Accelerating Solutions: Innovative H20 Financing

WIFIA, New SRF Financial Assistance Opportunities and Environmental Market- Based Solutions

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Where are the Innovative Opportunities

1. EPA Funding: WIFIA
2. State Revolving Fund (SRF) Innovations
3. Environmental Markets and Social Impact Investors
4. Appendix

1 EPA Funding: WIFIA

WIFIA Operates as a Highly **Leveraged** Federal Credit Program

- $17 million Congressional appropriation funded a loss reserve
- OMB has set loss assumptions that are expected to result in 1.6% to 2% assumed loss rates for WIFIA loans
- Yields about $1 billion in loan capacity funded by U.S. Treasury
- Loss rate varies based on the level of riskiness of each loan

1 EPA Funding: WIFIA

Eligible Borrowers

- Local, state, tribal, and federal government entities
- Partnerships and joint ventures
- Corporations and trusts
- Clean Water and Drinking Water State Revolving Fund (SRF) programs

Eligible Projects

- Wastewater conveyance and treatment projects that are eligible for the Clean Water SRF
- Drinking water treatment and distribution projects that are eligible for the Drinking Water SRF
- Enhanced energy efficiency projects at drinking water and wastewater facilities
- Brackish or seawater desalination, aquifer recharge, alternative water supply, and water recycling projects
- Drought prevention, reduction, or mitigation projects
- Acquisition of property if it is integral to the project or will mitigate the environmental impact of a project
- A combination of projects secured by a common security pledge or submitted under one application by an SRF program

1 EPA Funding: WIFIA, Important Features

$20 MIL — Minimum project size for large communities.

$5 MIL — Minimum project size for small communities (population of 25,000 or less).

49% — Maximum portion of eligible project costs that WIFIA can fund.

35 YEARS — Maximum final maturity date from substantial completion.

5 YEARS — Maximum time that repayment may be deferred after substantial completion of the project.

% — Interest rate will be equal to or greater than the U.S. Treasury rate of a similar maturity.

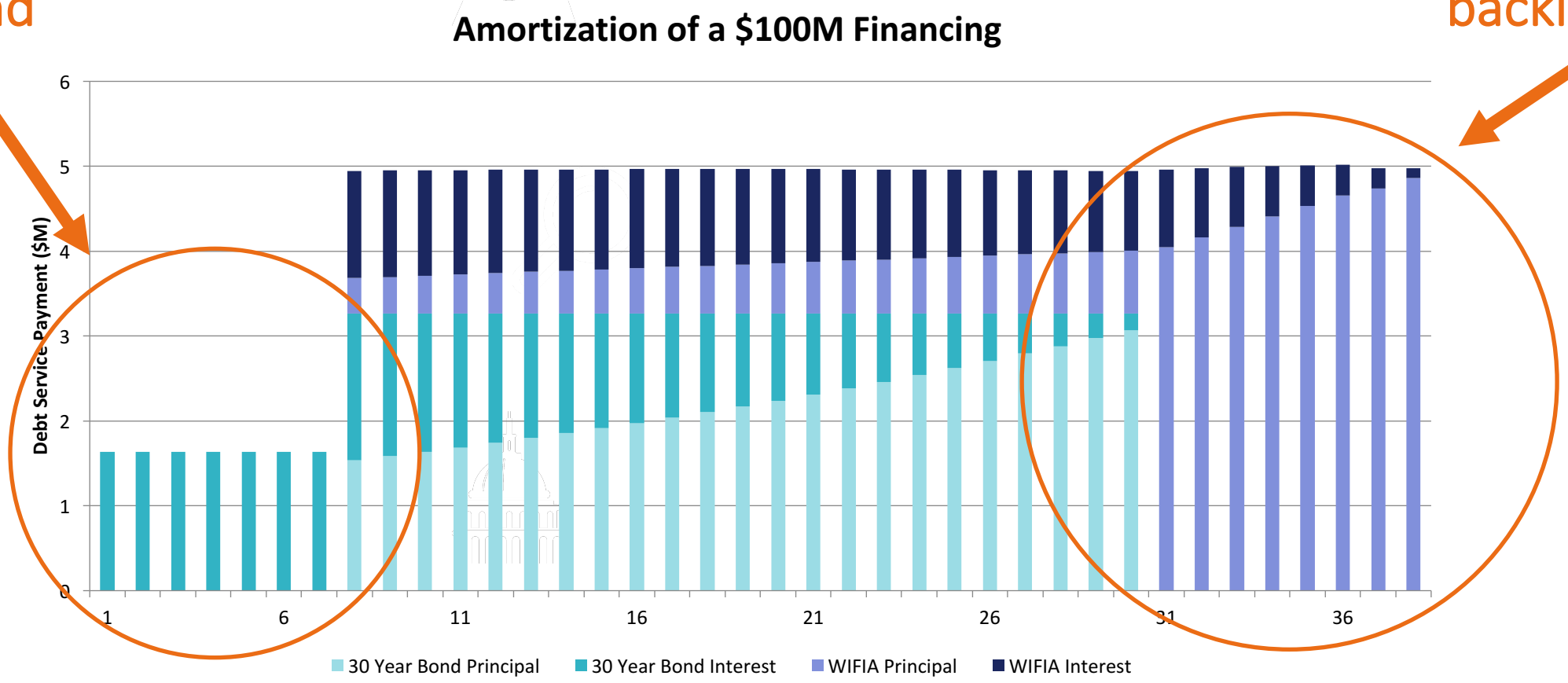
Projects must be creditworthy.

NEPA, Davis-Bacon, American Iron and Steel, and all federal cross-cutter provisions apply.

1 WIFIA Offer Flexible Repayment Terms

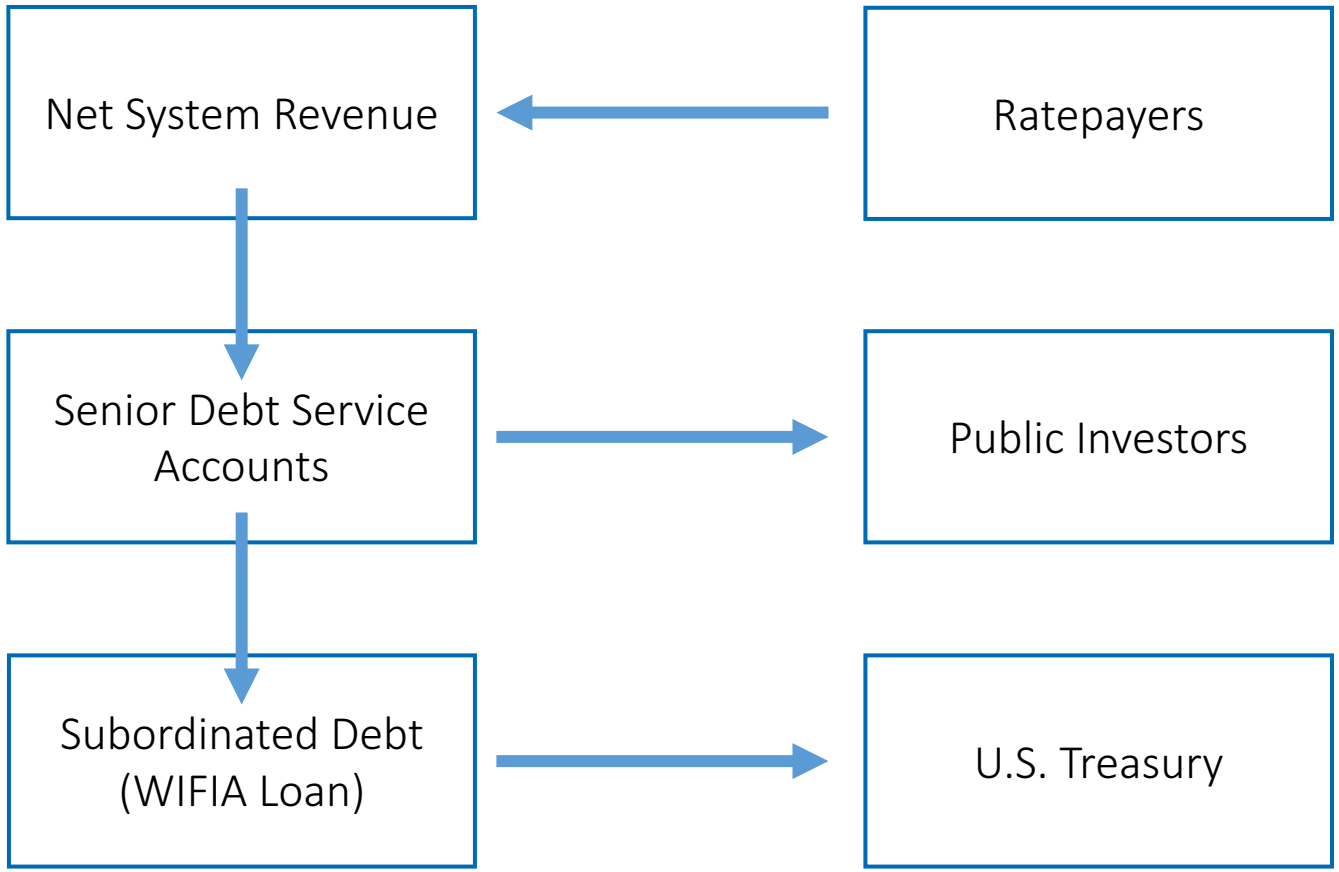
Interest-only period for bond

WIFIA payments backloaded



1 WIFIA Takes Subordinated Lien

Water Utility Lien Structure



Joint Utility tax-exempt-WIFIA financing can provide a very attractive blended interest rate for large water infrastructure projects (especially for mid to lower tier rated utilities)

1 WIFIA Application Process

Project Selection

- Notice of Funding Availability
- Letter of Interest submission*
- Letter of Interest evaluation
- Invitation to apply

Project Approval

- Application submission
- Application evaluation
- Term sheet
- Application approval

Negotiation & Closing

- Negotiation activities
- Credit agreement execution

*First round letters of interest were due April 10, 2017

2 EPA Funding: SRF Innovation

Guarantee is a form of project insurance that can help reduce costs for innovative projects that may currently have trouble accessing financing at a viable cost.

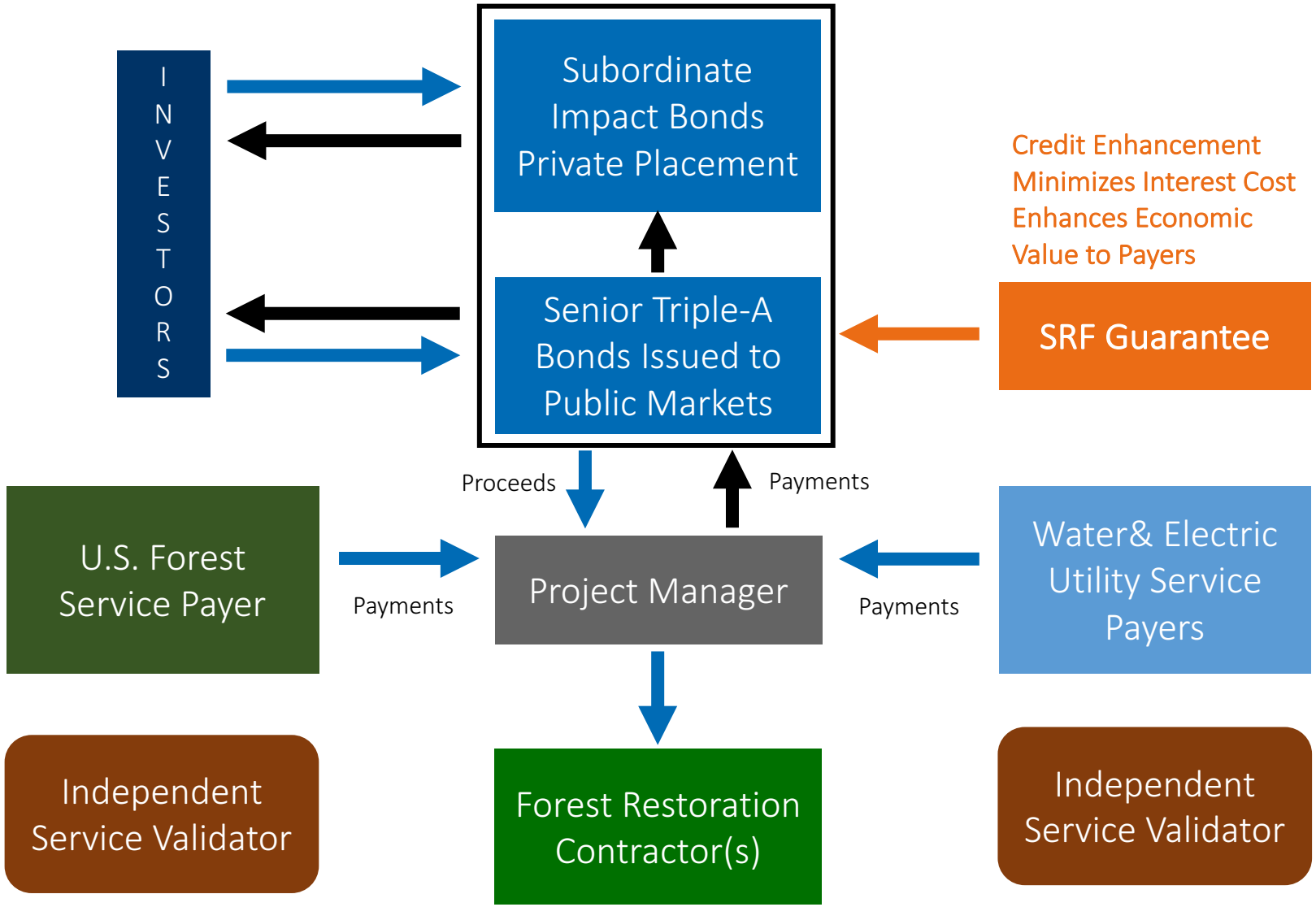
2 Success Story: New York SRF's Use of the Guarantee

- The NY SRF used the guarantee to underwrite a portfolio of energy efficiency loans
  - $24 Million New York State Energy Research and Development Authority Residential Energy Efficiency Financing Revenue Bonds, Series 2013A (Federally Taxable)

2 Why is this Success Story of Value to Water Utilities?

The SRF guarantee capacity can be used to support environmental markets to address water quality and quantity challenges.

3 An Example of an Ecosystem Service Benefiting from An SRF Guarantee: The Forest Resiliency Impact Bond



3 Forest Resiliency Impact Bond

Structure

1) **Investors** provide upfront capital to a Project Manager
2) The **Project Manager** contracts with **Forest Restoration Crews**
3) An **independent evaluator** determines if treatments result in an increase in water yield
4) If so, **water and electric utilities** provide annual payments to the Project Manager
5) A separate independent evaluator determines if treatments successfully reduce catastrophic fire risk
6) If so, the **Forest Service** provides the Project Manager a portion of its modeled cost savings
7) **Investors** receive annual payments from utilities and a final payment from the Forest Service
8) Traditional "Senior" Bondholders **are paid first with payment guaranteed by the SRF**

Value

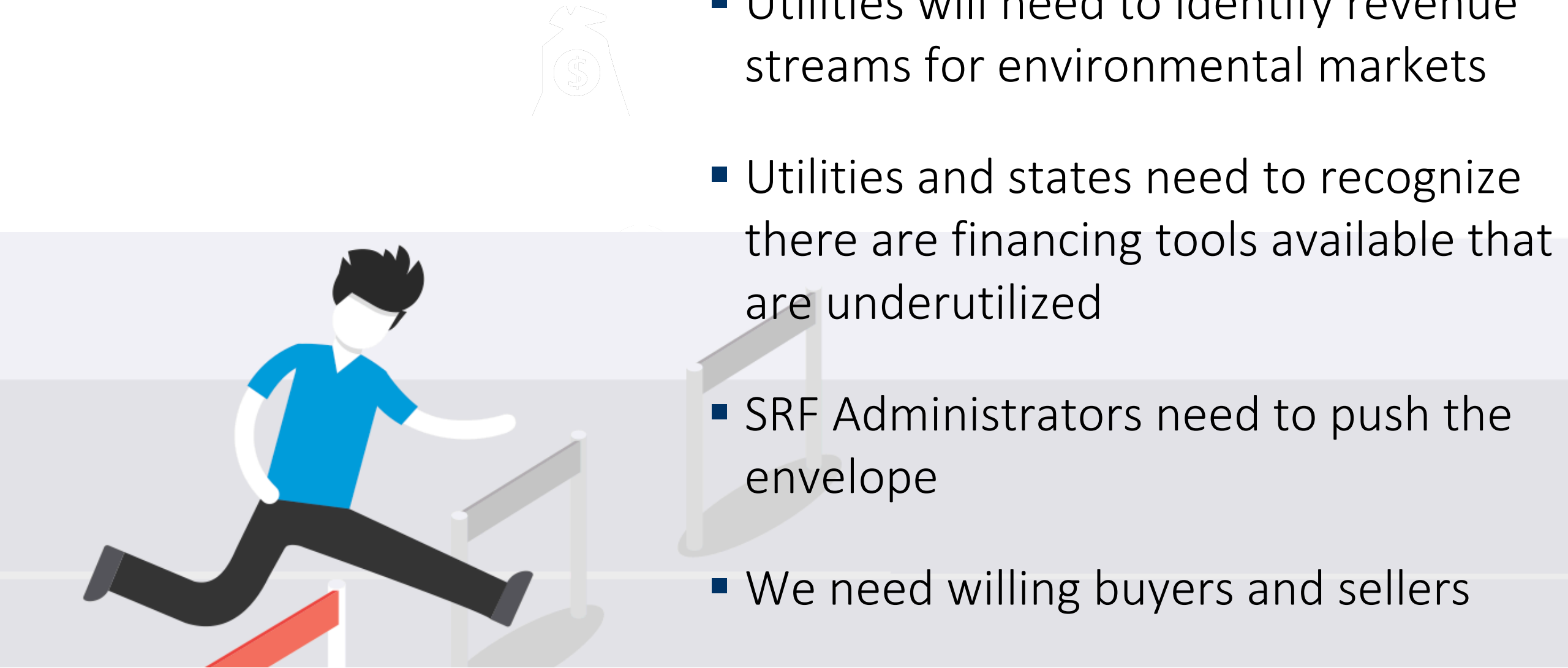
Scaling Forest Restoration Projects:

- reduces risk of catastrophic wildfire
- creates jobs in rural communities
- increases water yield to farmers & communities
- saves the U.S. Forest Service and utilities money
- reduces greenhouse gas emissions
- improves recreational opportunities & wildlife habitat

A Forest Resilience Impact Bond:

- allows the Forest Service to share restoration costs with utilities, resulting in a significant per-acre discount for the cost of treatments
- shifts funding responsibility and risk from taxpayers to the private sector
- incentivizes private investors to provide upfront financing
- creates a replicable template to finance forest restoration projects at scale

3 Hurdles to Overcome



- Utilities will need to identify revenue streams for environmental markets
- Utilities and states need to recognize there are financing tools available that are underutilized
- SRF Administrators need to push the envelope
- We need willing buyers and sellers

Water Infrastructure and Resiliency Finance Center

The Water Finance Center is an **information and assistance center**, helping communities make informed decisions for **drinking water, wastewater,** and **stormwater infrastructure** to protect human health and the environment.

Research Advise Innovate Network

https://www.epa.gov/waterfinancecenter

Appendix

References

Water Infrastructure and Resiliency Finance Center

"The Financial Impacts of Alternative Water Project Delivery Models" University of North Carolina Environmental Finance Center, March 2017

The Water Finance Center collaborated with UNC's Environmental Finance Center (EFC) to develop a Public-Private and Public-Public Partnerships ("P3s") report. The UNC report provides an in-depth examination of nine projects where communities used P3s in the water sector.

https://efc.sog.unc.edu/project/alternative-water-project-delivery-models

USEPA Financial Advisory Board

"Utilizing SRF Funding for Green Infrastructure Projects," January 2014; and

"SRF Investment Function: Current Status and Prospects for Enhancing SRF Sustainability," February 2011;

www.epa.gov/waterfinancecenter

Squires Patton Boggs/ Encourage Capital

"Liquid Assets : Investing for Impact in the Colorado River Basin"

www.encouragecapital.com/wp-content/uploads/docs/water-in-the-west-exec-summary-final_web.pdf.

EPA Funding: SRF Innovation

Financial Assistance Authority Provided Under the Clean Water Act Offers Tools for Innovative Solutions

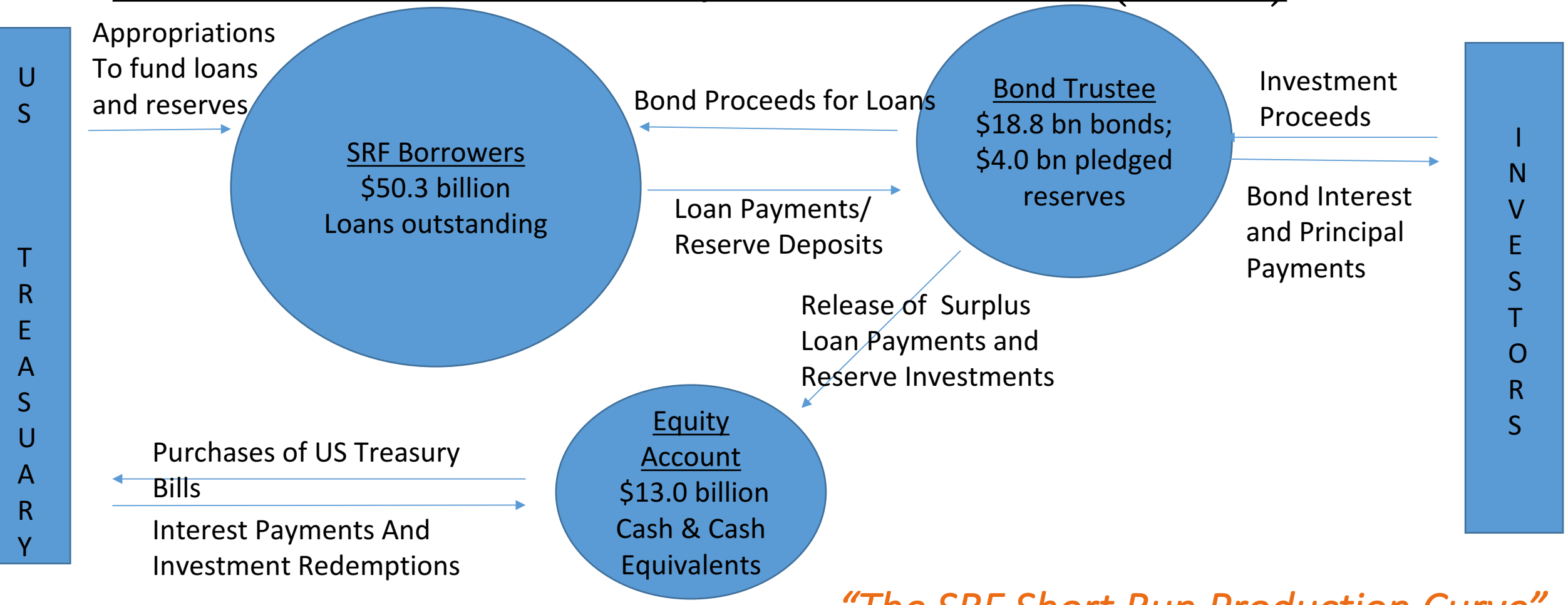
From Title VI, Section 603 (d)

Except as otherwise limited by State law, a water pollution control revolving fund of a State under this section may be used only—

- *(1) to make loans;*
- *(2) to buy or refinance the debt obligation of municipalities and intermunicipal and interstate agencies within the State at or below market rates, where such debt obligations were incurred after March 7, 1985;*
- *(3) to guarantee, or purchase insurance for, local obligations where such action would improve credit market access or reduce interest rates;*
- *(4) as a source of revenue or security for the payment of principal and interest on revenue or general obligation bonds issued by the State if the proceeds of the sale of such bonds will be deposited in the fund;*
- *(5) to provide loan guarantees for similar revolving funds established by municipalities or intermunicipal agencies;*
- *(6) to earn interest on fund accounts;*

EPA Funding: SRF Innovation

Clean Water SRF Fund Flows/ Financial Position (FY2016)



"The SRF Short Run Production Curve"

EPA Funding: SRF Innovation

Can A Guarantee Product Be Managed Alongside Existing Loan Products?

It All Depends on Net Program CashFlows Which in FY2016 Consisted of:

	(in millions)
Loan Principal Repayments	$4,093
Loan Interest Payments	1,005
Total Loan Payments	$5,098
Bond Interest Paid	$875
Bond Principal Paid	1,573
Total Bond Payments	$2,448
Net SRF CashFlow	$2,650

EPA Funding: SRF Innovation

Can A Guarantee Product Be Managed Alongside Existing Loan Products?

And Rating Agency Discount of Cashflows for Assumed Credit Risk (Losses):

	(in millions)
Total Loan Payments	$5,098
Less: Total Bond Payments	$2,448
Net SRF CashFlow	$2,650

Less: Triple-A SRF Loan Loss Assumptions	Moody's	S&P	Fitch
(guaranteed portfolio is non-investment grade)			
Maximum Capital Charge	-79%	-65%	-57%
Net Annual Cashflow Available for SRF Guarantees:	$556	$927	$1,139

EPA Funding: SRF Innovation

Can A Guarantee Product Be Managed Alongside Existing Loan Products?

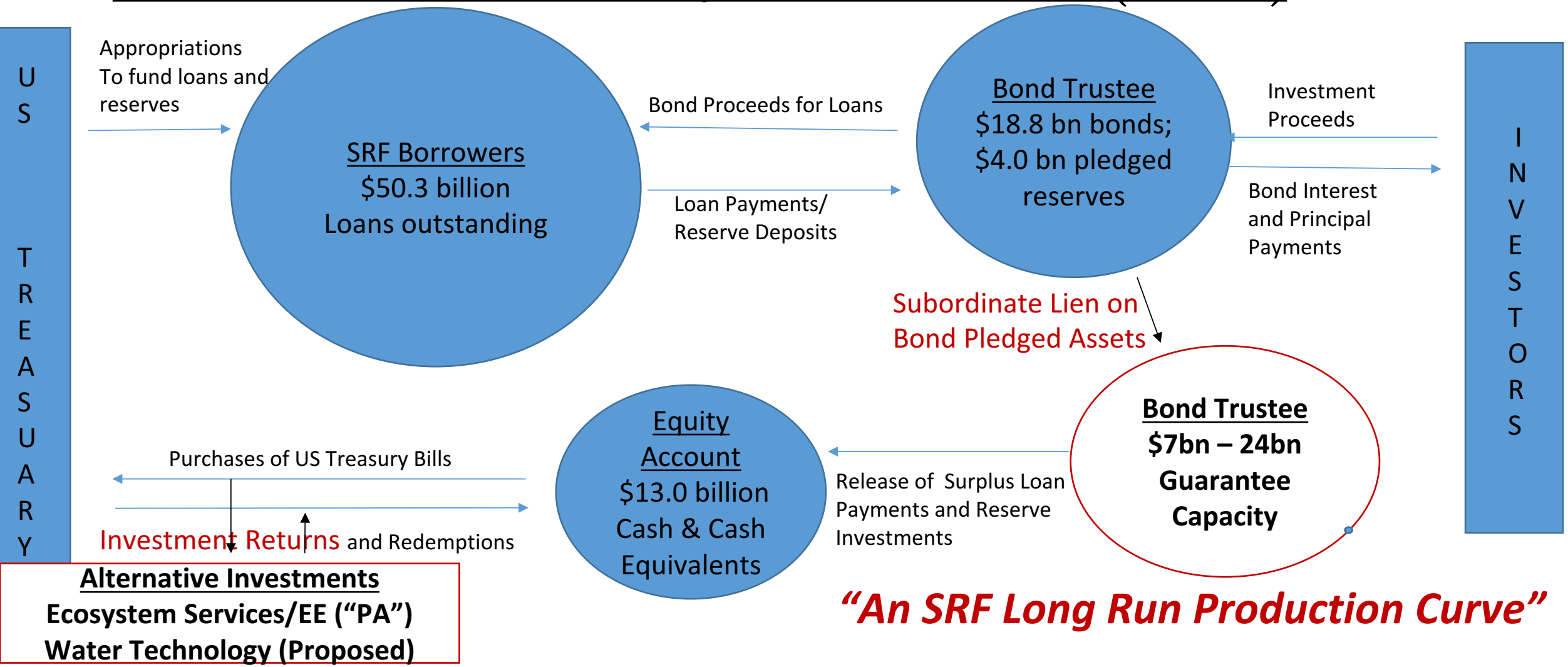
What Does Discounted Cashflow Yield in Terms of Triple-A Rated Guarantee Capacity?:

Terms	Interest Rate	Guarantee Capacity Based on Triple-A Criteria for Non-Investment Grade Portfolio				Guarantee Capacity Based on Triple-A Criteria for Investment Grade Portfolio		
		Moody's	S&P	Fitch		Moody's	S&P	Fitch
		(In Millions)				(In Millions)		
5Yrs	2.5%			$24,115				$81,991
7	2.5	$7,738	$12,534			$7,738	$25,148	
10	3.0	10,388	14,310	25,493		10,388	26,235	63,335
20	4.0	16,652	17,914	24,062		16,652	26,394	41,764

States that do not leverage program resources with bond financing will have guarantee capacity of 1.5x to 2x greater than a state that leverage its program resources

EPA Funding: SRF Innovation

Clean Water SRF Fund Flows/ Financial Position (FY2016)



"An SRF Long Run Production Curve"

A Recent Success Story: New York SRF's Use of the Guarantee

$24 Million New York State Energy Research and Development Authority Residential Energy Efficiency Financing Revenue Bonds, Series 2013A (Federally Taxable), SRF Guaranteed

- The third-party irrevocable, unconditional SRF guarantee of bonds supported lending to commercial and residential energy efficiency projects consistent with State's 319 Plan. Loss reserve held by Collateral Agent, funded from Regional Greenhouse Gas Initiative revenues, covers first loss.
- CWSRF Guarantee benefits from pledge of subordinate lien, available cash & cash equivalents and is cross-collateralized by the Drinking Water SRF
- Underlying assets are unsecured residential loans with credit score and debt-to-income threshold requirements
- Bonds were rated Aaa/AAA/AAA by Moody's, S&P and Fitch, respectively
- Transaction assured market access and superior pricing. Loans benefitted from annual interest cost savings of about 2%.

Why is this Success Story of Value to Water Utilities?

Utilities Can Look to SRF Guarantee to Support Development of Environmental Markets

- Impediments to the development of privately financed P3 solutions for Green Infrastructure stem from concerns about high costs of capital, lack of liquidity and loan seasoning.
- A highly rated SRF guarantee product can address these weaknesses.

Non-Point Source ("NPS") Projects Can Directly Benefit from SRF Supported Credit Enhancement Mechanisms

- NPS Projects tend to rank lower on a state's Project Priority List and are less likely to qualify for traditional SRF financing.
- NPS Projects can be privately owned and still qualify as project eligible under the Clean Water Act. (Point source projects must be publicly owned)
- Prerequisites for NPS Projects to obtain SRF financial support include:
  - Project listing on the SRF Annual Intended Use Plan
  - Categorical project listings on the statewide Section 319 Water Conservation Management or Section 320 Estuary Management Plans
  - Confirmation of project eligibility under the federal Clean Water Act and state enabling legislation
- Guarantee support should improve economics of NPS projects, including green infrastructure and source water protection
- Triple-A pricing benefit can be delivered to private owners while impact of credit risk of private owners on the SRF can be managed with underwriting standards and third-party funded loss reserves