

Infrastructure Planning

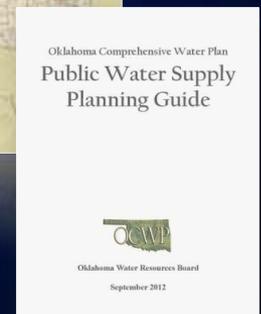
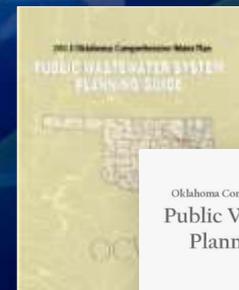
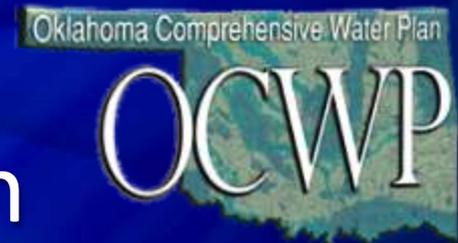
Jennifer Wasinger, Assistant Chief

Financial Assistance Division
Oklahoma Water Resources Board



Oklahoma Experience

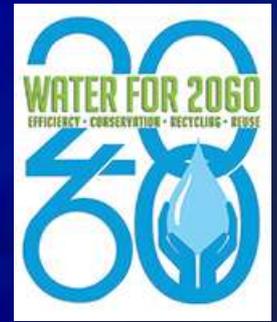
- The Oklahoma Comprehensive Water Plan (OCWP)
- Water for 2060 Initiative
- Oklahoma Planning Guides



Infrastructure Needs

- **\$82 Billion need** for water and wastewater infrastructure over the next 50 years
- Greatest need in small- and medium-sized systems
- Need is not only to replace infrastructure but for systems to become more sustainable for the long term

Water for 2060

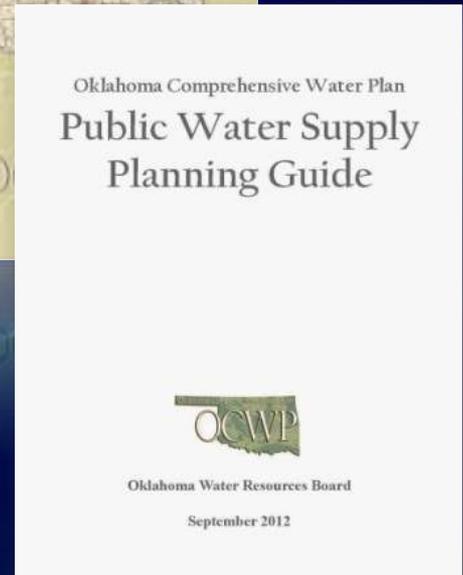
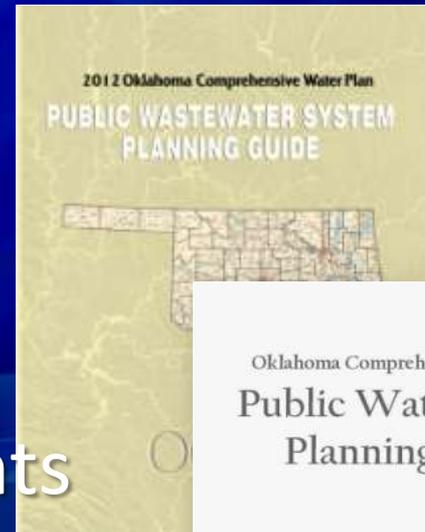


- Push from the Legislature to use no more fresh water in 2060 than we do today
- Diverse council appointed by the Governor and Legislature to look at non regulatory methods to get us there
- Focused on efficiency, conservation, recycling and reuse thru all use sectors

Oklahoma Planning Guides

- Water and Wastewater Planning Guides assist systems in planning for their water future

- Strategic planning
- Conservation efforts
- Infrastructure improvements
- Asset Management
- www.owrb.ok.gov



Oklahoma Planning Guides

- Provides strategic planning activities, including tables, checklist and open-ended questions
- Provides examples using the process for any water/wastewater system
- Looks at methods for water conservation, efficiency and reuse



Oklahoma Planning Guides

- System Sustainability
 - Incorporating activities that meet the needs of the present without compromising the needs of future generations
 - Economic
 - Environmental
 - Social

Oklahoma Planning Guides

- Contains 10 sections - Worksheets to GET ORGANIZED
- Does NOT tell systems what to do but gives them the questions to ask
- Only do what is helpful to them
- Describes your current system and its future priorities and needs

Oklahoma Planning Guides

- Introduction
- Rules and Regulations
- Gathering Data
- Asset Management: Inventory Development, System Operation and Maintenance
- System Management
- Determining Future Needs
- Capacity Analysis
- Project Development
- Engineering Report and Project Financing

Knowing the System



Name of Facility

Identify physical and

ATON

Are key facilities id

Are future service

Are known environmental or cultural areas identified on map? Yes ___ No ___

Asset Management

Section 4: Inventory Development, System Operation and Maintenance

Table 4-3: Influent Pumps

System Name			
Date of assessment (mm/dd/yyyy)			
Facility type			
EQUIPMENT			
Number of pumps			
Use numbered columns for each separate unit ¹		Pump 1	Pump 2
			Pump 3

Section 4: Inventory Development, System Operation and Maintenance

Table 4-11: Lagoon System

System Name		
Date of assessment (mm/dd/yyyy)		
SYSTEM		
Number of Units		
Use numbered columns for each separate unit ¹		1
Type	Length	
Dimensions (feet)	Width	
	Depth	
HRT (hours)		
Installation date (mm/dd/yyyy)		
Base effective useful life (years)		
Estimated remaining effective useful life (years)		
Replacement within next 5 years?		
AERATORS		
Number of Units		

To

System Name	
Date of assessment (mm/dd/yyyy)	
Facility type	
EQUIPMENT: (additional forms if needed)	
Number of pumps	
Common/Official identification: ¹	
Rated capacity	
Installation date	
Manufacturer	
Horsepower	
Variable or constant speed	
Base effective useful life (years)	
Estimated remaining effective useful life (years)	
Replacement within next 5 years?	
STRUCTURE: (additional forms if needed)	
Installation date	
Space for equipment	
Base effective useful life (years)	
Estimated remaining effective useful life (years)	
Replacement within next 5 years?	
CONTROL: (additional forms if needed)	
Installation date	
Instrumentation	
Description of control system	

System Name	
Date of assessment (mm/dd/yyyy)	
OZONE GENERATION (additional forms if needed)	
Number of generators	
Common/Official identification: ¹	
Manufacturer	
Ozone generator service	
Feed gas supply temperature	
Feed gas supply pressure	
Ozone production capacity	
Design gas flow rate (scf)	
Power factor	
Cooling water design temperature	
Cooling water flow rate (gpm)	
Cooling water pressure (psi)	
Cooling water temperature	
Installation date (mm/dd/yyyy)	
Base effective useful life (years)	
Estimated remaining effective useful life (years)	
Replacement within next 5 years?	

Rated capacity
Manufacturer
Solid passability
Pump Specification
Variable or constant speed
Installation date
Base effective useful life (years)
Estimated remaining effective useful life (years)
Replacement within next 5 years?
CONTROL
Instrumentation
Description of control system

System Management

Name of Facility:						
Budget Item		Year	Year	Year	Year	Year
A	Operating Revenues (including water rates, service impact fees, other)	\$	\$	\$	\$	\$
B	Expenses	\$	\$	\$	\$	\$
C		\$	\$	\$	\$	\$
D		\$	\$	\$	\$	\$
E		\$	\$	\$	\$	\$
F		\$	\$	\$	\$	\$
G	Budget Total [A – (B through F)]	\$	\$	\$	\$	\$

Project Prioritization

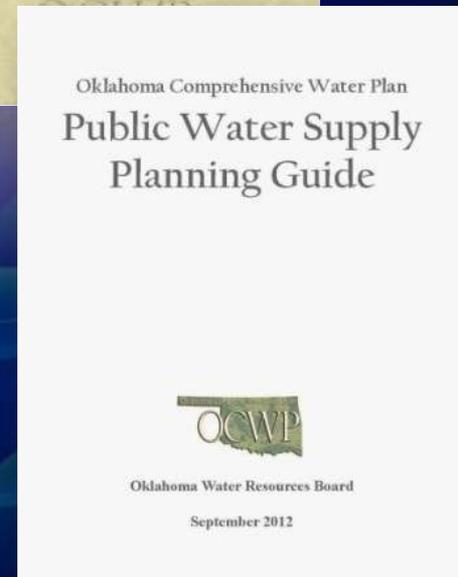
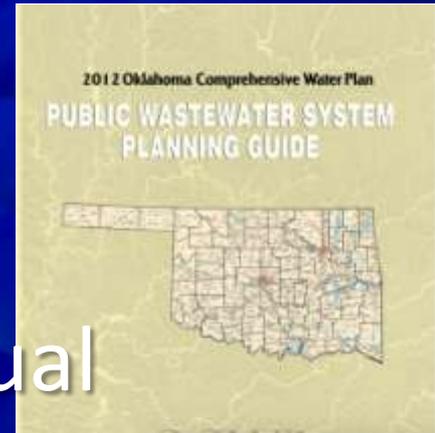
	Critical	Non-Critical
Within 1 year		
1 to 3 years		
3 to 5 years		
5 to 10 years		
10 to 25 years		
Beyond 25 years		

Wastewater Planning Guide

- Modified to be used as CWSRF Fiscal Sustainability Plan
- Water and energy conservation section will be added similar to OWRB Green Checklist and CWSRF Guidance
- Information regarding maintaining, repairing, and replacing infrastructure and how it will be funded
- Reviewed as part of the final inspection

System Planning into the Future

- www.owrb.ok.gov/OCWP
- Working with water and wastewater systems in individual and group settings
- Information that all systems should have at their fingertips
- Better way of doing business into the future



September 2012

Oklahoma Water Resources Board

Questions?

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