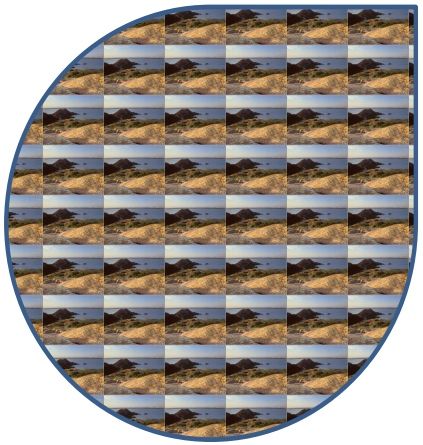
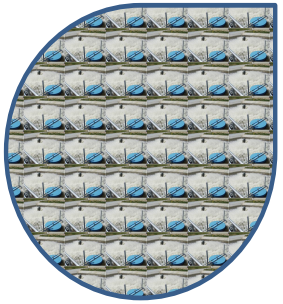
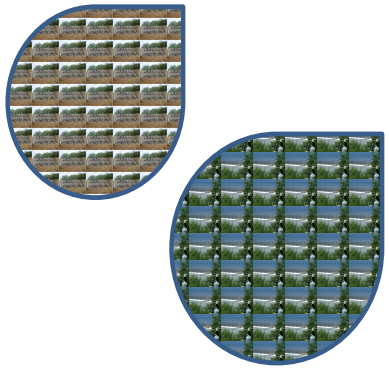
Financial Assessment of the OCWP



State of Oklahoma
OWRB
WATER RESOURCES BOARD
the water agency



Addressing Oklahoma's $82 Billion Water and Wastewater Project Need



Emergency Grants

Income Source: FAP Bond Reserve Interest	
Since 1983 grants funded for	$33,482,977.17
Funds Available	$507,047.06

Rural Economic Action Plan Grants (REAP)

Income Source: State Appropriations of $52,043,813.00	
Since 1996 grants funded for	$49,948,322.65
FY 2011 Carryover	$467,425.44
2012 Appropriations	$1,628,065.00
Total Funds Available	$2,095,490.44

State Revenue Bond Issue Loan Program (FAP)

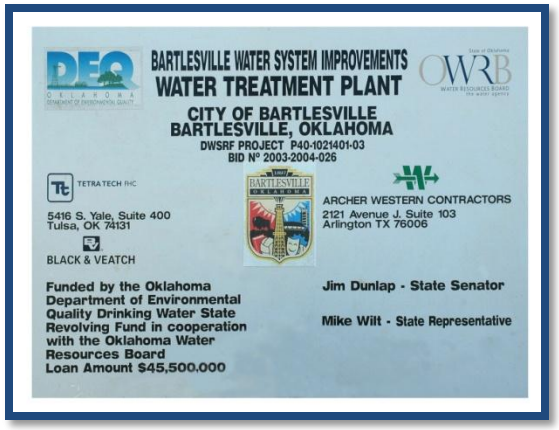
Reserve Funds	
State Funds	$18,115,948.67
Gross Production Tax	$1,845,000.00
AMBAC Surety Policies	$28,500,000.00
TOTAL RESERVES	$48,460,948.67
Since 1985 loans funded for:	$704,840,000.00
Available Funds	$0.00

Clean Water State Revolving Fund Loan Program (CWSRF)

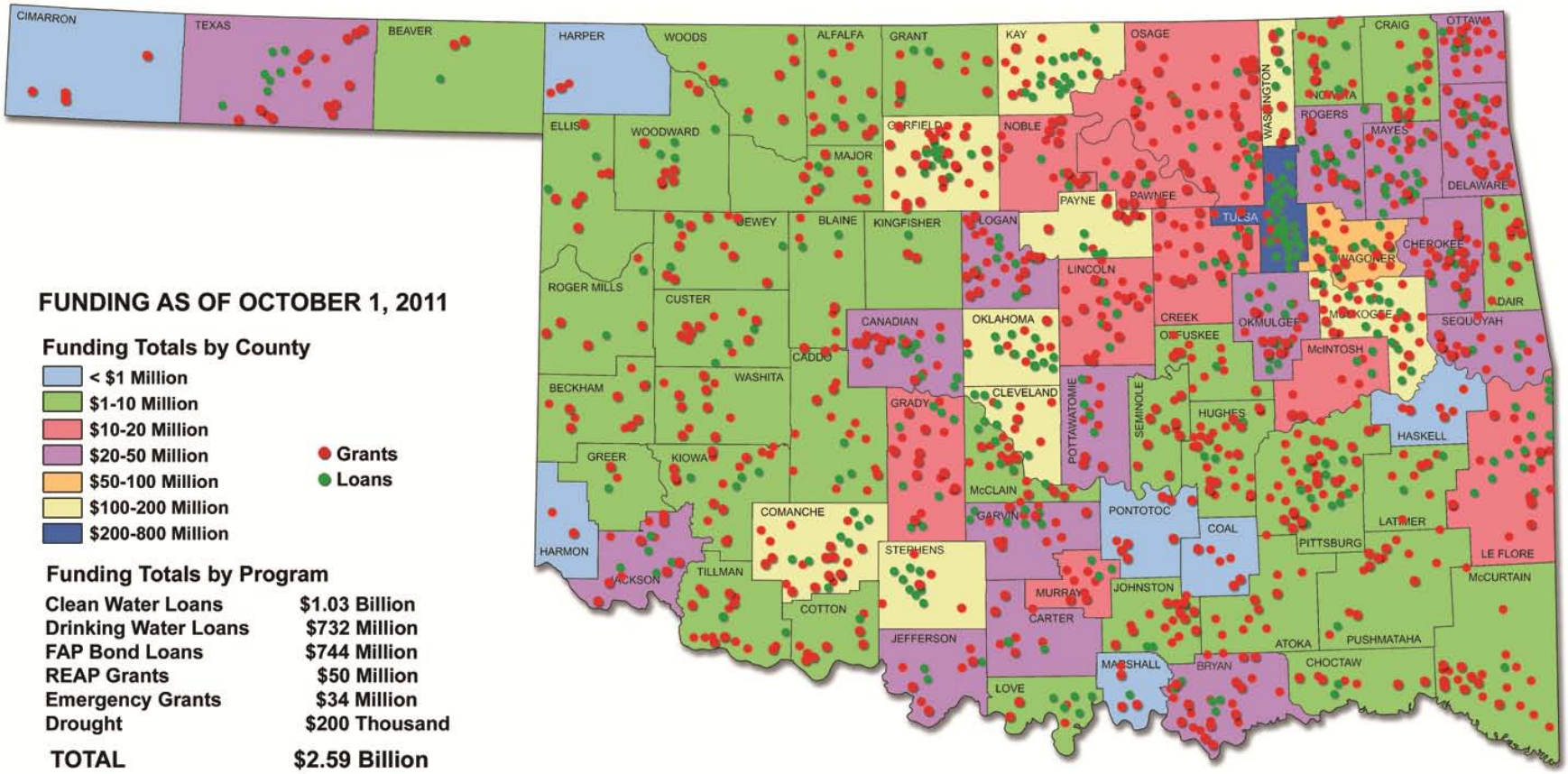
State Match Funds	
State Funds	$14,261,359.40
Ute Reservoir Settlement Funds	$200,000.00
Debt Issuance	$33,708,740.60
Total State Match	$48,170,100.00
Since 1990 loans funded for:	$1,006,107,003.59
Available Funds	$141,500,000.00
Fund Commitments	$304,000,000.00
Additional Funds Needed	($162,500,000.00)

Drinking Water State Revolving Fund Loan Program (DWSRF)

State Match Funds	
State Funds	$5,500,000.00
Gross Production Tax	$4,800,320.00
Debt Issuance	$25,903,080.00
Total State Match	$36,203,400.00
Since 1997 loans funded for:	$697,064,642.40
Available Funds	$90,900,000.00
Fund Commitments	$371,550,000.00
Additional Funds Needed	($280,640,000.00)



Financial Assistance Program
Loan and Grant Recipient Status



FUNDING AS OF OCTOBER 1, 2011

Funding Totals by County

- < $1 Million
- $1-10 Million
- $10-20 Million
- $20-50 Million
- $50-100 Million
- $100-200 Million
- $200-800 Million

- Grants
- Loans

Funding Totals by Program

Clean Water Loans	$1.03 Billion
Drinking Water Loans	$732 Million
FAP Bond Loans	$744 Million
REAP Grants	$50 Million
Emergency Grants	$34 Million
Drought	$200 Thousand
TOTAL	**$2.59 Billion**
TOTAL SAVINGS	**$898 Million**

The DWSRF, CWSRF and the FAP have funded on a combined basis $2.6 billion in water and wastewater related projects and have saved communities $898 million in debt service costs

Funding Agency Coordinating Team

- **Group of federal and state organizations that offer financing to eligible Oklahoma public entities for water and wastewater projects**
- **Meet quarterly with the purpose of facilitating infrastructure funding through communication and streamlined application**

Members	
Oklahoma Water Resources Board	USDA Rural Development
Oklahoma Department of Commerce	Oklahoma Council of Governments
Indian Health Service	Community Resource Group
Oklahoma Department of Environmental Quality	

Working together to find solutions to Oklahoma's most challenging water and wastewater infrastructure needs!

Infrastructure Investment Impacts

- Economic growth
- Quality of life
- System sustainability
- Increased property values
- Reduced health risks
- Energy cost savings

Analysis Shows each additional:

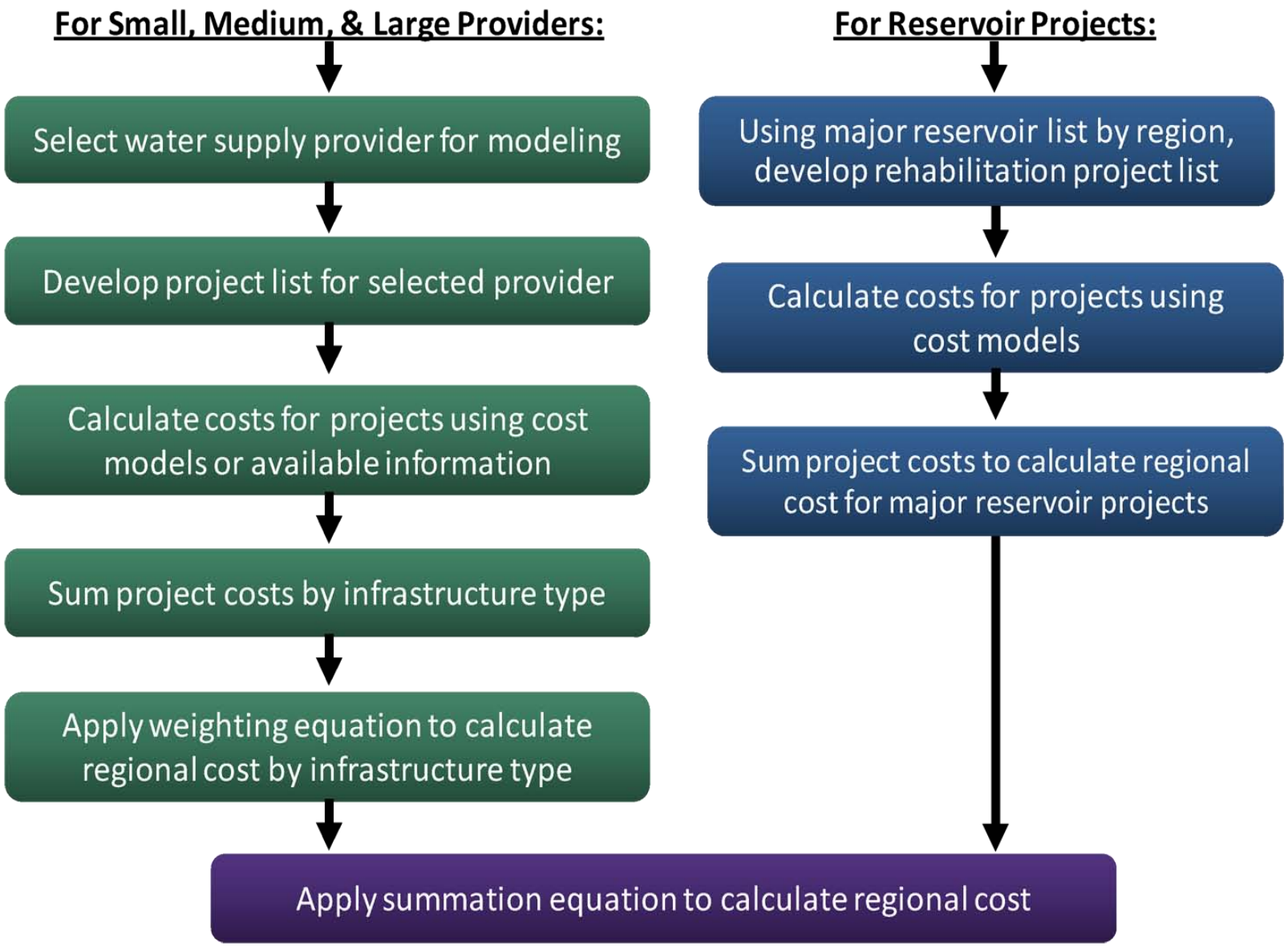
- **$1 in Construction Increases Economic Output by $2.37**
- **$1 million in Construction creates 25 jobs**

Oklahoma Advantages Assessment and Scoring for Infrastructure Solutions (OASIS) is a web based application which quantifies the social, economic and environmental benefits of infrastructure investments to communities and the state beyond regulatory compliance.

What is the Urgency for Infrastructure Funding?

- **Address health concerns related to water and wastewater**
- **Aging Infrastructure**
- **Need infrastructure for economic development**
- **DWSRF Capacity has been strained**
- **SRF need over the next five years is over $565M**
- **Financial need over the next 50 years**

Review of the Projected Drinking Water Infrastructure Costs


For Small, Medium, & Large Providers:
Select water supply provider for modeling
Develop project list for selected provider
Calculate costs for projects using cost models or available information
Sum project costs by infrastructure type
Apply weighting equation to calculate regional cost by infrastructure type
For Reservoir Projects:
Using major reservoir list by region, develop rehabilitation project list
Calculate costs for projects using cost models
Sum project costs to calculate regional cost for major reservoir projects
Apply summation equation to calculate regional cost

Drinking Water Infrastructure Needs Assessment by Region

For Small, Medium, & Large Providers:

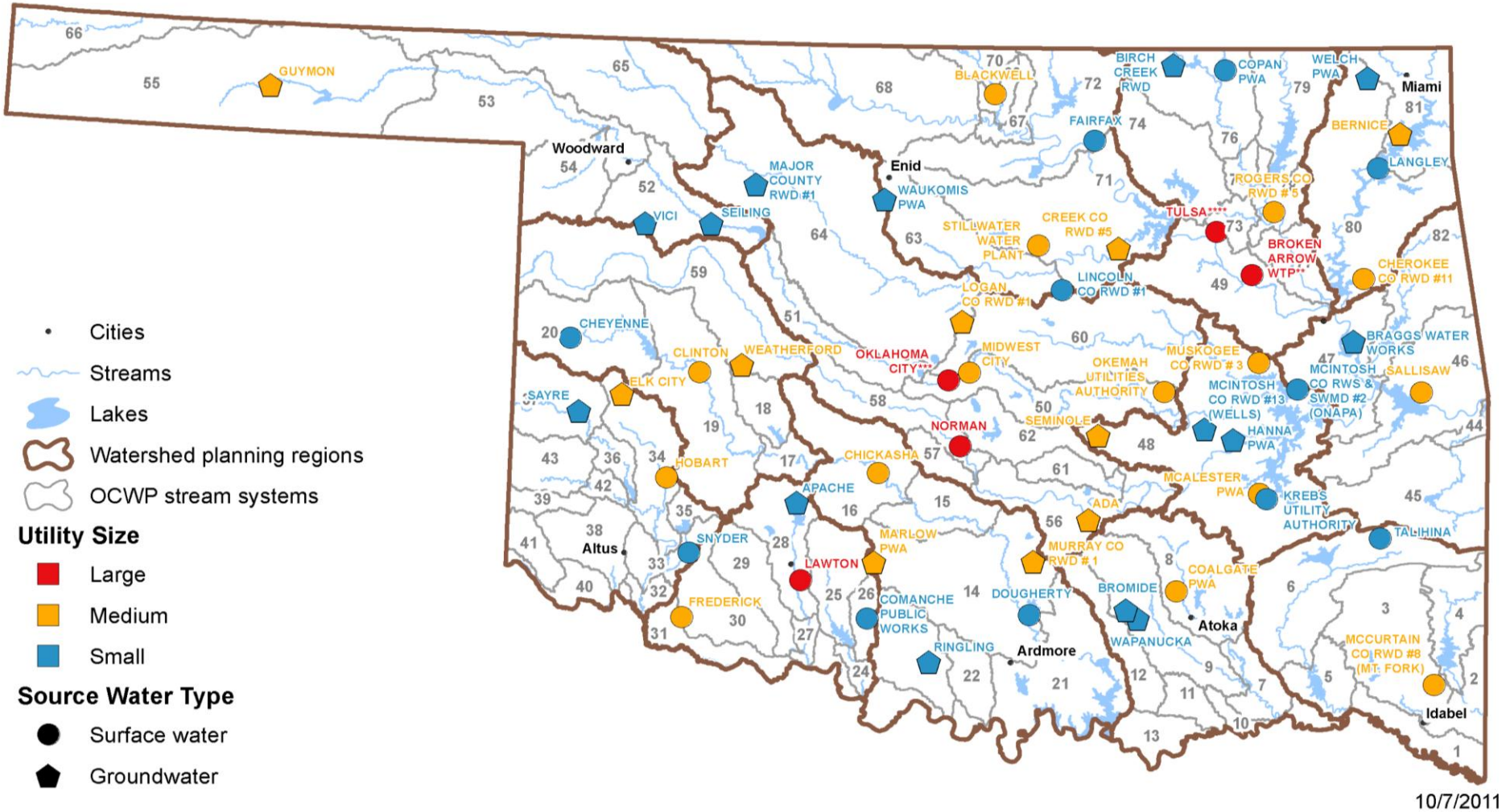
- Select water supply provider for modeling
- Develop project list for selected provider
- Calculate costs for projects using cost models or available information
- Sum project costs by infrastructure type
- Apply weighting equation to calculate regional cost by infrastructure type

For Reservoir Projects:

- Using major reservoir list by region, develop rehabilitation project list
- Calculate costs for projects using cost models
- Sum project costs to calculate regional cost for major reservoir projects

- Apply summation equation to calculate regional cost

Water Supply Provider Selected for Cost Modeling



Drinking Water Infrastructure Needs Assessment by Region

For Small, Medium, & Large Providers:

- Select water supply provider for modeling
- **Develop project list for selected provider**
- Calculate costs for projects using cost models or available information
- Sum project costs by infrastructure type
- Apply weighting equation to calculate regional cost by infrastructure type

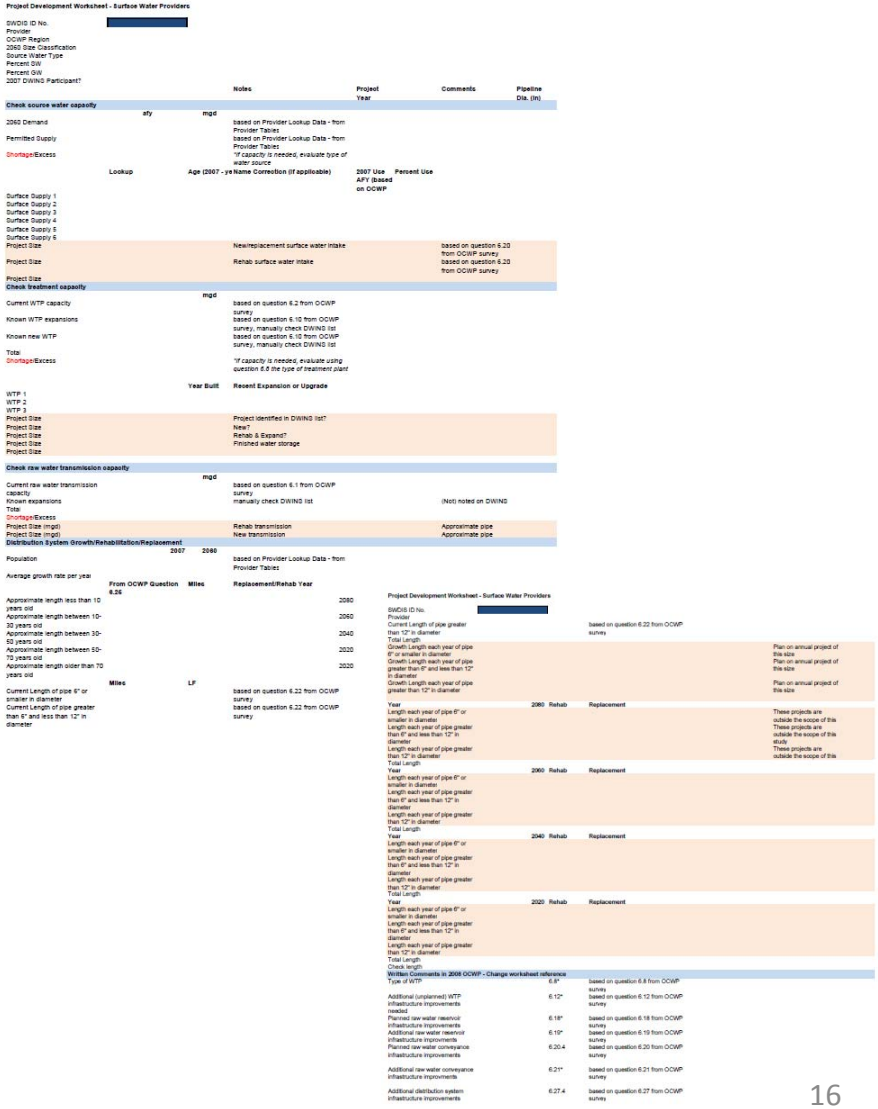
For Reservoir Projects:

- Using major reservoir list by region, develop rehabilitation project list
- Calculate costs for projects using cost models
- Sum project costs to calculate regional cost for major reservoir projects

- Apply summation equation to calculate regional cost

Develop Project List for Selected Provider

- Known capital improvements
- Projects were developed based on evaluation of capacity and age of existing infrastructure
  - Raw water infrastructure
  - Water treatment
  - Distribution system



Project Development Worksheet - Surface Water Providers

SWDIS ID No.	[redacted]					
Provider						
OCWP Region						
2060 Size Classification						
Source Water Type						
Percent SW						
Percent GW						
2007 DWINS Participant?						
			Notes	Project Year	Comments	Pipeline Dia. (in)
Check source water capacity						
	afy	mgd				
2060 Demand			based on Provider Lookup Data - from Provider Tables			
Permitted Supply			based on Provider Lookup Data - from Provider Tables			
Shortage/Excess			*"if capacity is needed, evaluate type of water source*			
	Lookup	Age (2007 - ye	Name Correction (if applicable)	2007 Use AFY (based on OCWP	Percent Use	
Surface Supply 1						
Surface Supply 2						
Surface Supply 3						
Surface Supply 4						
Surface Supply 5						
Surface Supply 6						
Project Size			New/replacement surface water intake		based on question 6.20 from OCWP survey	
Project Size			Rehab surface water intake		based on question 6.20 from OCWP survey	
Project Size						
Check treatment capacity						
		mgd				
Current WTP capacity			based on question 6.2 from OCWP survey			
Known WTP expansions			based on question 6.10 from OCWP survey, manually check DWINS list			
Known new WTP			based on question 6.10 from OCWP survey, manually check DWINS list			
Total						
Shortage/Excess			*"if capacity is needed, evaluate using question 6.6 the type of treatment plant*			
		Year Built	Recent Expansion or Upgrade			
WTP 1						
WTP 2						
WTP 3						
Project Size			Project identified in DWINS list?			
Project Size			New?			
Project Size			Rehab & Expand?			
Project Size			Finished water storage			
Project Size						
Check raw water transmission capacity						
		mgd				
Current raw water transmission capacity			based on question 6.1 from OCWP survey			
Known expansions			manually check DWINS list		(Not) noted on DWINS	
Total						
Shortage/Excess						
Project Size (mgd)			Rehab transmission		Approximate pipe	
Project Size (mgd)			New transmission		Approximate pipe	
Distribution System Growth/Rehabilitation/Replacement						
	2007	2060				
Population			based on Provider Lookup Data - from Provider Tables			
Average growth rate per year						
	From OCWP Question 6.26	Miles	Replacement/Rehab Year			
Approximate length less than 10 years old			2080			
Approximate length between 10-30 years old			2060			
Approximate length between 30-50 years old			2040			
Approximate length between 50-70 years old			2020			
Approximate length older than 70 years old			2020			
	Miles	LF				
Current Length of pipe 6" or smaller in diameter			based on question 6.22 from OCWP survey			
Current Length of pipe greater than 6" and less than 12" in diameter			based on question 6.22 from OCWP survey			

Project Development Worksheet - Surface Water Providers

SWDIS ID No.	[redacted]			
Provider				
Current Length of pipe greater than 12" in diameter			based on question 6.22 from OCWP survey	
Total Length				
Growth Length each year of pipe 6" or smaller in diameter				Plan on annual project of this size
Growth Length each year of pipe greater than 6" and less than 12" in diameter				Plan on annual project of this size
Growth Length each year of pipe greater than 12" in diameter				Plan on annual project of this size
Year	2080	Rehab	Replacement	
Length each year of pipe 6" or smaller in diameter				These projects are outside the scope of this study
Length each year of pipe greater than 6" and less than 12" in diameter				These projects are outside the scope of this study
Length each year of pipe greater than 12" in diameter				These projects are outside the scope of this
Total Length				
Year	2060	Rehab	Replacement	
Length each year of pipe 6" or smaller in diameter				
Length each year of pipe greater than 6" and less than 12" in diameter				
Length each year of pipe greater than 12" in diameter				
Total Length				
Year	2040	Rehab	Replacement	
Length each year of pipe 6" or smaller in diameter				
Length each year of pipe greater than 6" and less than 12" in diameter				
Length each year of pipe greater than 12" in diameter				
Total Length				
Year	2020	Rehab	Replacement	
Length each year of pipe 6" or smaller in diameter				
Length each year of pipe greater than 6" and less than 12" in diameter				
Length each year of pipe greater than 12" in diameter				
Total Length				
Check length				
Written Comments in 2006 OCWP - Change worksheet reference				
Type of WTP		6.8*	based on question 6.8 from OCWP survey	
Additional (unplanned) WTP infrastructure improvements needed		6.12*	based on question 6.12 from OCWP survey	
Planned raw water reservoir infrastructure improvements		6.18*	based on question 6.18 from OCWP survey	
Additional raw water reservoir infrastructure improvements		6.19*	based on question 6.19 from OCWP survey	
Planned raw water conveyance infrastructure improvements		6.20.4	based on question 6.20 from OCWP survey	
Additional raw water conveyance infrastructure improvements		6.21*	based on question 6.21 from OCWP survey	
Additional distribution system infrastructure improvements		6.27.4	based on question 6.27 from OCWP survey	

Drinking Water Infrastructure Needs Assessment by Region

For Small, Medium, & Large Providers:

Select water supply provider for modeling

Develop project list for selected provider

Calculate costs for projects using cost models or available information

Sum project costs by infrastructure type

Apply weighting equation to calculate regional cost by infrastructure type

For Reservoir Projects:

Using major reservoir list by region, develop rehabilitation project list

Calculate costs for projects using cost models

Sum project costs to calculate regional cost for major reservoir projects

Apply summation equation to calculate regional cost

Calculate Costs for Water Supply Providers

Table A-1. OCWP Cost Models, continued

Name	Category	Possible Components	Parameters Required for Modeling Costs	Formula
M1 Distribution Rehab	Distribution and Transmission	Should be used for any mains that transport water through a piping grid servicing customers. Components include mains, trenching, bedding, backfill, hydrants, valves, site work, road repair, easemetns and service leads from the main to the curb stop. It does not include transmission mains.	Pipe diameter in inches and pipe length in feet.	=round(vlookup(d,'Pipeline Costs'!b3:f18,4)*L/1000000,2)*Y
M1 Distribution Replace	Distribution and Transmission	Should be used for any mains that transport water through a piping grid servicing customers. Components include mains, trenching, bedding, backfill, hydrants, valves, site work, road repair, easemetns and service leads from the main to the curb stop. It does not include transmission mains.	Pipe diameter in inches and pipe length in feet.	=round(vlookup(d,'Pipeline Costs'!b3:f18,2)*L/1000000,2)*Y
M2 Lead Service Line Replacement	Distribution and Transmission	Service lines from the curb-stop to the building	Number of service lines.	=round(2985*N/1000000,2)
M4 Hydrants used for flushing	Distribution and Transmission	Hydrant lead to the transmission of distribution main, drain, hydrant and auciliary valve (not included in another pipe project).	number of hydrants and diameter (in inches)	=round(N*2877/1000000,2)

*Drinking Water Infrastructure Costs by Infrastructure Type and by Stratum = Number of Systems in Stratum / Number of System Sampled * Sum of Project Costs for Systems Sampled by Infrastructure Type*

Equation 1-1 Cost by Infrastructure Type and by Stratum (or Size)

Drinking Water Infrastructure Costs by Stratum = Sum of Drinking Water Infrastructure Costs by Infrastructure Type and by Stratum

Equation 1-2 Cost by Region for Stratum

- Use EPA cost models to create project costs
- Sum provider's project cost to create cost by infrastructure type
- Use weighting equation to calculate regional costs by infrastructure type and stratum

Drinking Water Infrastructure Needs Assessment by Region

For Small, Medium, & Large Providers:

- Select water supply provider for modeling
- Develop project list for selected provider
- Calculate costs for projects using cost models or available information
- Sum project costs by infrastructure type
- Apply weighting equation to calculate regional cost by infrastructure type

For Reservoir Projects:

- Using major reservoir list by region, develop rehabilitation project list
- Calculate costs for projects using cost models
- Sum project costs to calculate regional cost for major reservoir projects

- Apply summation equation to calculate regional cost

Calculate Costs for Major Reservoir Rehabilitation

Drinking Water Infrastructure Needs Assessment by Region

For Small, Medium, & Large Providers:

- Select water supply provider for modeling
- Develop project list for selected provider
- Calculate costs for projects using cost models or available information
- Sum project costs by infrastructure type
- Apply weighting equation to calculate regional cost by infrastructure type

For Reservoir Projects:

- Using major reservoir list by region, develop rehabilitation project list
- Calculate costs for projects using cost models
- Sum project costs to calculate regional cost for major reservoir projects

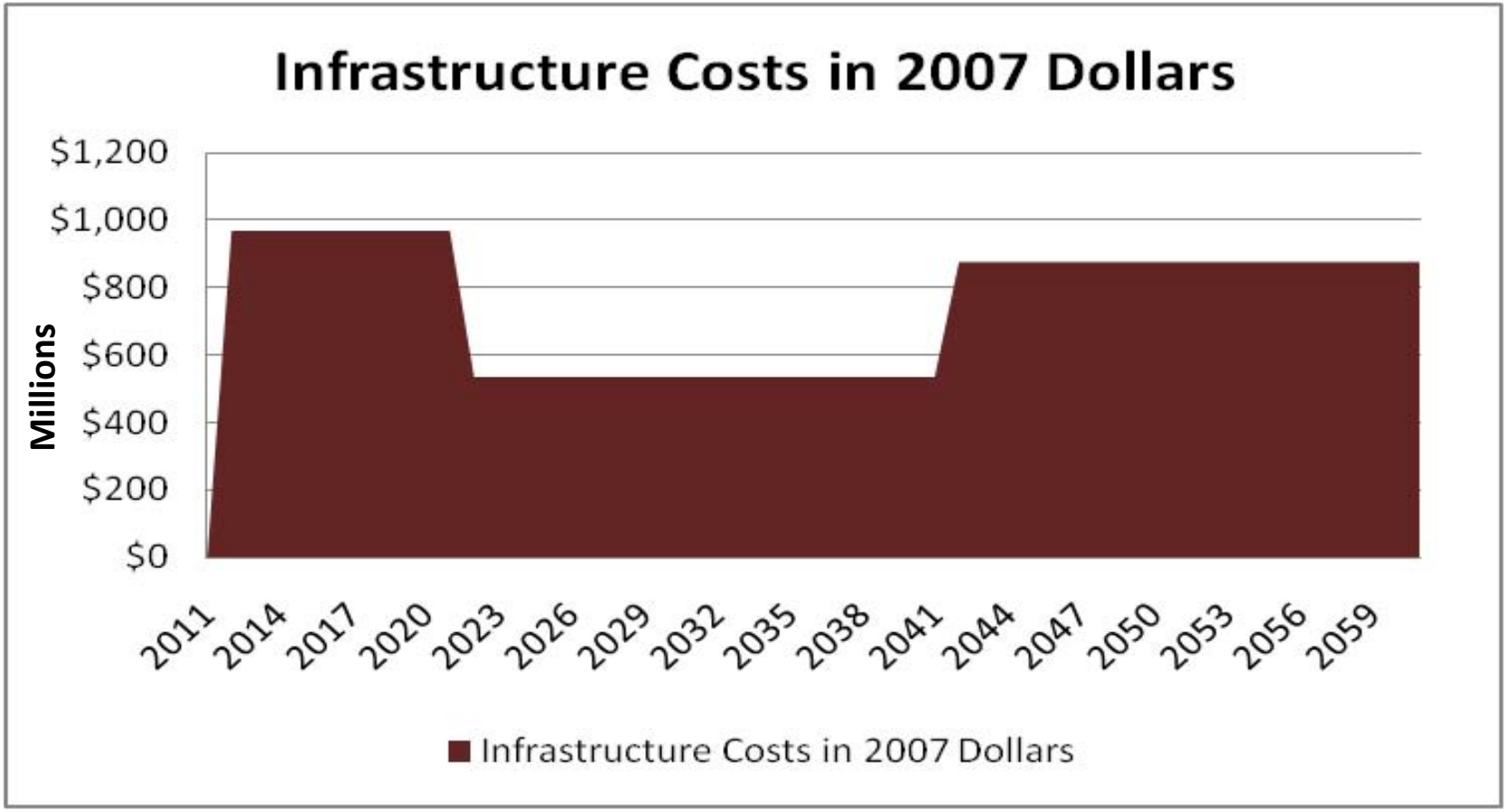
Apply summation equation to calculate regional cost

Category[A]	Potential Funding Source[B]	Present - 2020 Infrastructure Need (millions of 2007 dollars)	2021-2040 Infrastructure Need (millions of 2007 dollars)	2041-2060 Infrastructure Need (millions of 2007 dollars)	Total Period Infrastructure Need (millions of 2007 dollars)	Total Period Infrastructure Need (percent by category)	Total Period Infrastructure Need (percent by population)
Small	DWSRF Eligible	$ 3,395.29	$ 5,059.79	$ 8,766.65	$ 17,221.73		
	Non-DWSRF Eligible	$ 43.97	$ 66.94	$ 66.93	$ 177.84		
Small Subtotal		$ 3,439.26	$ 5,126.72	$ 8,833.59	$ 17,399.57	45%	13%
Medium	DWSRF Eligible	$ 4,323.54	$ 4,054.95	$ 6,122.61	$ 14,501.09		
	Non-DWSRF Eligible	$ 53.42	$ 61.91	$ 61.90	$ 177.23		
Medium Subtotal		$ 4,376.96	$ 4,116.85	$ 6,184.51	$ 14,678.32	39%	51%
Large	DWSRF Eligible	$ 1,720.54	$ 1,173.15	$ 1,689.45	$ 4,583.14		
	Non-DWSRF Eligible	$ 50.48	$ 16.78	$ 16.78	$ 84.04		
Large Subtotal		$ 1,771.02	$ 1,189.93	$ 1,706.23	$ 4,667.18	12%	36%
Reservoir	DWSRF Eligible	$ -	$ -	$ -	$ -		
	Non-DWSRF Eligible	$ 95.27	$ 256.52	$ 806.61	$ 1,158.40		
Reservoir Subtotal		$ 95.27	$ 256.52	$ 806.61	$ 1,158.40	4%	0%
Total		$ 9,682.51	$ 10,690.02	$ 17,530.94	$ 37,903.46		

DRINKING WATER INFRASTRUCTURE NEED (All shown in Millions of 2007 Dollars)				
	Present - 2020	2021-2040	2041-2060	Total Period
Total Period Costs	$ 9,682.51	$ 10,687.86	$ 17,530.94	$ 37,901.31
Average Cost per Year	$ 968.25	$ 534.39	$ 876.55	$ 758.03

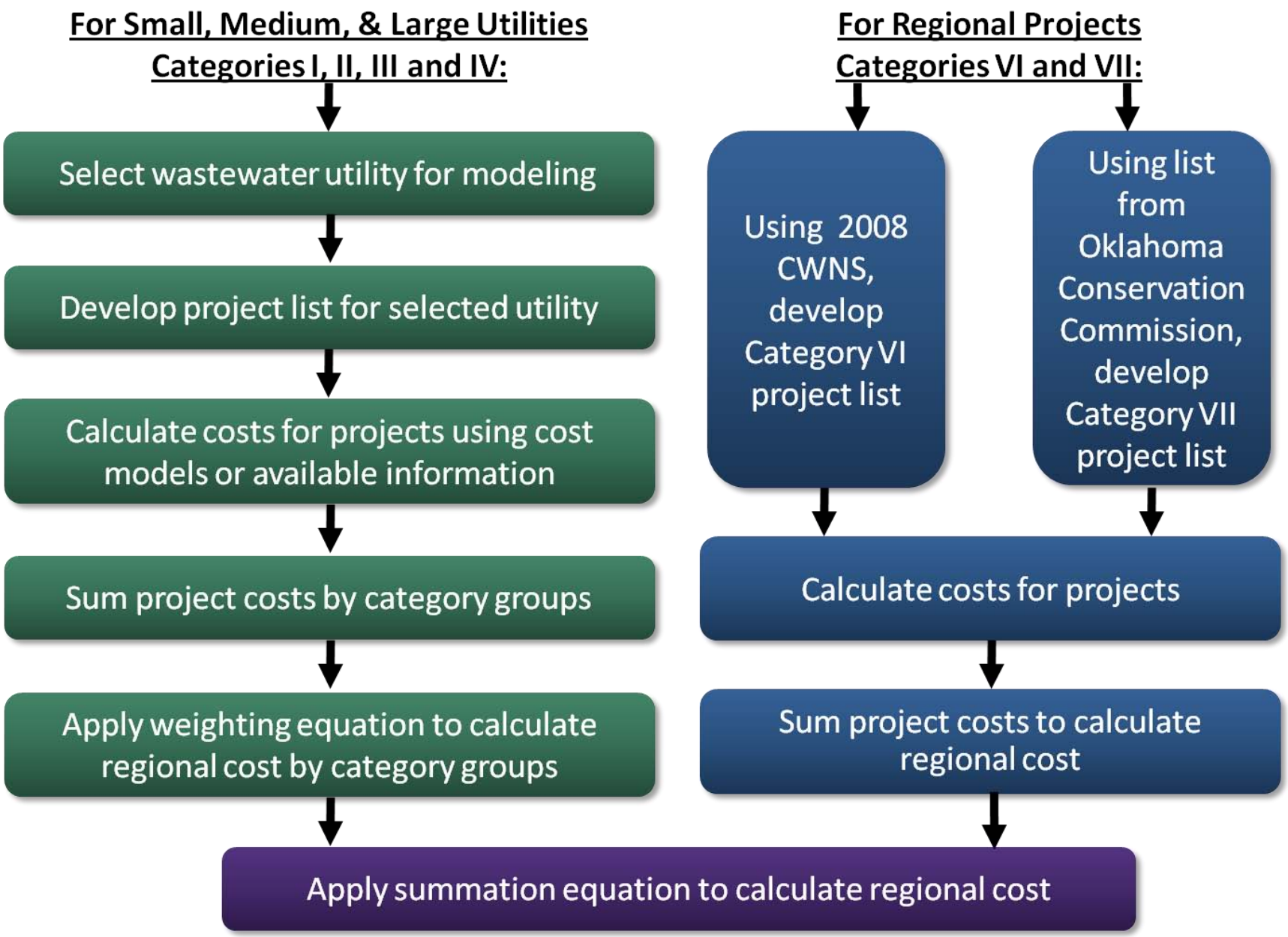
- **Infrastructure cost projections from CDM were provided in 2007 dollars**
- **Figures will be impacted by inflation over time**

Review of OCWP



- **Debt is often the tool utilized to finance projects that have long useful lives like the proposed infrastructure projects**

Review of the Projected Wastewater Infrastructure Costs


For Small, Medium, & Large Utilities Categories I, II, III and IV:
Select wastewater utility for modeling
Develop project list for selected utility
Calculate costs for projects using cost models or available information
Sum project costs by category groups
Apply weighting equation to calculate regional cost by category groups
For Regional Projects Categories VI and VII:
Using 2008 CWNS, develop Category VI project list
Using list from Oklahoma Conservation Commission, develop Category VII project list
Calculate costs for projects
Sum project costs to calculate regional cost
Apply summation equation to calculate regional cost

Wastewater Infrastructure Needs Assessment by Region

For Small, Medium, & Large Utilities Categories I, II, III and IV:

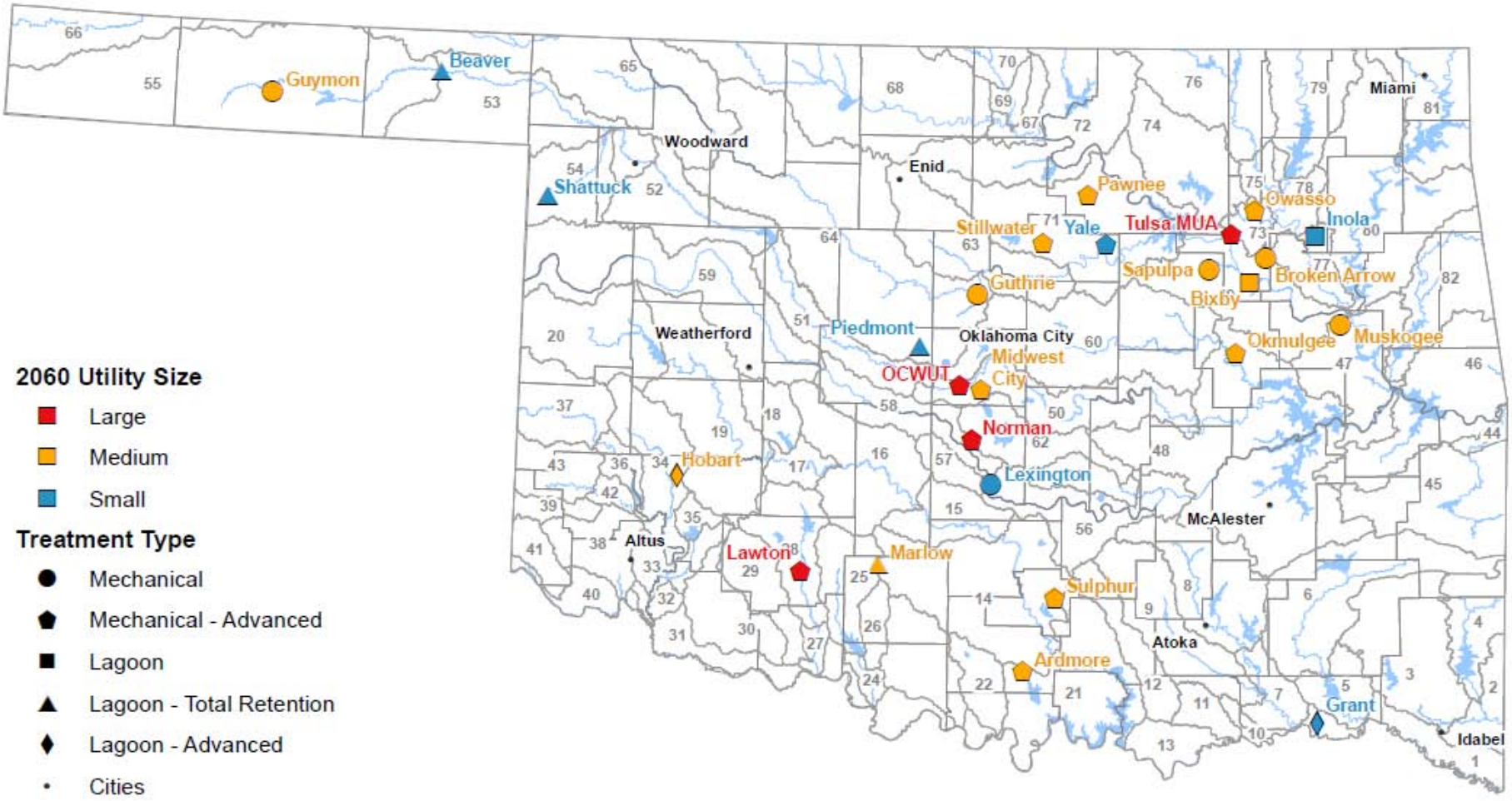
- Select wastewater utility for modeling
- Develop project list for selected utility
- Calculate costs for projects using cost models or available information
- Sum project costs by category groups
- Apply weighting equation to calculate regional cost by category groups

For Regional Projects Categories VI and VII:

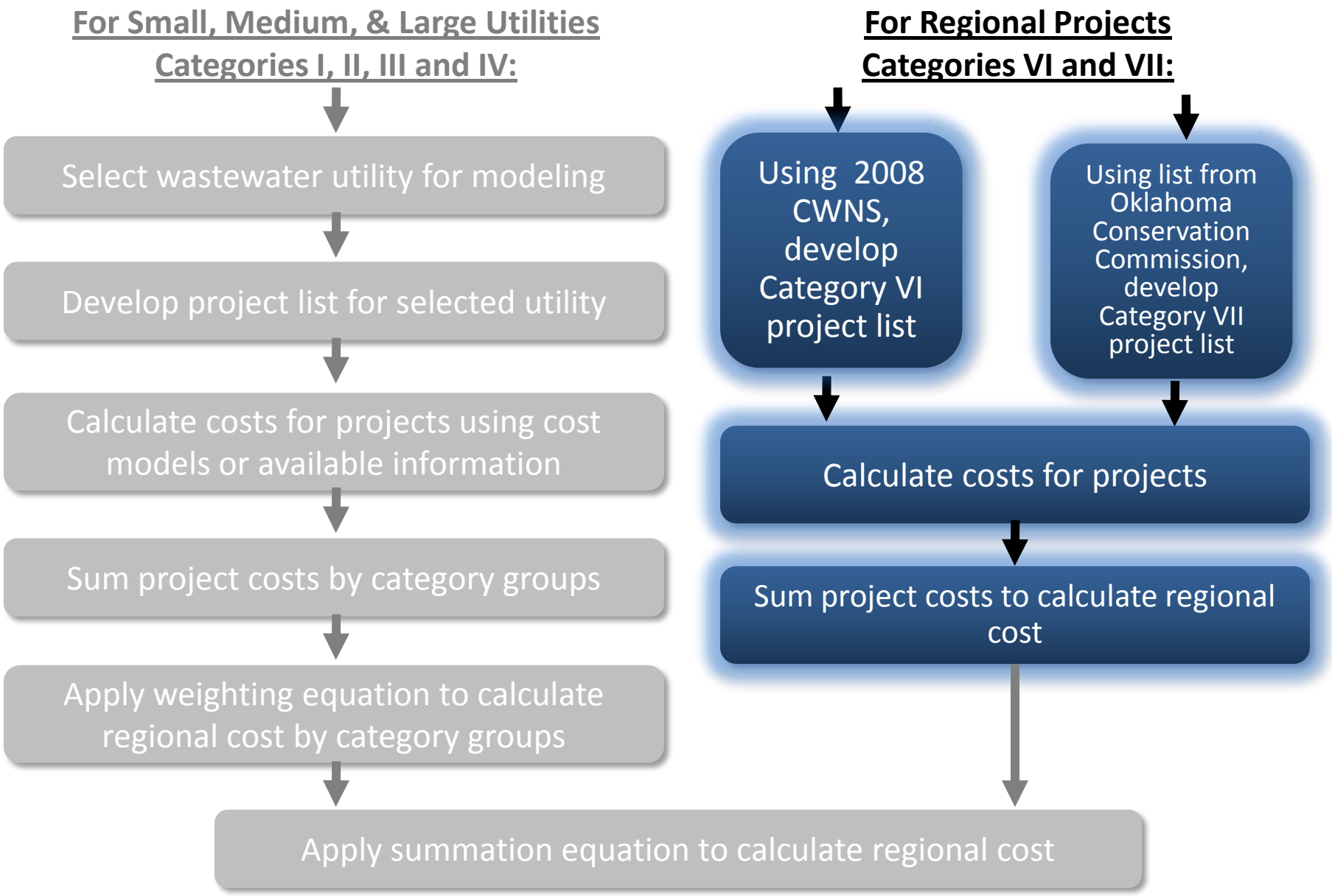
- Using 2008 CWNS, develop Category VI project list
- Using list from Oklahoma Conservation Commission, develop Category VII project list
- Calculate costs for projects
- Sum project costs to calculate regional cost

- Apply summation equation to calculate regional cost

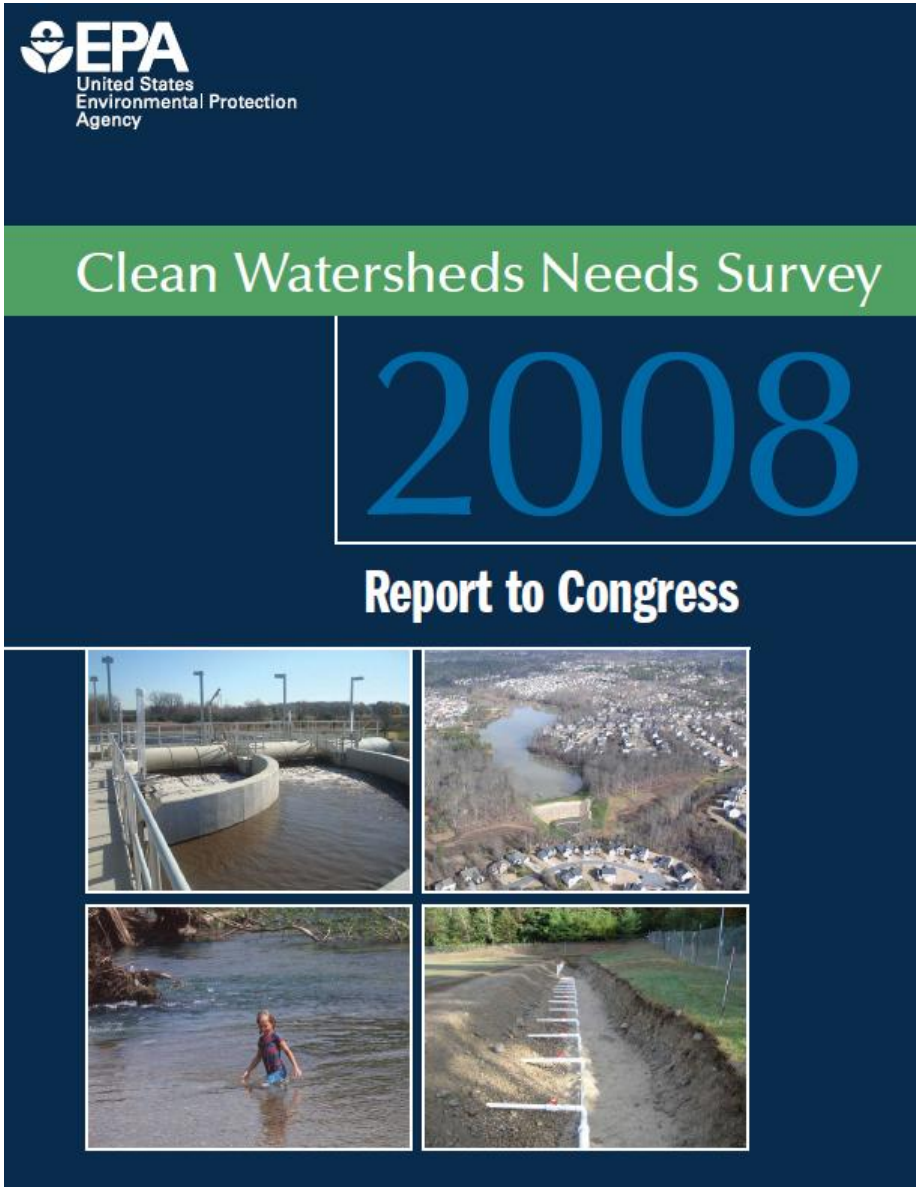
Wastewater Utilities Selected for Cost Modeling



Wastewater Infrastructure Needs Assessment by Region



Regional Projects



Estimate of NPS Needs for Clean Water Needs Survey/OK Comprehensive Water Plan

The Oklahoma Nonpoint Source Program currently receives approximately $3 million annually from US EPA Clean Water Act §319 Nonpoint Source funds. However, these funds are slated for an approximately 20% reduction beginning in calendar year 2013. Oklahoma utilizes these funds to 1) assess the sources and causes of nonpoint source pollution in the states waters as well as to determining waters of the state impacted by nonpoint source pollution, 2) educate citizens about the importance of protecting water resources and about what they can do to reduce nonpoint source pollution, 3) plan for and evaluate programs by which nonpoint source pollution is addressed including the development of Watershed Based Plan, and 4) implementation of best management practices to reduce nonpoint source pollution to waters of the state. These federal funds must be match by 40% non-federal funds. Currently, the state uses a portion of the Gross Production Tax income for the Infrastructure Revolving Fund Program which funds the installation of best management practices and provides a portion of the required $2 million of matching funds. This combination of federal and state dollars is only a small fraction of the resources needed to adequately address nonpoint source pollution to waters of our state.

Estimates of funding necessary to address nonpoint source (NPS) pollution in impaired watersheds in the State of Oklahoma are even more difficult to prepare than determinant assessments of the sources of pollution and the degree to which each source must be addressed in order to achieve water quality success. For instance, we know for example, that in some smaller NPS impaired watersheds, that investments by USDA Natural Resources Conservation Service of as little as $96,860 worth of investment in the implementation of best management practices (BMPs) in Wolf Creek in northwestern Oklahoma as necessary to reduce turbidity sufficiently to fully attain the fish and wildlife beneficial use (http://water.epa.gov/polwaste/nps/success319/ok_wolf.cfm) . We know that in other, similarly sized watersheds, restoration has not been achieved with investments greater than tenfold that investment in BMPs. Therefore, estimation of NPS needs is far from an exact science, however, the Oklahoma NPS program does have published, EPA-accepted estimates of NPS needs in several Watershed Based Plans, which provide a preliminary, but far from comprehensive estimate of the state's resource needs related to reductions in NPS-impaired waterbodies in the state.

The most critical and overarching need related to NPS pollution reduction pertains to the cost of monitoring Oklahoma waters for impacts of NPS pollution. Without dedicated, NPS-focused stream monitoring, evaluation of causes and sources of NPS pollution or success at reducing NPS pollution cannot be determined. The state currently devotes approximately $1.1 million per year in federal EPA Clean Water Act §319 Nonpoint Source funds toward this monitoring program. However, these federal funds are under significant threat of reductions and therefore the state should make plans to utilize state funding to cover these costs.

The State of Oklahoma has developed Watershed Based Plans that have been accepted by EPA in the following watersheds: Illinois River and Lake Tenkiller, Eucha/Spavinaw Watershed, Honey Creek of Grand Lake, Thunderbird Lake, Fort Cobb Lake, North Canadian River (between Lakes Canton and Overholser), and Elk City Lake. One critical component of an accepted plan is an estimate of financial resources necessary to address NPS pollution in the watershed. However, these plans are intended to be evolving documents and therefore, may or may not include an estimate of the entirety of funding

Wastewater Infrastructure Needs Assessment by Region

For Small, Medium, & Large Utilities Categories I, II, III and IV:

- Select wastewater utility for modeling
- Develop project list for selected utility
- Calculate costs for projects using cost models or available information
- Sum project costs by category groups
- Apply weighting equation to calculate regional cost by category groups

For Regional Projects Categories VI and VII:

- Using 2008 CWNS, develop Category VI project list
- Using list from Oklahoma Conservation Commission, develop Category VII project list
- Calculate costs for projects
- Sum project costs to calculate regional cost

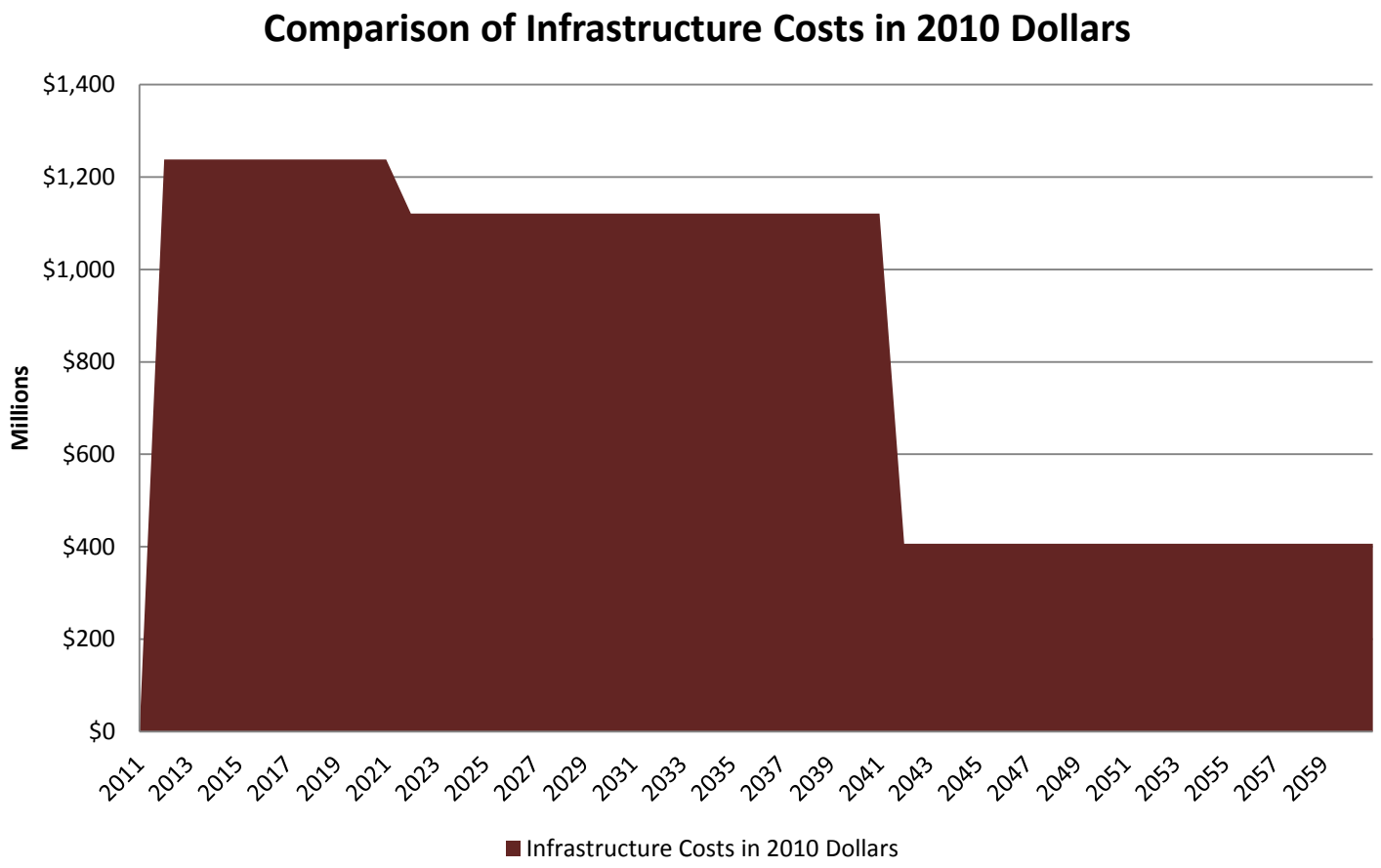
Apply summation equation to calculate regional cost

Category[A]	Official Needs Category Group[B]	Present - 2020 Infrastructure Need (millions of 2010 dollars)	2021 - 2040 Infrastructure Need (millions of 2010 dollars)	2041 - 2060 Infrastructure Need (millions of 2010 dollars)	Total Period Infrastructure Need (millions of 2010 dollars)[C]	Total Period Infrastructure Need (percent by category)	Total Period Infrastructure Need (percent by population)
Small	I and II	$ 170	$ 1,300	$ 530	$ 2,000		
	III and IV	$ 2,200	$ 5,000	$ 1,100	$ 8,300		
Small Subtotal		$ 2,370	$ 6,300	$ 1,630	$ 10,300	23%	13%
Medium	I and II	$ 1,100	$ 4,000	$ 1,150	$ 6,250		
	III and IV	$ 7,500	$ 10,000	$ 4,000	$ 21,500		
Medium Subtotal		$ 8,600	$ 14,000	$ 5,150	$ 27,750	63%	51%
Large	I and II	$ 310	$ 1,010	$ 830	$ 2,150		
	III and IV	$ 900	$ 1,600	$ 780	$ 3,280		
Large Subtotal		$ 1,210	$ 2,610	$ 1,610	$ 5,430	12%	36%
Regional	VI	$ 240	$ -	$ -	$ 240		
	VII	$ 170	$ 130	$ 130	$ 430		
Regional Subtotal		$ 410	$ 130	$ 130	$ 670	1.5%	
Total		$ 12,590	$ 23,040	$ 8,520	$ 44,150		

WASTEWATER INFRASTRUCTURE NEED (All shown in Millions of 2010 Dollars)				
	Present - 2020	2021-2040	2041-2060	Total Period
Total Period Costs	$ 12,590	$ 23,040	$ 8,520	$ 44,150
Average Cost per Year	$ 1,238	$ 1,121	$ 407	$ 883

- **Infrastructure cost projections from CDM were provided in 2010 dollars**
- **Figures will be impacted by inflation over time**

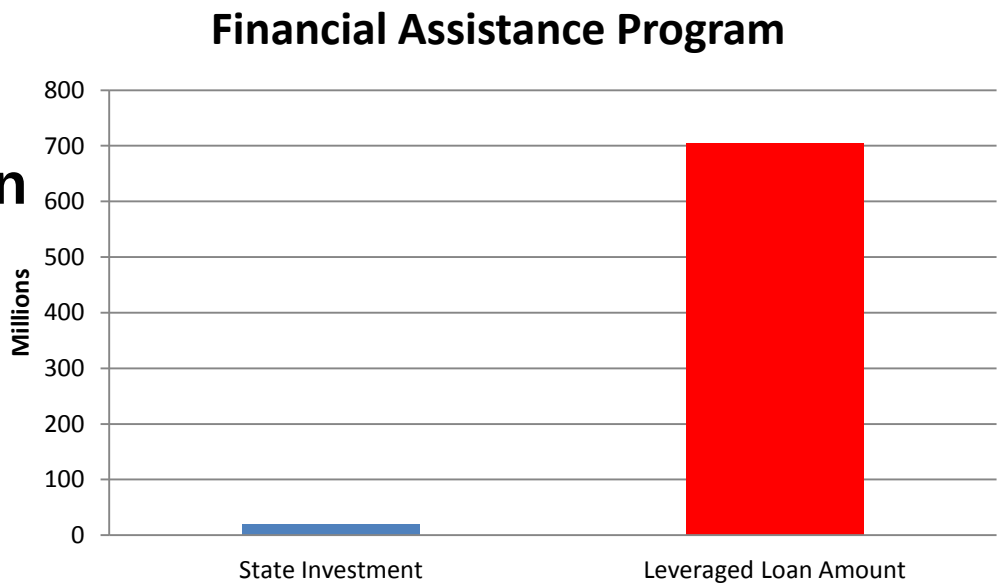
Review of OCWP



- **Debt is often the tool utilized to finance projects that have long useful lives like the proposed infrastructure projects**

Impact of Leveraging

- **The Financial Assistance Program (FAP) provided the first loan in 1985**
- **The $20 million in funding has been utilized to fund approximately $705 million in loans**
- **The FAP has the highest rating of AAA**
  - ***Given the AAA rating, we recommend the borrower credit analysis, loan administration and on-going surveillance of those programs be the foundation for any new program***



Water Project & Infrastructure Funding

Addressing Oklahoma's $82 Billion Water and Wastewater Project Need

"… a team of financial and water/wastewater infrastructure professionals, led by the OWRB, should investigate development of a more robust state funding program to meet the state's projected $82 billion water and wastewater infrastructure need between now and 2060…."

Recommendations

- **Additional State Investments**
- **Maintain Gross Production Tax revenue**
- **Develop new methods to encourage regionalization**
- **Explore new alternative funding sources**

Recommendations

- **Creation of new or restructured Financial Assistance Program (FAP)**
- **Creation of a small loan initiative**

Financial and Programmatic Analysis of Existing Programs

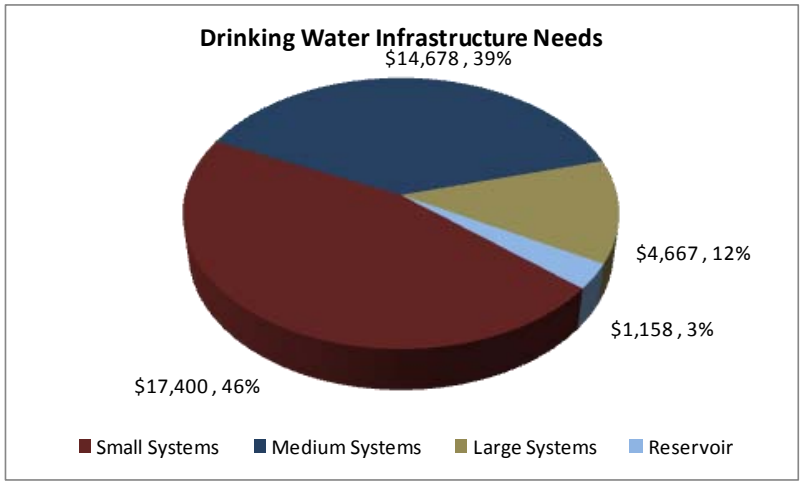
- **Given the magnitude of the funding gap, we suggest that a new program be created or the FAP be restructured**
- **Utilize the same framework and statutory authority that provided for the creation of the FAP**
- **Will allow the maximum flexibility in creating the program guidelines, legal parameters and bond requirements**

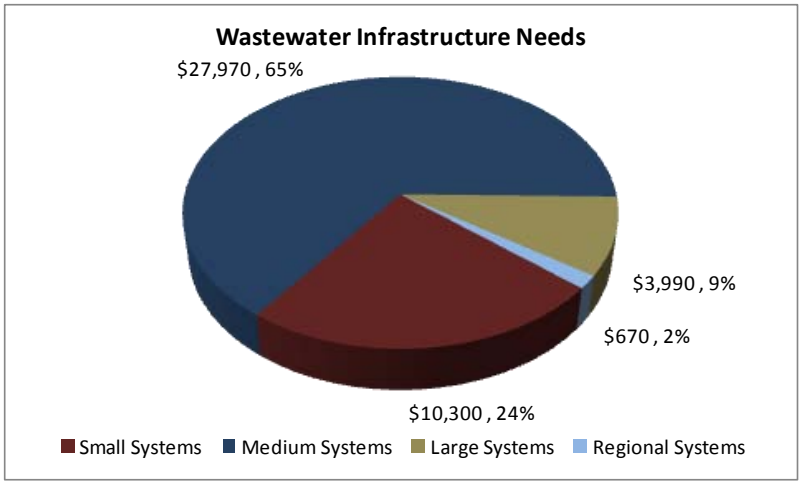
Small Issuer Strategies

- **The OCWP identifies small entities have the largest overall drinking water infrastructure cost**
- **Comprises 46% of the State's drinking water and 24% of the wastewater needs**

Some challenges in funding small systems include:

- **Credit and financial implications to the program**
- **Difficulties meeting financial ratios and credit thresholds**
- **On-going surveillance performance considerations**
- **Lack of audited financial statements**





Small Issuer Strategies

There are ways to ensure funding while minimizing the impact of the challenges:

- **Define annual funding goal to ensure funding levels**
- **Create a second smaller revolving fund for direct loans to communities with weak credits and financial circumstances**

Recommendations

- **Consider interest rate subsidy reduction and other methodologies**

Comprehensive Model

- A strategic planning model has been developed in conjunction with Oklahoma Comprehensive Water and Wastewater Plan
- The model integrates data from the 50-year study period
  - The model actually extends 70- years to potentially incorporate the issuance of debt
- The model was created to be a tool in analyzing various strategies and alternatives related to the funding gap
- The model has the ability to run multiple “What if?” scenarios

Comprehensive Model

- **The model includes the following variables each of which can be modified independently or simultaneously**
- **While each of these variables are important, they are best evaluated based on the overall impact to the funding gap**

- Projected Program Demand
- Underlying Borrower loans
- Lending Rates
- Capitalization Levels
- Project Funding Levels
- Investment of Funds
- Interest Rates
- Interest Rate Subsidy Levels
- Credit Enhancement

Comprehensive Model

There are two types of program and funding methodologies:

NON-PERPETUITY

- Contribute only the amount of funding needed to subsidize the debt service
- Once the funding stops, the program ceases
- Lowest cost option

PERPETUITY

- Contribute more capital than is required to subsidize debt service
- After the funding period, the accumulated equity creates a revolving fund program
- More expensive option, but provides a more sustainable funding options

Comprehensive Model

Program recommendations and additional alternatives can be evaluated utilizing the model in order to better:

- Qualify the potential financial impact of an alternative in order to assist in making the business decision as to whether to utilize it or not
- Compare various alternatives
- Value of the multi-year model is to better identify the impact of compounding
  - Small changes in the near-term can have significant impacts in the future, especially with a 50-Year planning horizon

Comprehensive Model

Model has additional benefits that extend over time

- Be utilized as part of the process in educating the rating agency(ies) about the program
- Shift into more of a capacity model once the program alternatives have been defined by updating the variables
- Be a tool to assist program leadership in actively managing the program based on the prevailing market conditions
- Should additional funding sources become available over time, the impact can be factored into the model

Recommendations

- **Creation of State-backed Credit Enhancement Reserve Fund (CERF)**

Water/Wastewater Financing in Oklahoma – Our History

Fact #1: State of Oklahoma invested $20 million with the OWRB for the purpose of creating a low-cost statewide loan program

Fact #2: OWRB has become the primary lender for water/wastewater project in Oklahoma

Fact #3: OWRB has an outstanding lending history

Fact #4: Oklahoma municipalities have saved $900 million in interest by borrowing from the OWRB

Fact #5: $20 million investment = $900 million in savings for Oklahoma municipalities

Water/Wastewater Financing in Oklahoma – <u>Our Future</u>

- Additional funding required to keep OWRB financing programs viable
- Oklahoma at a crossroads
  - To invest or not to invest
- Not investing = Tax Increase

Water/Wastewater Financing in Oklahoma – Our Future

OWRB Credit Enhancement Reserve Fund

- 1985 State investment was a direct appropriation
- Monies placed in bond reserve fund
- Large bond reserves allowed OWRB to obtain AAA credit rating, which is what allows the OWRB to offer "below-market" loans

Water/Wastewater Financing in Oklahoma – Our Future

OWRB Credit Enhancement Reserve Fund

- Fund bond reserve only if needed to avoid payment default
- State-wide vote
- Voters pre-approve the issuance of general obligation bonds to fund future deposits to bond reserve (if needed)
- Bonds would only be issued in the event of a future payment default
- **Based upon OWRB lending history, the bonds would likely never be issued**

Water/Wastewater Financing in Oklahoma – <u>Our Future</u>

OWRB Credit Enhancement Reserve Fund

1. This is a plan that can be done
    1. Modeled after an existing program in the State (ODFA)
2. This is a plan that should be done
    1. Far better option than asking the State to appropriate current dollars or not investing at all
    2. Will allow OWRB to continue to provide “below-market’ loans
    3. Will result in lower utility bills for all Oklahoman’s
    4. Will likely cost the State of Oklahoma NOTHING

State of Oklahoma

OWRB

WATER RESOURCES BOARD

the water agency