



*"Improving the quality of life in rural communities"*

# Asset Management Plan Review for Small Communities



Presented by:  
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Administered by W.S.O.S. CAC, Inc.  
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Ohio RCAP provides free technical assistance to communities under 10,000 population. We assist with project planning, development and funding. Often, we work with communities to evaluate their rate structures and financial capacity. In addition to working with individual communities, we also offer several classes each year to local officials and operators.

# Ohio RCAP Receives Funding from the Following Agencies:



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# OhioEPA

*Division of Drinking and Groundwaters*



# RCAP Offers More than Traditional Water and Wastewater Services



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## FEE BASED:

- **Loan and Grant Writing Services for > 10,000 population**
- **NEPA Environmental Reports**
- **CDBG Administration**
- **Source Water Protection Planning**
- **Asset Management Planning**
- **Utility Rate & Structure Analysis for water > 10,000 population and sewer > 3,300 population**
- **Comprehensive Community Development**



# What is Asset Management?

*“A process for maintaining a desired level of customer service at the best appropriate cost.”*



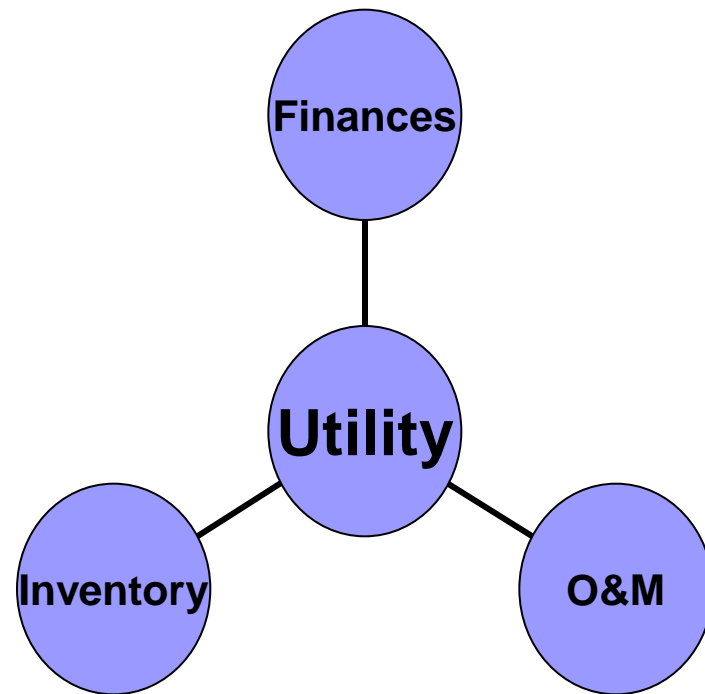
**Focus: “Lowest Life of Asset Cost”**

**NOT “Lowest Next Year Cost!”**

# Worried that Asset Management is a maze?



Your Fear



Reality

# Four components of a successful Asset Management Plan



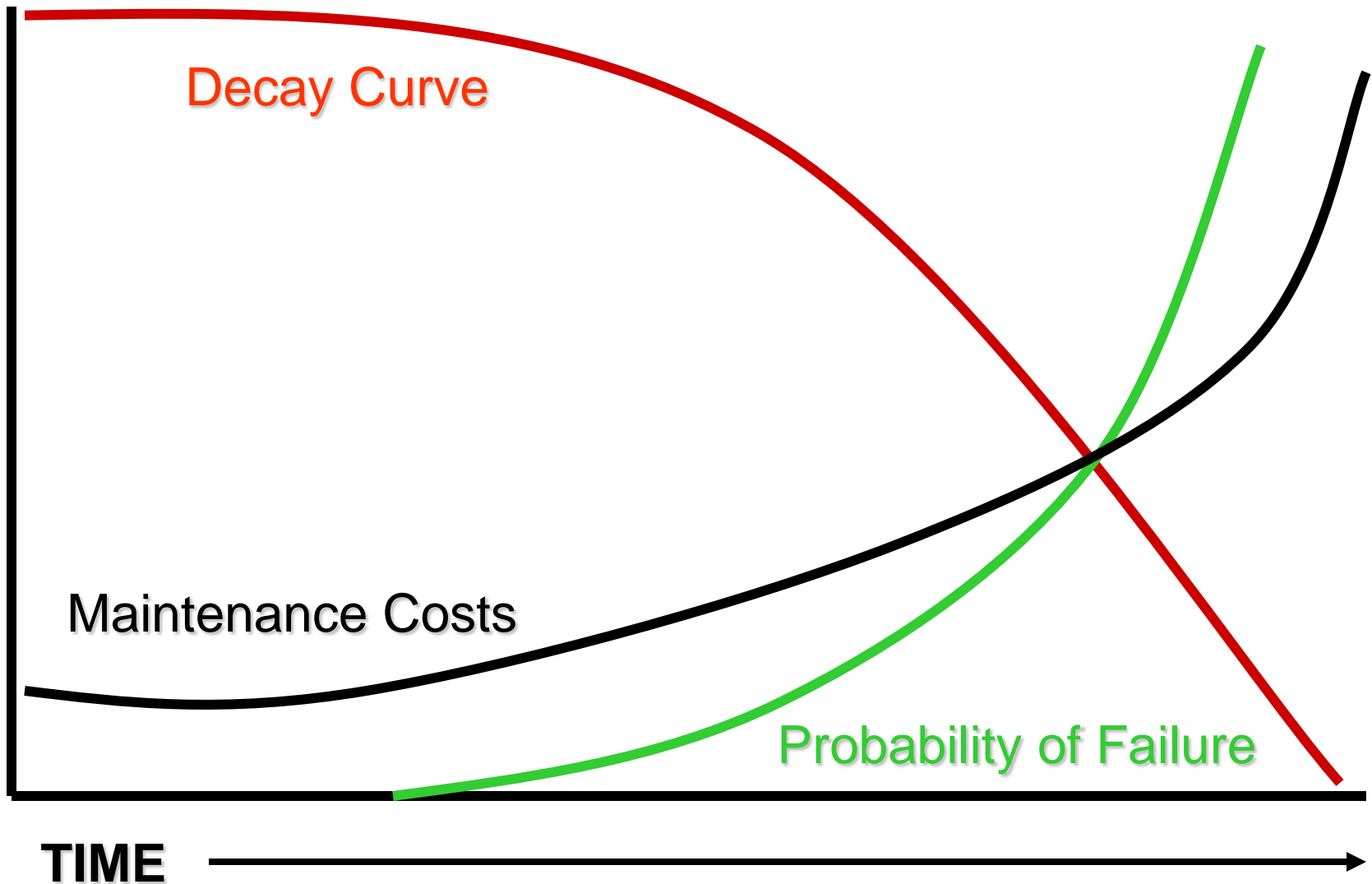
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1. Effective Preventative Maintenance
2. Predictive Maintenance Escrow
3. Systemic Asset Replacement
4. Sustainable Rates

<http://www.epa.gov/cupps/>

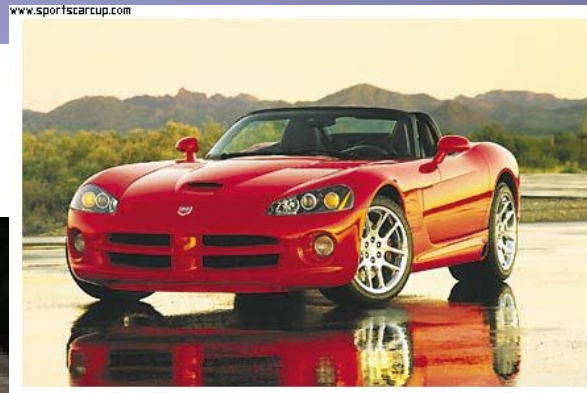


# Minimize Life Cycle Cost





# Car Example



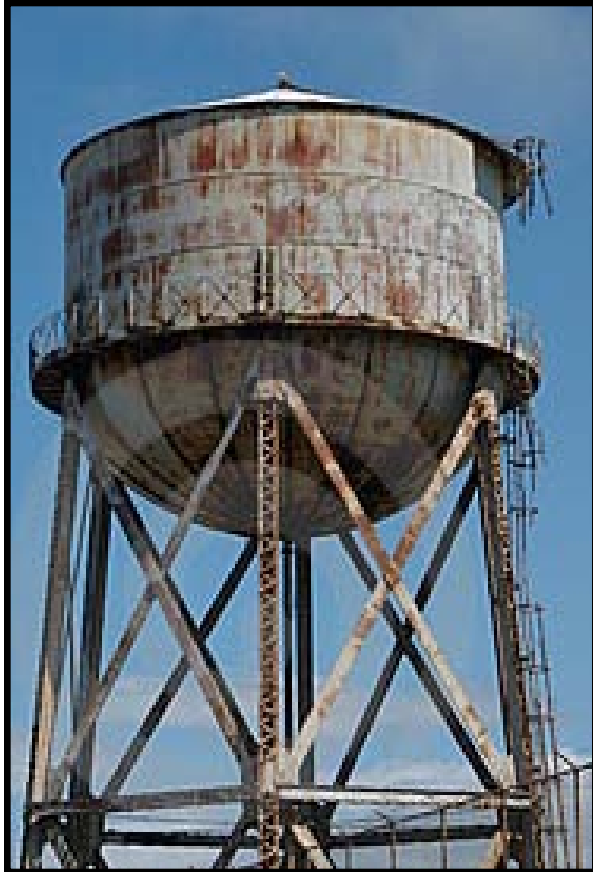
## Maintenance Plan

- Run until failure
- Preventative Maintenance
- Predictive Maintenance

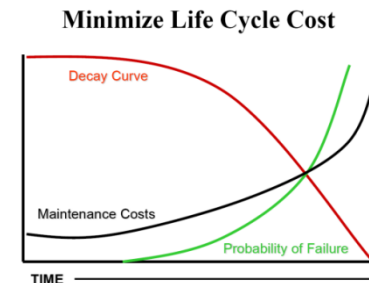
## Useful Life

60,000 miles	4 yrs
180,000 miles	12 yrs
300,000 miles	20 yrs

# Managing remaining useful life...



- Minimize lifetime ownership cost through improved **preventative maintenance** and timely **predictive maintenance** (asset rehabilitation).
- History show that **scheduled maintenance cost 1/3 less** than emergency repairs for the same task



**Step 1 – Maintain assets to achieve their maximum useful life.**

# Planning asset replacement...

**"Everything wears out eventually!"**

**CAUTION**

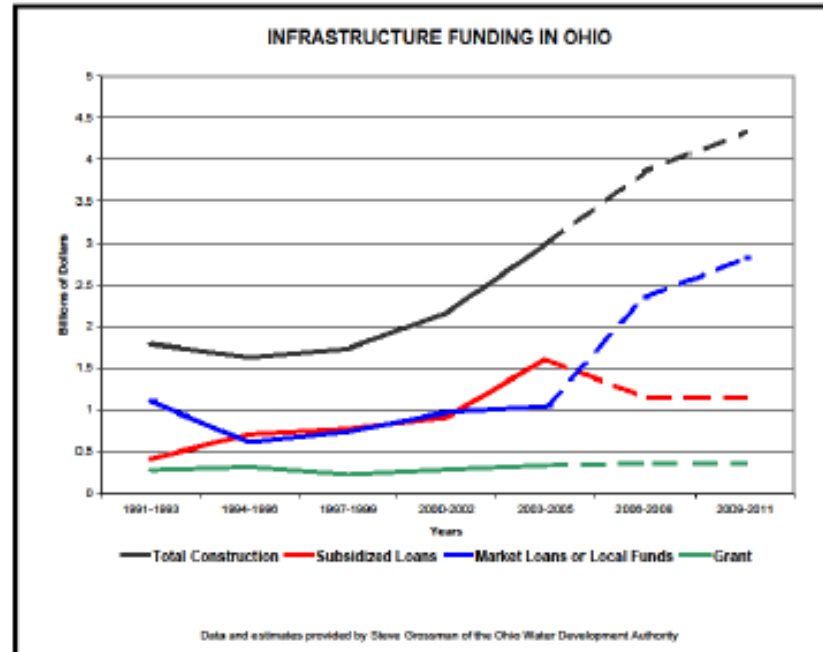
WATCH YOUR STEP



Deferring failure is never cost effective. History shows **30 – 70%** of equipment maintenance is misdirected.

**Step 2 – Systematically plan for asset replacement.**

# Infrastructure Funding Trends



Grants dollars have remained stable over time. However, construction cost are increasing. The funding gap is presently being filled by low interest and commercial rate loans.

**Larger local contributions will be necessary in the future!**

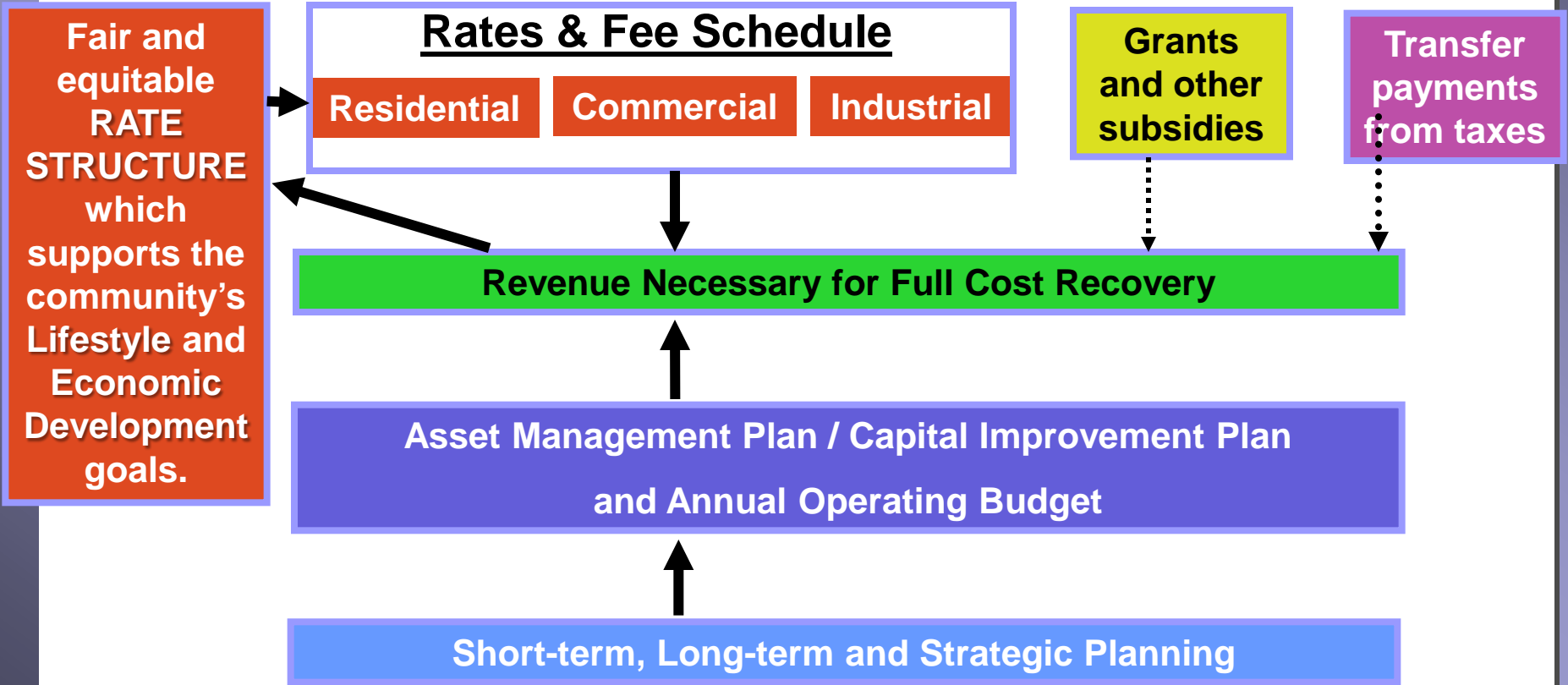


# The **HOLY GRAIL** of Asset Management is



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## Full Cost Recovery



# Paying for Asset Replacement

- In theory you should save enough money to pay for capital replacement from cash (DEPRECIATION). However in most cases this expectation is not realistic.
- Grant and low interest loan providers want to finance projects which are ready to proceed! **(Shovel Ready!)**
- Project soft cost usually account for 10 to 15% of total project cost. Ohio RCAP recommends that communities endeavor to save at enough money to pay these cost from cash over the assets remaining useful life.



# Our Asset Replacement Message



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Small communities can dramatically increase their odds of maximizing grant and low-interest loan opportunities if they plan ahead.

It usually takes a minimum of two, and sometime up to four years or longer to secure and release all of the necessary funding for a major project, before a shovel is ever put in the ground.

Small communities need to be strategic which projects they seek to fund out-of-pocket, with loans and with grants.



Village of Carrollton WWTP

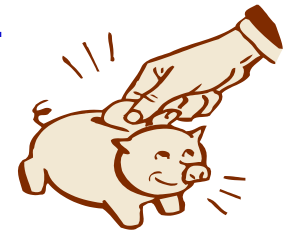
# Safeguarding cash reserves.

**Goal:** Great American Dream



**Unrestricted money will  
be spent!**

A dedicated savings "ESCROW" account must be established to safeguard cash reserves for their intended purpose.

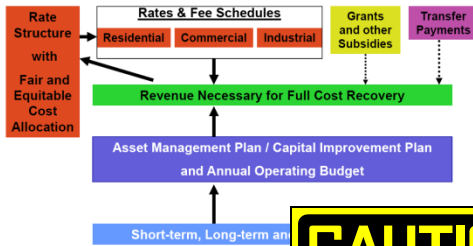


**Problem:** Need to save money for 20% down payment.

**Solution:** **Monthly deposits to a dedicated SAVING account.**



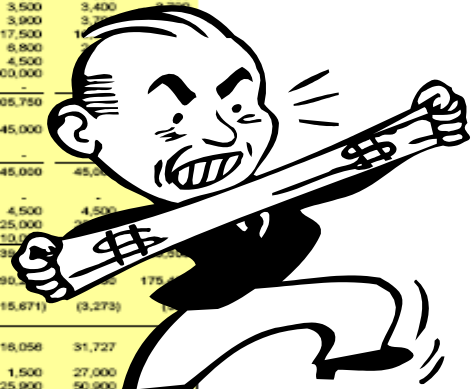
# Full Cost Recovery



# Budgets provide a Foundation for Rates

**CAUTION**  
WATCH YOUR STEP

	Projections			Typical	Methodology	Data Collection			
	Budget 12/31/12	Budget 12/31/11	Budget 12/31/10			Historical 12/31/09	Historical 12/31/08	Historical 12/31/07	Historical 12/31/06
	450	450	450	450	Zero Growth	450	445	447	444
	523	523	523	523	Zero Growth	523	518	520	517
	20.0%	14.3%	27.3%						
Effective Date of Water Rate	1/1/2012	1/1/2011	1/1/2010	1/1/2009		1/1/2009	1/1/2008	1/1/2007	1/1/2006
Base Rate	20.00	20.00	20.00	27.50		27.50	27.50	27.50	27.50
Base Amount	2,000	2,000	2,000						
Usage Rate / 1000	6.00	6.00	6.00						
Typical Residential Bill for 4500 gallons of usage	48.00	40.00	36.00	35.700	2000 Census	27.50	27.50	27.50	27.50
Percentage of MHI	1.61%	1.34%	1.15%			0.92%	0.92%	0.92%	0.92%
	Budget 12/31/12	Budget 12/31/11	Budget 12/31/10	Typical Year		Historical 12/31/09	Historical 12/31/08	Historical 12/31/07	Historical 12/31/06
Total Water Sales	301,248	251,040	219,880	172,590	2009 Actual	172,590	170,940	171,800	170,610
Late Fees / NSF Fees	3,800	3,800	3,800	3,873	Avg. 2006 - 2009	3,557	4,369	3,572	3,688
Bad Debt Write-off	(200)	(200)	(200)	(433)	Avg. 2006 - 2009	(455)	(750)	(315)	(210)
New Service Taps				2,252	Avg. 2006 - 2009	5,000	-	3,000	1,000
Total Revenue	304,848	254,640	223,280	178,260		180,702	174,579	178,157	175,083
Inflation Rate	3.50%	3.50%	3.50%						
	Expenses								
Salaries / Wages	64,308	62,131	60,030	58,000	2009 Actual	58,000	57,500	56,000	47,500
Benefits	6,431	6,213	6,008	5,800	2009 Actual	5,800	5,750	5,600	4,750
Electric	6,749	6,521	6,300	6,000	2009 Actual	6,000	5,800	5,700	5,500
Telephone	589	569	550	510	Avg. 2006 - 2009	510	500	530	500
Insurance	4,821	4,658	4,500	4,500	2009 Actual	4,500	3,500	3,400	3,200
Chemicals	5,969	5,796	5,600	4,400	2009 Actual	4,400	3,900	3,200	2,800
Repair & Maintenance	23,031	22,253	21,500	21,500	Avg. 2006 - 2009	28,500	17,500	14,000	12,000
Supplies	5,892	5,893	5,500	4,625	Avg. 2006 - 2009	5,200	6,800	5,000	4,500
Misc.	4,285	4,140	4,000	4,000	Avg. 2006 - 2009	2,500	4,500	-	-
Non Typical Expenses				-		-	100,000		
Improved Preventative / Predictive Maintenance	38,650	38,650	30,200	30,200		-	-	-	-
Total Expenses	160,751	156,622	153,183	148,635		113,410	205,750		
Debt #1 (Excluding Debt Service)	45,000	45,000	45,000	45,000		45,000	45,000		
Debt #2 (Deferred Maintenance - 21,706 yr.)	21,798	21,798	-	-		-	-		
Debt #3 (Arsenic Removal - 43,593 yr.)	43,593	-	-	-		-	-		
Total Debt Payment	110,389	66,798	45,000	45,000		45,000	45,000	45,000	45,000
Emergency Fund (12.5% Expenses)	4,019	3,916	3,830	3,713		-	-	-	-
Debt Service Reserve (10% Annual Payment)	11,039	6,880	4,500	4,500		4,500	4,500	4,500	
Replacement Reserve per Asset Management	7,621	6,386	5,582	4,457		20,000	25,000		
Capital Improvement & Regulatory Compliance	10,000	10,000	10,000	10,000		10,000	10,000		
Total Capital Funds	32,679	26,961	23,911	22,670		34,500	39,500		
Total Required	303,819	250,380	222,034	216,255		192,910	290,750	175,000	175,000
Cash Surplus / Deficit	1,029	4,260	1,166	(37,925)		(12,208)	(115,671)	(3,273)	
	Utility Department Accounts								
General Operating Account	10,303	9,274	5,014	3,848		3,848	16,056	31,727	
Emergency Operating Fund	11,764	7,745	3,830	-		-	-	-	
Debt Service Reserve Fund	28,219	17,190	10,500	9,000		6,000	1,500	27,000	
Reserve Replacement Fund	65,469	57,848	51,452	45,000		45,000	25,000	50,000	
Capital Improvement Fund	45,000	30,000	30,000	30,000		10,000	-	10,000	
Total Water Fund Accounts	156,754	122,547	90,825	65,748		65,748	45,456	119,627	83,450



# Asset Management Plan Implementation



## Information is the Catalyst for Change!

- When provided with inadequate information most decision makers will do nothing.
- To facilitate change operators and administrators must feed information to the decision makers in support of their recommendations.
- Therefore, the collection and reporting of business information is one of the operator's / administrator's most important jobs.

**"No decisions will be made until paperwork supporting your recommendations are received".**

# What is CUPSS?

- **Free** Computer Maintenance Management System (CMMS) / Asset Management tool
- **'Desktop software'** – program that runs on your computer

CUPSS is tailored for small systems:

- Simple interface
- Baby-step approach
- Work order maintenance tickler system
- Back up budget talks with solid facts
- Save time by planning ahead
- Improve customer service

