### State Revenue Bond Loan Program (FAP)

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bond Reserve Fund (SWDRF)</td>
<td>$17,110,297.50</td>
</tr>
<tr>
<td>Surety Bonds</td>
<td>$23,500,000.00</td>
</tr>
<tr>
<td>Gross Production Tax</td>
<td>$9,089,702.53</td>
</tr>
<tr>
<td>WICERF (SQ 764)</td>
<td>$300,000,000.00</td>
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</tbody>
</table>
State Revenue Bond Loan Program (FAP)

1986 General Bond Indenture

1986 General Bond Indenture

1986 General Bond Indenture

TIPRA 2005

Blind Pool to Identified Pool

2016 General Bond Indenture

Updated Indenture to Current Standards

Modified Local Reserve Requirement

- Cash Reserve
- Surety Policy AA or Higher
- A- Assigned or affirmed in the last 18 months
- 1.4 Times DCR

393 FAP Loans $1,244,510,000
BOK Financial Securities

Stifel Nicolaus

Centennial Law Group

BancFirst

Standard & Poor’s
Emergency Grant Program

FAP Reserve Fund Earnings

Point Based System

60 point minimum 120 point maximum

588 Emergency Grants $35,073,082
Rural Economic Action Plan (REAP) Grant

Appropriations

697 REAP Grants $62,020,690
Historical Appropriations vs. OWRB REAP Grant Approvals

The second 2016 entry indicates $400,000 of OWRB REAP funds that were re-appropriated.
Need vs. Seed – the spread between requests and appropriations

OWRB REAP Grant
Amount Requested vs. Approved

<table>
<thead>
<tr>
<th>Year</th>
<th>Requested</th>
<th>Approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2016</td>
<td>$7,685,824.23</td>
<td>$1,647,464.23</td>
</tr>
<tr>
<td>FY2017</td>
<td>$8,466,485.90</td>
<td>$1,405,505.29</td>
</tr>
<tr>
<td>FY2018</td>
<td>$8,362,707.46</td>
<td>$1,012,710.00</td>
</tr>
<tr>
<td>FY2019</td>
<td>$9,830,717.05</td>
<td>$1,218,991.11</td>
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</tbody>
</table>

Number Requested vs. Approved

<table>
<thead>
<tr>
<th>Year</th>
<th>Requested</th>
<th>Approved</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2016</td>
<td>78</td>
<td>21</td>
</tr>
<tr>
<td>FY2017</td>
<td>86</td>
<td>14</td>
</tr>
<tr>
<td>FY2018</td>
<td>78</td>
<td>12</td>
</tr>
<tr>
<td>FY2019</td>
<td>99</td>
<td>12</td>
</tr>
</tbody>
</table>
State Revolving Funds

- Clean Water (CW)
- Drinking Water (DW) co-administered with ODEQ

EPA Capitalization Grants

State Match

Interim Construction Loans

Long Term Takeout Loans
State Revolving Funds

Traditional Projects – CW/DW
State Revolving Funds

CW Non-Traditional Projects

Bixby PWA – Rain Garden & Roundabout

Project to address flooding issue created by stormwater runoff
Oklahoma City
WUT – Atoka Dam Improvements

Project to increase the capacity of the spillway & replace the existing chute
State Revolving Funds

CW Non-Traditional Projects

Lake McMurtry – Pervious Pavement

Pass through project with Oklahoma Conservation Commission that partnered with Lake McMurtry Friends and City of Stillwater
State Revolving Funds

2003 Leveraged Reserve Fund Model

2010 Leveraged Cash Flow Model

Capacity

CW – 60% of AAA Market Rate
DW – 70% of AAA Market Rate

Challenges:
✓ DW Capacity
✓ Interest Rate Spread
✓ Over Coming Perceptions
Hilltop Securities

Bank of America Merrill Lynch
- BOK Financial Securities
- Morgan Stanley
- Stifel Nicholaus

McCall, Parkhurst, and Horton

Gilmore and Bell

BancFirst

Standard & Poor’s

Moody’s

Fitch
As of October 2019,

2,253 loans and grants approved for a total of $4,403,625,804

Oklahoma communities have saved an estimated $1,471,294,171

Approved Loans & Grants by Type

<table>
<thead>
<tr>
<th>Type</th>
<th>Count</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>FA Loan</td>
<td>393</td>
<td>$1,244,510,000</td>
</tr>
<tr>
<td>CW/WRB Loan</td>
<td>249</td>
<td>$1,762,070,001</td>
</tr>
<tr>
<td>DW/WRB Loan</td>
<td>212</td>
<td>$1,356,899,183</td>
</tr>
<tr>
<td>Emergency Grant</td>
<td>588</td>
<td>$35,073,082</td>
</tr>
<tr>
<td>ReAP Grant</td>
<td>697</td>
<td>$62,020,690</td>
</tr>
<tr>
<td>Drought Grant</td>
<td>6</td>
<td>$418,818</td>
</tr>
<tr>
<td>Water for 2018 Drought Grant</td>
<td>4</td>
<td>$1,500,000</td>
</tr>
<tr>
<td>Emergency Drought Relief Grant</td>
<td>4</td>
<td>$1,125,000</td>
</tr>
</tbody>
</table>

Approved Financing by Purpose

<table>
<thead>
<tr>
<th>Type</th>
<th>Count</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>1,400</td>
<td>$2,247,247,188</td>
</tr>
<tr>
<td>Sewer</td>
<td>803</td>
<td>$1,875,841,547</td>
</tr>
<tr>
<td>Water &amp; Sewer</td>
<td>44</td>
<td>$271,135,144</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>$9,405,625</td>
</tr>
</tbody>
</table>

Number of Loans & Grants by County

As of last update, there are...

- Adair: 20 loans
- Beaver: 15 loans
- Bryan: 22 loans
- Carter: 16 loans
- Cimarron: 12 loans
- Comanche: 11 loans
- Creek: 11 loans
- Dewey: 18 loans
- Garvin: 14 loans
- Greer: 4 loans
- Haskell: 7 loans
- Jefferson: 17 loans
- Kingfisher: 8 loans
- Le Flore: 14 loans
- Love: 11 loans
- Mayes: 8 loans
- McIntosh: 14 loans
- Noble: 24 loans
- Oklahoma: 24 loans
- Ottawa: 15 loans
- Pittsburg: 15 loans
- Pushmataha: 9 loans
- Seminole: 17 loans
- Texas: 27 loans
- Wagoner: 18 loans
- Woods: 18 loans

For more details, please refer to the attached report.
✓ New Master Trust
✓ SRF Refunding
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New Master Trust and Refunding Opportunity

Oklahoma Water Resources Board

October 15, 2019
New Master Trust Indenture
Rationale for New Master Trust Indenture

- The current Master Trust Agreement ("MTA") utilized by the OWRB was implemented in 2003.
- While the MTA was forward thinking and has allowed flexibility to the OWRB as your programs and the markets have evolved.
- Based on opportunities to streamline program administration along with Trustee services, both amending the current MTA and drafting a new master trust indenture ("MTI") were evaluated.
- After careful review and analysis, it was determined that implementing a new MTI would be more efficient and provide for greater flexibility in the future as markets continue to evolve.
Rationale for New Master Trust Indenture

- Focus of proposed changes to MTI
  - Program Structure
    - The OWRB was originally structured utilizing a Reserve Fund Structure
      - This structure encapsulated specific loans to specific series of bonds with credit enhancement from a defined investment agreement funded with Capitalization Grants
    - With the passage of the Tax Increase Prevention and Reconciliation Act of 2005 ("TIPRA"), the OWRB has modified the manner in which borrower draws are funded
    - With the market dislocation in 2008 and Quantitative Easing, the OWRB has migrated to a Cash Flow Structure to optimize program capacity
      - Both of these events have resulted in the OWRB utilizing Capitalization Grants to fund loans for additional credit enhancement while funding loans on a FIFO basis
Rationale for New Master Trust Indenture

- Focus of proposed changes to MTI
  - Credit Considerations
    - Many of the OWRB peer SRF programs have undertaken a similar evaluation.
    - In our experience, if the prior master trust is closed with a clear path for surplus revenues to get to the new master trust, there have been no changes to the ratings.
    - This is primarily due to the unique structures of SRF programs:
      - Closed Loop Programs
      - Program for Perpetuity Requirement
    - Especially with the cross-collateralization provision in the authorizing legislation, the rating agencies evaluate the programs on an aggregate basis:
      - All program series
      - Both clean water and drinking water
Flow of Funds for Current MTA

SRF MASTER TRUST INDENTURE

CLEAN WATER/DRINKING WATER SRF SERIES INDENTURE

- Match Bond Proceeds
- Leverage Bond Proceeds

Loan Fund

Revenue Fund

Match Bonds Debt Service Fund

Leverage Bonds Debt Service Fund

Deficiency Fund

Operating Account

Cost of Issuance

Rebate Account

Other Series Indentures

Loan Administration Fees

Federal Grants - Not Pledged

Match Bond Proceeds

Leverage Bond Proceeds

Reimbursement

Principal

Interest

First

Second
Preliminary Flow of Funds for New MTI

EXCESS COVERAGE AND RESERVES FROM EXISTING CLEAN WATER AND DRINKING WATER SRF MTI BONDS

Federal Grants & State Grants - Not Pledged

Non-Pledged Borrower Bonds

Non-Pledged Receipts - Direct Loans and other Lawful Programs and Purposes

CLEAN WATER AND DRINKING WATER SRF MTI NEW SERIES

Bond Proceeds - Leverage and Match Bonds

Subordinate Lien Bond Proceeds

Loan Account

CWSRF Proceeds

DWSRF Proceeds

Leverage State Match

Leverage State Match

Reimbursement

Cost of Issuance

Rebate Fund

Revenue Account

(Pledged Loans Reside in this Account)

CWSRF

DWSRF

Interest First Allocated to Match Bonds

Match Bonds Debt Service Fund

CWSRF

DWSRF

Match Bonds Debt Cross-Collateralization

Leverage Bonds Debt Service Fund

CWSRF

DWSRF

Leverage Bonds Debt Cross-Collateralization

Operating Account

Loan Administration Fees

OWRB BOARD MEETING
Considerations and Benefits of the New MTI

- The existing MTA will be closed simultaneously with the first issuance of bonds under the new MTI
  - No future bonds will be issued under MTA
- The existing MTA will remain outstanding until all the existing SRF revenue bonds of the OWRB either matures or is refunded into the new MTI
- Each loan and its corresponding repayments will be pledged to all parity revenue bonds issued under the MTI
  - No more defining specific loans to secure specific series of bonds
  - This will reduce the required number of accounts and streamline program administration and Trustee services
- The rating agencies currently view the program on an aggregate basis, so this structure is consistent with rating agency methodology
- Many of the forward thinking provisions from the existing MTA will be incorporated into the new MTI along with other provisions for future flexibility
Bond Buyer’s Index of 20 Municipal Bonds

Bond Buyer GO Index
20 Year History
As of 10/3/2019

Current: 2.62%

The graph depicts historical interest rates and their respective relationships. Interest rates are dependent upon many factors such as, but not limited to, interest rate trends, tax rates, the supply and demand of short-term securities, changes in laws, rules, and regulations, as well as changes in credit quality and rating agency considerations. The effect of changes in such factors individually or in any combination could materially affect the relationships and effective interest rates. These metrics should be viewed with these potential changes in mind as well as the understanding that there may be exceptions on this index from natural or market-driven trends.
This graph depicts historical interest rates and their respective relationships. Future interest rates are dependent upon many factors, such as, but not limited to, interest rate trends, tax rates, the supply and demand of securities, changes in tax laws and regulations, as well as changes in credit quality and rating agency considerations. The interest rate changes each month based on market or in any combination could materially affect the relationship and effective interest rates. These rates should be viewed with these potential changes in mind as well as the understanding that there may be interruptions in the short-term market or no market may exist at all.
Credit Spreads

Municipal Market Data
Yield Curve Benchmarks ("AAA" to "BAA")
As of 10/3/2019

This graph depicts historical interest rates and their respective relationships. Future interest rates are dependent upon many factors such as, but not limited to, interest rate trends, tax rates, supply, changes in laws, rules and regulations, as well as changes in credit quality and rating agency considerations. The effect of such changes in such assumptions may be material and could affect the projected results. These results should be viewed with these potential changes in mind as well as the understanding that there may be interruptions in the short term market or no market may exist at all.
This graph depicts historical interest rates and their respective relationships. Future interest rates are dependent upon many factors such as, but not limited to, interest rate trends, tax rates, supply, changes in laws, rules and regulations, as well as changes in credit quality and rating agency considerations. The effect of such changes in such assumptions may be material and could effect the projected results. These results should be viewed with these potential changes in mind as well as the understanding that there may be interruptions in the short term market or no market may exist at all.
# Summary of Bonds Soon to be Callable

## Clean Water SRF Bonds, Series 2011A
- **Original Principal Amount**: $85,000,000
- **Callable Principal**: $45,860,000
- **Callable Maturities**: 2022-2031
- **Coupons**: 4.00%-5.00%
- **Call Date**: 4/1/2021

## Drinking Water SRF Bonds, Series 2011B
- **Original Principal Amount**: $57,910,000
- **Callable Principal**: $48,545,000
- **Callable Maturities**: 2022-2042
- **Coupons**: 3.00%-5.25%
- **Call Date**: 4/1/2021

## Clean Water SRF Bonds, Series 2012B
- **Original Principal Amount**: $86,505,000
- **Callable Principal**: $76,645,000
- **Callable Maturities**: 2023-2033
- **Coupons**: 3.00%-5.00%
- **Call Date**: 4/1/2022

## Drinking Water SRF Bonds, Series 2012A
- **Original Principal Amount**: $49,395,000
- **Callable Principal**: $36,890,000
- **Callable Maturities**: 2023-2042
- **Coupons**: 3.00%-5.00%
- **Call Date**: 4/1/2022
Timing and Other Considerations

- Prior to the passage of the Tax Cuts and Jobs Act of 2017 (the “2017 Tax Act”), issuers were able to refund outstanding obligations which matured or were redeemable more than 90 days after issuance of refunding bonds (“advance refunding”) with tax-exempt obligations.
- With the passage of the 2017 Tax Act, tax-exempt advanced refundings are no longer permitted.
  - Taxable advance refundings are still permitted.
- With the compression between tax-exempt rates and taxable interest rates, opportunities exist for taxable advance refundings to be undertaken.
- When evaluating whether to consider a taxable advance refunding, we recommend evaluating the projections with similar criteria previously applied to tax-exempt advanced refundings.
Federal Tax Law Considerations

- Pooled Loan Programs such as the SRF program have significant Federal Tax Law considerations
- After guidance from Tax Counsel, the following modifications were made to the proposed refunding structure
  - Principal amortization can begin once the escrow for the refunding bonds is no longer outstanding (4/1/2022)
  - All the bonds must be refunded, even those that are not callable
- This results in most of the savings being realized in the first two years
 Proposed Refunding Bonds – Current Interest Rates

### Proposed and Projected SRF Refunding Bonds, Series 2019

- Refunding Par Amount: $222,335,000
- Gross Savings: $19,851,150
- Net Present Value Savings: $20,188,567
- Average Annual Savings 2020 and 2021: $13,829,970
- Present Value Benefit (%): 9.71%
- True Interest Cost: 2.56%

### Debt Service Comparison

*Current Market Rates as of September 26, 2019.*
Summary

- The current municipal interest rate market is near historical lows
- Spreads between tax-exempt rates and taxable rates are compressed
- The OWRB has the opportunity to refund existing bonds on a taxable basis at lower interest rates resulting in projected debt service savings
- In addition to achieving debt service savings, should the OWRB decide to proceed with the refunding, the refunding bonds would be the first issuance under the new MTI
- This would accelerate the transition from the existing MTA to the proposed new MTI
Questions?