

***Stanford Waters of the West  
Innovative Water Financing  
Roundtable  
June 6, 2017***

**EPA State Revolving Fund (SRF) Programs**

**Expanding the Use and Breadth of  
Financial Delivery Channels to Address  
Water Quality and Potable Drinking Water  
Infrastructure Investment Needs**

***“Any opinions expressed herein are those of the author and do not necessarily reflect the views of the US Environmental Protection Agency. The author participated as a part of his official duties.”***

# EPA and State Financial Partnership Has Evolved Over Time

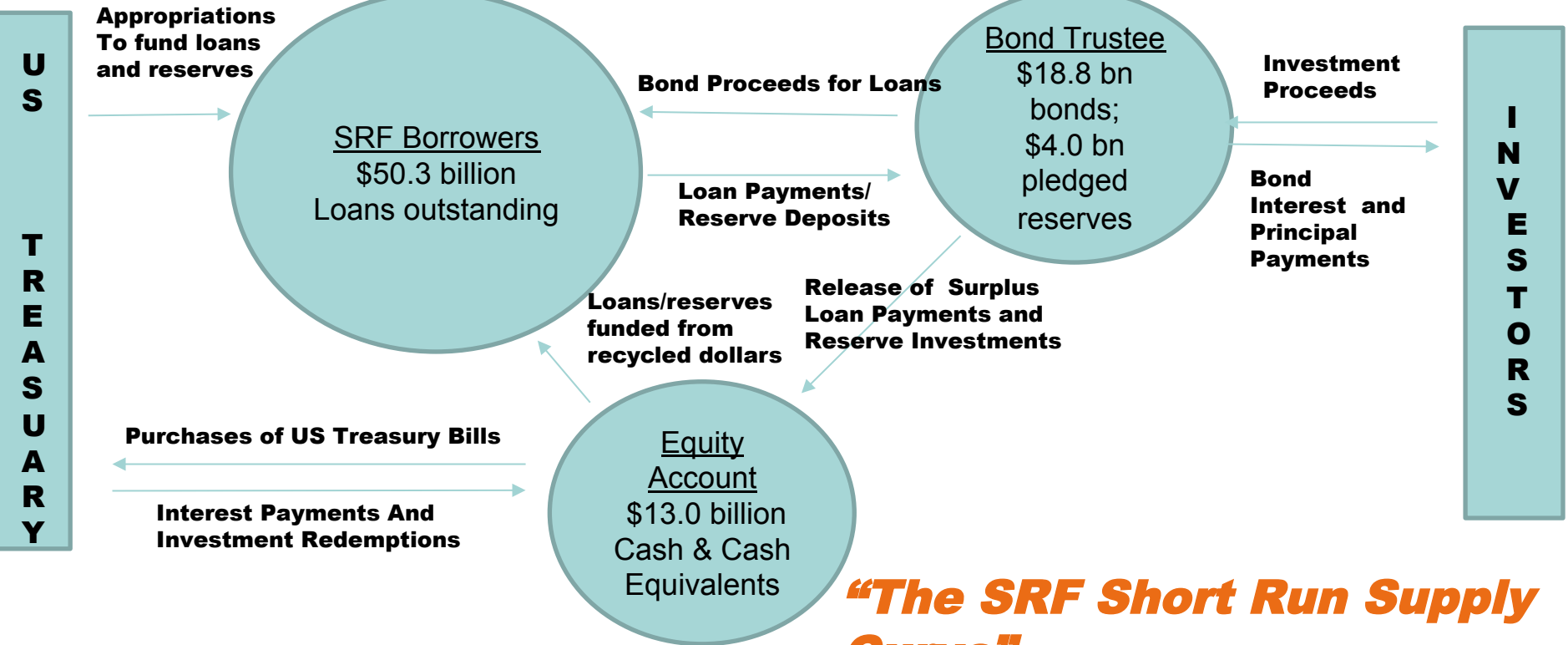
- Federal support arose to address risks to the nation's waters caused by state and local underinvestment..
- From 1972 to 1990, EPA provided communities more than \$50 billion through project grants for wastewater treatment capital improvements.
  - Significant benefit for improving water quality but limited project flexibility or state priorities. Approval bottlenecks were a problem.
- Since 1987, most of the federal government's assistance has been provided by capitalizing State Clean water and Drinking Water Revolving Loan Funds.
  - EPA has provided nearly \$58 billion in capitalization grants.
  - States have provided \$11.6 billion in required state match
- \$141 billion in financial assistance provided to date

# SRF Assistance Options Allowed Under the Respective Acts

- At or below market interest rate loans that may not exceed 30 years or the useful life of the project.
- Buy or refinance local debt.
- Guarantee or purchase of insurance for local debt obligations.
- Securitize SRF debt obligations.
- Pay SRF administrative expenses.
- Invest and earn interest on fund accounts.
- Additional subsidization.

# SRF Basic Model Design and 2016 CWSRF Financial Position

## Clean Water SRF Fund Flows/ Financial Position (June 2016)



***“The SRF Short Run Supply Curve”***

# SRF Programs Supported by Triple-A Bond Ratings

## Top Bond Ratings Due to:

- Master Financing Indenture that houses parity bond issues (1 thru n).
- Growing and diverse loan portfolio supported by dedicated pledges of tax or other revenues.
- Investment grade quality of most participants.
- Over collateralization tied to Financial Assistance Targets (can create excess credit capacity).
- Liens on excess cashflows across bond issues.

# Today SRFs Characterized By Growing Balance Sheet Strength

## CWSRF Cash Balances and Net Cashflows:

(In U.S. Billions)

	<u>CWSRF</u>
Beginning Cash Balance	\$13.0
Financial Assistance	<u>7.6</u>
Remaining Cash Balance	\$5.4
Net Recycled CashFlow	\$2.90

Net Recycled Cashflows is defined as loan repayments and investment earnings, net of SRF bond principal and interest repayments.

# SRF Financial Strength Presents New Opportunities

## Financial Guarantees

- 2014 EPA Financial Advisory Board Report found that – in addition to established loan capacity - SRFs have \$billions of untapped triple-A financial guarantee capacity based on Net Recycled Cashflow and rating agency criteria.
- Capacity estimates based on subordinate pledge of loan repayments and reserve releases, net of bond payments.
- Beta tested in New York State (2013); security pledge provided by:
  - bond funded loans
  - loss reserve
  - subordinate lien on net SRF cashflows; and
  - SRF equity to the extent available
- Requires states to rethink how they position their programs.
- Highest value in stimulating emerging environmental markets with market access and liquidity challenges such as third party distributed infrastructure investment (e.g., GI/Ecosystem services).
- Guarantee facility can operate as a state wide vehicle.

**Bonds were rate  
triple-A by all  
rating services**



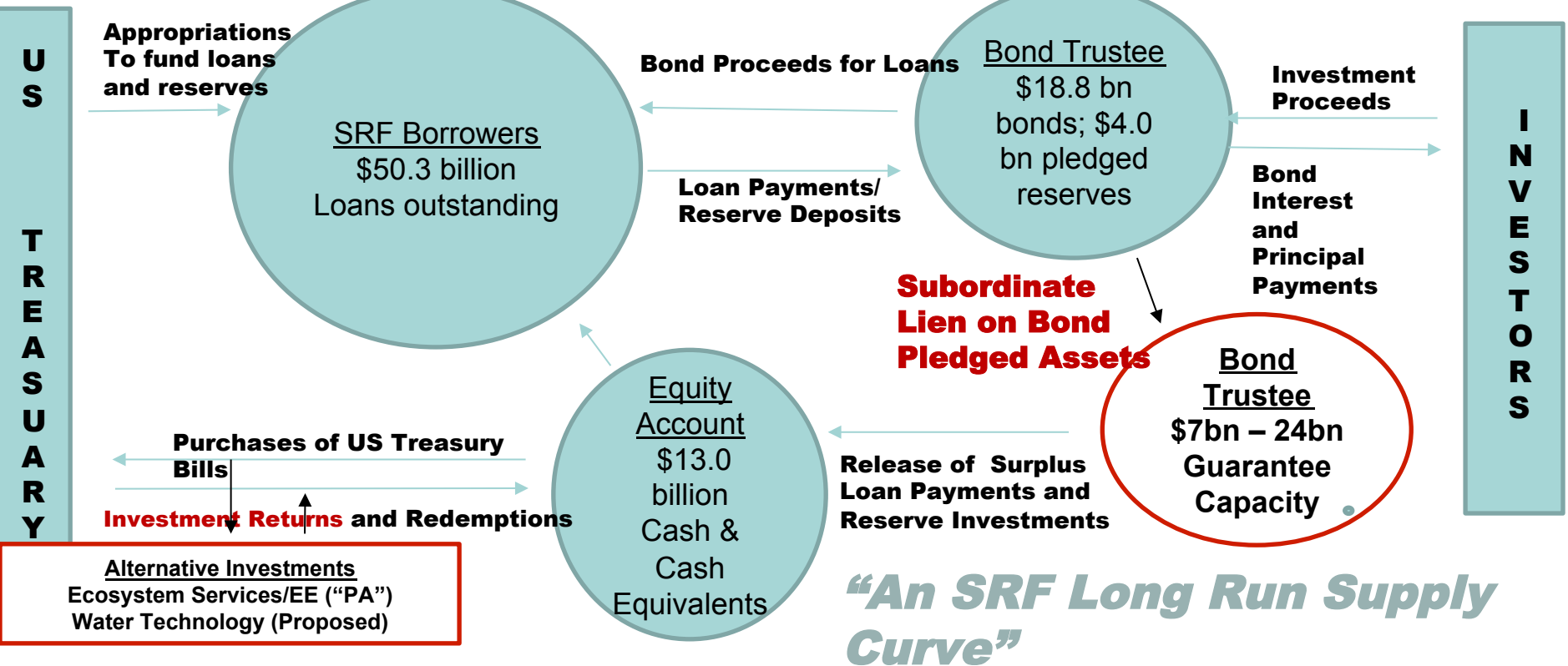
# SRF Financial Strength Presents New Opportunities

## Investment Authority

- State statutes, policy and practices geared toward conservative investment with exceptions.
- Stable cash balances present opportunity to rethink use of the investment authority. Alternative investment could include:
  - focus on investment returns – broad market (beta)
  - A water technology investment focus (sector alpha)
- ***Balance sheet strength can support endowment investment model that can accelerate SRF mission.***
- Requires states to value investment authority very differently.

# SRF Advanced Model Design with Increased Financial Assistance Delivery

## Clean Water SRF Fund Flows/ Financial Position (FY2016)



# Summary

- Financial strength and state flexibility provides opportunities to innovate with new products that can extend reach of SRF programs
- Endowment model can emerge with broad market or focused strategies such as strategically targeted water technology investment.
- SRF development provides lessons for constructing next generation financial assistance models.

# Questions?

Jim Gebhardt

US EPA

Office: (202) 564-0323

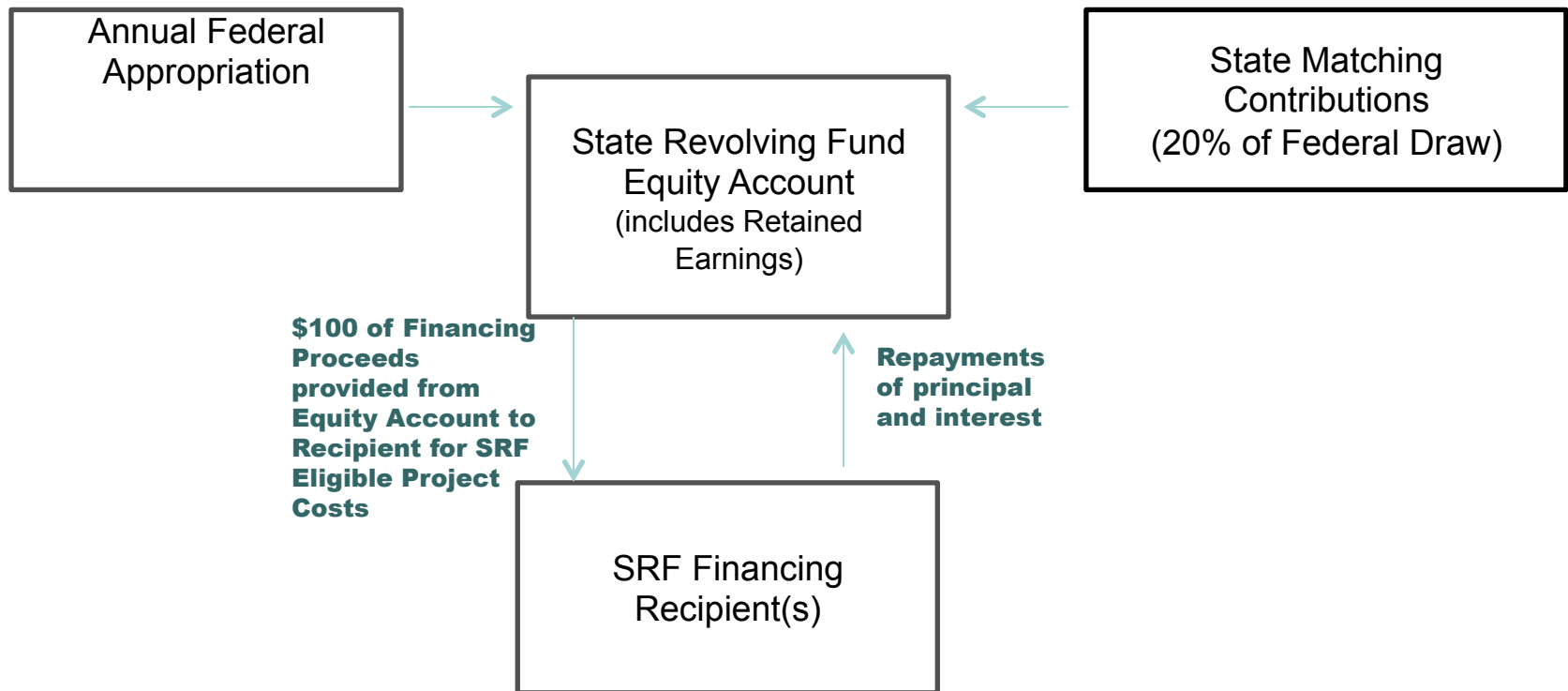
Mobile: (202) 734-1607

[gebhardt.jim@epa.gov](mailto:gebhardt.jim@epa.gov)

[www.epa.gov/waterfinancecenter](http://www.epa.gov/waterfinancecenter)

# Basic SRF Financing Models

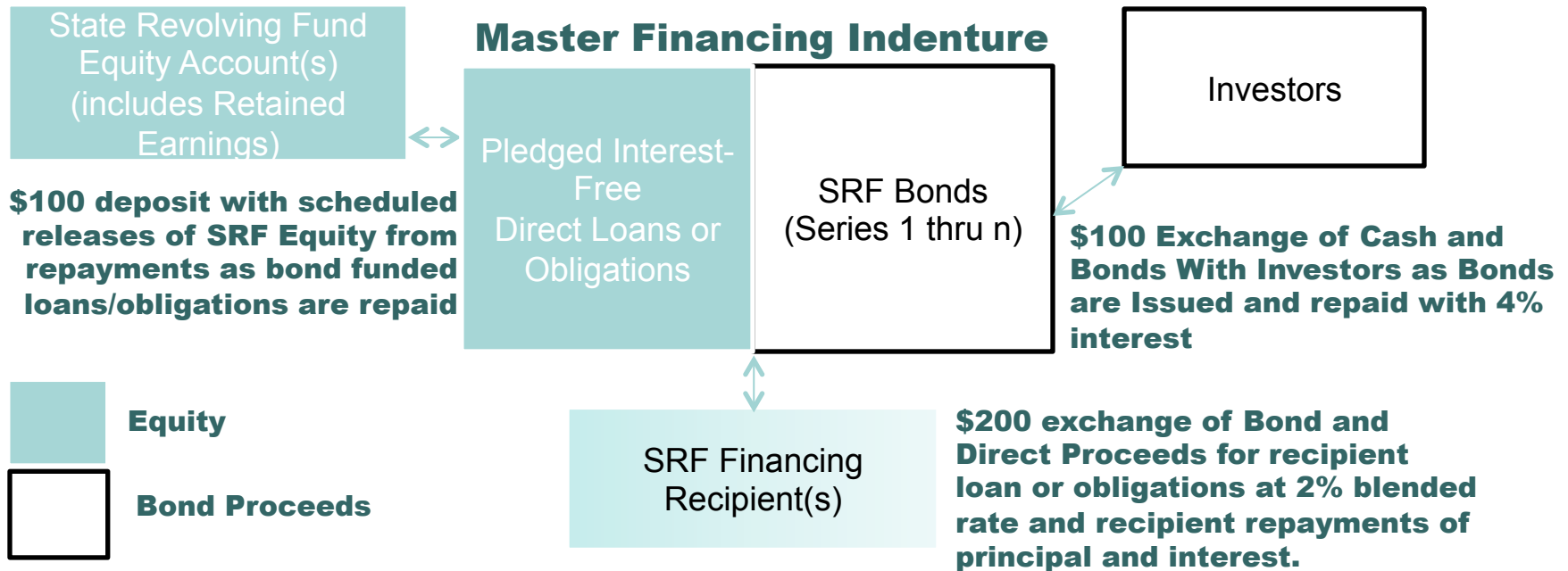
## The Direct Financing Model (\$100)



# Basic SRF Financing Models

## Leveraging: Blend Rate Model

**Assumption: \$100 of Equity is Leveraged 2 times**



Master Financing Indenture houses all bond series issued pursuant to its terms.

Approximately half of all states use a Leveraged Model. All Leveraging Model states will also originate direct financings for hardship eligible recipients and to limit bondholders to weak borrowers.

Clean Water and Drinking Water Financing Program operate out of the same financing indenture and cross-pledge program assets to maximize credit value.