

## State Water Facilities Plan Applicants

Project Sponsor	Description	Estimated Total Project (\$)	Recommendation
Aurora-Brule Rural Water System	System Capacity Improvements	\$4,500,000	Place on Facilities Plan
Blunt	Water System Improvements	\$645,000	Place on Facilities Plan
Bridgewater	Storm Sewer Collection and Water Meter Replacement	\$2,583,000	Place on Facilities Plan
Clark Rural Water System	System Improvements, Connections to Bradley and Willow Lake	\$3,000,000	Place on Facilities Plan
Crooks	Palmira Sanitary Sewer and Watermain Replacement	\$3,264,300	Place on Facilities Plan
Elk Point	Douglas Street Utility Improvements	\$788,000	Place on Facilities Plan
Fort Pierre	Wastewater Treatment Facility Improvements	\$3,930,000	Place on Facilities Plan
Frederick	Wastewater Improvements	\$2,988,000	Place on Facilities Plan
Hot Springs	Water System Supply and Storage	\$3,850,000	Place on Facilities Plan
Hot Springs	Houston Avenue Sewer Replacement	\$197,000	Place on Facilities Plan
Humboldt	Wastewater Improvements Phase 2 and Water Meter Replacement	\$3,959,000	Place on Facilities Plan
Huron	Wastewater Treatment Facility Improvements	\$5,706,000	Place on Facilities Plan
Lake Norden	Water System Improvements	\$3,000,000	Place on Facilities Plan
Lake Poinsett Sanitary District	Sanitary Sewer Collection and Treatment Extension	\$10,000,000	Place on Facilities Plan
Lake Preston	Wastewater Collection System Improvements	\$4,200,000	Place on Facilities Plan
McIntosh	Wastewater System Improvements	\$2,005,000	Place on Facilities Plan
Oelrichs	Water System Improvements	\$412,470	Place on Facilities Plan
Philip	Wastewater and Storm Sewer Improvements	\$1,850,000	Place on Facilities Plan

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Piedmont	Water Tower and Well Construction	\$2,200,000	Place on Facilities Plan
Piedmont	Wastewater Collection and Treatment System Construction	\$4,500,000	Place on Facilities Plan
Presho	Main Street Utility Improvements	\$1,968,535	Place on Facilities Plan
Pukwana	Sanitary Sewer Improvements	\$1,742,555	Place on Facilities Plan
Ree Heights	Water System Improvements	\$509,000	Place on Facilities Plan
Sioux Rural Water System	2018 System Improvements	\$11,321,000	Place on Facilities Plan
Tea	First Street and Ceylon Water and Sewer Extension	\$1,653,000	Place on Facilities Plan
Tea	Brian Street Water and Sewer Extension	\$3,042,000	Place on Facilities Plan
Wessington Springs	Water Meter Replacement	\$568,000	Place on Facilities Plan

# SFY 2017 State Revolving Fund Investment Returns Overview

Board of Water & Natural  
Resources

November 9, 2017

# Investment Agreements

Bond Issue	Provider	Interest Rate	Cap on Investment In Revenue Fund	Amount Invested as of June 30, 2017	Termination Date
1996	MBIA Inc.	6.22%	\$15,000,000	\$1,832,503	August 1, 2017
2001 & 2004	AIG Matched Funding Corp. (guaranteed by American International Group, Inc)	5.07%	\$60,000,000	\$62,425,594	August 1, 2025
2005	AIG Matched Funding Corp. (guaranteed by American International Group, Inc)	4.41%	\$80,000,000	\$83,158,711	August 1, 2026
Total				\$147,416,808	

## SFY2017 Interest deposited from the Investment Agreements

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1996 MBIA	\$99,425
2001 & 2004 AIG Matched Funding Corp.	\$3,045,340
2005 AIG Matched Funding Corp.	\$3,537,532
Total	\$6,682,297

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# Other Investment Accounts

<b>Provider</b>	<b>Amount Invested as of June 30, 2017</b>	<b>Interest Deposited in SFY2017</b>
SD Cash Flow Fund	\$0	\$272,014
U.S. Treasury Notes & Federal Agency Bonds (Cost)	\$48,161,499	\$267,866
Federated US Treasury Cash Reserves Fund	\$37,299,118	\$129,921
Totals	\$85,460,617	\$669,801

# SRF Investments Summary

## SFY 2017

<u>Investment</u>	<u>June 30, 2017 Balance</u>	<u>Interest Deposits</u>	<u>Interest</u>
MBIA due 8-1-2017 @ 6.22%	\$1,832,503	\$99,425	6.22%
AIG 01/04 due 8-1-2025 @ 5.07%	\$62,425,595	\$3,045,340	5.07%
AIG 05 due 8-1-2026 @ 4.412%	\$83,158,711	\$3,537,532	4.41%
SD Cash Flow Fund	\$0	\$272,014	1.25%
U.S. Treasury Notes & Federal Agency Bonds (Cost Value)	\$48,161,500	\$267,866	0.38%
Federated US Treasury Cash Reserves Fund (Money Market)	<u>\$37,299,118</u>	<u>\$129,921</u>	0.35%
	<b>\$232,877,427</b>	<b>\$7,352,098</b>	
Outstanding SRF Obligations	<b>\$209,562,612</b>		
Unobligated SRF Trust Funds	<b>\$23,314,815</b>		

# State Revolving Fund Loan Programs

## Loan Portfolio Information

- 401 Loans in Repayment with an outstanding principal loan balance of \$417,317,013

## Loan Repayments in SFY 2017

- Total \$45,120,594
- Principal \$33,647,159
- Interest \$9,167,799
- Admin Surcharge \$2,305,636

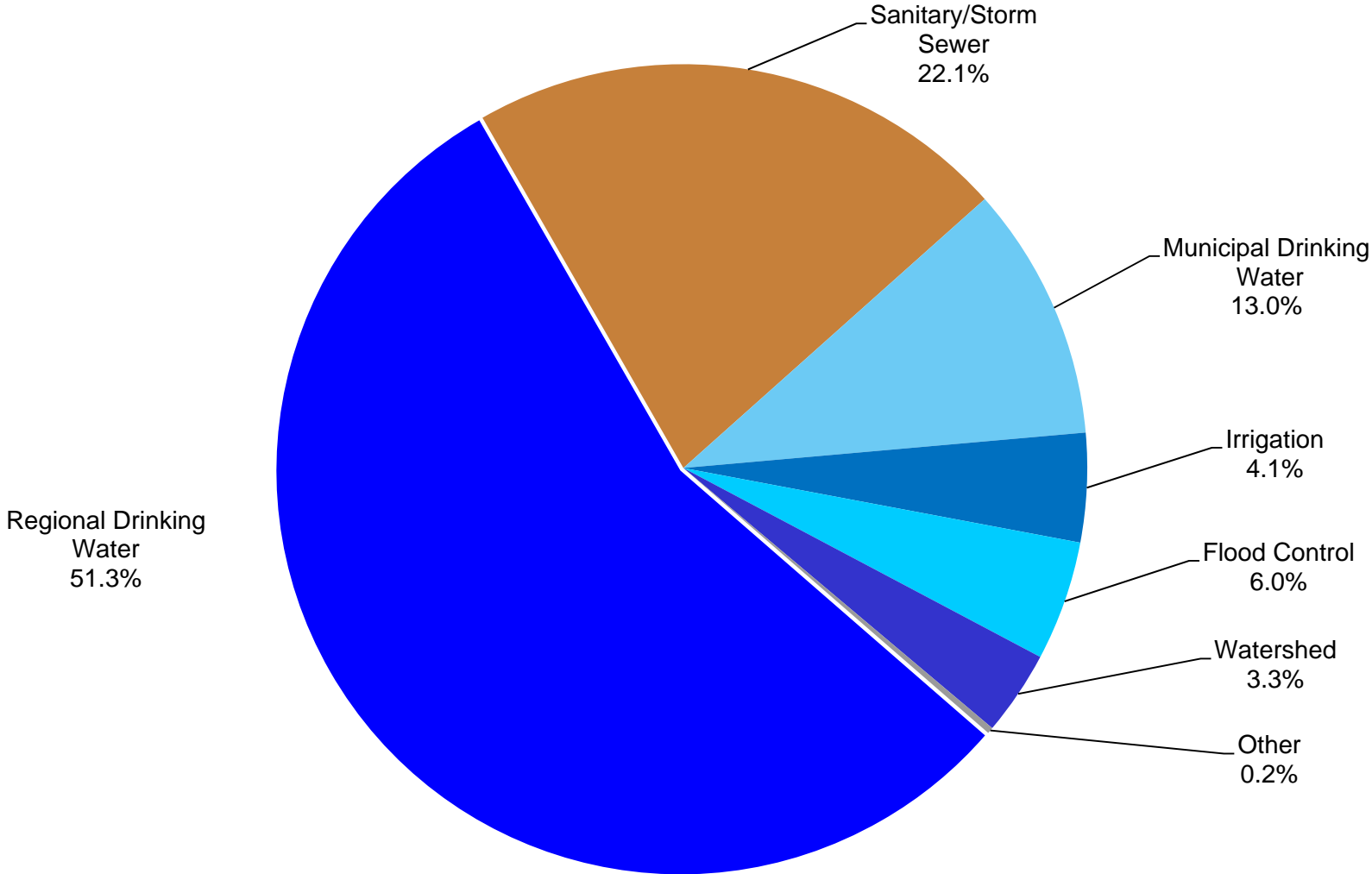


# 2018 Omnibus Bill Funding Recommendations

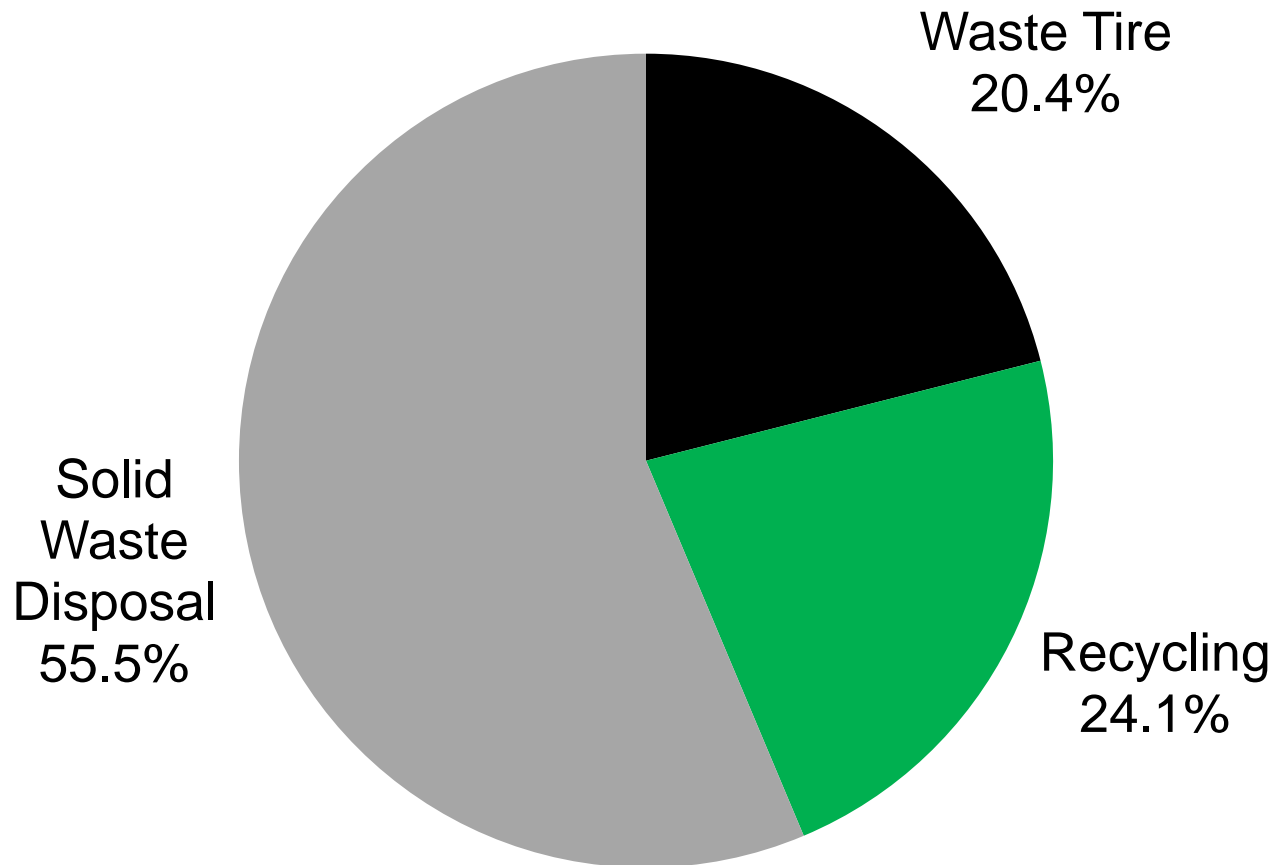
Board of Water & Natural  
Resources

November 9, 2017

# Dedicated Water Funding \$235.4 Million 1993-2017



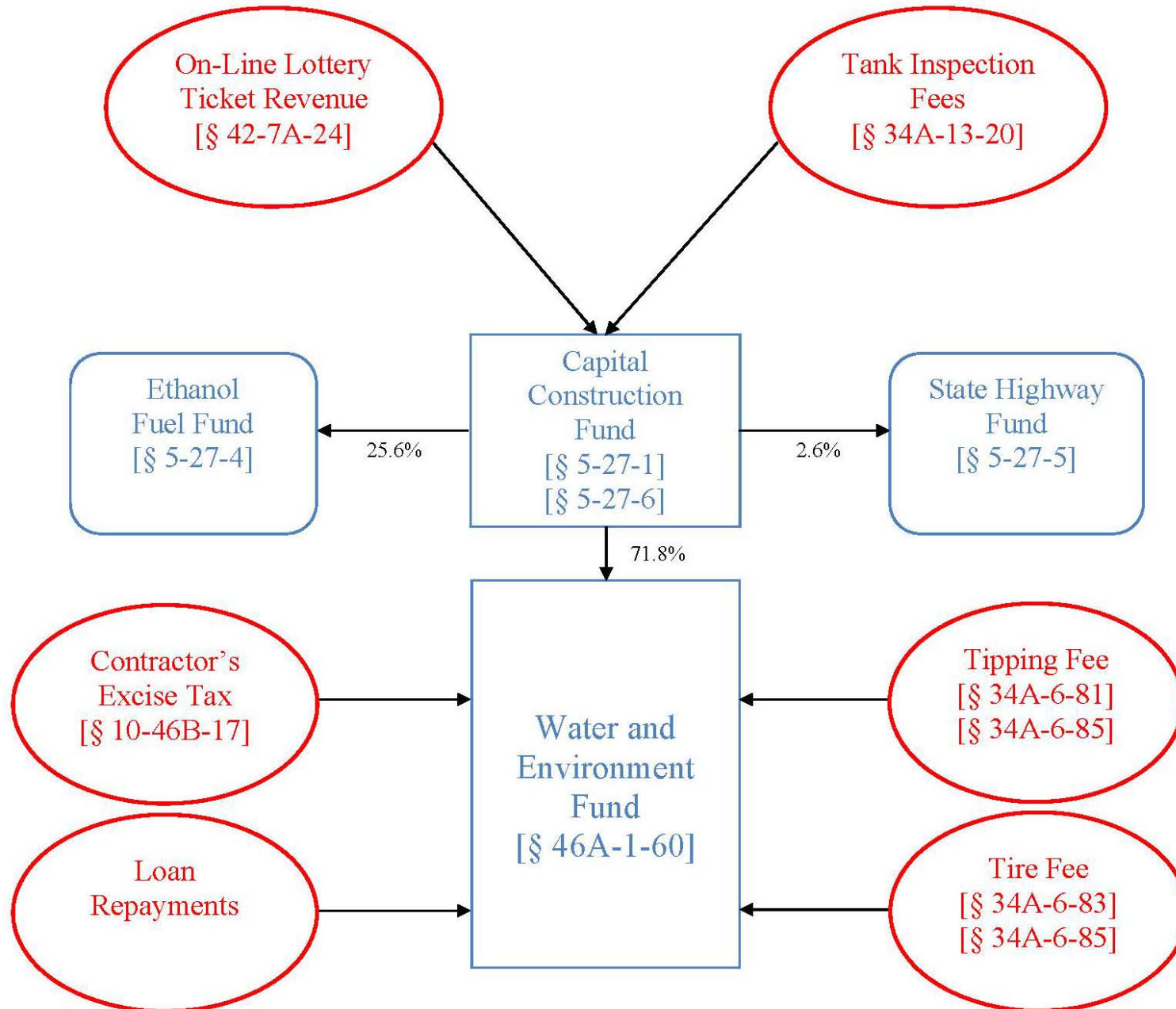
**Dedicated Solid Waste Fees**  
**\$50.3 Million**  
**1992-2017**



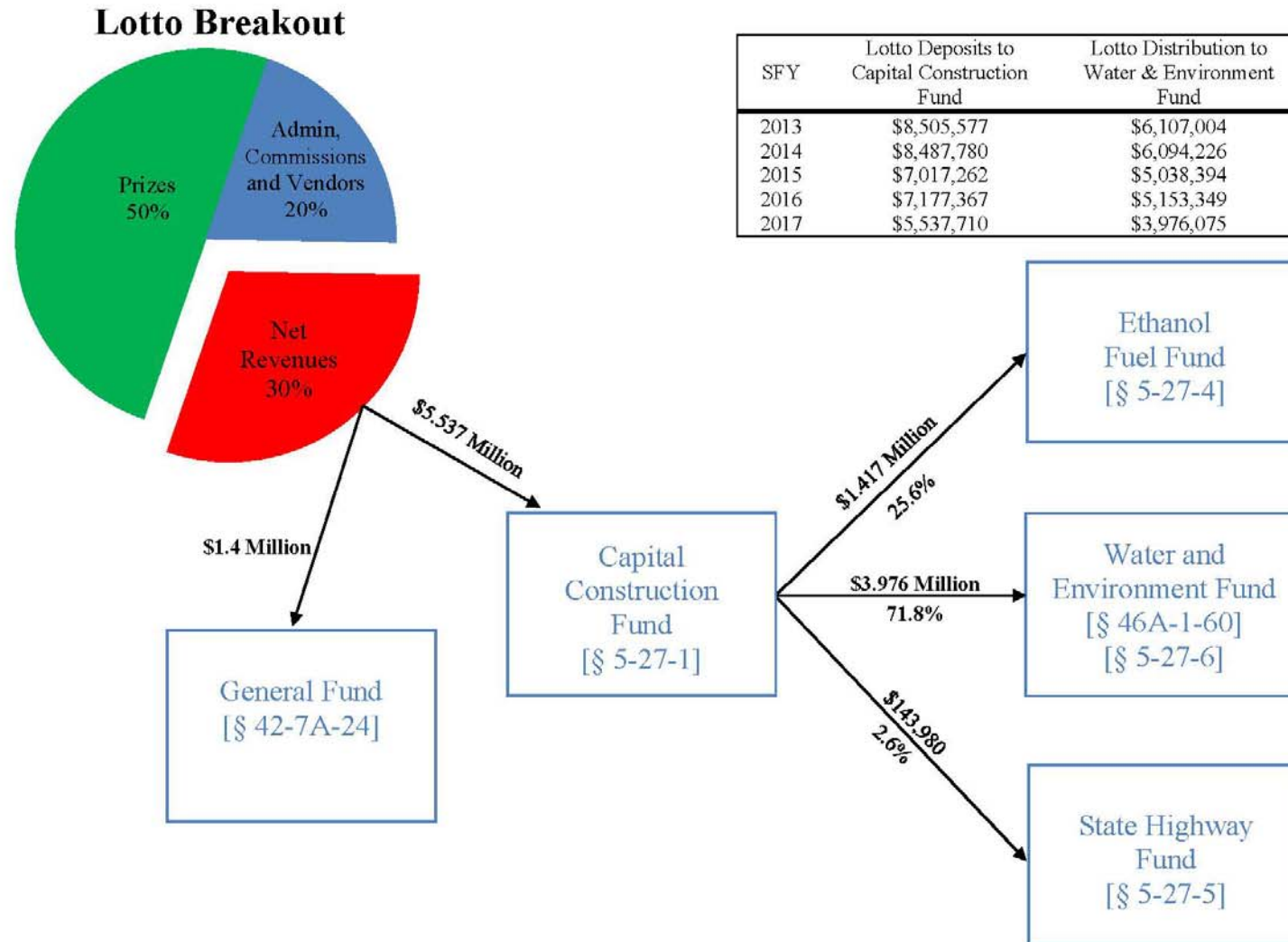
# 2018 Omnibus Bill

- Authorizes **Special Appropriations** for State Fiscal Year 2019
- Available for four fiscal years (i.e., through 30-Jun-2022)
- Based on actual revenues received through 30-Jun-2017
- Revenue projections for SFY 2018 and 2019 used to estimate available funds

# Water and Environment Fund Flow Chart

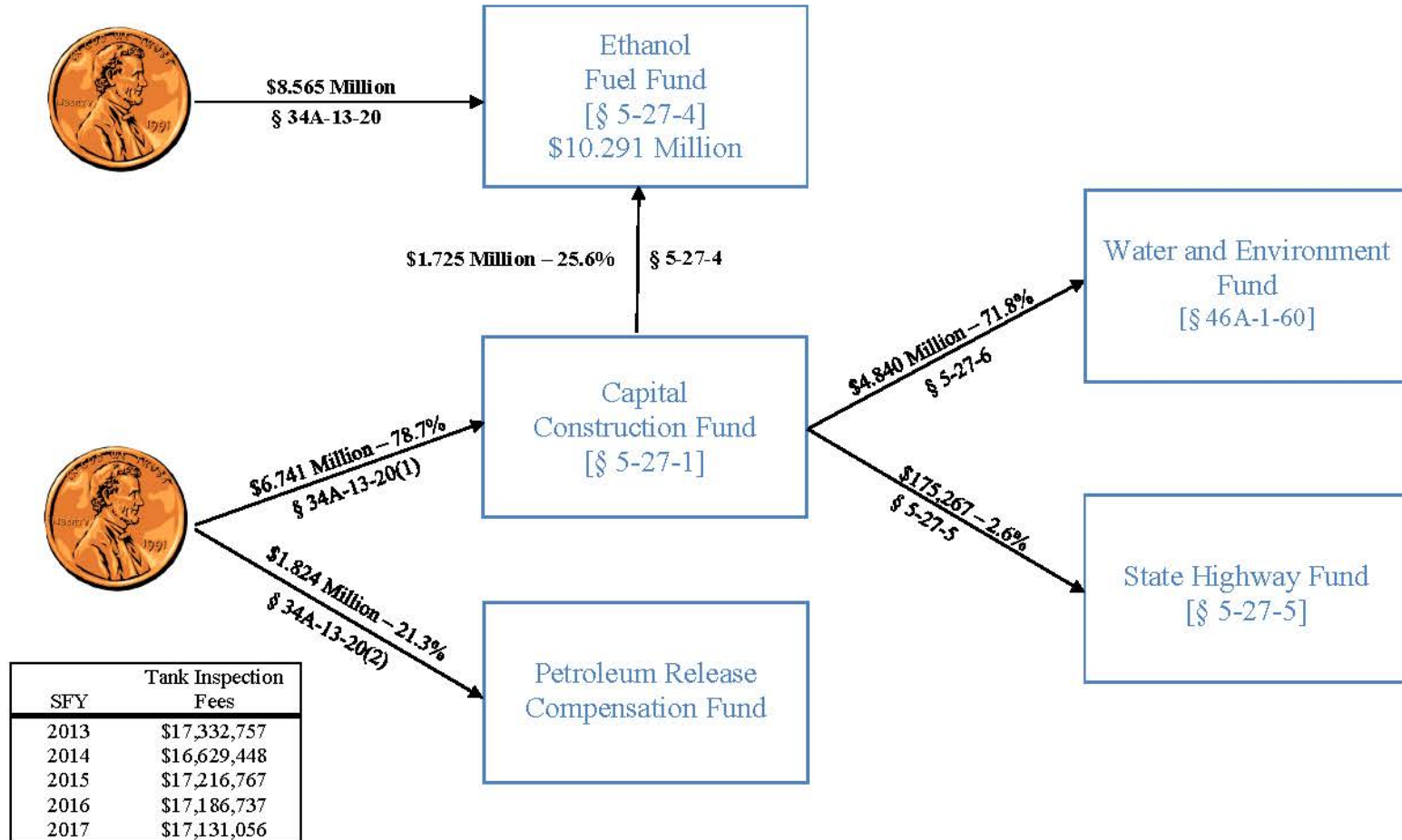


# SFY 2017 South Dakota Lotto Distribution



# SFY 2017 Petroleum Release Compensation and Tank Inspection Fee Distribution

(\$20 per 1,000 gallons or \$0.02 per gallon)



## Capital Construction Fund Deposits and WEF Transfers

	Actual			Projections	
	2015	2016	2017	2017 Omnibus Projections	2018 Omnibus Avg. 2018-19
Tank Inspection Fees	\$6,774,798	\$6,762,981	\$6,741,071	\$6,800,000	\$6,759,500
On-Line Lottery	\$7,017,262	\$7,177,367	<b>\$5,537,710</b>	<b>\$7,475,000</b>	\$6,577,500
Interest	\$3,018	\$3,932	\$3,810	\$3,500	\$3,500
<b>Total</b>	<b>\$13,795,078</b>	<b>\$13,944,280</b>	<b>\$12,282,591</b>	<b>\$14,278,500</b>	<b>\$13,340,500</b>
WEF Transfer (71.8%)	\$9,904,866	\$10,011,993	<b>\$8,818,900</b>	<b>\$10,250,000</b>	\$9,578,500



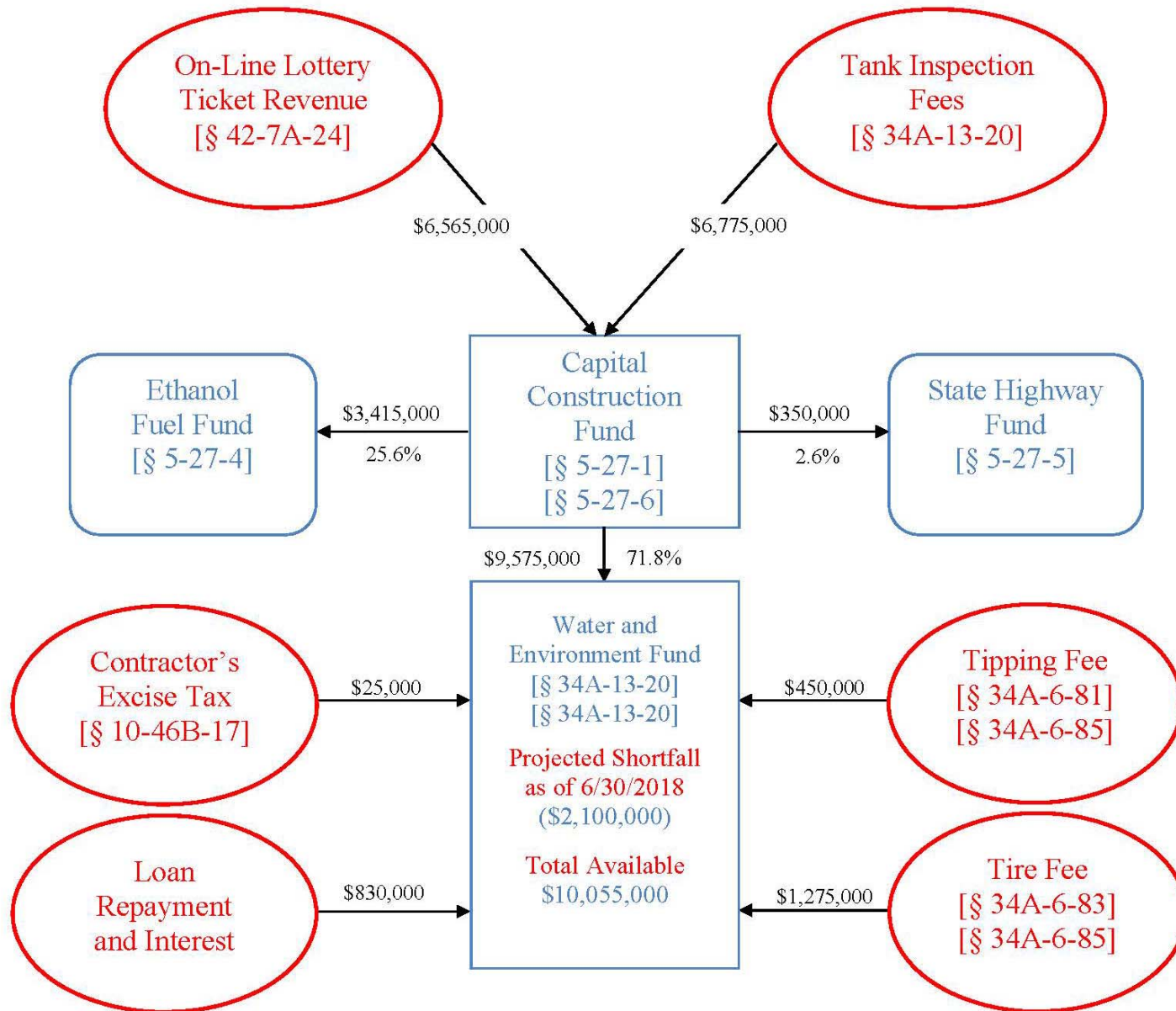
## Water and Environment Fund Deposits

	Actual			Projections	
	2015	2016	2017	2017 Omnibus Projections	2018 Omnibus Avg. 2018-19
Contractor's Excise Tax	\$276,778	\$28,490	\$34,583	\$250,000	\$25,000
Water Loan Payments	\$12,752,632	\$491,798	\$372,915	\$385,000	\$443,500
Solid Waste Loan Payments	\$813,544	\$545,957	\$919,496	\$555,000	\$559,000
Solid Waste Fees	\$1,757,766	\$1,754,479	\$1,721,933	\$1,750,000	\$1,725,000
Investment Interest	\$188,481	\$366,242	\$440,179	\$375,000	\$427,000
Admin Fee	(\$378,712)	(\$470,816)	(\$500,000)	(\$500,000)	(\$600,000)
<b>Total</b>	<b>\$15,410,489</b>	<b>\$2,716,150</b>	<b>\$2,989,106</b>	<b>\$2,815,000</b>	<b>\$2,579,500</b>

# Available Funding for 2018 Omnibus Bill

Water & Environment Fund	<u>Solid Waste</u>	<u>Water</u>	<u>Total</u>
Projected Surplus/(Shortfall) for preparation of 2018 Omnibus Bill (30-Jun-2018)	\$300,000	(\$2,400,000)	(\$2,100,000)
Projected SFY 2019 Deposits			
CCF Transfers		\$9,575,000	\$9,575,000
Contractor's Excise Tax		\$25,000	\$25,000
Loan Repayments & Interest	\$480,000	\$350,000	\$830,000
Solid Waste Fees	<u>\$1,725,000</u>	<u>                    </u>	<u>\$1,725,000</u>
	\$2,505,000	\$7,550,000	\$10,055,000

# 2018 Governor's Omnibus Water Funding Bill



# WEF Special Appropriations

<u>Category</u>	<u>Requested</u>	<u>Recommended</u>
SWRMS		
No Requests		\$0
Consolidated Program		\$7,500,000
SWMP		\$2,500,000
		<hr/>
		\$10,000,000

# WEF Subfunds

- SDCL 46A-1-60.1 established Clean Water SRF program and Drinking Water SRF program subfunds within the Water & Environment Fund.
- Intended Use Plan process allocates funds for purposes authorized by the federal acts.
- Omnibus Bill provides budget authority for expenditure of these funds to include DW SRF set-asides.
- Because these are special appropriations that vary annually, the preferred method to address budget authority is through the Omnibus Bill rather than through DENR's annual operating budget.

# CW SRF Surcharge Fees

FFY 2018 Intend Use Plan -- \$1,150,000

- Water Quality grants to supplement the Consolidated Program assistance for community infrastructure projects
- Water Quality grants to supplement the Section 319 program assistance for watershed projects
- Small Community Planning Grants
- Clean Water SRF Application and Administration Technical Assistance

# DW SRF Set Asides/Surcharge Fees

## FFY 2018 Intended Use Plan

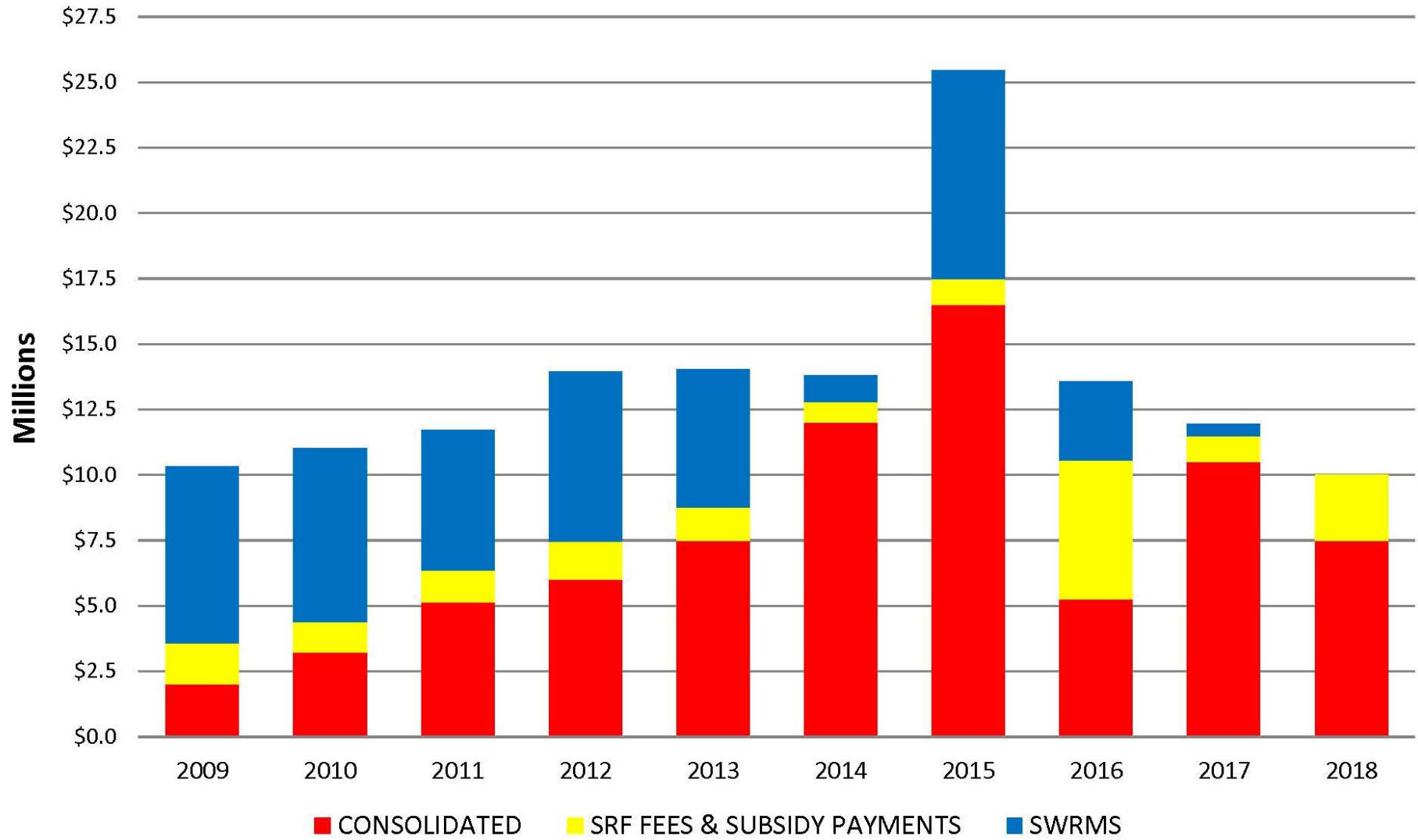
- 2% Small System Technical Assistance
  - Small Community Planning Grants
  - SDARWS Technical Assistance Contract
  - \$150,000 SFY 2019 expenditure authority
  
- Administrative Surcharge Fees
  - Drinking Water SRF Application and Administration Technical Assistance
  - Small Community Planning Grants
  - Drinking Water SRF Construction Grants
  - \$1,700,000 SFY 2019 expenditure authority

## 2018 OMNIBUS BILL RECOMMENDATIONS

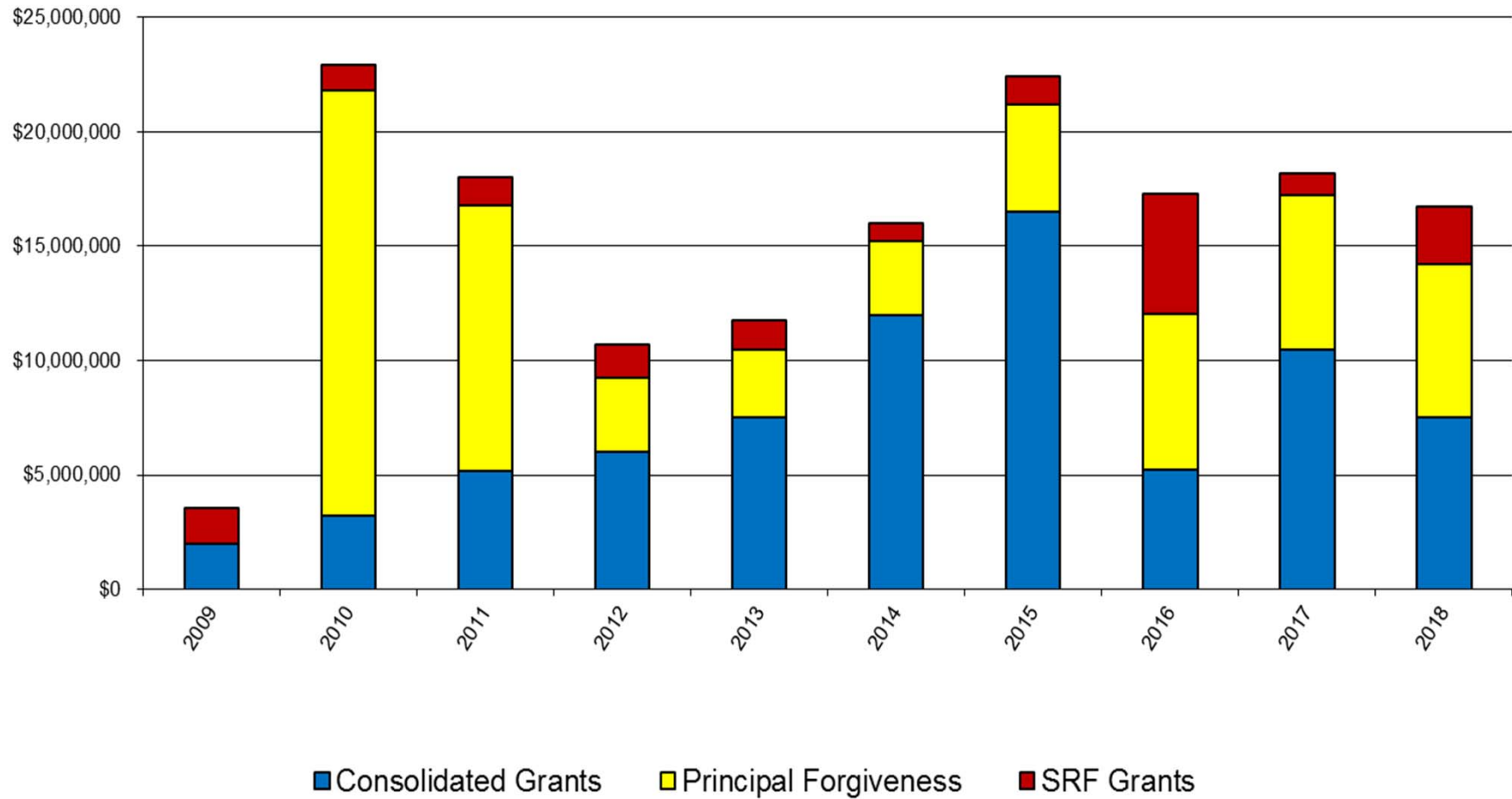
	<u>Solid Waste</u>	<u>Water</u>
Consolidated Program		\$7,500,000
Solid Waste Management Program	<u>\$2,500,000</u>	
<b>TOTAL WEF APPROPRIATIONS</b>	<b>\$2,500,000</b>	<b>\$7,500,000</b>
State Revolving Fund (SRF) Administrative Surcharge Fees		
Clean Water SRF Water Quality Grants		\$1,000,000
Clean Water SRF Application and Admin, Technical Assistance		\$150,000
Drinking Water SRF Application and Admin. Technical		\$200,000
Drinking Water SRF Construction Grants		\$1,500,000
Federal Set-Aside Funds and Federal Subsidy Payments		
Small System Technical Assistance		<u>\$150,000</u>
<b>WEF SUBFUND TOTAL</b>		<b>\$3,000,000</b>
<b>TOTAL OMNIBUS BILL APPROPRIATIONS</b>		<b>\$13,000,000</b>



# Omnibus Bill Water Project Appropriations



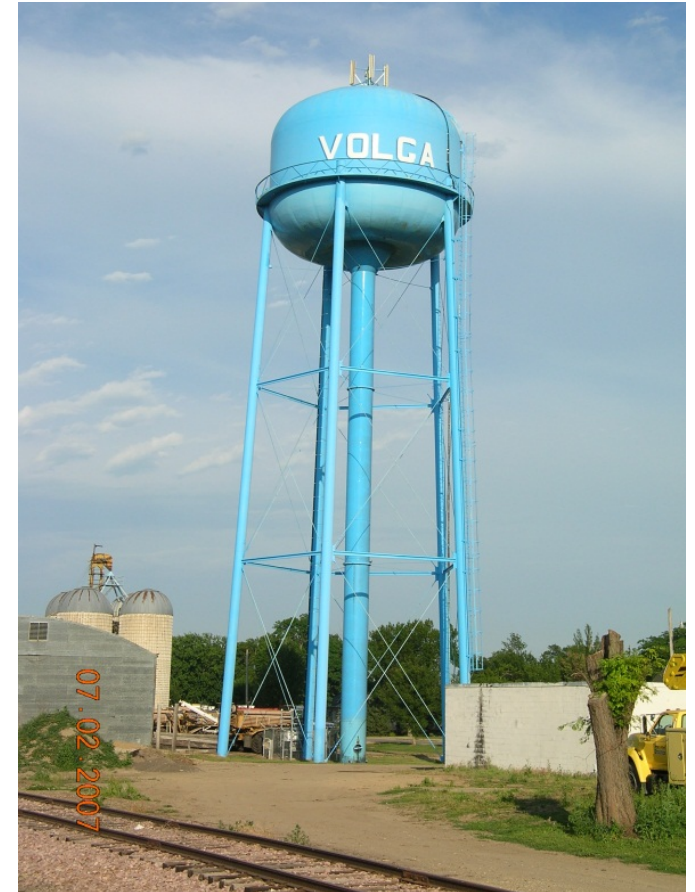
## Grants and Principal Forgiveness Provided To Keep Rates Affordable



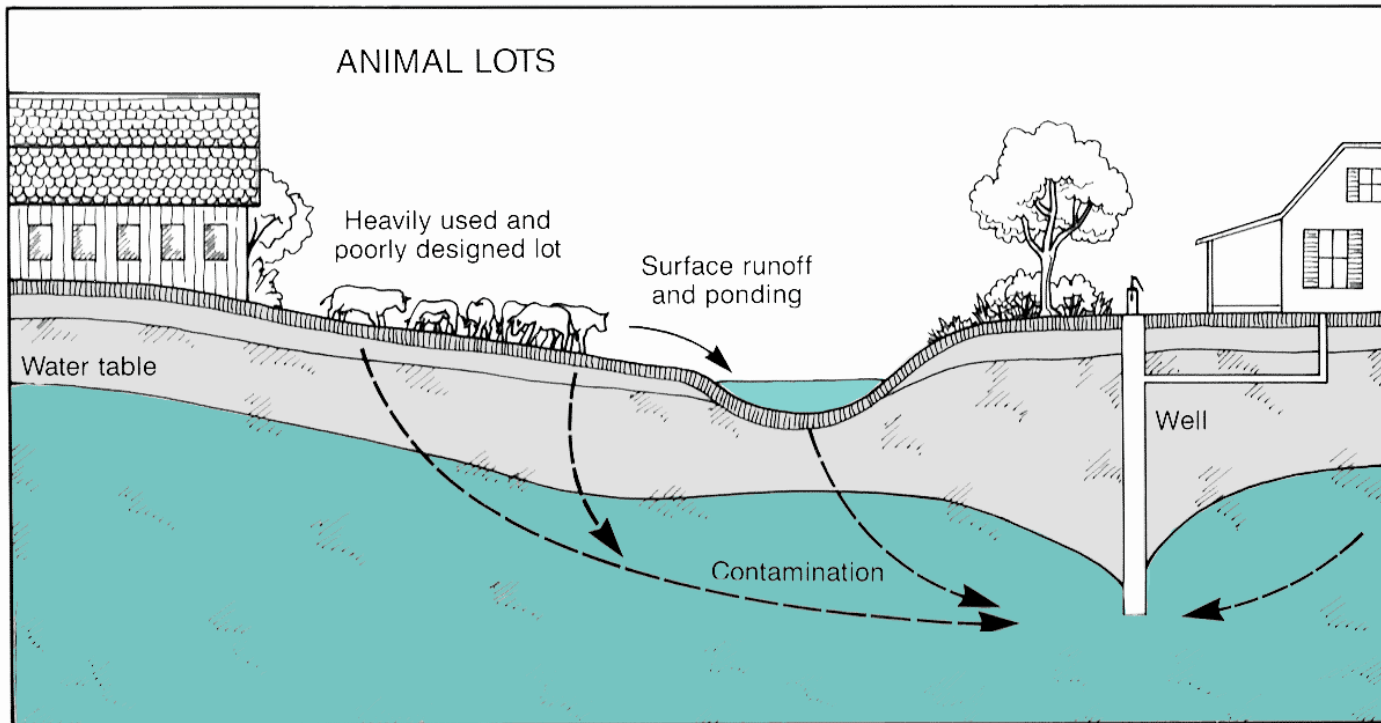
# Updating Groundwater Protection for Shallow Aquifers

Jay Gilbertson, EDWDD  
BWNR, November 9, 2017

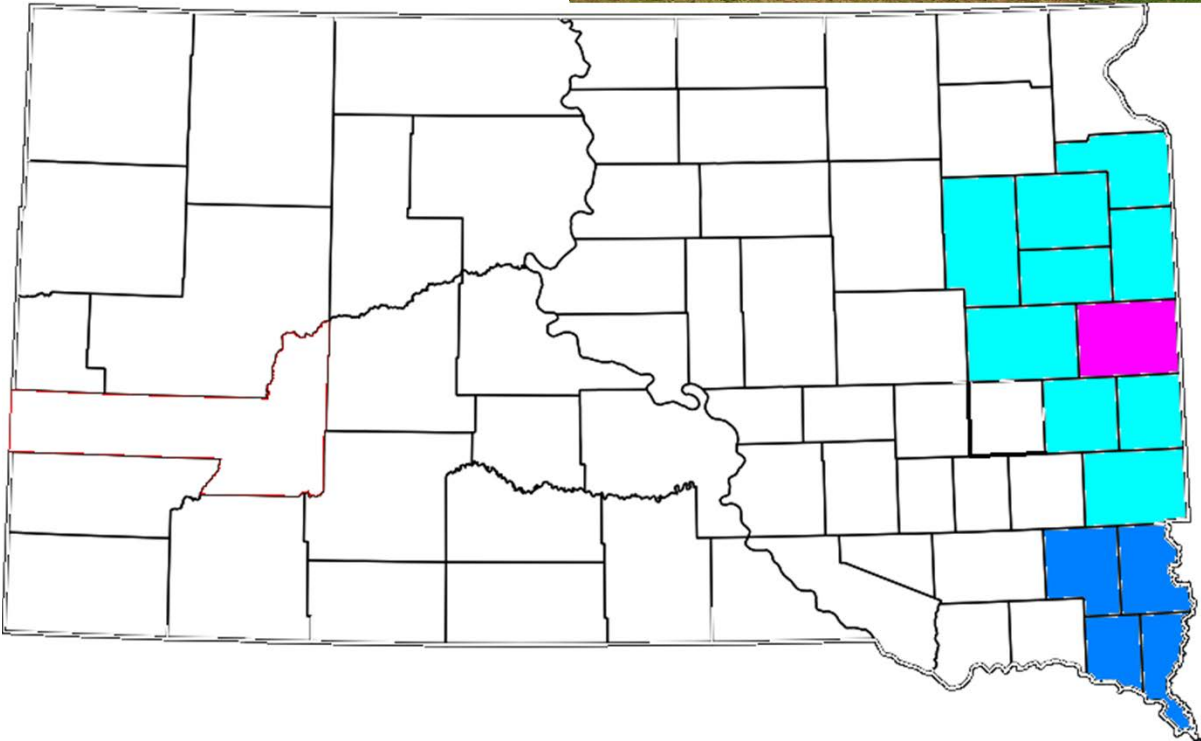
Shallow aquifers supply most of the drinking water, public and private, in I-29 corridor in eastern South Dakota.



# Shallow aquifers are particularly sensitive to contamination.

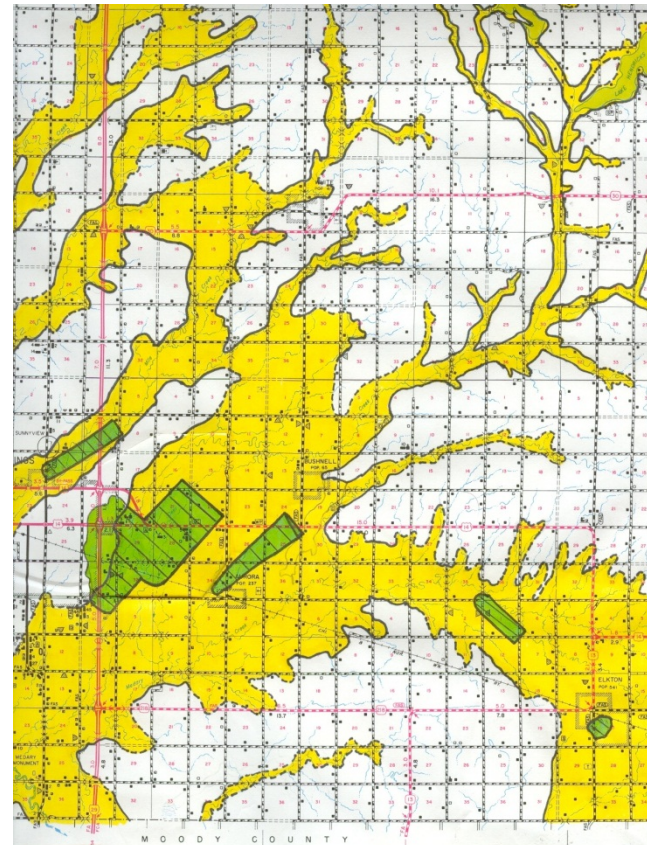


14 counties have adopted GW protection ordinances



# Aquifer Protection Overlay Ordinances

- **Zone A**
  - 10-year TOT WHPA
  - *Prohibition*
- **Zone B**
  - Remainder of aquifer & Zone A watersheds
  - *Prevention*
- **Non-Aquifer Areas**
  - No aquifer present
  - *Underlying zoning applies*

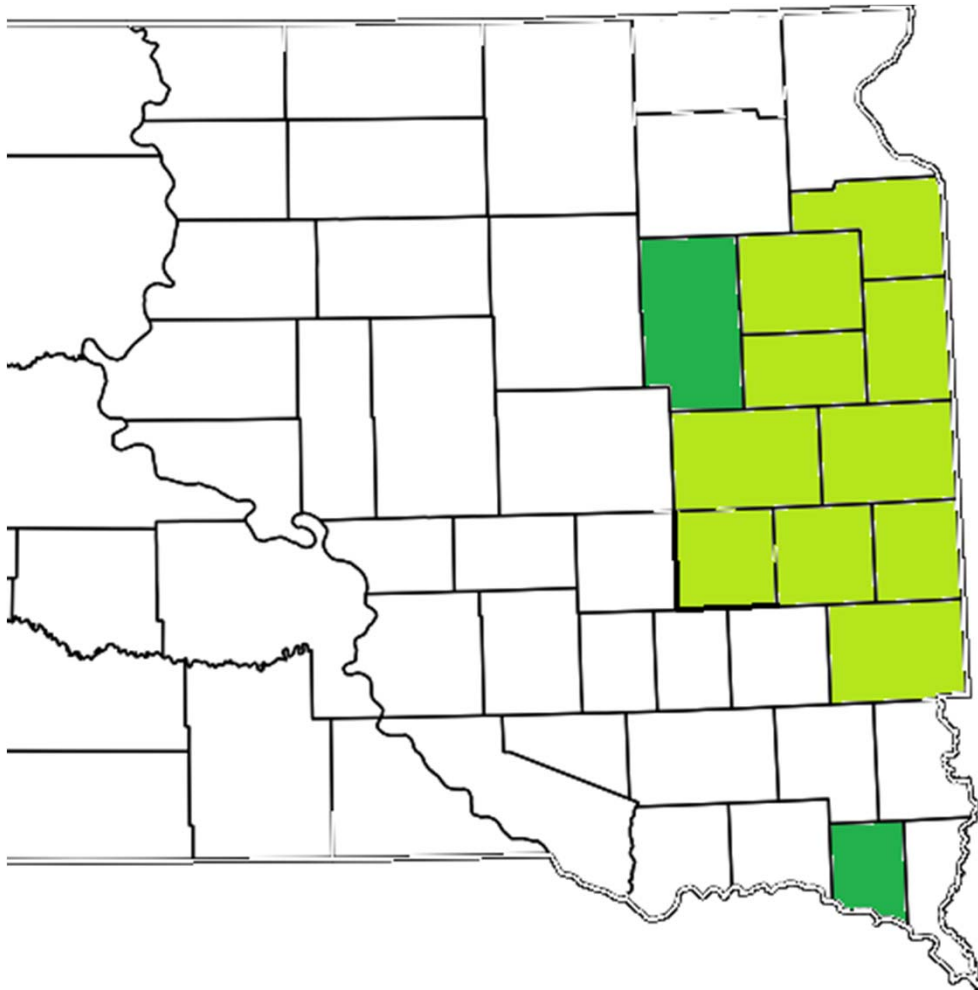


# Why do it again??

- Consolidation has led to greater dependence on fewer well fields.
- New PWS well fields created since early 1990s.
- Revisit GW flow direction and gradient.
- New generation of decision-makers (Re-build institutional memory).



# Project Area



Grant-Roberts RWS

Clark RWS (2)

Watertown

Sioux RWS (2)

Willow Lake

Castlewood

Lake Norden

Estelline

Brookings-Deuel RWS

KingBrook RWS (2)

DeSmet

Volga

Brookings (2)

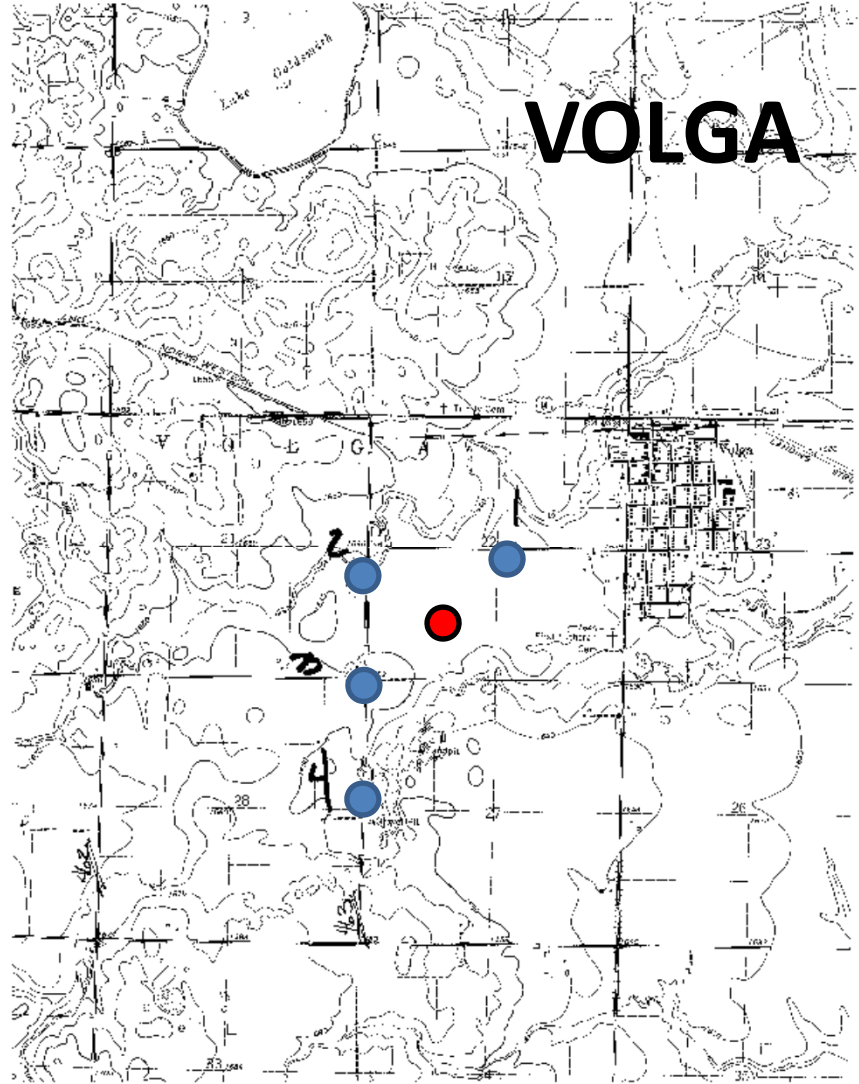
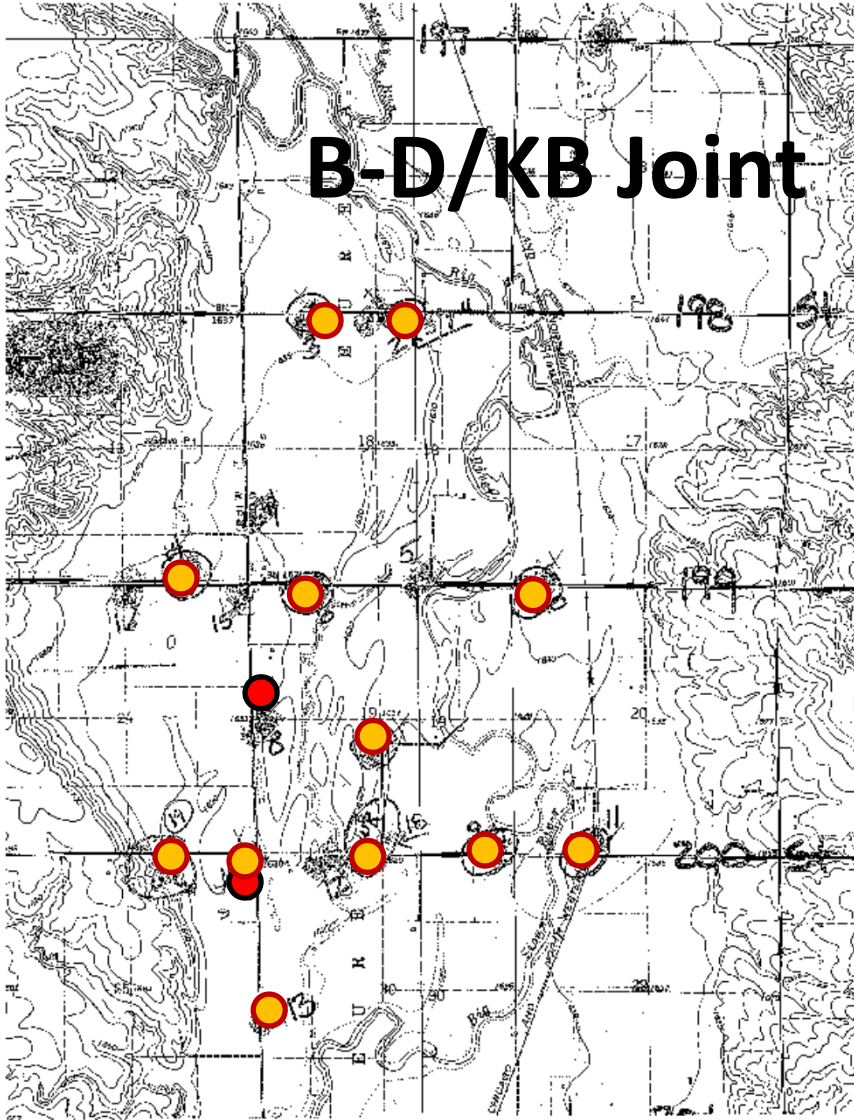
Madison

Big Sioux CWS (2)

Lincoln-Pipestone RW

# Project Activities

- Evaluate existing observation well network
- Install new wells as needed
- Measure water levels to establish GW flow direction
- Recalculate WHPAs (Zone A) using present day information
- Work with local county Planning & Zoning Boards to update aquifer protection ordinances as needed.





62 new observation wells installed, augmenting existing well network

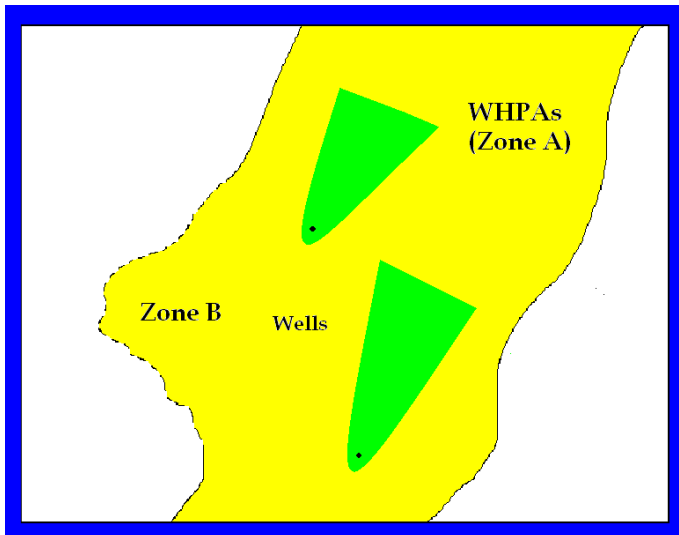
# Analytical WHPA Model

## Calculates:

- Down-gradient null point
- Width of WHPA
- 10-year time of travel

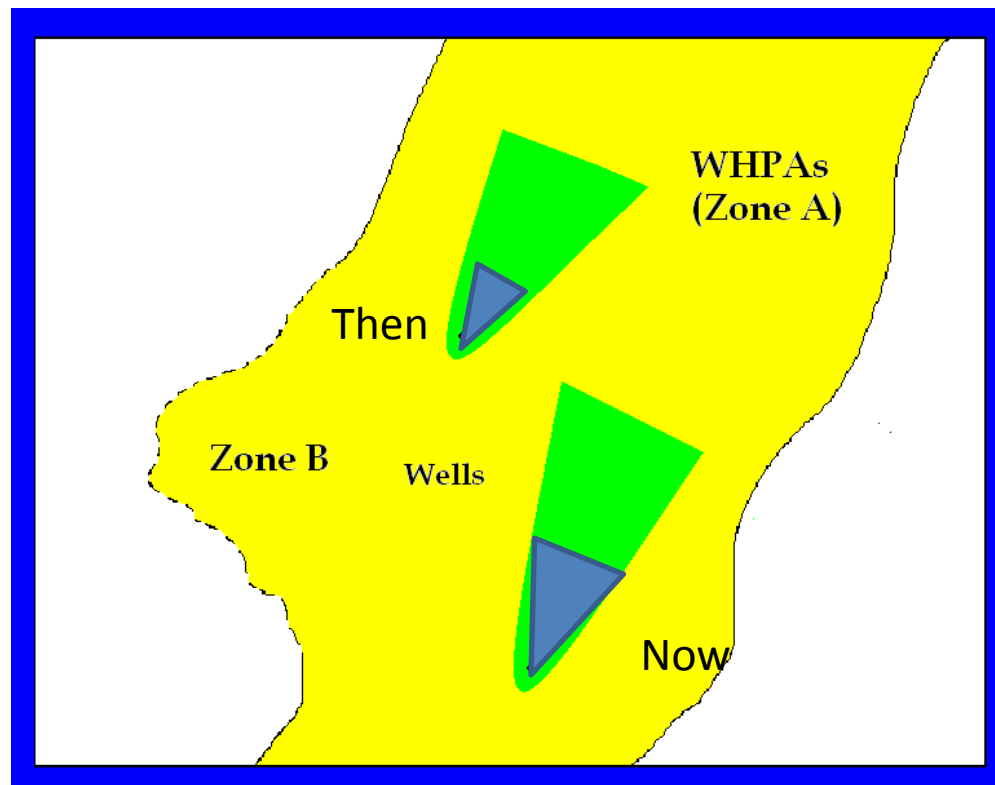
## Variables:

- *Daily pumping rate*
- *Aquifer characteristics*
  - Hydraulic conductivity
  - Porosity
  - *Hydraulic gradient*
  - *Flow direction*
  - *Saturated thickness*



# End Results

1. Ground water flow directions are largely similar to 1990s, i.e., downhill and toward the BSR or other discharge point. ( $\pm 5$  degrees)
2. Original calculated WHPA used extremely conservative conditions. As a consequence, established WHPAs were greatly oversized.
3. As such, current usage still falls within established ZONE As.





# Questions??

