/15/2031							
11/15/2031							
5/15/2032							
11/15/2032							
5/15/2033							
11/15/2033							
5/15/2034							
TOTALS	50,000	ı	6,060.00	56,060.00	56,060.00	9,580.20	46,479.80
PE% CARF%	24.61% 69.44%	(Temporary) (2019-2020)					

PFM Financial Advisors LLC.

17.09% Effective Reimbursement

Net

8/26/2019

WARREN COUNTY SCHOOL DISTRICT AMOUNT REQUIRED TO CALL BONDS

1 2 3 4 5

SERIES OF 2013

	AMOUNT REQUIRED TO CALL BONDS								
<u>Date</u>	Principal	Interest	Escrow Agent	Required					
11/13/2019	9,625,000.00	143,053.90		9,768,053.90					
TOTALS	9,625,000.00	143,053.90	0.00	9,768,053.90					

SERIES A C REFUNDS 1		S OF 2013						Settle Dated	11/13/2019 11/13/2019
1	2	2 3	4	5	6	7	8	9	10
<u>Date</u>	Principa	<u> Rate</u>	Interest	Semi-Annual Debt Service	Fiscal Year Debt Service		Proposed Local Effort	Existing Local Effort	<u>Savings</u>
5/15/2020	25,000		129,442.19	154,442.19	154,442.19	26,392.91	128,049.28	239,879.65	111,830.36
11/15/2020	35,000	2.270	127,736.00	162,736.00					
5/15/2021			127,338.75	127,338.75	290,074.75	49,571.41	240,503.34	239,879.65	(623.70)
11/15/2021	35,000	2.270	127,338.75	162,338.75					
5/15/2022			126,941.50	126,941.50	289,280.25	49,435.63	239,844.62	239,879.65	35.03
11/15/2022	40,000	2.280	126,941.50	166,941.50					
5/15/2023			126,485.50	126,485.50	293,427.00	50,144.28	243,282.72	239,879.65	(3,403.07)
11/15/2023	40,000	2.280	126,485.50	166,485.50					
5/15/2024			126,029.50	126,029.50	292,515.00	49,988.43	242,526.57	239,879.65	(2,646.93)
11/15/2024	40,000	2.290	126,029.50	166,029.50					
5/15/2025			125,571.50	125,571.50	291,601.00	49,832.23	241,768.77	239,879.65	(1,889.12)
11/15/2025	530,000	2.310	125,571.50	655,571.50					/·
5/15/2026	4 477 000		119,450.00	119,450.00	775,021.50	132,444.85	642,576.65	640,048.70	(2,527.95)
11/15/2026	1,175,000	2.370	119,450.00	1,294,450.00		1			
5/15/2027			105,526.25	105,526.25	1,399,976.25	239,244.52	1,160,731.73	1,158,697.31	(2,034.42)
11/15/2027	1,165,000	2.430	105,526.25	1,270,526.25					
5/15/2028			91,371.50	91,371.50	1,361,897,75	232,737.21	1,129,160.54	1,130,341.81	1,181.27
11/15/2028	1,160,000	2.490	91,371.50	1,251,371.50					
5/15/2029			76,929.50	76,929.50	1,328,301.00	226,995.80	1,101,305.20	1,101,986.31	681.11
11/15/2029	1,155,000	2.560	76,929.50	1,231,929.50					
5/15/2030			62,145.50	62,145.50	1,294,075.00	221,146.86	1,072,928.14	1,073,630.81	702.67
11/15/2030	1,150,000	2.630	62,145.50	1,212,145.50					
5/15/2031	4 4 = 0 0 0 0		47,023.00	47,023.00	1,259,168.50	215,181.62	1,043,986.88	1,045,275.31	1,288.43
11/15/2031	1,150,000	2.680	47,023.00	1,197,023.00					
5/15/2032			31,613.00	31,613.00	1,228,636.00	209,963.87	1,018,672.13	1,021,003.17	2,331.04
11/15/2032	1,150,000	2.730	31,613.00	1,181,613.00	4 40= =00 =0	00404707			(2
5/15/2033			15,915.50	15,915.50	1,197,528.50	204,647.85	992,880.65	992,523.31	(357.35)
11/15/2033	1,145,000	2.780	15,915.50	1,160,915.50					
5/15/2034 11/15/2034					1,160,915.50	198,390.99	962,524.51	963,806.11	1,281.59
TOTALS	9,995,000	:	2,621,860.19	12,616,860.19	12,616,860.19	2,156,118.45	10,460,741.74	10,566,590.71	105,848.97
								L	
PE%	24.61%	(Estimated)					Present V	'alue of 0.10%=	87,272.11
CARF%	69.44%	(2019-2020)		-				
						Savings Alloca		Amount	Percentage
Net	17.09%	Effective Re	eimbursement			School District	's Share	105,848.97	1.10%
						State's Share <u>21,817.09</u>			0.23%
					1	Total Savings		127,666.06	1.33%



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