

# BUILDING A WORLD OF DIFFERENCE

30 September 2014

**CITY OF ANN ARBOR**

**WATER & WASTEWATER SYSTEM  
CAPITAL COST RECOVERY STUDY**



**BLACK & VEATCH**  
Building a world of difference.®

# AGENDA

- **Welcome & Project Background**
- **Project Team**
- **Project Concepts & Approach**
- **Next Steps**
- **Q&A**

# PROJECT TEAM

# INTRODUCTION & PROJECT TEAM



**Troy Baughman**  
*Project Manager*

## City of Ann Arbor

### ENGAGEMENT LEAD

David Koch, PE

### QA/QC

William Zieburtz

### MANAGEMENT TEAM

Brian Jewett

William Zieburtz

Teresa Weed Newman –  
*Outreach Task Manager*  
(Project Innovations)

### TECHNICAL SPECIALISTS

James Broz - WW

Robert Harbron – WW

David Koch - W

Mike Borchers - SME

Lori Byron (Famous in Your Field)  
- SME

# BLACK & VEATCH / PROJECT INNOVATIONS

- **Our industry experience and expertise**
  - Thought leadership on capital fee programs throughout U.S.
    - Bill Zieburtz former Chair of AWWA Rates and Charges Committee
    - Brian Jewett leading update of impact fee chapter of AWWA M1 Manual (national guidebook for utility rates/fees)
  - Effective public engagement strategies
- **Our local knowledge and experience working with Ann Arbor**
- **Our approach**
  - Collaborative and focused on meeting project objectives
  - Comprehensive scenario planning

# PROJECT CONCEPTS & APPROACH

# ANN ARBOR CAPITAL COST RECOVERY CONSIDERATIONS



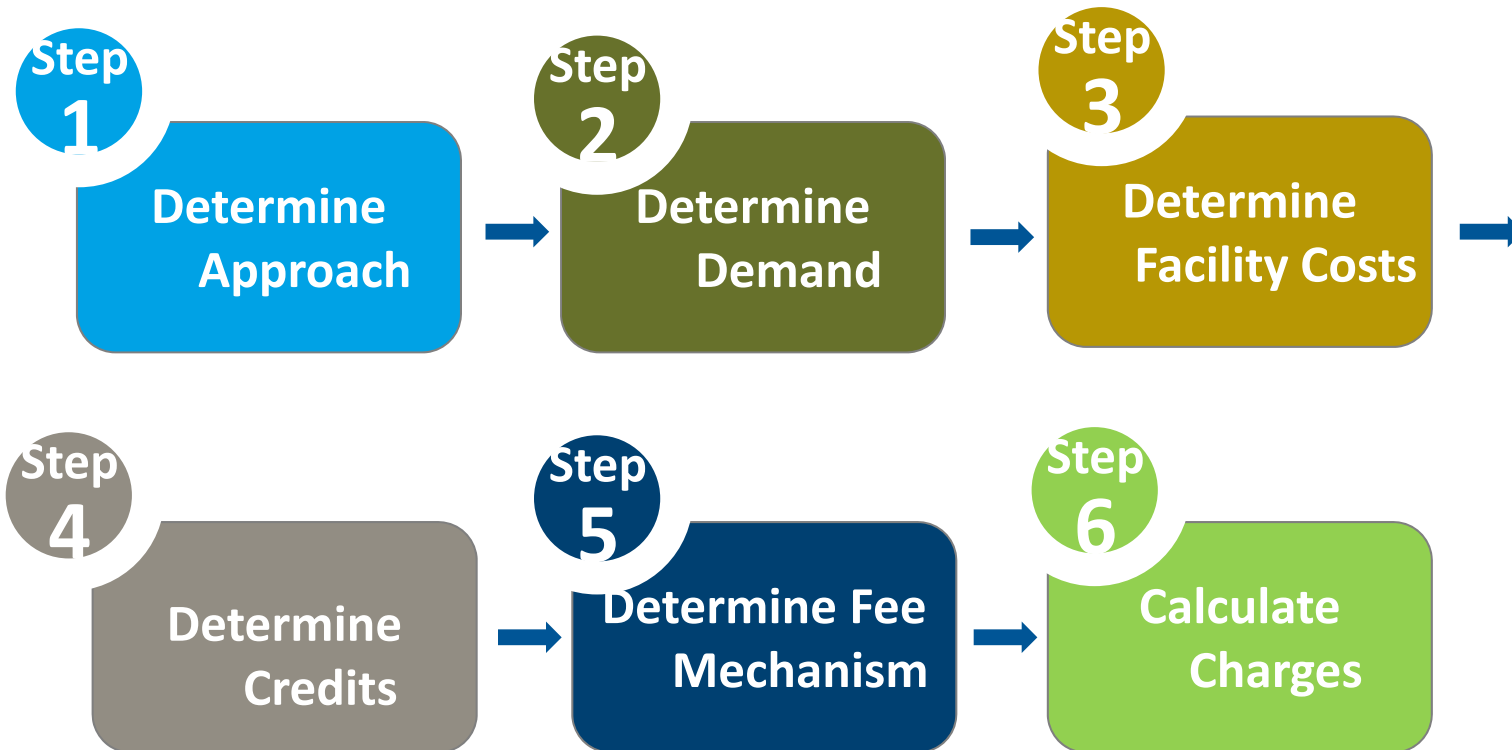
# WHY UTILITY CONNECTION & IMPROVEMENT CHARGES

- **Maintain existing levels of service**
- **New growth pays its equitable share**
  - Anti-growth pressure may be eased
- **Encourage disciplined capital improvement planning**
  - Earmark money for capital improvements
- **Promote comprehensive planning and growth management**
  - Help ensure adequate public facilities
- **Guarantees level playing field**



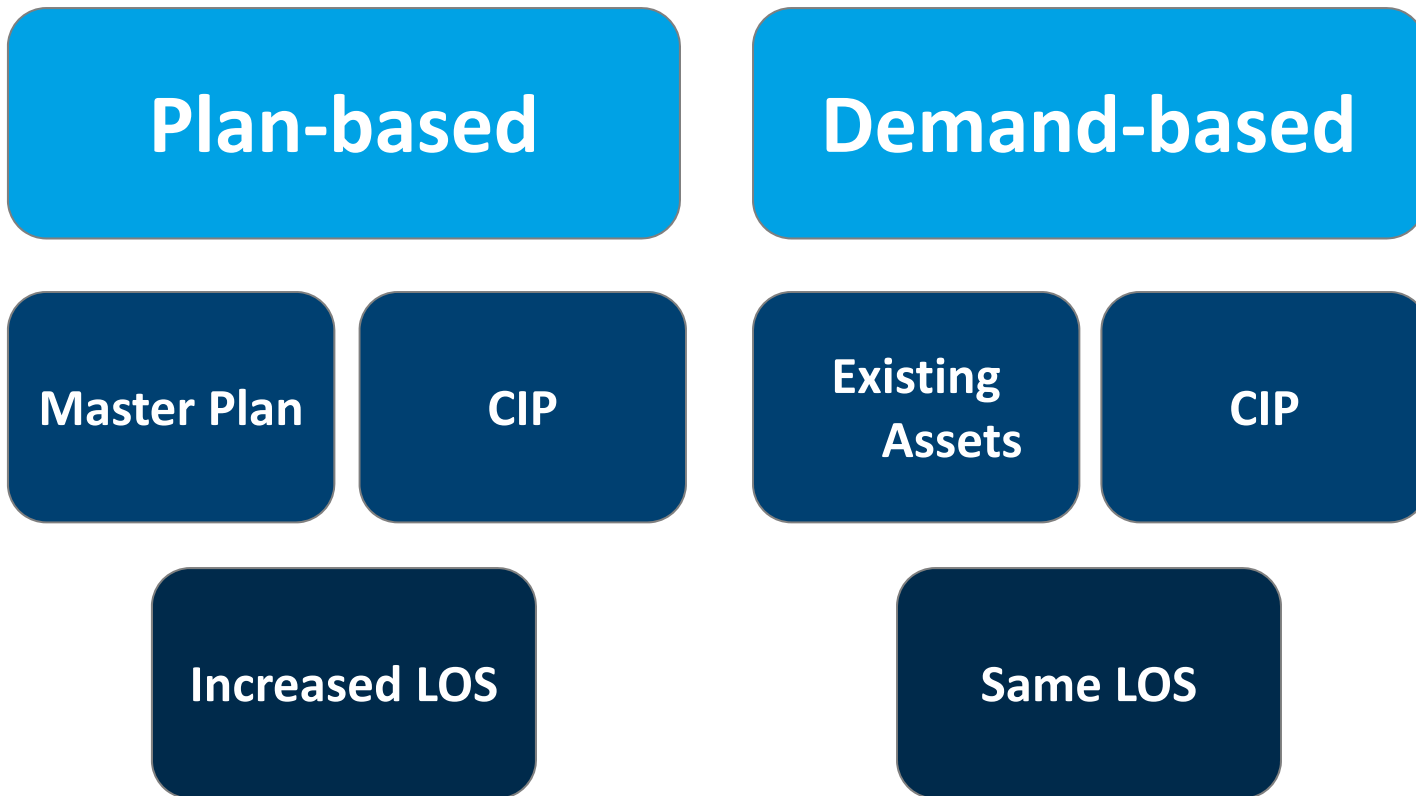
# DEVELOPING ANN ARBOR'S CAPITAL CHARGES

**General Framework - Calculation of Capital Recovery Fees is determined as follows:**



# DETERMINE APPROACH

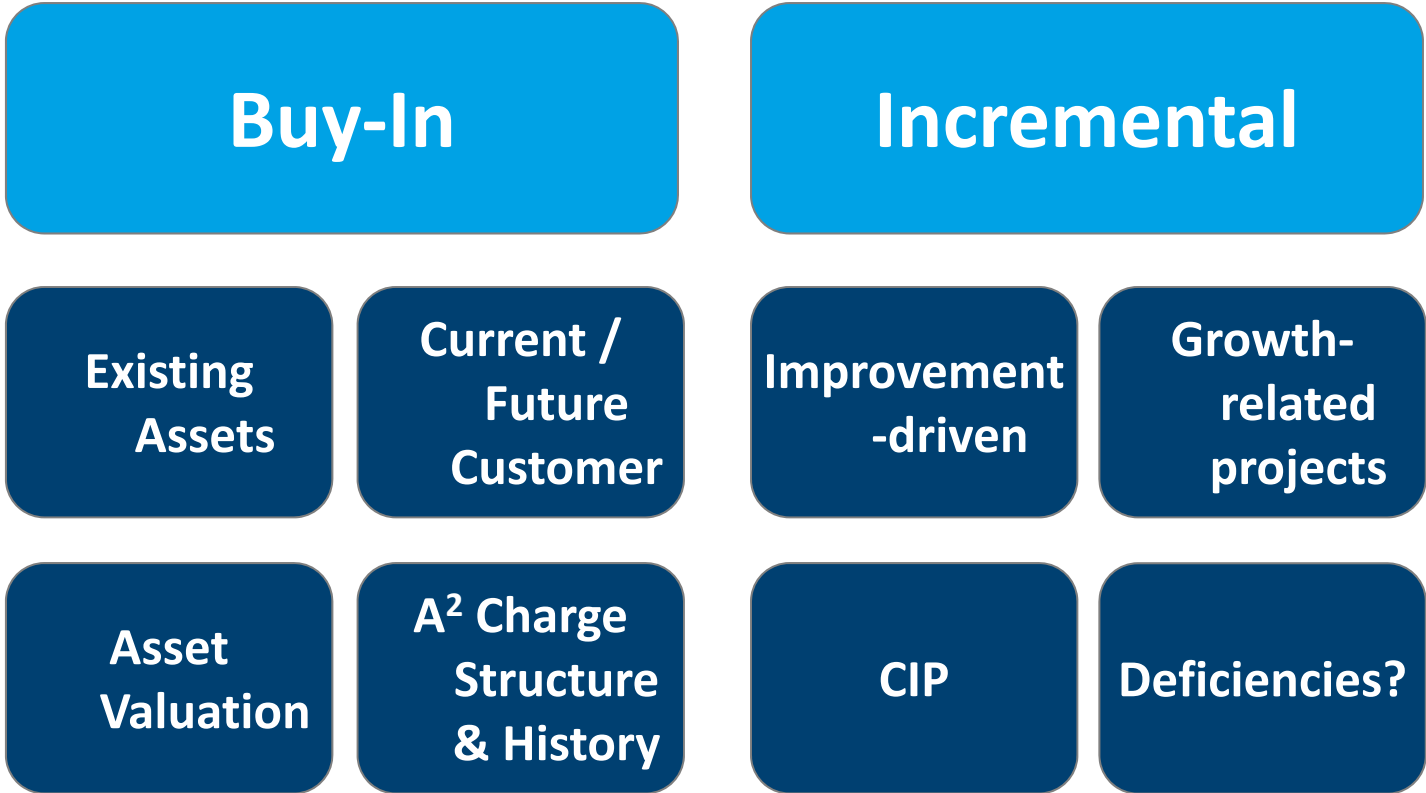
Step  
1



Which approach is best for Ann Arbor?

# DETERMINE APPROACH

Step  
1



Which approach is best for Ann Arbor?

# DETERMINE DEMAND



Demand Documents

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Master Plans

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City Planning

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SEMCOG

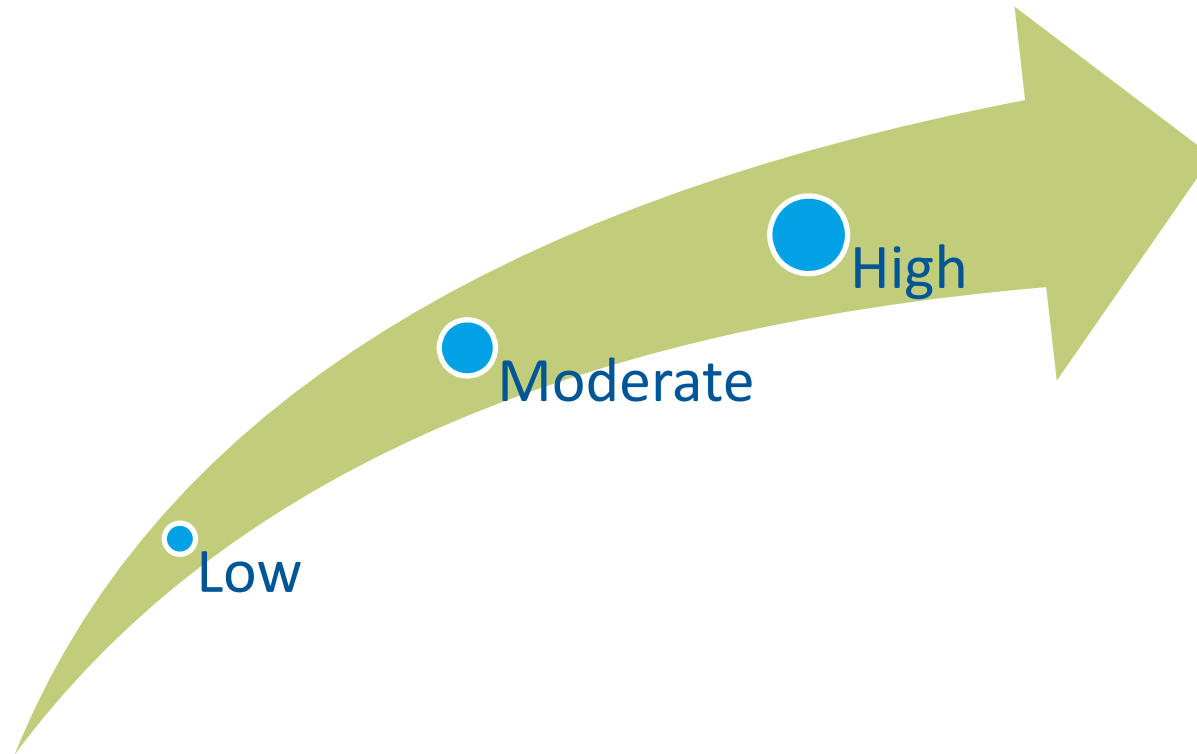
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Census Data

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# USE SEVERAL GROWTH SCENARIOS

Step  
2



## Considerations:

- Growth projection & fees – Inverse relationship
- Whose growth assumptions?

# IDENTIFYING FACILITY COSTS: OC, OCLD, RC, RCLD?

Meter Size	Buy-In Component per Meter	Meter Size	Buy-In Component per Meter
3/4"	\$725	3/4"	\$2,297
1"	\$1,208	1"	\$3,829
1.5"	\$2,415	1.5"	\$7,658
2"	\$3,864	2"	\$12,253
3"	\$7,245	3"	\$22,974
4"	\$12,075	4"	\$38,290
6"	\$24,151	6"	\$76,581
8"	\$38,641	8"	\$122,529
10"	\$55,547	10"	\$176,135
12"	\$103,849	12"	\$329,297

**Select Cell for Asset Valuation Approaches:**

Legend: 1 = OC, 2 = OCLD, 3 = RC, 4 = RCLD

2

**Select Cell for Asset Valuation Approaches:**

Legend: 1 = OC, 2 = OCLD, 3 = RC, 4 = RCLD

4

# IDENTIFYING FACILITY COSTS: GROWTH-RELATED CIP



Project Description	Total Expenditure	Growth %	Growth Total
<b>Transmission &amp; Distribution</b>			
Transmission			
Mains	\$ 1,790,000	5%	\$ 89,500
Tanks	4,407,020	85%	3,745,967
Pump Station	2,918,250	5%	145,913
Subtotal	\$ 9,115,270		\$ 3,981,380

# EVALUATE CREDITS



- Past special assessments
- Past contributions
- Dedicated revenues, e.g. grants
- Current outstanding debt & potential future debt
  - Present Value approach on debt service payments – use nominal interest rate on debt
  - Real Interest Cost approach – nominal interest rate less inflation rate



## DETERMINE FEE MECHANISM

- **Tap size vs. Meter size**
  - May result in lower charge for residential connections
- **Equivalency unit (REU)**
- **Progressive**
  - Persons per household
  - Square footage for non-residential
- **Plumbing Fixture Units (as established by building code)**
- **Usually in current dollars**

# CALCULATE FEES



- Benchmarking
- Cash flow analysis
- Phase-in charges / Payment installment plans
- Accounting of charges
- Annual reporting
- Indexing

**NEXT STEPS**



# PROJECT TIMELINE

## September

- Data review and analysis
- Initial Stakeholder meetings

## October - November

- Capital charge methodology development

## December - January

- Stakeholder meetings to discuss findings/recommendations
- City Council workshop

## February - April

- Finalize recommendation & report
- Seek City Council approval

Q&A