The background is a light blue gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance.

HARRISONVILLE WATER TREATMENT PLANT

OUR CITY'S 30 YEAR JOURNEY TO GOOD WATER



427 ac. man made lake
7.5 miles raw water main
2.4 MGD plant
P.A.C. for taste/odor
67% citizen not satisfied with water



BEFORE

AFTER

Contractor Selection 2013

Whole System Study 2013 – 2014

Engineer's Recommendation 2014

BOND ELECTION (7mil in 2014)

Start of Engineering 2014

THE APPLICATION PROCESS

FROM



TO



Start MDNR/SRF Application

for 9.5mil SRF Loan

(2.5MIL from 2009 elec and 7mil from 2014 elec)

Partial list of items needed

- 1.) Proof of payback ability (rates capable of making payments AND future funding of planned projects)
- 2.) Completed MDNR “Model Drinking Water User Charge Methodology” (rate model calculator)
- 3.) Application
- 4.) Facility Study (show you have need of improvements and put thought into and not just spur of the moment decision)
- 5.) MDNR approved plans

MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM DRINKING WATER STATE REVOLVING FUND LOAN APPLICATION		FOR OFFICE USE ONLY DATE RECEIVED
1. APPLICANT INFORMATION This application is for a Drinking Water State Revolving Fund Loan described in Missouri Regulation 10 CSR 60-3.000. Submit to: Missouri Department of Natural Resources, Financial Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176. Please type or print legibly.		PROJECT NUMBER
2. ARCHITECTURAL AND ENGINEERING CONSULTANT INFORMATION Burns and McDonnell Engineering 8400 Ward Parkway Kansas City, MO 64114 (816) 533-4400 Ext.		PROJECT NAME
3. GENERAL INFORMATION PROJECT NUMBER: 00000000 PROJECT TITLE:		PROJECT STATUS
4. CERTIFIED OPERATOR AND EMERGENCY OPERATING PLAN <input checked="" type="checkbox"/> Documentation the public water supply has a certified chief operator or expects to have prior loan award. <input checked="" type="checkbox"/> Documentation the public water supply has an emergency operating plan or expects to have prior loan award.		

PUBLIC HEALTH (Anticipated public health benefits of the proposed project)	
<input type="checkbox"/>	Existing public water systems only. At least 51 percent of the project will address problems causing a waterborne disease outbreak attributable to the public water supply to the Missouri Department of Health and Senior Services.
<input type="checkbox"/>	Existing public water systems only. The public water supply can document its ability consistently to maintain +35 psi at a normal working pressure in the distribution system.
<input type="checkbox"/>	Existing public water systems only. The public water supply can document its ability consistently to maintain +20 psi at all service connections.
<input type="checkbox"/>	Disinfection byproduct levels or sources in the project service area are unable to consistently provide an adequate amount of potable water for general household purposes and at least 51 percent of the project addresses this need.
PUBLIC WATER SYSTEM INFRASTRUCTURE IMPROVEMENTS (Anticipated infrastructure benefits of the proposed project)	
<input type="checkbox"/>	Provide a public water supply with a backup well or backup interconnection with another public water supply.
<input type="checkbox"/>	Address problems with reservoir wall construction.
<input type="checkbox"/>	Address unaccounted for water that exceeds 10 percent of the drinking water produced by the system, and the loss is due to leaking or broken water lines.
<input type="checkbox"/>	Provide necessary modifications to a distribution system anticipated to exceed design capacity or useful life within the next five years.
<input type="checkbox"/>	Address a demonstrated need to replace heavy pipes or substantial pipe materials.
<input type="checkbox"/>	Address a demonstrated need for distribution system valves and flushing devices.
<input type="checkbox"/>	Address a demonstrated need for logging water mains.
<input type="checkbox"/>	Address an inability to maintain a disinfectant residual at all points in the distribution system.
<input type="checkbox"/>	Address water storage facilities in poor condition not related to inadequate maintenance.
<input type="checkbox"/>	Provide the public water supply with a storage capacity equal to one day's average use or provide the public water supply with adequate standby power.
<input type="checkbox"/>	Provide necessary modifications to a source or treatment facility anticipated to exceed design capacity or useful life within the next five years.
<input type="checkbox"/>	Address significant degradation of the quality of raw water supply.
<input type="checkbox"/>	Address significant degradation of the quality of finished water in storage.
<input type="checkbox"/>	Enable the public water supply to meet existing state requirements for the treatment or storage of waste residues generated by the water treatment plant.
<input type="checkbox"/>	Enable repair or replacement of treatment facilities for required disinfection or turbidity removal that are severely deteriorated beyond the useful life of the facility.
<input type="checkbox"/>	The facility's source is vulnerable to natural disasters (such as flood or drought) or contamination.
<input type="checkbox"/>	The facility's treatment plant is vulnerable to natural disasters (such as flood or drought) or contamination.
<input type="checkbox"/>	The facility is located in a department-approved wellhead protection area.

5. PROJECT DESCRIPTION		
Describe the project objectives. (The project applicant completes this section.) Replace and/or modify the following: 1. Rapid mix, 2. Chemical handling and storage, 3. Electrical controls and equipment, 4. Solid contact basin equipment, 5. Filter media and backwash, 6. Finished water pumping, 7. Raw and finished water metering, 8. Space to add Ozonox for Taste and Odor control caused by MB & Seosens and future disinfection by products regulations, 9. Yard piping.		
6. PROJECT COST INFORMATION		
ESTIMATED PROJECT COST BREAKDOWN	BREAKDOWN OF STATE REVOLVING FUND ELIGIBLE COST PER DESIGNATED CATEGORY:	
Administrative/Legal	Treatment	\$ 9,500,000
Engineering Planning and Design	Transmission and Distribution	\$
Construction Engineering Services	Storage	\$
Engineering Inspection	Source	\$
Construction	Land Acquisition	\$
Other Costs (labs, upgrades, automation, etc.)	Purchasing of Other Systems	\$
Interest During Construction	Refinancing	\$
Contingency (10 percent of Construction)	Other	\$
PROJECTED REPAYMENT SOURCE Total Project Costs: \$9,500,000 Funding Sources other than the Drinking Water State Revolving Fund (specify whether loan or grant): - User Fees - General Funds - Sales - Other (Please describe)		
AMOUNT OF LOAN REQUEST (Balance plus Cost of Issuance) \$ 9,528,700	<input type="checkbox"/> Is the source of repayment reliable and available at the time of the loan? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, specify:	
7. ANTICIPATED DEBT STRUCTURE/SECURITY		
General Obligation Bonds	Revenue Bonds	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

8. PROJECT SCHEDULE (READINESS TO PROCEED-SEE ATTACHED READINESS TO PROCEED AND DISTRIBUTION OF FUNDS CRITERIA FACT SHEET)	
A. Facility plan submitted (See attached Facility Plan Submission Checklist when submitting the facility plan)	ANTICIPATED DATE
B. All other funding is secured (if necessary, bonds are voted)	09/11/2014
C. Engineering plans and specifications submitted	09/14/2015
D. Construction start date	11/15/2015
9. PRIORITY POINTS CRITERIA (SEE ATTACHED MISSOURI WATER STATE REVOLVING FUND PRIORITY POINTS CRITERIA FACT SHEET)	
SAFE DRINKING WATER ACT COMPLIANCE (Anticipated compliance benefits of the proposed project)	
<input type="checkbox"/>	Correct persistent violations of maximum contaminant levels or treatment performance criteria for acute risk contaminants (such as coliform, turbidity or nitrate) within the past 36 months.
<input type="checkbox"/>	Correct persistent violations of treatment technique requirements.
<input type="checkbox"/>	Correct persistent violations of maximum contaminant levels for nonacute risk primary contaminants occurring within the past 36 months.
<input type="checkbox"/>	Correct persistent violations of maximum contaminant levels for secondary contaminants occurring within the past 36 months.
<input checked="" type="checkbox"/>	Enable the public water supply to comply with certain anticipated federal regulations.
<input type="checkbox"/>	Enable the public water supply to comply with an administrative order, bilateral compliance agreement, permit or other enforceable document issued by the Missouri Department of Natural Resources.
10. REPORT OF TECHNICAL CONSULTANT	
This project would present a pending threat to public health. Analysis of the treatment process shows a gross inefficiency during the coagulation and flocculation, clarification and filtration stages proving the likelihood of imminent failure to protect public health in the near-term.	

ADDITIONAL PRIORITY POINT CATEGORIES	
<input type="checkbox"/>	At least 51 percent of the project cost is for repair or replacing an existing public water system damaged or destroyed by a natural disaster (flood). Documentation must be submitted along with a statement that adequate state or federal disaster relief is not available.
<input type="checkbox"/>	Project will result in interconnections with other systems affected by drought or for upgrades to existing systems to address drought related problems.
<input type="checkbox"/>	Project will result in interconnections with other systems prone to flooding or for upgrades to existing systems to address flood related problems.
<input type="checkbox"/>	Provide necessary upgrades to sources or a primary water system to continue or expand services as a regional water supplier. Name of system(s):
<input type="checkbox"/>	Result in the permanent supply interconnection of two or more existing public water systems. (This includes new water systems that allow small water systems within their boundaries to connect.)
<input type="checkbox"/>	Name of system(s): Case Courts Public Water District #9 - Emergency Connection
<input type="checkbox"/>	Result in a regional management system responsible for the day-to-day operation of the water system.
<input type="checkbox"/>	Name of the system(s):
<input checked="" type="checkbox"/>	Enable the public water supply to enhance the water system security.
<input checked="" type="checkbox"/>	At least 50 percent of the applicant's governing board has received training related to the management and operation of drinking water infrastructure. Please provide documentation of the training and a list of members who received the training.
<input checked="" type="checkbox"/>	The public water supply has completed an asset inventory.

REPORT OF TECHNICAL CONSULTANT
 Asset inventory was completed on the raw water & water treatment system.

CERTIFICATION	
The undersigned representative certifies the information submitted in this application is true and correct to the best of his or her knowledge and that he or she is authorized to sign and submit this application. The applicant agrees, if a loan is awarded on the basis of this application, to comply with all applicable laws and regulations of the Department of Natural Resources and the terms and conditions of the loan agreement. Furthermore, the applicant meets the requirements of 10 CSR 60-3.032 Technical, Managerial and Financial (TMF) Capacity or all meet these requirements upon completion of the project. For more information regarding TMF Capacity please contact the department's Financial Assistance Center at 573-751-1192.	
APPLICANT INFORMATION Name: Keith-Moody City Administration Address: 1815 W. 10th Street Phone: (816) 386-8000 Ext.	PREPARED BY Name: Jerry W. Gable, Director of Public Works Address: 1815 W. 10th Street Phone: (816) 386-8000 Ext.

Model Drinking Water User Charge Methodology

Appendix A to User Charge System

This appendix presents the methodology to be used in calculating user charge rates and illustrates the calculations followed in arriving at the first year's user charges. The unit costs established in this appendix are based on estimates of expenses. The actual expenses that occur may differ from these estimates and estimates may change as time passes. Therefore, the unit cost must be re-estimated whenever necessary to reflect actual expenses. Once the system is in use, the expenses can be determined from operating records and the unit costs can be adjusted based on these figures. By using the total water metered to customers as a bases for setting the rate, the cost of water loss is distributed even among users.

1. Expenses. The total annual expenses associated with the treatment works, as defined in article II, Section B, are estimated as follows:

Item	Annual Expense
Billing and Collection	\$ 89,902.96
Administration	\$ 388,713.75
Debt Service-OPF 2016 Loan	\$ 600,000.00
Financial Audit	\$ -
Power/Contractual Service	\$ 269,848.00
Labor (including fringe benefits)	\$ 691,048.00
Material Costs	\$ -
Replacement Costs (from Appendix C)	\$ 179,256.90
Chemicals/Commodities	\$ 249,527.00
Capital Outlay	\$ 36,210.00
Lake Homestead Watershed Protection	\$ 50,000.00
Other Charges	\$ 33,964.00
DEI Service Coverage	\$ 52,423.00
Other (specify)	\$ -
Other (specify)	\$ -
Total Expenses	\$ 2,619,891.90
Revenues Received from Other Sources	
Dedicated Capital Improvement Sales Tax Revenue	\$ -
Other Revenue Fix Fee (Water Tower Cellular Lease)	\$ 53,889.00
Other Revenue (Fg & C Connection Fee)	\$ -
Total Revenues from Other Sources	\$ 53,889.00
Total Expenses to be Derived from User Charges	\$ 2,566,001.90

2. Allocation of Expenses. The total operation and maintenance, including replacement expenses, is allocated in the following manner:

Minimum	Volume		
Billing and Collection	\$ 89,902.96	Power	\$ 269,848.00
Administration	\$ 112,026.75	Labor (including fringe benefits)	\$ 691,048.00
Debt Service	\$ 600,000.00	DEI Coverage	\$ 52,423.00
Financial Audit	\$ -	Replacement (See Appendix C)	\$ 179,256.90
Anticipated Debt Service	\$ -	Chemicals	\$ 249,527.00
Other (specify)	\$ -	Capital Outlay	\$ 36,210.00
Capital Improvement Sales Tax	\$ -	Lake Homestead Watershed	\$ 50,000.00
Other Revenue Fix Fee (specify)	\$ (53,889.00)	Distribution Capital	\$ 33,964.00
		Administration	\$ 276,399.00
Total	\$ 728,029.00	Total	\$ 1,837,672.90

* Note: The amount of debt service collected in the minimum bill is reduced by the revenues derived from the dedicated Capital Improvement Sales Tax.

Model Drinking Water User Charge Methodology

3. Annual Metered Water, Billing and Connection Information

Total water metered to customers	298,714,000 Gallons Per Year
Number of billing periods	12
Number of Service Connections	5,360
Flow in Minimum Charge	1,000 Gallons per Month
Flow in Volume Charge	251,000,000

4. Volume Charge

Volume Unit Charge	=	Annual cost allocated to volume
	=	Total water metered to customers
	=	\$ 1,837,672.90 / 298,714,000 gal
	=	\$ 0.00719 per gallon (City's adopted volume charge)
	=	\$ 0.719000 per 1000 gallons (rounded up)

5. Minimum Charge

Minimum Charge	=	Annual cost allocated to minimum / Number of service connections / Number of billing periods
	=	\$ 13.89

6. Example User Charge

Assume	4,000	gallons used
User Charge	=	Minimum Charge + (Gallons Used / 1,000) x Volume Charge per 1,000 gallons
	=	\$13.89 + (4,000 / 1,000) x \$0.719
	=	\$ 2,902.00 per month

Are rates sufficient?

Annual revenues generated from Minimum Charge	=	Minimum Charge per billing period x Number of Billing Periods x Number of Connections
Annual revenues generated from Minimum Charge	=	\$13.89 x 12 x 5,360
Annual revenues generated from Minimum Charge	=	\$ 881,502.96
Annual revenues generated from Residential Unit Charge	=	Volume Charge x Total Annual Flow in 1000 gallons
Annual revenues generated from Residential Unit Charge	=	\$0.719 x 251,076,000 / 1,000
Annual revenues generated from Residential Unit Charge	=	\$ 180,803.96
Total Annual Revenues	=	Annual revenues generated from Minimum Charge + Annual revenues generated from Residential Unit Charge
Total Annual Revenues	=	\$881,502.96 + \$180,803.96
Total Annual Revenues	=	\$ 1,062,306.92
Budget Surplus (Deficit)	=	Total Annual Revenues - Total Expenses to be Derived From User Charges
Budget Surplus (Deficit)	=	\$2,340,274.65 - \$2,566,001.90
Budget Surplus (Deficit)	=	\$ (225,727.25)

The background of the slide is a light blue gradient with several realistic water bubbles of various sizes scattered across it. The bubbles have highlights and shadows, giving them a three-dimensional appearance. The text is centered on the slide.

Plan for a 6 month window for SRF funding

**MDNR/SRF staff was very helpful even if
you don't like the first answer they give
they are good at helping get you where you
need to be!**



OVERHEAD CHEM FEED LINES

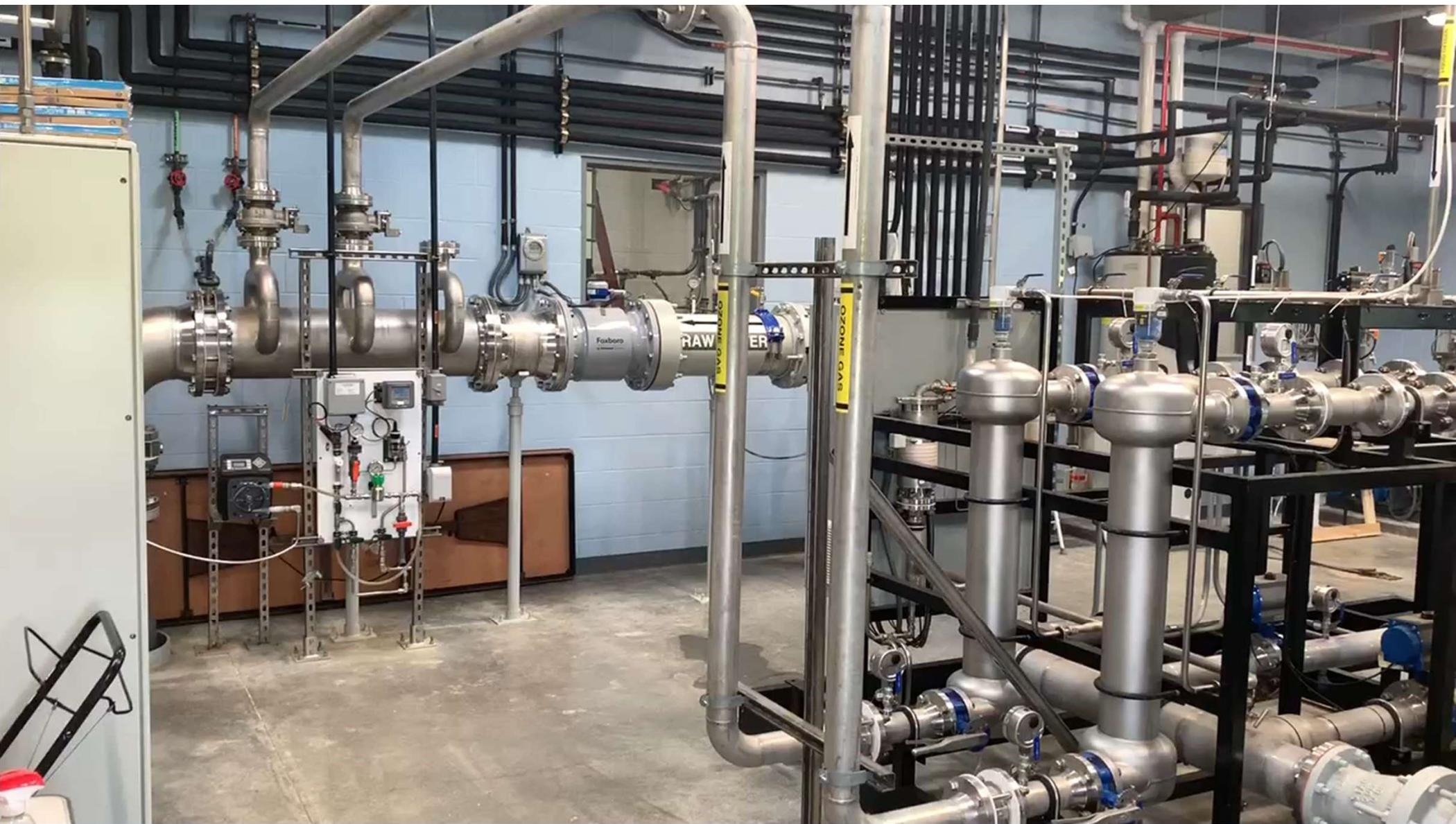


LIQUID ALUM –
SODIUM HYPOCHLORITE



LIQUID OXYGEN (LOX)





OZONE / CHEM FEED BUILDING

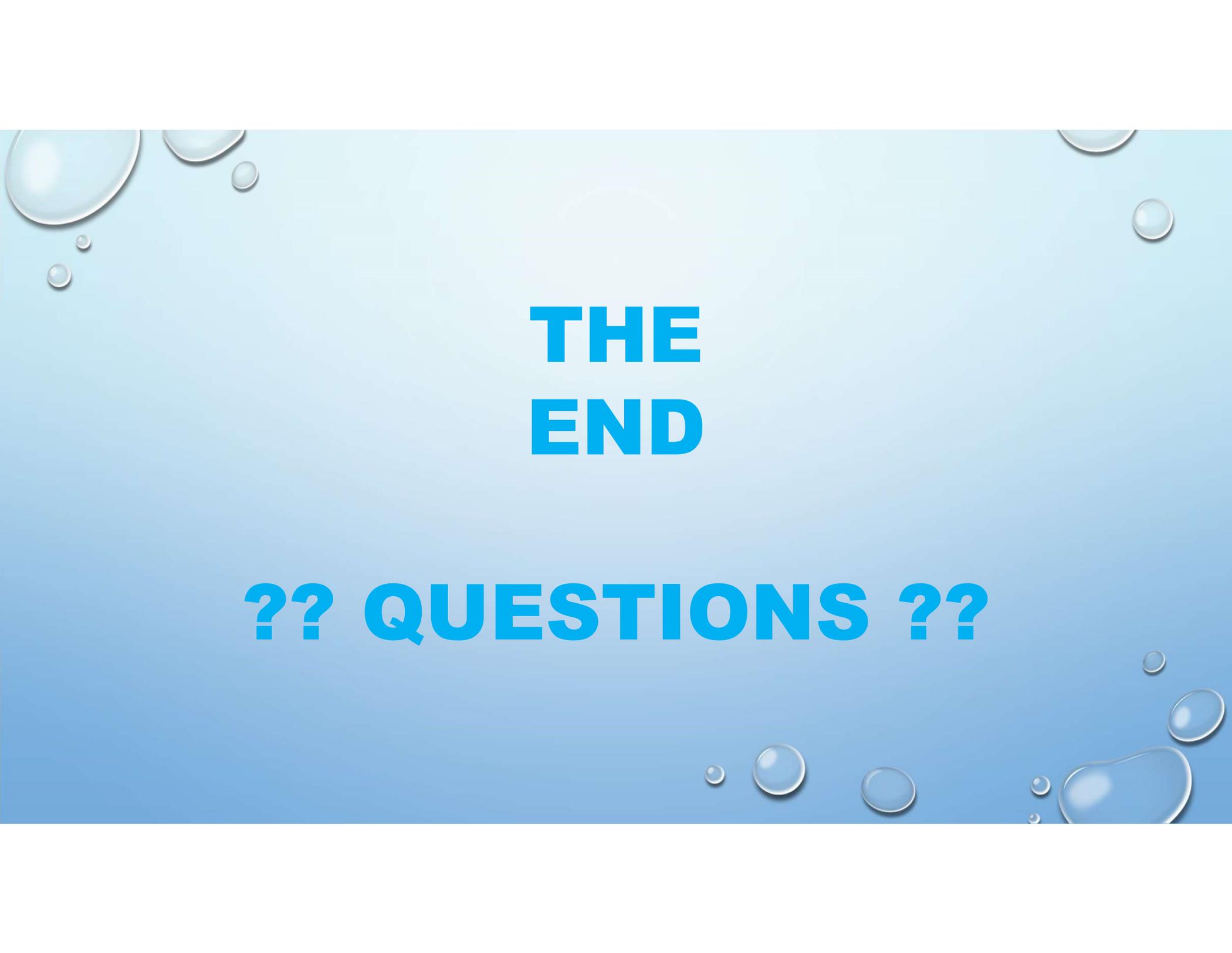




THINK!
Our Aim,
No Accidents





The background is a light blue gradient with several realistic water droplets of various sizes scattered across the top and bottom edges. The text is centered in a bold, blue, sans-serif font.

**THE
END**

?? QUESTIONS ??