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Clean Water State Revolving Fund What's in it for Watersheds?

Clean Water State Revolving Fund

July 16, 2008, 1:00pm-3:00pm EST

Stephanie vonFeck, USEPA
Patti Cale-Finnegan, Iowa DNR

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Main Messages

- CWSRF funding is available for a surprisingly wide range of watershed projects
- CWSRF loans provide a substantial subsidy
- Not-for-profit watershed groups can
  - access funding
  - influence funding decisions
  - help states fund important projects

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Agenda

- Part 1: What is the CWSRF?
- Part 2: Tapping the Untapped Potential of the CWSRF
- Part 3: Iowa's CWSRF Program: How Iowa reorganized their CWSRF program to address watershed priorities

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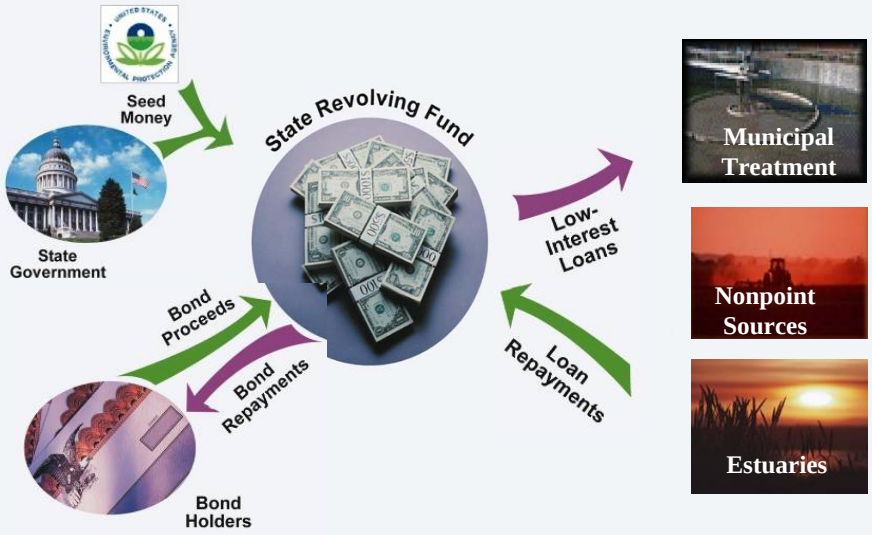
CWSRF: Water Quality Banks



CWSRF Statistics

- All sizes of communities
- All States Fund Wastewater Projects
- 40 States Fund Nonpoint Source Projects

(Billion)	2007	1988 - 2007
Total Assistance	$5.3	$62.9
Wastewater	5.12	59.7
Nonpoint Source	.24	2.6

CWSRF Assistance Eligibility

Who?

- Varies by state, however assistance recipients can include:
  - Communities
  - Utilities
  - Individuals
  - Citizen's groups
  - Nonprofit organizations
  - Businesses

CWSRF Assistance Eligibility

What?

- CWA §**212** projects – construction of publicly owned treatment works (POTWs)
- CWA §**319** projects – implementation of nonpoint source management plans
- CWA §**320** projects – development and implementation of National Estuary Program Comprehensive Conservation Management Plans (CCMP)

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Features of CWSRF Loans

How?

- Loans provided to public and private entities
- Interest rates may range from zero percent to "market rate"
- Loan repayment term generally 20 years

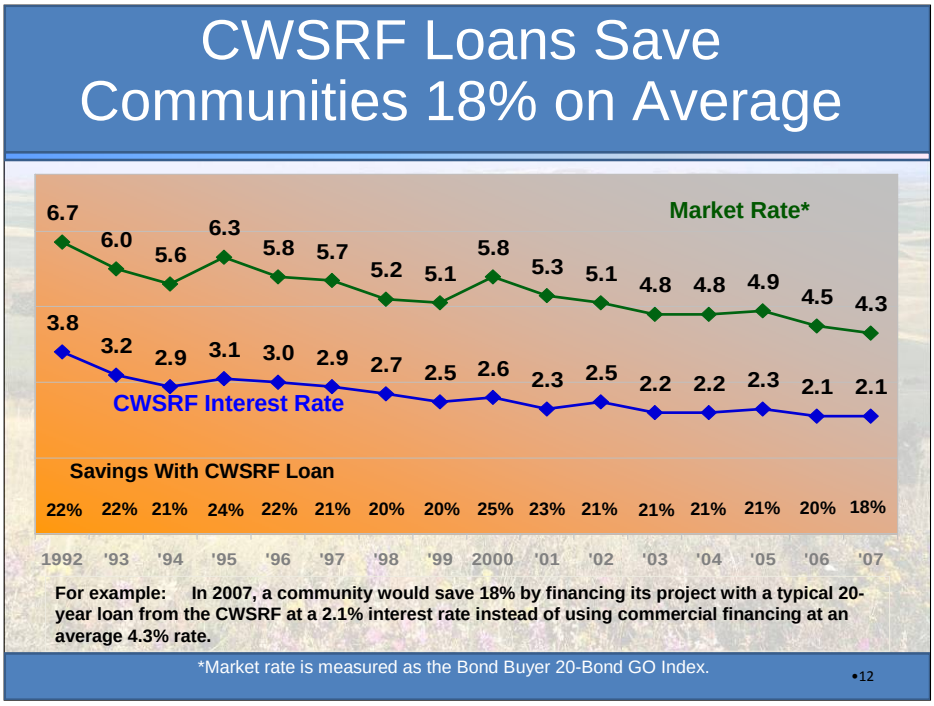
Features of CWSRF Loans

- Dedicated repayment source must be established
  - **Repayments don't have to come from the project itself!!**
- All repayments must return to the SRF (principal and interest)
- Repayments start one year after project completion – this is an additional subsidy
- No project match

Will the CWSRF Be Available in the Future?

✓ Yes – Because it is revolving…

The revolving nature of the CWSRF program ensures that funds will be available for the foreseeable future.



Major factor contributing to the success of the program is the stimulus provided by the lower than market interest rates that provide a substantial subsidy to borrowers.

CWSRF offers about a 3 percentage point break from market rates.

And CWSRF interest rates generally track changes in market rates.

In 2001, the average CWSRF interest rate was 2.4% compared to a 5.3% market rate.

This means that a community would save 23% by financing its project with a typical 20-year loan from the CWSRF at a 2.4% interest instead of using commercial financing at an average 5.3% rate.

Grant Equivalence

		CWSRF Rate						
		0.0%	1.0%	2.0%	3.0%	4.0%	5.0%	6.0%
Market Rate	5.0%	38%	31%	24%	16%	8%	0%	-9%
	6.0%	43%	36%	30%	23%	16%	8%	0%
	7.0%	47%	41%	35%	29%	22%	15%	8%
	8.0%	51%	46%	40%	34%	28%	21%	14%
	9.0%	54%	49%	44%	39%	33%	27%	20%

For example, when the market rate is 5.0%, a 2.0% CWSRF loan to a $1 million project is equivalent to a $240,000 grant and a $760,000 loan at the market rate

A State Run Program

- States and Puerto Rico
  - Set priorities
  - Select Projects
  - Develop Annual Intended Use Plans
  - Provide financing
  - Oversee Projects
  - Collect Repayments
- EPA
  - Provides Oversight
  - Promotes Efficient and Effective Use of the Funds

Questions?

Stephanie vonFeck

Environmental Protection Specialist

USEPA's State Revolving Fund Branch

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- Part 1: What is the CWSRF?
- **Part 2: Tapping the Untapped Potential of the CWSRF**
- Part 3: Iowa's CWSRF Program: How Iowa reorganized their CWSRF program to address watershed priorities

CWSRF: Tapping the Untapped Potential

- Strong base of past performance and high expectations for continued success
- Are there new challenges to address?
- Can we reach an even higher level of CWSRF performance?

CWSRF: Tapping the Untapped Potential

- Increase benefits from the CWSRF program by using the flexibility of the legislation to direct assistance to where they are needed most
  - Consider the wide range of eligible projects
  - Design financing options that help direct financial assistance to these projects
- EPA Draft White Paper "The Clean Water State Revolving Fund: Tapping the Untapped Potential"
- Paper revisits the eligible uses of CWSRF
  - What eligible uses are not currently being employed?
  - How can we maximize the environmental and public health benefits using the financial tools of the CWSRF?

CWSRF: Tapping the Untapped Potential

- Financial Innovations
  - Addressing Program Priorities
- Program Eligibilities: A fresh look at what the CWSRF can fund
  - CWA § 212 (Publicly-Owned Treatment Works)
  - CWA § 319 (Implementation of a Nonpoint Source Management Plan)
  - CWA § 320 (Development and Implementation of a National Estuary CCMP)
- Effective Planning and Outreach

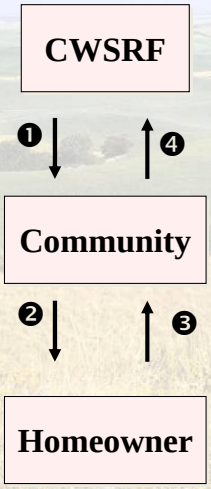
Financial Innovations

- 6 Types of CWSRF financial assistance:
  - CWSRF loans – terms of up to twenty years, interest rates from 0% to market rate
  - Buy or refinance local debt
  - Guarantees and insurance for local debt
  - Security for CWSRF revenue or general obligation bonds
  - Guarantees for loans issued by sub-state revolving funds
  - Earn interest
- "CWSRF: Tapping the Untapped Potential" looks at innovative and unused financial and institutional arrangements that demonstrate the flexibility of the CWSRF program
- **Rising Tide – More CWSRF Assistance for More Projects**

Intermediaries

- **Loan to an intermediary**
  - local government or watershed group
  - acts as an intermediary for one or more local watershed restoration/protection projects
  - provides loans or grants for local projects
  - repays CWSRF loan to State
    - e.g., septic tank upgrades at homes
    - e.g., agriculture BMPs
- **Partner with bank**
  - Linked-deposit loans
  - Targeted to nonpoint source projects

Massachusetts' Septic Program



❶ **CWSRF provides 0% loan to community as capital for local septic system repair loan program**

❷ **Community makes low-interest loan to homeowner**

❸ **Homeowner repays loan to community**

❹ **Community repays loan to CWSRF**

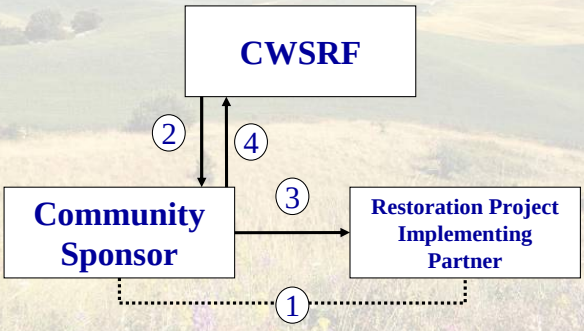
- **Loan fees cover community administration expenses**

Sponsorship

- **Pair §319 project with a §212 project**
  - Utility sponsors a nonpoint source project in exchange for a favorable CWSRF interest rate
    - Ohio, Oregon, Indiana
  - Utility constructs POTW improvements; nonpoint source project implementer conducts restoration / protection activities
  - Community repays principal and interest to the CWSRF
  - No repayment by nonpoint source project implementer to utility or CWSRF

Oregon's Water Resource Restoration Sponsor Program

1. **Community and implementing partner enter into sponsorship agreement**
2. **CWSRF Provides funding to community for wastewater treatment & restoration projects**



3. **Community provides CWSRF funding for sponsored restoration project**
4. **Community repays low-interest loan to CWSRF**

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Creative Use of Fees

- **States can adopt loan fees**
  - Incentive grants for targeted projects
  - Guarantees for green infrastructure and other innovative technology
  - Purchase performance insurance (as construction cost) for "green" technologies
  - Technical assistance grants
  - Planning grants
  - Grants to hardship communities or to alleviate project costs

And many more…..

Role for Watershed Groups

- **Access Funding**
  - Get a CWSRF Loan
  - Serve as an Intermediary for CWSRF loans
- **Influence Decisions**
  - Share watershed plans with CWSRF
  - Comment on CWSRF priority system and Annual Intended Use Plan (IUP)
- **Broker**
  - Bring worthy projects to the CWSRF
  - Bring the CWSRF to watershed projects

Program Eligibilities - §212

Principles:

- All projects must be consistent with the definition of “treatment works” as set forth in section 212
- All section 212 projects must be publicly owned
- All section 212 projects must serve a public purpose

Program Eligibilities - §319

Principles:

- Support a component of an approved § 319 Nonpoint Source Management Plan or the nine element watershed plans required by the § 319 program
- Publicly or privately owned
- Not specifically required by a draft or final NPDES permit.

Program Eligibilities - §319

Principles (Continued):

- Eligible costs are limited to capital costs
- Direct water quality benefit required
  - Only the portions of a project that remediate, mitigate the impacts of, or prevent water pollution should be funded
- Point source solutions to nonpoint source problems are eligible as CWSRF nonpoint source projects

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Program Eligibilities - §320

Principles:

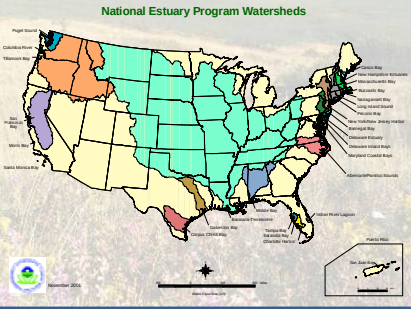
- All § 320 projects implement an approved § 320 CCMP
- Publicly or privately owned
- Limited to capital costs
- Direct benefit to the water quality of an estuary
- Only the portions of a project that remediate, mitigate the impacts of, or prevent water pollution in the estuary watershed should be funded

Program Eligibilities - §320

- CWSRF authority to develop and implement §320 Comprehensive Conservation Management Plans under the National Estuary Program
- Coverage area:
  - To date, funding had been limited to the study area for the CCMP:

Program Eligibilities - §320

- Coverage Area (Continued):
  - However, the definition of "estuarine zones" from CWA 104 (n)(4) allows for a broader geographical scope than the study area for the CCMP.



CWSRF Can Fund:

- Wastewater
- Stormwater
- Water Conservation and Reuse
- Energy Conservation and Production
- Decentralized Wastewater
- Source Water Protection
- Land Conservation
- Contaminated Site Cleanup
- Agriculture BMPs
- Atmospheric Deposition
- ….and many more

Wastewater

- §212: Projects at publicly owned wastewater treatment works
- §320: Projects at privately owned community wastewater treatment works

Stormwater

- **Traditional pipe, storage, and treatment systems**
  - Public (§212) and public or private (§320)
  - §319: Public or private projects that are not required by draft or final NPDES permit
    - go beyond the NPDES permit
- **Green stormwater infrastructure**, including:
  - Green roofs,
  - Infiltration basins,
  - Curb cuts and landscaped swales
  - Wetland protection and restoration

Stormwater

- **Right-of-ways for green infrastructure** are eligible for CWSRF funding since the land is integral to the stormwater treatment process
  - Stormwater projects can overlap with wastewater collection projects
- §320-Specific Projects
  - Storm resistant shelters to protect permitted, privately-owned operations from stormwater exposure
  - Low impact development practices that reduce post-development stormwater discharge that are required by an NPDES permit

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Are these really 320 only or is the paper misleading?

Stormwater Example

- Cohasset, Massachusetts
  - CWSRF Loan combined with 319 Nonpoint Source Grant
  - Loan repaid from Water Department revenues
  - 45 rain garden bioretention cells as well as vegetated swales
    - Reduce contaminants in stormwater runoff
    - Infiltrate stormwater
    - Reduce the volume of stormwater runoff
  - Surface Water Supply Protection Plan
    - Treats stormwater runoff before it enters the cities stormwater collection sewers
  - MA Smart Growth Award

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Water Conservation and Reuse Urban

- Eligible under §212 (public) and §320 (public and private)
- Before a POTW
  - projects to reduce water use
    - Water meters
    - Plumbing device retro-fit
  - stormwater treatment and reuse
- At a POTW
  - Wastewater treatment up to and including water quality sufficient to meet drinking water standards
- After a POTW
  - distribution lines to support effluent reuse/recycling uses, including piping the effluent to the effluent consumer
  - equipment to reuse effluent

Water Conservation and Reuse

- Cheyenne, Wyoming
  - $40 million CWSRF loan to renovate and upgrade water reclamation facilities to remove ammonia
  - Reclaimed water meets WDEQ standards for land application to irrigate green spaces in the community
    - Golf courses
    - Ball fields
    - Greenways
  - Conserves water
  - Extends the life of the City's constructed water treatment facility

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Water Conservation and Reuse Rural

- Eligible under §319 and §320
- Capital projects to reduce the water use and diffuse discharge of nonpoint source pollution
  - e.g., efficient irrigation equipment for farmers
- Incentive programs to conserve water
  - Including development and implementation of public education programs on water conservation and efficiency

Water Conservation and Reuse

- Sediment Reduction in the Yakima River Basin, WA
- Roza-Sunnyside irrigation districts joint board recipient of $1.3 million NPS grant and $10 million CWSRF loan

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Energy Conservation and Efficiency

- Eligible under §212 and §320
- Power Consumption
  - Energy efficient equipment at POTWs
    - Planning activities, such as energy audits, that have a reasonable prospect of resulting in a capital project
  - Pro-rata share of capital costs of offsite publicly owned clean energy facilities that provide power to a POTW
- Power Production
  - Capital costs of energy generated onsite by a POTW
  - e.g., clean energy, methane capture from digesters
- Under §320, energy conservation projects at privately owned wastewater treatment works are eligible

Energy Conservation and Efficiency

- Atlantic County, New Jersey
  - $2.25 million CWSRF loan to install solar panels at its wastewater treatment facility
  - 660,000 kilowatt hours of electricity generated each year
    - Equal to electricity for 62 homes or 388 barrels of crude oil per year
  - Energy cost savings projected at $115,000 per year

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Failing Decentralized Wastewater Systems

- Eligible under §319 and §320
- Upgrade or replacement of failing decentralized wastewater systems
- The portion of a privately-owned centralized wastewater treatment works that is associated with the collection and treatment of effluent from properties with failing decentralized systems
  - Including the house lateral connecting homes with failing septic tanks to treatment works

Failing Decentralized Wastewater Systems

- Westmoreland County, Pennsylvania
  - $2.7 million CWSRF loan to McCutcheon Enterprises, Inc. to build a bio-solids treatment facility
  - PA DEP regulations require treatment of septic tank bio-solids prior to land application
  - Facility serves 8,000 rural and suburban properties with septic tanks
  - §319 project because it prevents the nonpoint source problem of failing septic tanks.

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Source Water Protection

- Eligible under §319 and §320

- Actions to protect sources of drinking water
  - Tree plantings and other protection activities that take place in a well head protection area or surface water drainage area
  - Land purchase and easements for buffers, reservoirs, as well as the impoundment or dam

Land

- Eligible under §319 and §320
- Land purchase and easements for water quality purposes
- San Francisco, California
  - The Nature Conservancy used $17 million in CWSRF loans to partially finance the acquisition of three properties that provided significant watershed restoration and preservation
  - Project conserved the watersheds by protecting the land from
    - Overgrazing, urban encroachment, vineyard conversion
  - Project protected the Palo Corona Ranch from imminent development that would have increased sedimentation and stormwater runoff, and threatened to impair coastal and aquatic resources

Contaminated Sites

- Eligible under §212, §319 and §320
- Capital projects to clean up contaminated sites that impact surface or ground water quality
  - Site Assessment
  - Soil, Groundwater and Surface Water Cleanup or Disposal
  - Tank removal and replacement
  - Monitoring Wells
- Brownfields and Superfund Sites
- Underground Storage Tanks
- Abandoned mines
- Landfills
- Payment of premiums for environmental insurance
  - If the construction and insurance policy are for water quality related projects

Animal Feeding Operations (AFOs)

- Eligible under §319 and §320
- Not regulated as Point Sources (not CAFOs)
- Water quality BMPs at AFOs
  - Manure containment, calibratable spreaders
- Entity that treats or makes beneficial use of that is no longer under control of a CAFO
  - E.g., manure digester and methane capture technology to produce energy

Animal Feeding Operations (AFOs)

- Medium or small AFO that is de-listed from CAFO status by a state can refinance debt used for water quality work to remove the characteristics that made it a CAFO
  - i.e. fence and bridges to keep animals out of water body
  - Loan recipient is no longer a CAFO at the time of the binding commitment

Concentrated Animal Feeding Operations (CAFOs)

- Eligible under §320
- Privately owned, regulated manure management projects on CAFOs that are required by NPDES permits

Atmospheric Deposition

- Eligible under §319 and §320
- Projects to prevent the emission of air pollutants where there is a causal link between manmade air pollution and water quality
  - E.g., mercury and nitrogen deposition are a contributor to water body impairments
- Cost of installing mercury or nitrogen reducing technologies at public or private sources

And many more…..

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Main Messages

- CWSRF funding is available for a surprisingly wide range of watershed projects
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Join Us on July 23rd from 1:00pm - 3:00pm EST for a Watershed Academy Webcast on:

Green Streets: From Gray Funnels to Green Sponges

Visit: epa.gov/watershedwebcasts

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NRCS Photo

Clean Water STATE *REVOLVING* FUND

What's in it for Iowa Watersheds?

Patti Cale-Finnegan

SRF Coordinator

Iowa Department of Natural Resources

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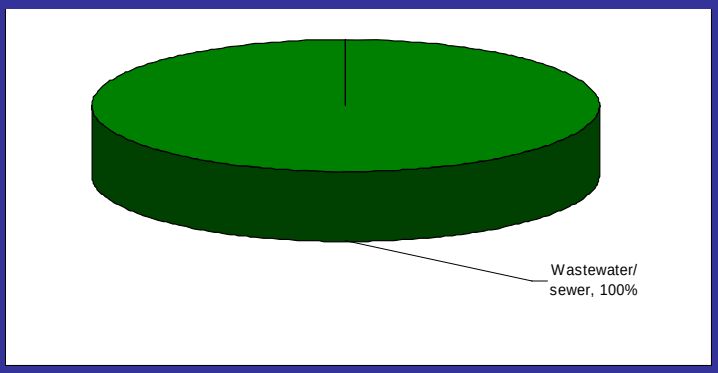
Before 2003



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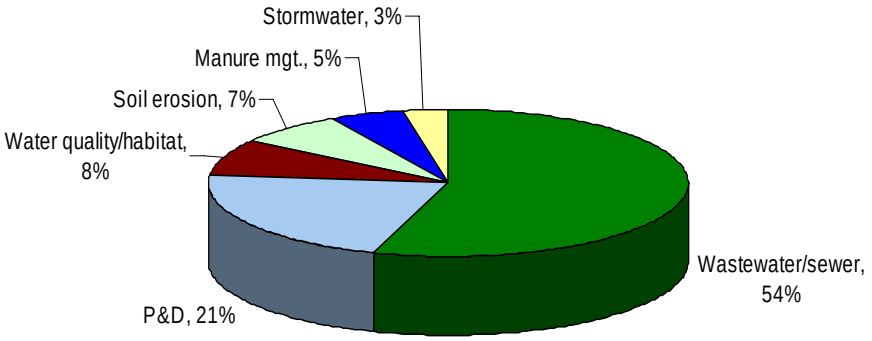
Now



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How did we get here?

NRCS Photo

- Iowa is an agricultural state
- 75% of water pollution estimated to be from nonpoint sources
- Grant funding limited

How did we get here?

- Clean Water State Revolving Fund was underutilized
- Funds available for point source and nonpoint source uses
- Stakeholders and DNR worked together to expand the program

How did we get here?

- Clean Water Act allows loans for watershed and estuary protection
- Previous Iowa law – loans only for publicly owned wastewater facilities
- Enabling legislation in 2002 allowed private borrowers and loans for nonpoint source projects

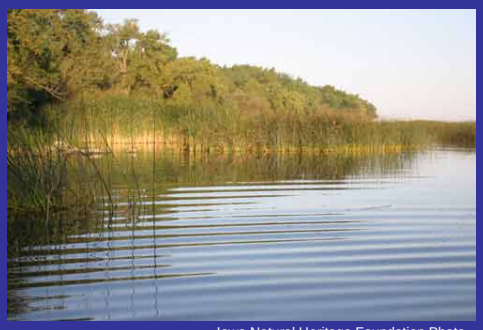
How did we get here?

- Administrative rules adopted - 2003
- Created 4 separate programs to target needs identified in Iowa's 319 watershed improvement plan
- State Revolving Fund coordinator hired – 2004

How did we get here?

- Iowa Finance Authority took on more active role in SRF
- Set up linked deposit approach using participating lenders
- Identified most appropriate agencies and mechanisms to deliver programs – not just DNR

Nonpoint Source Programs



Iowa Natural Heritage Foundation Photo

- Projects approved by environmental agency
- Financing approval by participating lender
- Linked deposit – funds placed in banks at 0% interest

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Nonpoint Source Programs

NRCS Photo

- Maximum interest rate charged by lenders – 3%, no fees
- Funding set aside in Intended Use Plan
- Can be used with cost-share or grants

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Nonpoint Source Programs

- **Lender sign-up and loan approvals are done on-line**

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Nonpoint Source Programs

- On-Site Wastewater Systems - 2003
- Local Water Protection - 2004
- General Nonpoint Source - 2004
- Livestock Water Quality Facilities - 2005

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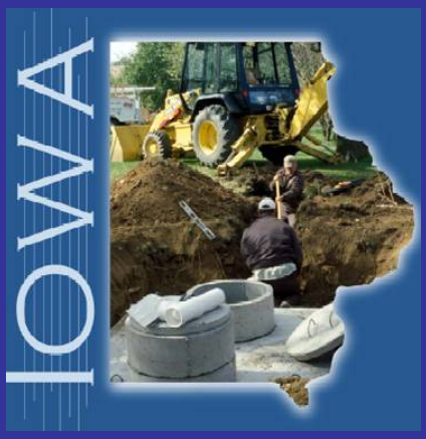
On-Site Wastewater Needs



DNR Illustration

- **Approximately 100,000 inadequate septic systems**
- **Some discharge directly to tile lines or ditches**

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On-Site Wastewater Loans

DNR Illustration

- **Only for homeowners in unincorporated areas**
- **Projects certified by sanitarians in participating counties**

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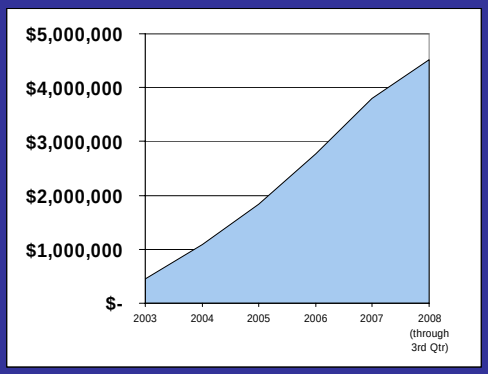
On-Site Wastewater Loans



- 93 out of 99 counties participating
- 800 loans since 2003
- Loan total now $4.5 million
- Average loan - $6,400

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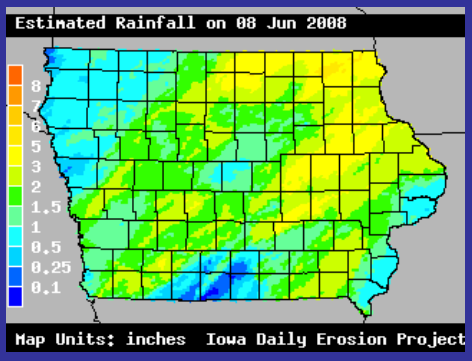
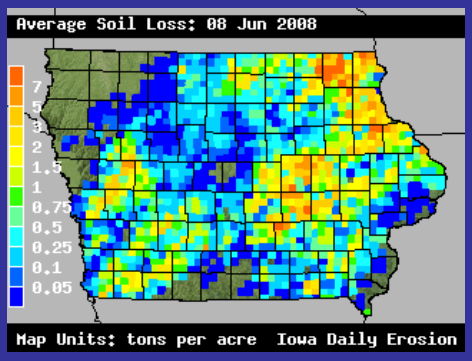
Soil Erosion Needs





- **Sediment and phosphorus transport is major problem**

Maps used by permission of Iowa Environmental Mesonet

Local Water Protection

NRCS Photo

- Terraces
- Grade stabilization structures
- Grassed waterways
- Filter strips
- Rotational grazing

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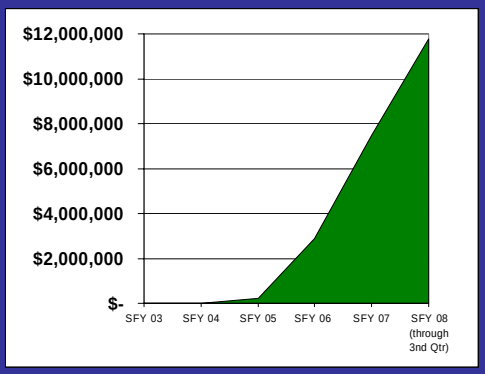
Local Water Protection



- 57 out of 100 districts participating
- 75% of borrowers also received cost-share
- Loan total now $11.7 million
- Loan range - $5,000-$50,000

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General Nonpoint Needs

City of Storm Lake Photo

- Stormwater management
- Wetlands
- Lake restoration
- Brownfield remediation
- Riverine corridors
- Landfill closure

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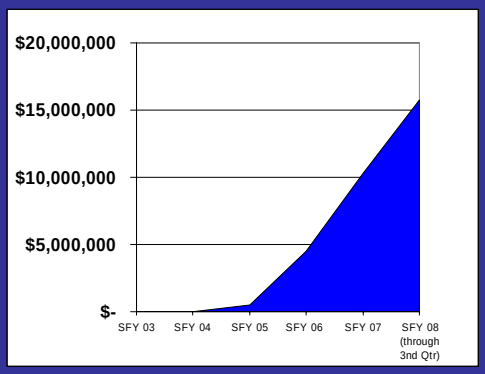
General Nonpoint Loans



- Twelve loans since 2004
- Loan total now $15.8 million
- Project costs ranged from $6,500 to $6 million

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Manure Management Needs

NRCS Photo

- 1,430 open feedlots under 1,000 animal units (AUs)
- Facilities over 1,000 AUs not eligible
- Iowa Open Feedlot Plan to bring facilities into compliance

Livestock Water Quality

NRCS Photo

- Manure management plans
- Solids settling
- Manure storage
- Vegetative filter strips
- Equipment

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Livestock Water Quality

Iowa State University Photo

- Can fund replacement facilities for water quality improvement
- Recently began financing deep-bedding buildings

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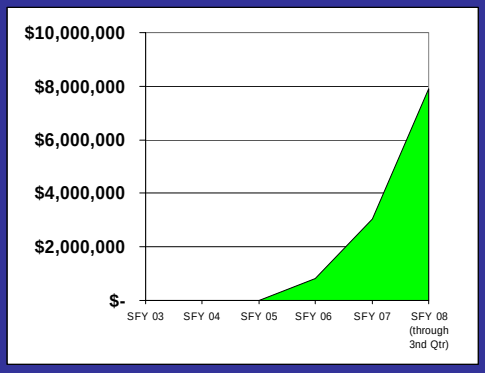
Livestock Water Quality



- 109 loans since 2005
- Loan total now $7.8 million
- Average loan - $65,000
- Most high-cost projects also have EQIP

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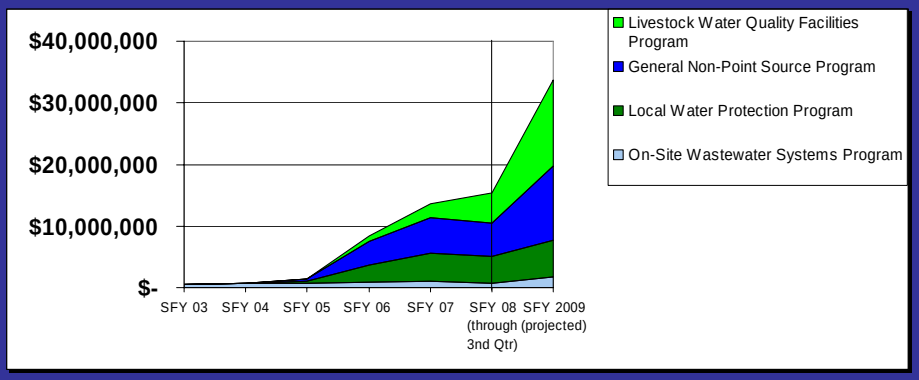
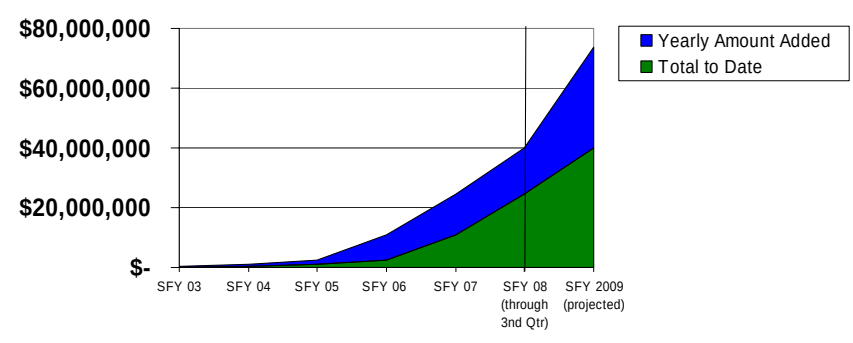
Where do we go from here?



IOWA Clean Water STATE *REVOLVING* FUND

Where do we go from here?



Where do we go from here?

PCF Photo

- Financial analysis
- Rework integrated project priority system
- Determine highest priorities within program areas
- Better understand borrower attitudes

Clean Water STATE *REVOLVING* FUND

Questions?

Patti Cale-Finnegan
SRF Coordinator
Iowa Department of Natural Resources

Interested in Finding Out More? Check Out Our List of Additional Resources!

http://www.clu-in.org/conf/tio/owcwasrf/resource.cfm

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