

# ASSETS, RESERVES & RATES

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WATER RATES BY BRANDEWIE LLC

# QUALIFICATIONS - CHRIS BRANDEWIE

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- Professional Engineer P.E. 0049543
- Certified Water Professional C.W.P. 100656
- 5 years of conducting rate studies mostly for economically disadvantaged communities in rural Colorado
- B.S. Civil & Environmental Engineering - Ohio State University
- M.S. Civil & Geotechnical Engineering - Ohio State University
  - Masters Thesis developed a cost estimating tool for ODOT
- Honorably Discharged Veteran – Ohio Army National Guard



# TODAYS WORKSHOP AGENDA

- \$ Intro to Asset Management
  - \$ Asset Inventory and Information to gather
  - \$ Capital Replacement/Improvements Program – CIP Reserves
- \$ Intro to Rate Structures
  - \$ Presentation on Different Rate Structures
  - \$ Example of Rate Structure on Different Usage Patterns

# INTRODUCTION TO ASSET MANAGEMENT

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- Objectives:
  - Understand the concepts, goals, and benefits of asset management
  - Learn what is needed in an asset inventory

# INFRASTRUCTURE WEARS OUT



# TWO APPROACHES

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- **Reactive**

- Wait until it breaks

- **Proactive**

- Plan replacement before catastrophe



# NEED FOR ASSET MANAGEMENT

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- Aging Infrastructure
- Funding
- Public Understanding

# AMERICAN SOCIETY OF CIVIL ENGINEERS REPORT CARD



<https://www.infrastructurereportcard.org/>

# WHAT ARE ASSETS?

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- Physical System Components
- Require Maintenance
- Deteriorate Over Time



# KEY ASSET QUESTIONS

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- What do I own?
- How long will it last?
- How to get the most value while serving required needs?



# WHAT IS ASSET MANAGEMENT?

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

# BENEFITS OF ASSET MANAGEMENT

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- Better operating decisions saving time and money
- Better communication and service to your customers
- Increased access to public funding (\$\$)
- Proactive vs. Reactive



# THE FIVE CORE COMPONENTS

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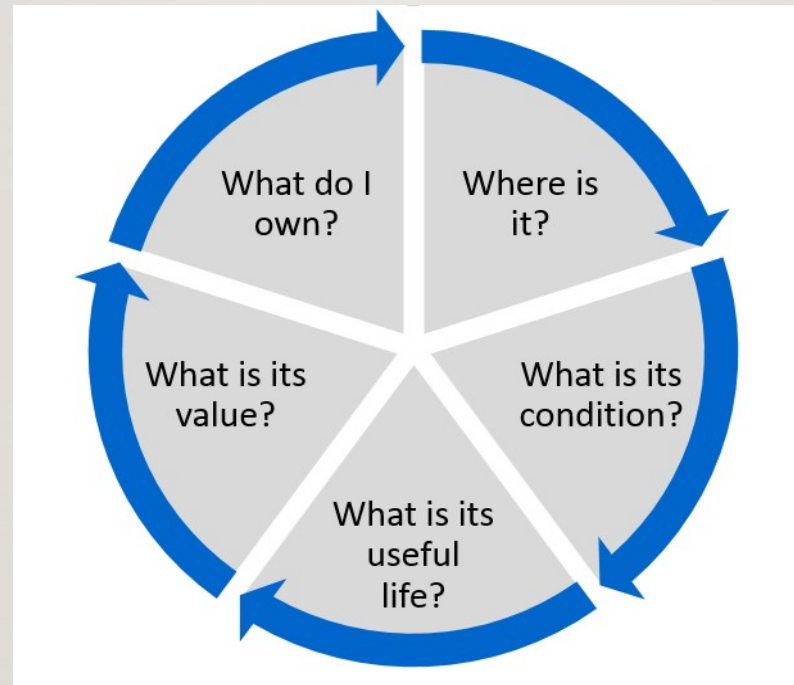
- Asset Inventory
- Level of Service
- Criticality
- Life Cycle Costing
- Long-Term Funding



<https://swefcamswitchboard.unm.edu/am/the-five-core-components-of-asset-management/>

# I.ASSET INVENTORY

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## 2. LEVEL OF SERVICE

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“The quality, quantity, reliability, and environmental standards of the service your system is providing”

- Customer demand and satisfaction
- Regulatory requirements
- System performance and capability



## LEVEL OF SERVICE EXAMPLE

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“Over the next year, fewer than 5% of our customers will experience a water loss lasting longer than 8 hours”

- Specific
- Measureable
- Achievable
- Realistic
- Timely



### 3. CRITICALITY

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"All assets fail: it is important to know which assets are required to guarantee the system's operation"

- ❖ How likely is the asset to fail (probability)?
- ❖ What are the consequences if the asset fails?



## 4. LIFE CYCLE COST

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“Goal is to determine the best appropriate cost for dealing with assets over time”

- Determine costs & benefits of each option:  
O&M, Repair, Rehabilitate, Replace
- Deploy resources for each based on asset criticality
- Move from *reactive* to *predictive* maintenance

## 5. LONG-TERM FUNDING

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"Develop and implement an effective funding plan based on life cycle costs."

- Forecast revenue needs
- Identify system and non-system revenues (likely loans/grants)
- Implement needed adjustments including reserves



# THE ASSET MANAGEMENT PLAN

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**Developing a plan based on system assets provides a proactive approach to managing your utility**

## Keep in Mind

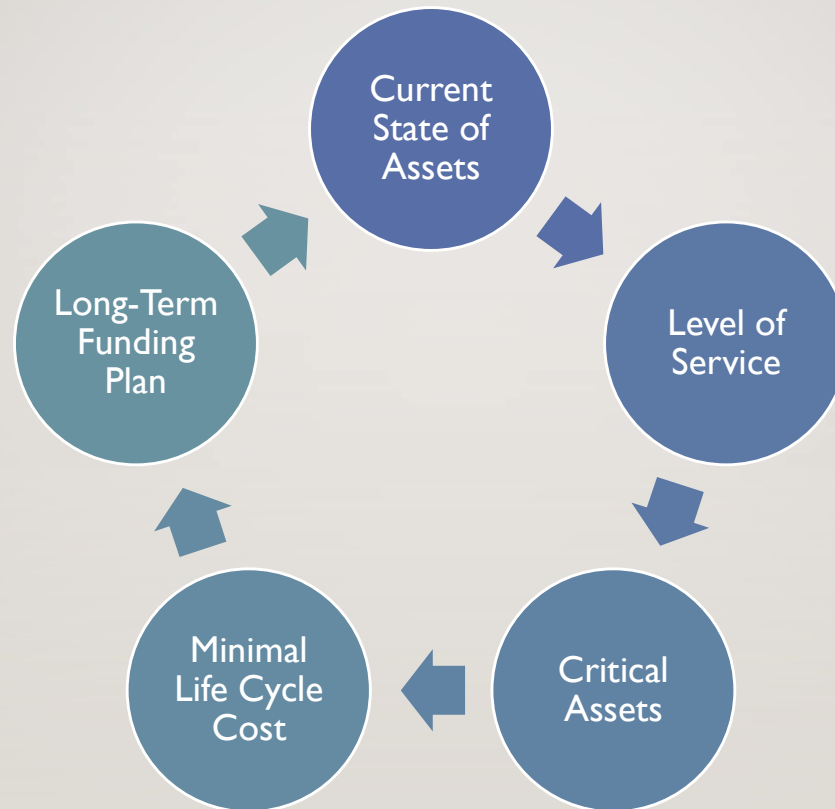
- ✓ Your system's needs can change year to year
- ✓ Current information helps you to meet the system's future needs



## Check and Act

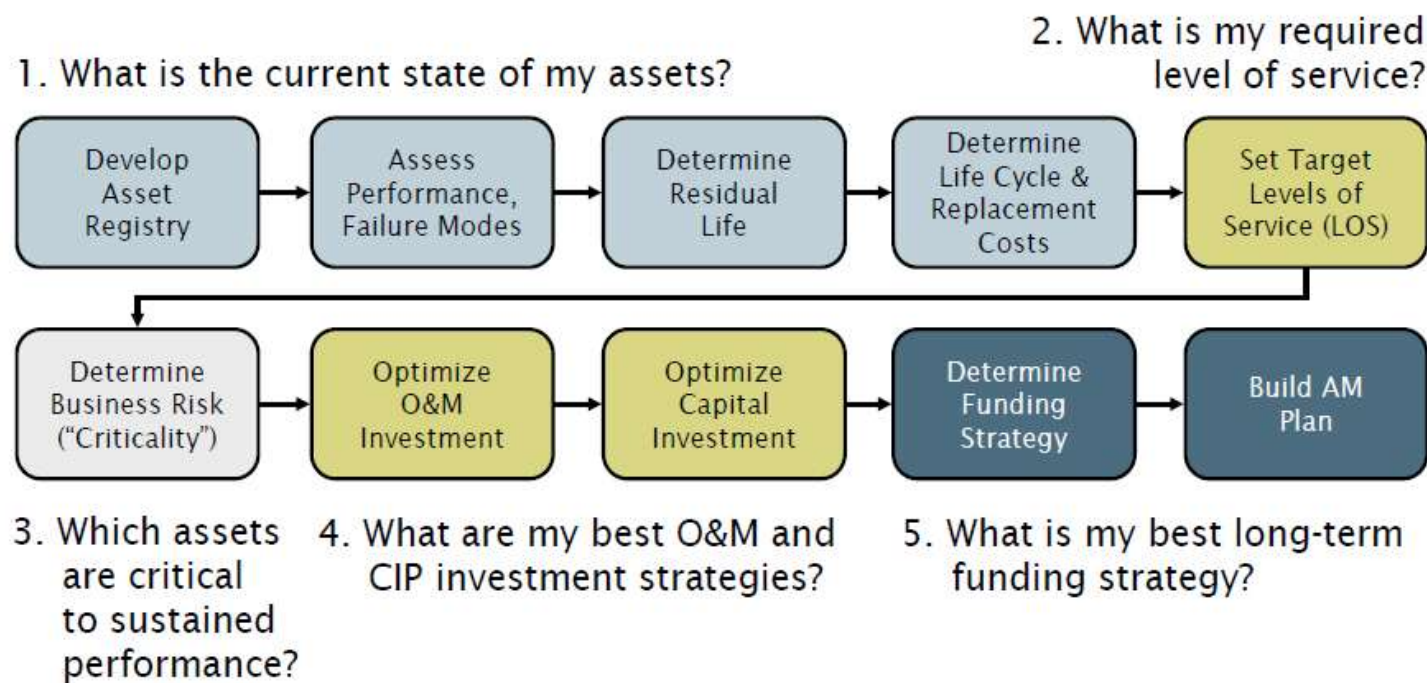
- ✓ Review and update your AMP on an annual basis:
  - Evaluate progress - keep track of your system's major challenges
  - Include new best practices - think about the most cost-effective and efficient way to address those challenges
- ✓ Take action based on reviews

# A CLOSER LOOK

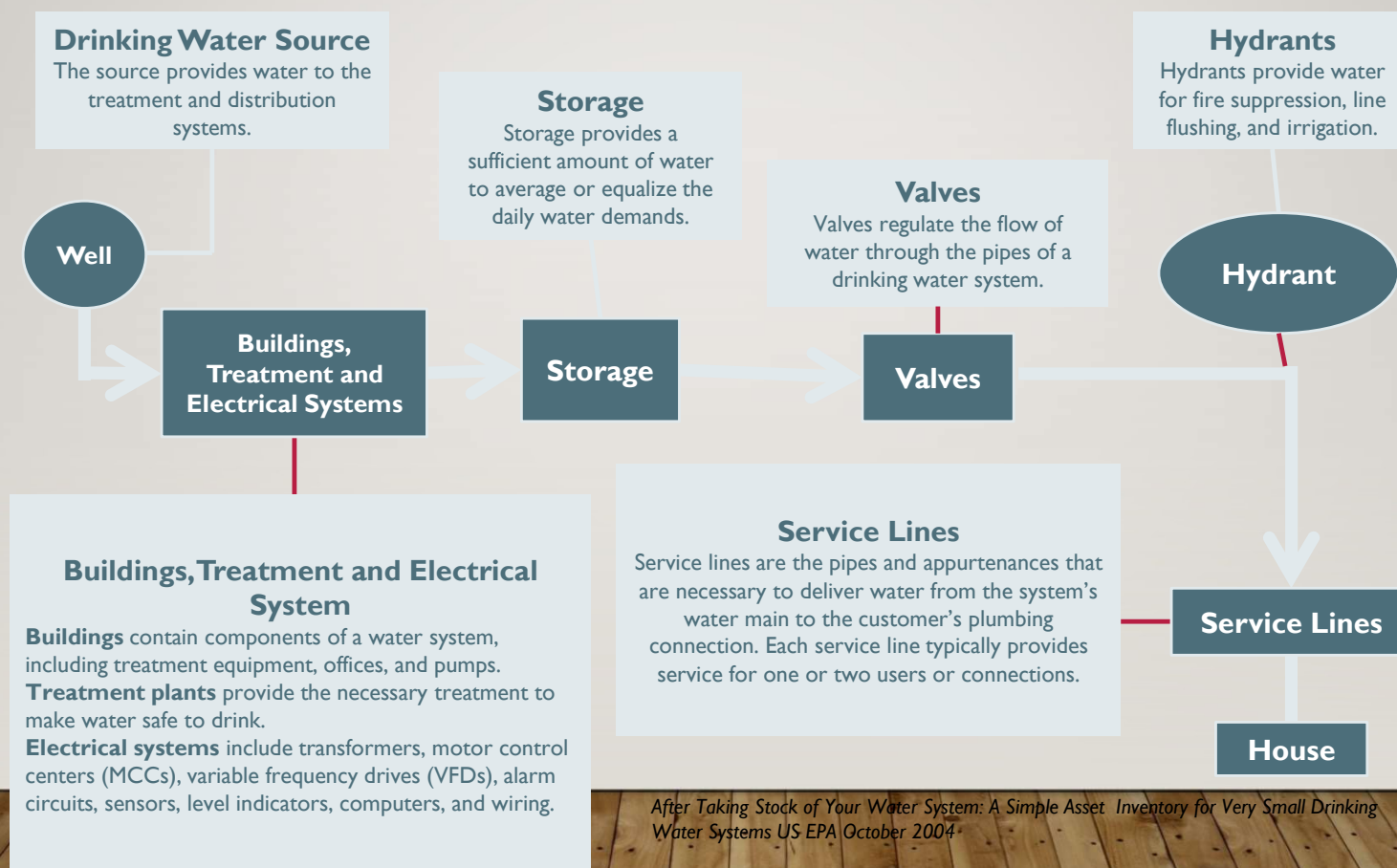


# ASSET MANAGEMENT PROCESS

Integration of 5 core questions with 10-step process



# WHAT MAKES UP YOUR INVENTORY?



# ASSET INVENTORY: CONDITION ASSESSMENT

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- It is important to:
  - Determine nature of failure, possible timing, and best preventive/corrective actions
- Assessment Techniques
  - Operational data evaluation
  - Visual inspection
  - Non-destruction/destructive testing



# SERVICE LIFE: ASSET LIFE EXPECTANCY

| Asset                     | Expected Useful Life (in years) | Asset                     | Expected Useful Life (in years) |
|---------------------------|---------------------------------|---------------------------|---------------------------------|
| Intake structures         | 35-45                           | Valves                    | 35-40                           |
| Wells and Spring          | 25-35                           | Blow-off Valves           | 35-40                           |
| Galleries and Tunnels     | 30-40                           | Backflow Prevention       | 35-40                           |
| Chlorination Equipment    | 10-15                           | Meters                    | 10-15                           |
| Other Treatment Equipment | 10-15                           | Service Lines             | 30-50                           |
| Storage Tanks             | 30-60                           | Hydrants                  | 40-60                           |
| Pumps                     | 10-15                           | Lab/Monitoring Equipment  | 5-7                             |
| Buildings                 | 30-60                           | Tools and Shop Equipment  | 10-15                           |
| Electrical Systems        | 7-10                            | Landscaping/Grading       | 40-60                           |
| Transmission Mains        | 35-40                           | Office Furniture/Supplies | 10                              |
| Distribution Pipes        | 35-40                           | Computers                 | 5                               |
| Transportation Equipment  | 10                              |                           |                                 |

# RISK ANALYSIS

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## **Probability of Failure**

*(How likely is an asset to fail?)*

- Asset age
- Asset condition
- Repair and maintenance history
- Environment (VA/RRA/ERP)
- Design capacity
- Obsolescence

## **Consequence of Failure**

*(How bad will the failure be?)*

- Cost of repair/replacement
- Reduction in level of service
- Public health and environmental costs
- Collateral damage
- Legal costs
- Redundancy
- Social cost and other impacts

## CONSEQUENCE OF FAILURE

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**Water main break  
floods UCLA  
campus, streets:  
20 million  
gallons lost**

# CONSEQUENCE OF FAILURE

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**UCLA Demands \$13M From DWP for Water  
Main Break**

# CRITICALITY TABLE

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|                                     |                        |   |    |    |    |    |
|-------------------------------------|------------------------|---|----|----|----|----|
| Consequence<br>(Cost)<br>of Failure | 5                      | 5 | 10 | 15 | 20 | 25 |
|                                     | 4                      | 4 | 8  | 12 | 16 | 20 |
|                                     | 3                      | 3 | 6  | 9  | 12 | 15 |
|                                     | 2                      | 2 | 4  | 6  | 8  | 10 |
|                                     | 1                      | 1 | 2  | 3  | 4  | 5  |
| Multiplied                          |                        | 1 | 2  | 3  | 4  | 5  |
|                                     | Probability of Failure |   |    |    |    |    |

|            |       |            |        |             |
|------------|-------|------------|--------|-------------|
| 1 Very Low | 2 Low | 3 Moderate | 4 High | 5 Very High |
|------------|-------|------------|--------|-------------|

# ASSET PRIORITIZATION

Risk Matrix

|                        |                                                                 |                                                                 |
|------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|
| Consequence of Failure | Low Probability x<br>High Consequence<br>= <b>Moderate Risk</b> | High Probability x<br>High Consequence<br>= <b>High Risk</b>    |
|                        | Low Probability x<br>Low Consequence<br>= <b>Low Risk</b>       | High Probability x<br>Low Consequence<br>= <b>Moderate Risk</b> |

Probability of Failure

| Risk Category | Action Needed         |
|---------------|-----------------------|
| High          | Immediate Action      |
| Moderate      | Aggressive Monitoring |
| Low           | Routine Monitoring    |

# WHICH ASSET SHOULD WE PRIORITIZE?

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1. New Well
2. 20-year-old lines in a residential neighborhood
3. 75-year-old concrete storage tank that maintains pressure for 1/3 of the town
4. 20-year-old water meters

# MINIMUM LIFE CYCLE COST

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Options:

☐ ☐ Operate and maintain

☐ ☐ Repair

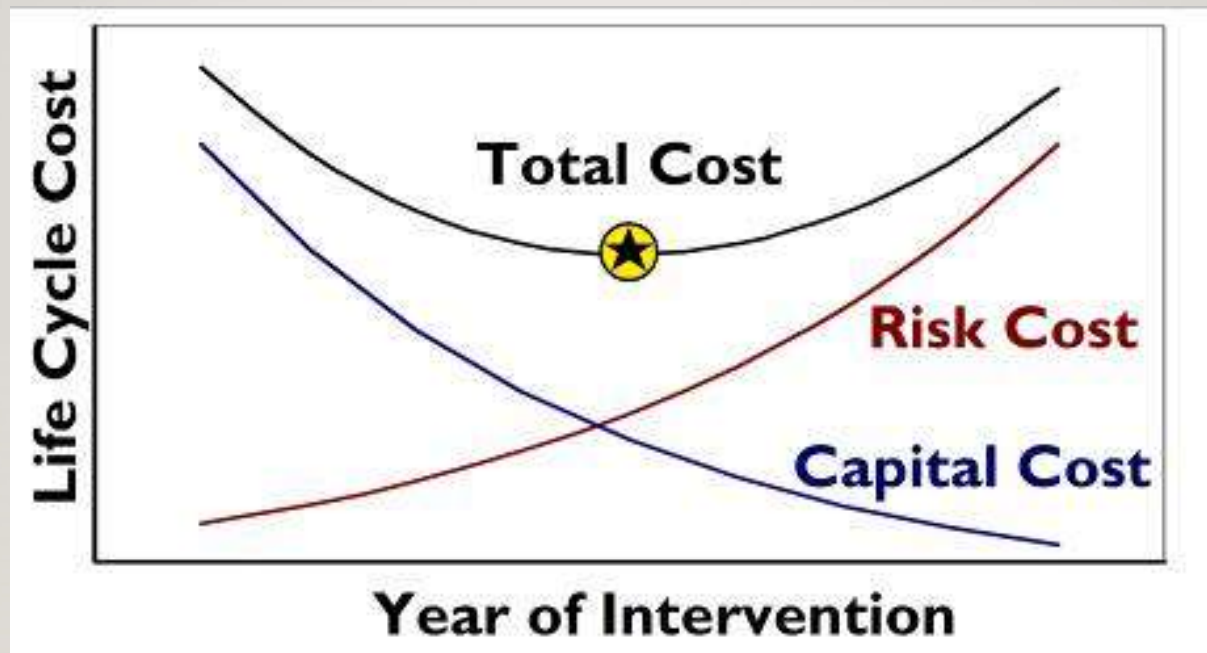
☐ ☐ Rehabilitate

☐ ☐ Replace

Goal: Execute the optimal mix of options for each asset or set of assets

# MINIMUM LIFE CYCLE COST ANALYSIS

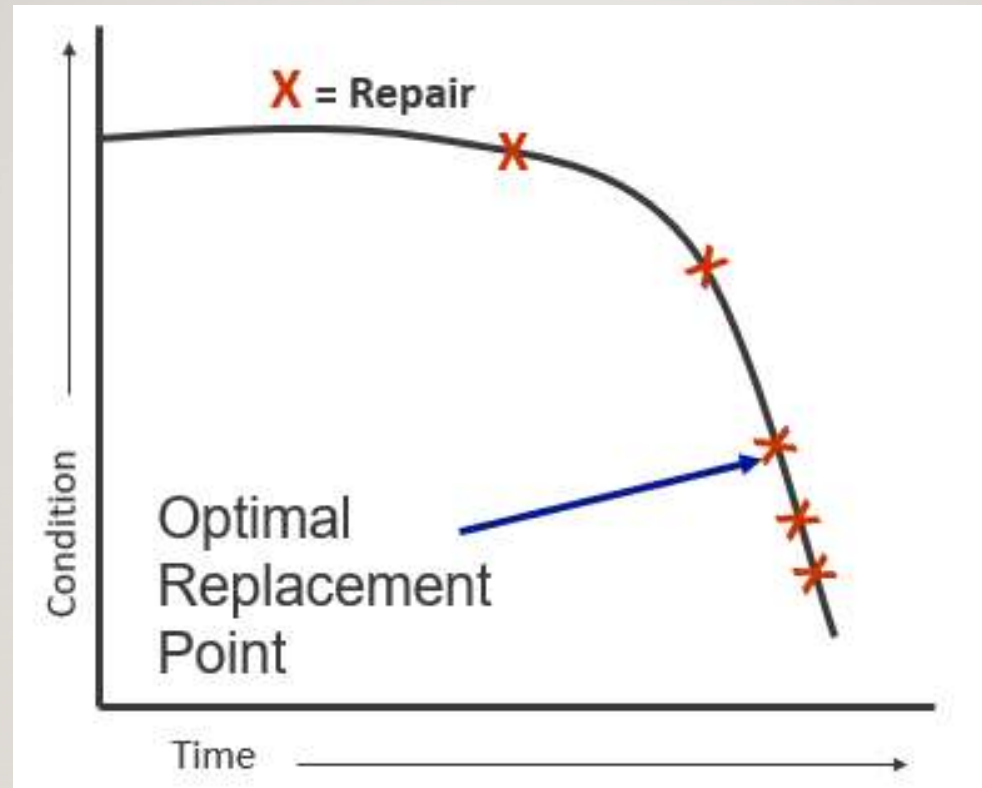
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# OPTIMIZE O&M AND CAPITAL INVESTMENT

| Asset (List from highest to lowest priority) | Activity           | Years until action needed | Cost (\$)    | Reserve required current year |
|----------------------------------------------|--------------------|---------------------------|--------------|-------------------------------|
| Submersible Pump 1                           | back up pump       | 5                         | \$ 20,000.00 | \$ 4,000.00                   |
|                                              | contractor on call | 1                         | \$ 1,500.00  | \$ 1,500.00                   |
|                                              |                    |                           |              |                               |
| Chlorination equipment                       | repair             |                           |              |                               |
|                                              |                    |                           |              |                               |
|                                              |                    |                           |              |                               |
| Well 1                                       | repair             | 10                        | \$ 10,000.00 | \$ 1,000.00                   |
|                                              | drill new well     | 10                        | \$ 14,000.00 | \$ 1,400.00                   |
|                                              | truck water        | 10                        | \$ 1,200.00  | \$ 120.00                     |

# WHEN TO REPLACE?



# FUNDING: HOW DO I PLAN FOR THE FUTURE?

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- Pay as you go
- Save in advance
- Borrow
- Grants!?

**Default Funding of Asset Replacements**

| Default Funding of Asset Replacements |             |                                            |       |      |
|---------------------------------------|-------------|--------------------------------------------|-------|------|
| Replacement Value From To             |             | Cash                                       | Grant | Loan |
| \$0                                   | \$100,000   | 100%                                       | 0%    | 0%   |
| \$100,001                             | \$500,000   | 20%                                        | 0%    | 80%  |
| \$500,001                             | \$1,000,000 | 10%                                        | 30%   | 60%  |
| \$1,000,001                           | \$9,999,999 | 2%                                         | 30%   | 68%  |
| \$10,000,000                          | \$9,999,999 | 2%                                         | 30%   | 68%  |
| Capitalization Threshold              | \$ 10,000   | Any asset purchased below this value is no |       |      |

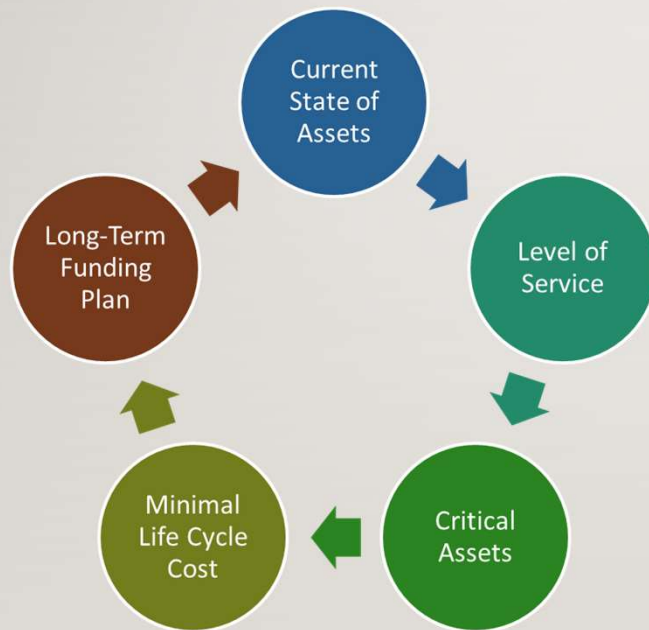
# CAPITAL PLANNING

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| #                                             | Asset             | Year<br>Acquired | Estimated<br>Remaining<br>Life | Estimated<br>Future Cost | Fund<br>with<br>Cash | Fund<br>with<br>Grant | Fund<br>with<br>Loan | Annual<br>Reserve<br>Required |
|-----------------------------------------------|-------------------|------------------|--------------------------------|--------------------------|----------------------|-----------------------|----------------------|-------------------------------|
| <b>Replacement of Existing Capital Assets</b> |                   |                  |                                |                          |                      |                       |                      |                               |
| 1                                             | Backhoe           | 2000             | 10                             | 44,140                   | 25%                  | 0%                    | 75%                  | 985                           |
| 900                                           | 4" PVC Pipe       | 1960             | 10                             | 209,012                  | 5%                   | 20%                   | 75%                  | 933                           |
| 30                                            | Fire Hydrants     | 1960             | 10                             | 225,959                  | 5%                   | 20%                   | 75%                  | 1,008                         |
| 500                                           | 3/4" Water Meters | 2010             | 5                              | 235,287                  | 5%                   | 20%                   | 75%                  | 2,238                         |
| 100                                           | 1" Water Meters   | 2010             | 5                              | 56,021                   | 25%                  | 0%                    | 75%                  | 2,664                         |
| 1                                             | Shop              | 2010             | 60                             | 489,157                  | 5%                   | 40%                   | 55%                  | 180                           |

# IN SUMMARY

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- Save Money!
- Save Time!
- Save Headaches!
- Plan Ahead!
- Build an Inventory!

# RESOURCES

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- **“Asset Management Switchboard”** (Southwest Environmental Finance Center) – Collection of resources, trainings, and templates to build your asset management program.
  - <https://swefcamswitchboard.unm.edu/am/>
- **“Example Asset Inventory”** (SWEFC and RCAC) – Example inventory available in your materials today.
- **Technical Assistance**
  - Rural Community Assistance Corporation
  - Southwest Environmental Finance Center
  - Rural Water Association of Utah

# ASSET INVENTORY AND RESERVE FUNDING

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- Thoughts?
- Questions?

# RATE SETTING PROCEDURES AND CONSIDERATIONS

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# WHY IS AN ADEQUATE RATE STRUCTURE IMPORTANT?

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- Promotes delivery of safe drinking water.
- Promotes delivery of adequate quantities of water.
- Allows for debt payments on expansion/improvement projects.
- Promotes compliance.
- Encourages conservation.
- Encourages economic development.

# BASIC RATE SETTING PRINCIPLES

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1. Make sure rates cover the **full cost** of service.
2. Design rates that are **fair** and **equitable**.
3. Use water system **revenues** to pay for water system **expenses only**.
4. **Educate** customers on what their rates are.
5. Make rate structure **easy to understand**.
6. Review rates **annually**.
7. Base rate structure on **good budgets** and **customer records**.
8. Make rate structure **easy to administer**.

# CHOOSE A RATE STRUCTURE.

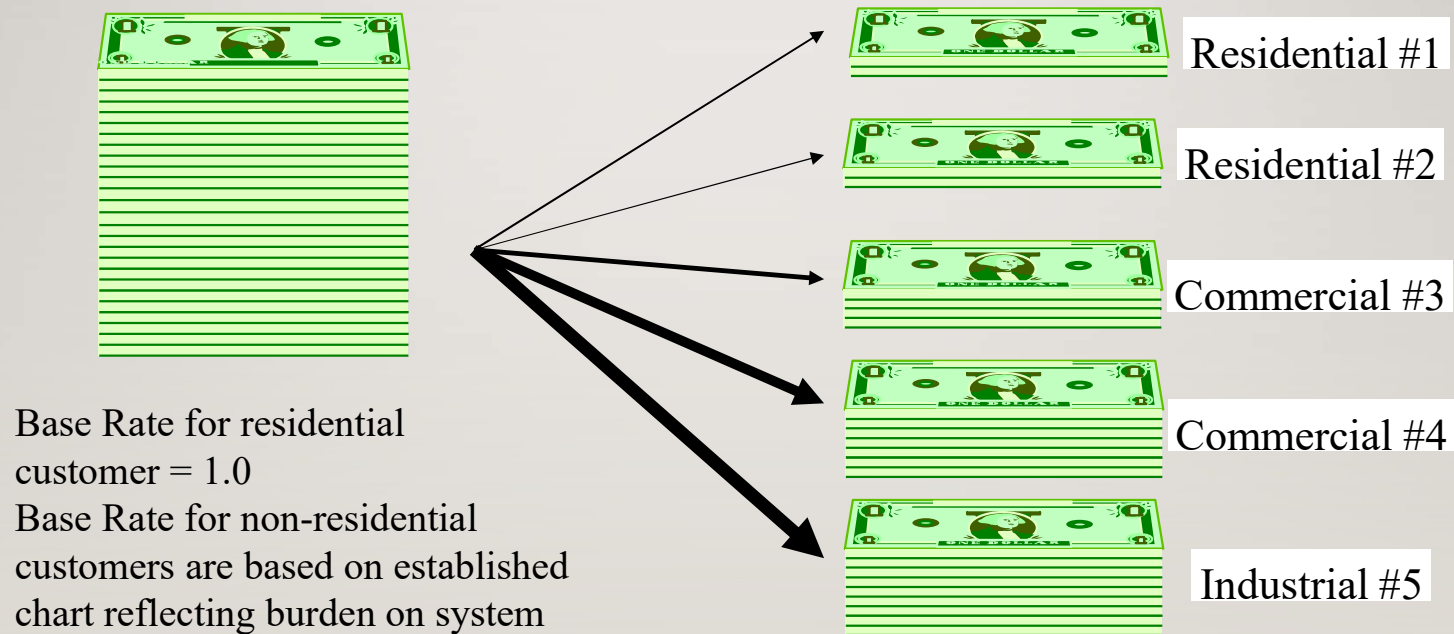
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- EDU – Equivalent Dwelling Units
- Meter Size
- Flat Rate
- Block Rates
  - Single Block Rate
  - Decreasing Block Rate
  - Increasing Block Rate

## EACH TYPE OF RATE STRUCTURE HAS ITS OWN ADVANTAGES AND DISADVANTAGES.

| <i>Type of Rate Structure</i> | <i>Advantages</i>                                                                                                                                                | <i>Disadvantages</i>                                                                                                                   |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <i>Flat</i>                   | <ul style="list-style-type: none"><li>• Use in non-metered systems.</li><li>• Easy to administer.</li><li>• Equitable when usage profiles are similar.</li></ul> | <ul style="list-style-type: none"><li>• Promotes high consumption.</li><li>• Not equitable if usage profiles are dissimilar.</li></ul> |
| <i>Single Block</i>           | <ul style="list-style-type: none"><li>• Easy to administer.</li><li>• Equitable when usage profiles are dissimilar.</li></ul>                                    | <ul style="list-style-type: none"><li>• May discourage high-usage industrial customers from locating in the community.</li></ul>       |
| <i>Decreasing Block</i>       | <ul style="list-style-type: none"><li>• Attractive to agricultural or high-usage industrial customers.</li></ul>                                                 | <ul style="list-style-type: none"><li>• Discourages water conservation.</li></ul>                                                      |
| <i>Increasing Block</i>       | <ul style="list-style-type: none"><li>• Encourages water conservation.</li><li>• Reduces burden on wastewater systems.</li></ul>                                 | <ul style="list-style-type: none"><li>• May discourage high-usage industrial customers from locating in the community.</li></ul>       |

## EDU OR EQR : EQUIVALENT DWELLING RESIDENTIAL UNIT EACH CUSTOMER PAYS *PROPORTIONALLY* TO THE POTENTIAL.

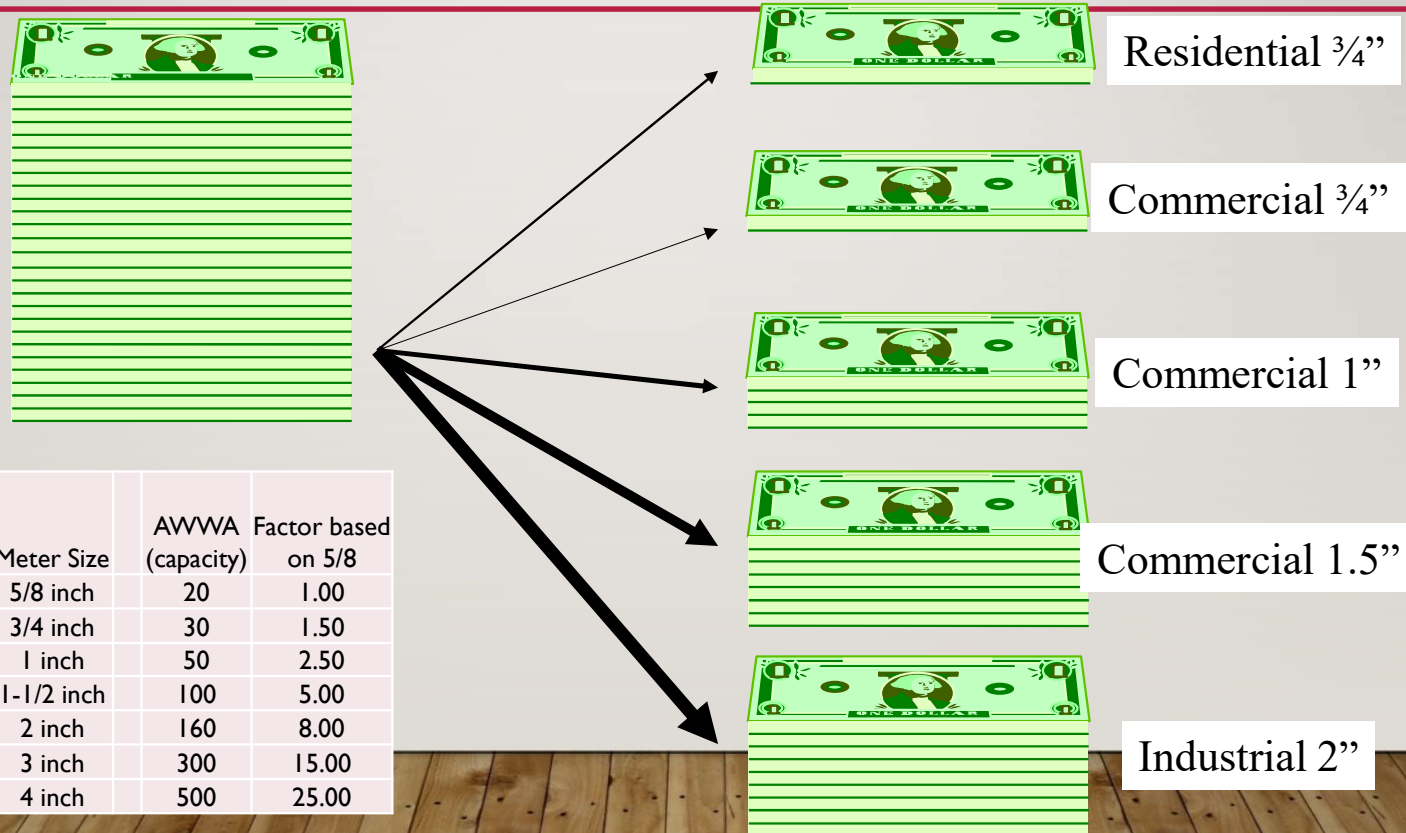


## EDU OR EQR : EQUIVALENT DWELLING RESIDENTIAL UNIT EACH CUSTOMER PAYS *PROPORTIONALLY* TO THE POTENTIAL

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| EDU Tables for Sewer Service   |                               |       |            |
|--------------------------------|-------------------------------|-------|------------|
| Customer Category              | Unit                          | EDU   | Min 1 EDU? |
| Single Family Dwelling         | per dwelling                  | 1.000 | No         |
| Apartments/Condo               | per apartment                 | 1.000 | No         |
| Mobile Home Parks              | per home space/lot            | 1.000 | No         |
| Rental Cottages                | minimum per cottage           | 0.250 | No         |
| Efficiency Rental              | per unit                      | 0.625 | Yes        |
| Bowling Alleys (no food serv.) | per lane                      | 0.188 | No         |
| Car Wash manual                | per manual bay                | 1.000 | No         |
| Church with no kitchen         | per seat                      | 0.011 | Yes        |
| Church with kitchen            | per seat                      | 0.017 | Yes        |
| Dormitories/Barracks           | per bed                       | 0.063 | No         |
| Factory with showers           | per employee                  | 0.088 | Yes        |
| Food Service tavern            | per seat                      | 0.088 | Yes        |
| Gas (fuel) Station             | per pump                      | 1.250 | No         |
| Hospitals                      | per bed                       | 0.750 | No         |
| Laundries (coin operated)      | per machine                   | 0.350 | No         |
| Motels/Sleeping Cabin          | per unit                      | 0.250 | Yes        |
| Office Buildings               | per employee                  | 0.050 | Yes        |
| Retail Store                   | per employee                  | 0.050 | Yes        |
| School                         | per pupil                     | 0.038 | Yes        |
| Shopping Center                | per 100 s.f., no food/laundry | 0.050 | Yes        |
| Vacant Lot                     | per lot                       | 0.250 | No         |

## METER SIZE: EQUIVALENT DWELLING RESIDENTIAL UNIT EACH CUSTOMER PAYS *PROPORTIONALLY* TO THE POTENTIAL

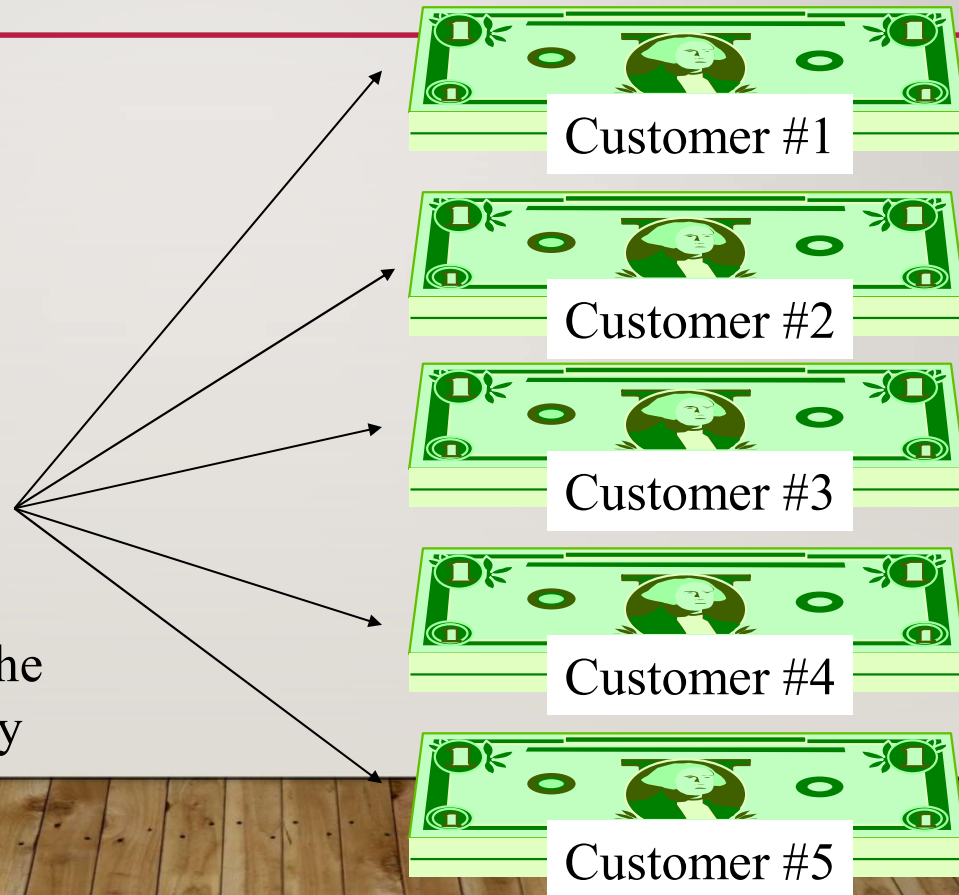


**FLAT RATE: EACH CUSTOMER PAYS THE SAME  
REGARDLESS OF HOW MUCH WATER THEY USED.**

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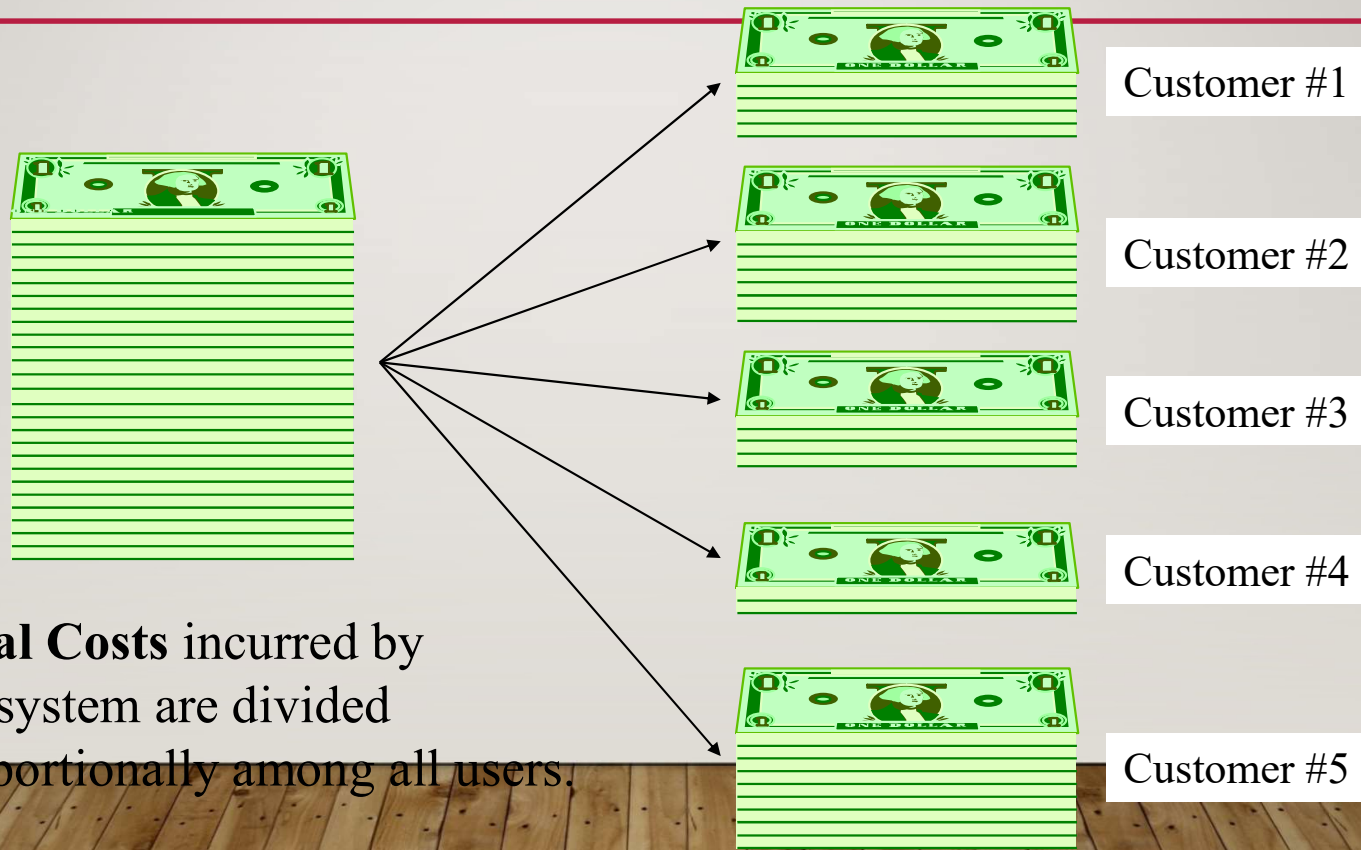


**Total Costs** incurred by the system are divided equally among all users.



# BLOCK RATE: EACH CUSTOMER PAYS *PROPORTIONALLY TO THE AMOUNT THEY USED.*

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**Total Costs** incurred by the system are divided proportionally among all users.

## EACH TYPE OF RATE STRUCTURE HAS ITS OWN ADVANTAGES AND DISADVANTAGES.

| <i>Type of Rate Structure</i> | <i>Advantages</i>                                                                                                                                                | <i>Disadvantages</i>                                                                                                                   |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
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# GATHER INFORMATION TO SET RATES.

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- System budget for last 3 years.
- User group information
  - Number of users per customer class (residential, commercial, industrial)
  - Amounts of water used by each customer
- Accurate connection survey – scrutinize customer list and categories
- Anticipated cost estimates - Budgets
  - Debt service
  - Reserve funds needed
  - Operational cost projections

# SET THE RATES.

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*For a non-metered system, set a flat rate.*

1. Find **full cost** of water delivery by adding up Total Budget Expenses.
2. Divide **Total Budget Expenses** by the **Number of User Connections** to find the Annual Amount Needed per Connection.
3. Divide the **Annual Amount Needed per Connection** by **12** to find the Monthly Amount Needed per Connection to recover the full cost of providing drinking water.

## FLAT RATE: \$30 PER CONNECTION

 = 1,000 gallons of water used

### *February Water Bill*

Customer #1

   .....→ **\$30.00**

Customer #2

     .....→ **\$30.00**

Customer #3

  .....→ **\$30.00**

Customer #4

.....→ **\$30.00**

Customer #5

       .....→ **\$30.00**

# SET THE RATES.

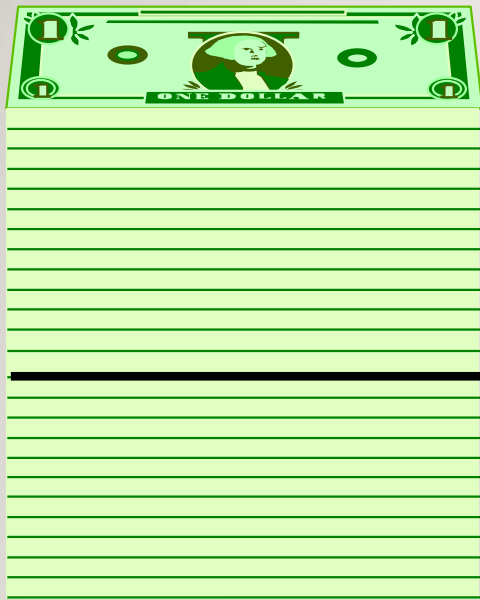
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*For a metered system, set a block rate.*

1. Divide Total Budget Expenses into **Fixed** and **Variable Costs**.
2. Develop a **Base Rate** to cover Fixed Costs.
3. Develop a **Unit Rate** to cover Variable Costs.

# A SYSTEM'S TOTAL COSTS CAN BE DIVIDED INTO FIXED AND VARIABLE COSTS.

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**Total Costs**

## **Variable Costs** include:

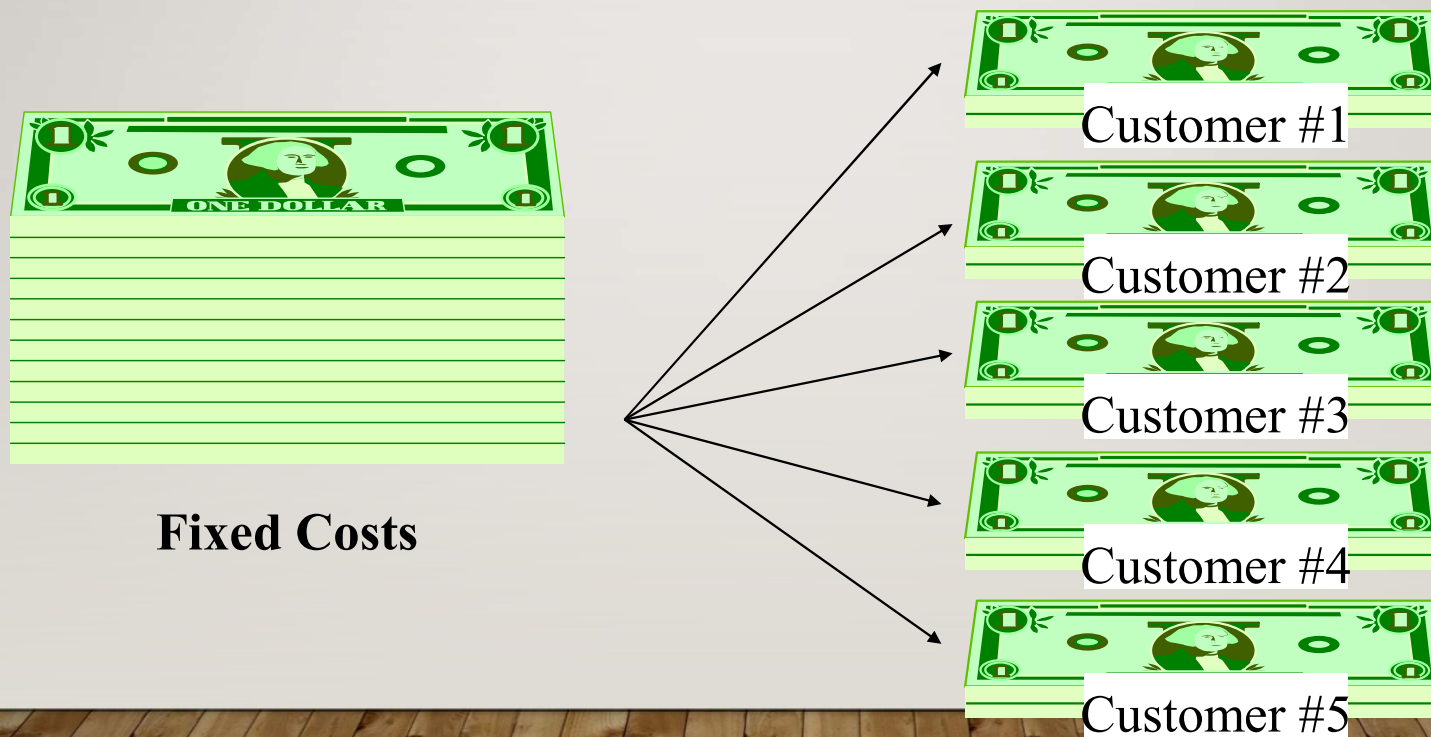
- Chemicals
- Maintenance and repairs
- Power

## **Fixed Costs** include:

- Debt payments
- Contributions to reserve accounts
- Water quality monitoring

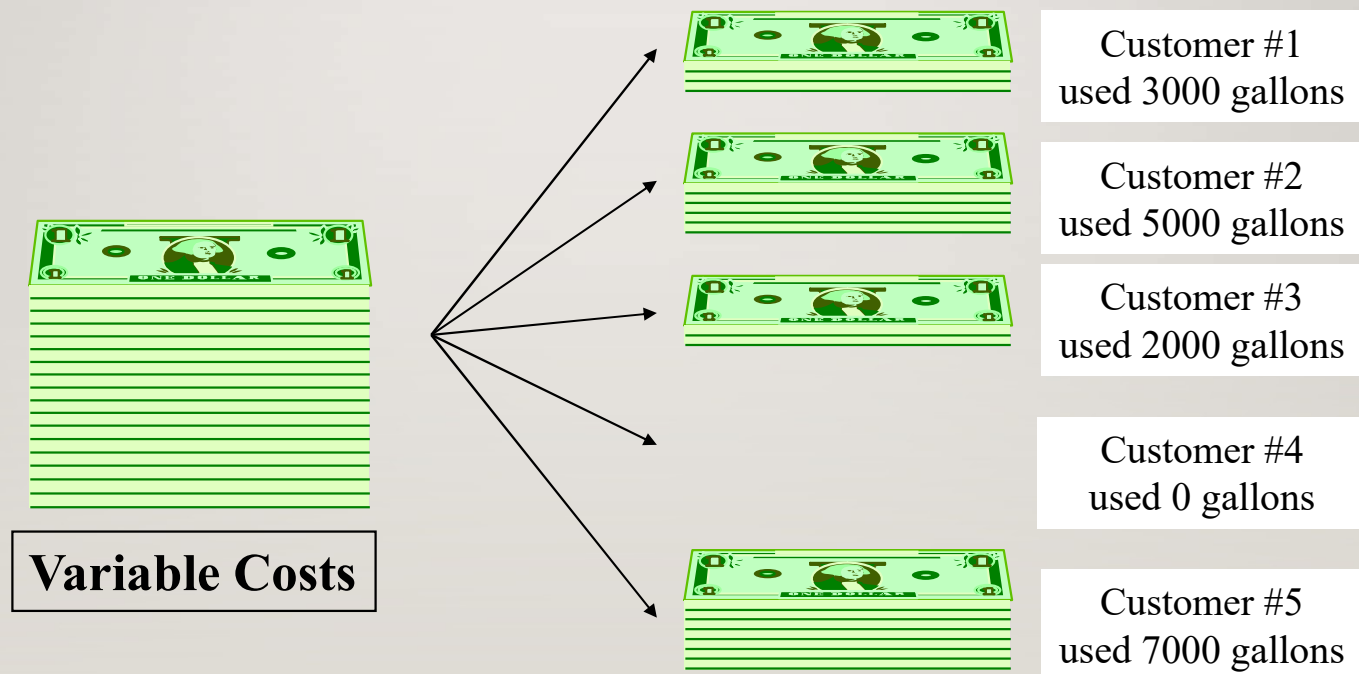
## SINGLE BLOCK RATE #2: EACH CUSTOMER PAYS AN EQUAL PORTION OF THE *FIXED COSTS*...

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...PLUS A PORTION OF THE SYSTEM'S VARIABLE COSTS BASED ON HOW MUCH WATER THEY USED.

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## SINGLE BLOCK RATE: \$5 PER 1,000 GAL'S USED

 = 1,000 gallons of water used

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### *February Water Bill*

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                       |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----------------------|
| Customer #1 |                                                                                                                                                                                                                                                                                                                                                                  | .....→ | <b><i>\$15.00</i></b> |
| Customer #2 |                                                                                                                                                                                            | .....→ | <b><i>\$25.00</i></b> |
| Customer #3 |                                                                                                                                                                                                                                                                                                                                                                                                                                                 | .....→ | <b><i>\$10.00</i></b> |
| Customer #4 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | .....→ | <b><i>\$0</i></b>     |
| Customer #5 |        | .....→ | <b><i>\$35.00</i></b> |

## SINGLE BLOCK RATE #2: \$20 PER CONNECTION + \$1 PER 1,000 GAL'S USED

 = 1,000 gallons of water used

### *February Water Bill*

Customer #1



\$23.00

Customer #2



\$25.00

Customer #3



\$22.00

Customer #4



\$20.00

Customer #5



\$27.00

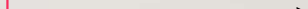
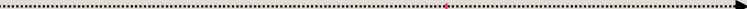
# SINGLE BLOCK RATE #3: \$25 PER CONNECTION + \$1 PER 1,000 GAL'S USED OVER 5,000 GAL'S



= 1,000 gallons of water used

*February*

*Water  
Bill*

|             | \$25 for<br>first 5000                                                               | \$1.00 per<br>1000                                                                    |         |
|-------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------|
| Customer #1 |     |    | \$25.00 |
| Customer #2 |    |    | \$25.00 |
| Customer #3 |    |   | \$25.00 |
| Customer #4 |  |                                                                                       | \$25.00 |
| Customer #5 |  |  | \$27.00 |

# DECREASING BLOCK RATE - PRICE PER GALLON DECREASES AS CONSUMPTION INCREASES



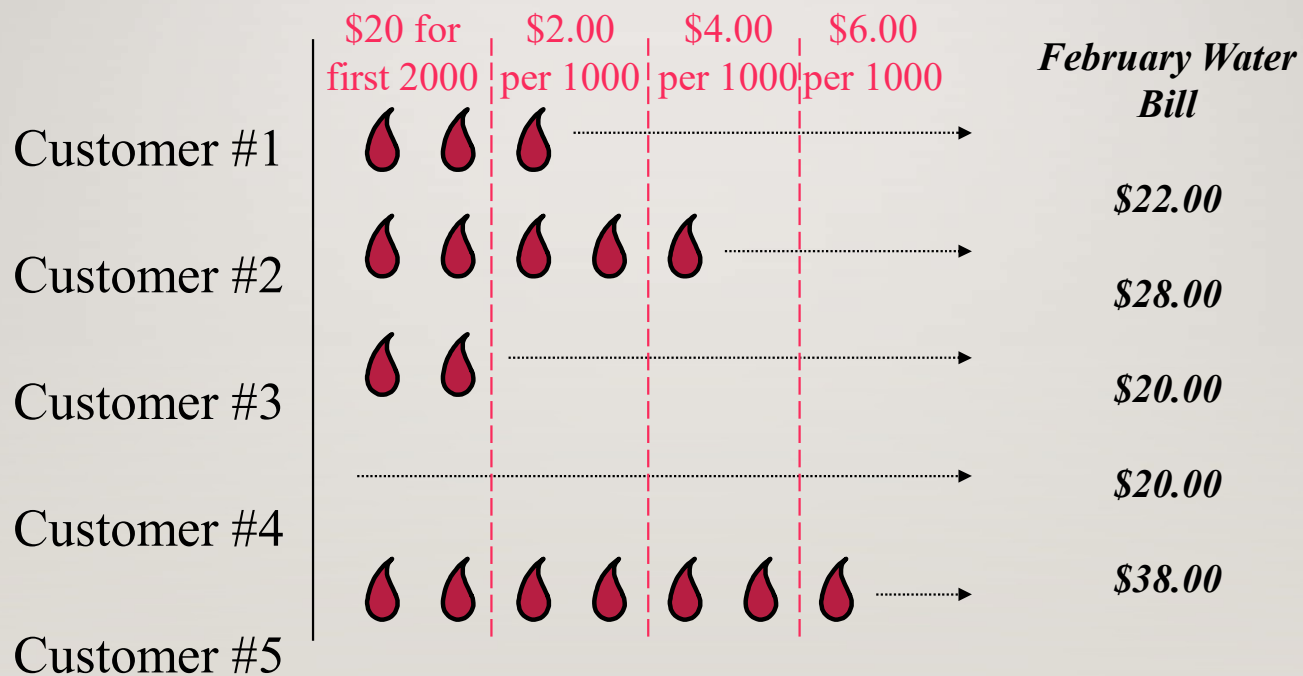
= 1,000 gallons of water used

*February*

*Water  
Bill*

|             | \$20 for<br>first 2000                                                                                                                                                  | \$2.00<br>per 1000                                                                                                                                                        | \$1.00<br>per 1000                                                                                                                                                          | \$0.50<br>per 1000                                                                                                                                                          |         |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Customer #1 |       |                                                                                          |                                                                                                                                                                             |                                                                                                                                                                             | \$22.00 |
| Customer #2 |       |       |                                                                                          |                                                                                                                                                                             | \$25.00 |
| Customer #3 |     |                                                                                                                                                                           |                                                                                                                                                                             |                                                                                                                                                                             | \$20.00 |
| Customer #4 |                                                                                                                                                                         |                                                                                                                                                                           |                                                                                                                                                                             |                                                                                                                                                                             | \$20.00 |
| Customer #5 |   |   |   |   | \$26.50 |

## INCREASING BLOCK RATE - PRICE PER GALLON INCREASES AS CONSUMPTION INCREASES.



 = 1,000 gallons of water used

# DON'T MAKE CUSTOMERS PAY FOR POOR MANAGEMENT PRACTICES!

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- Does the system have a detailed budget?
- Does the system follow the budget?
- Are adequate collection policies used?
- Are sound fiscal policies used?
- Does the system have adequate internal controls?

# BALANCE THE BUDGET

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- Analyze and cut expenses
  - Off-peak operations
  - Circuit rides
  - Buy in bulk
- Improve billing operations
  - Bill customers in a timely manner
  - Collect on delinquent accounts promptly
  - Get tough on cheaters
  - Check operation of meters

# BALANCE THE BUDGET

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- Manage accounts smartly
  - Deposit account payments immediately
  - Use interest-bearing checking accounts
  - Invest reserves
- Find new customers
- Raise rates

# LET'S TAKE A LOOK AT THE SCENARIOS

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# “SELLING” THE RATES

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- What is your process for obtaining a rate adjustment?
  - Board
  - City Council
  - Popular Vote
- Are you prepared?
  - Supporting documentation
  - Use of third parties (regulators, funding agencies, consultants)