City of Lee's Summit

Sewer Tap Fee Study

Overview of the Presentation

- Provide an Overview of Tap Fees
- Sewer Tap Fee Analysis
  - Formula
  - System Map & planning criteria
  - Calculation
- Neighboring Sewer Tap Fee Survey
- Sewer Tap Fee Implementation
- Next Steps…

Tap Fees

Overview

- **Existing sewer connection fees**
  - Ordinance 32-312. Established that Sewer Connection fees are **$30 per drain** exclusive of the floor drain. The ordinance **limits** the maximum number of drains at 100 per permit.
  - Chapter 32. Article IV. Division 5. Sewer Improvement Fees established two watershed impact fees for Middle Big Creek and Maybrook watersheds.
    - Middle Big Creek Watershed Sewer Impact Fee was adopted in September of 2004and set at **$33.48/drain** and **limited** to 100 drains per permit.
    - Maybrook Watershed Sewer Impact Fee was adopted in June of 2006 and set at **$42.61/drain** and **limited** to 100 drains per permit.
    - Middle Big Creek & Maybrook fees are **restricted** to improvements specific to each watershed.

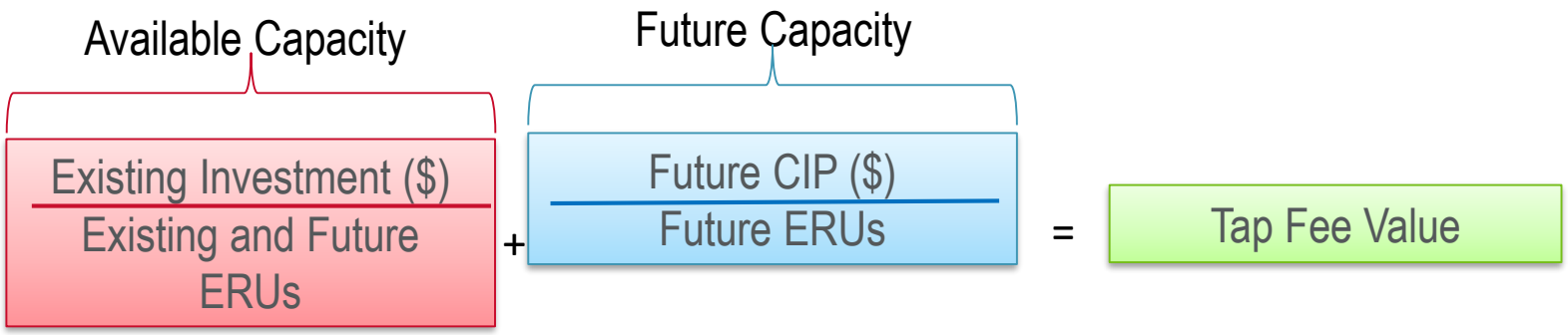
Tap Fees

Overview

- Tap fees recover the costs of the **invested available capacity** + **planned future growth** capital projects needed to serve a new connection on a proportionate share based on the "valuation" of the system in today's dollars
  - Utilities make investments in capacity in advance of new customers connecting
  - Timing of tap fee revenue does not coincide with the Utilities capital investment
  - Tap fees provide mechanism for recovering costs from past investment to be used towards future investment capital
  - Without tap fees the full cost is recovered through rates
- Valuation of system has three methods:
  - **Buy-in Method** = available capacity in the system; no need for future growth capital
  - **Incremental Method** = no capacity available in existing system; includes capacity to serve new growth only
  - **Combined Method (Buy-in + Incremental)** = available capacity in the system plus portion of future capital needed to add new customer (method used)

Tap Fees

Formula

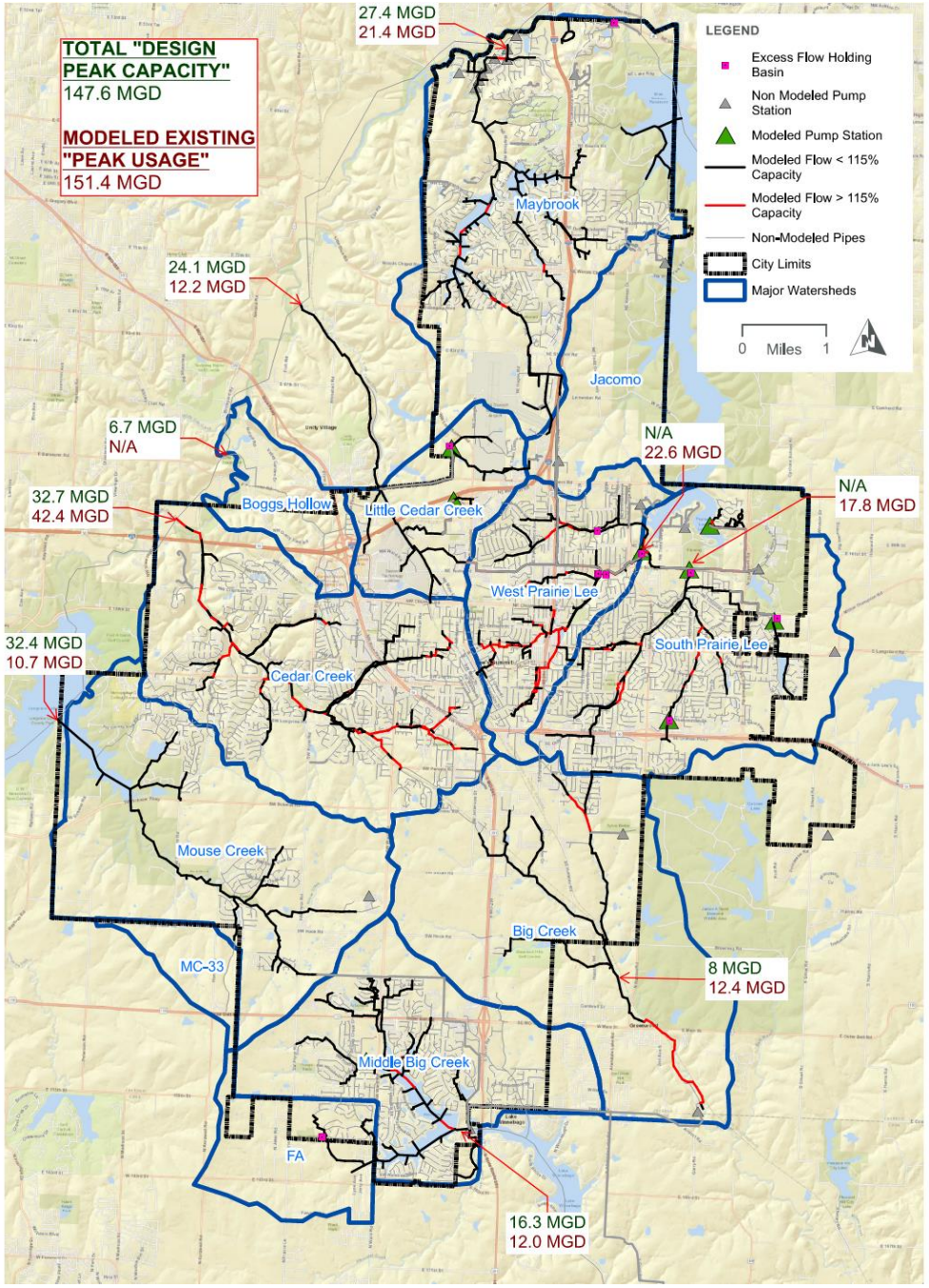


- **Value of Existing Investment:**
  - Original cost, plus ENR-CCI from installment date; less contributions (grants, developer funded)
  - Less outstanding debt principal (avoid double count for new rate customer)
- **Value of Future CIP:**
  - CIP Plan (Current Facility/Master Plans)
  - Proportion of the project to service growth

- **Existing and Future ERUs:**
  - Total system flow ÷ average daily flow in gallons per ERU
- **Tap Fee is system value at one point in time:**
  - ✓ Update tap fee annually based on an established cost index such as Engineering News Record Construction Cost Index (no more than five years)
  - ✓ Update tap fee every five years or when new planning documents adopted

Sewer Tap Fees

System Map



Sewer Tap Fees

System Planning Criteria

Sewer System				
Description	Average Daily Flow Capacity (MGD)	Average Daily Flow (gpcd)	Total ERUs	
Equivalent Residential Units – Existing	11.153	275	40,555	75.6%
Equivalent Residential Units – Future	3.607	275	13,118	24.4%
Total ERUs	14.760		53,673	

- Existing ERUs based on active customers on an ERU basis
- Existing system estimated at 75.6% build out
- Future ERUs based on average daily flow identified in WW Master Plan

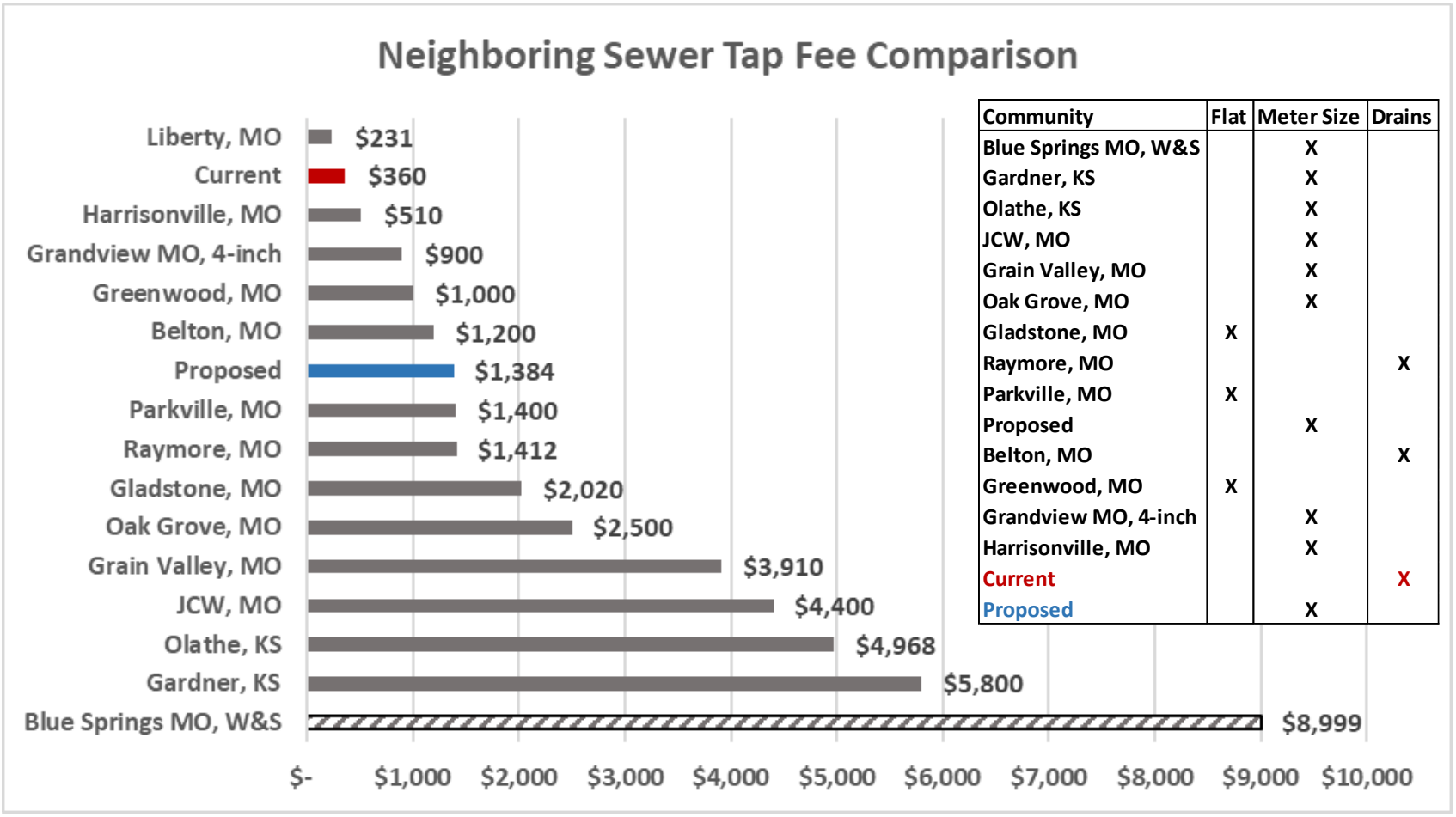
Sewer Tap Fees

Calculation – System Wide Value

Sewer Tap Fee Calculation Results							
	Existing Investment ($ / 1,000)	Total ERUs	Existing Investment $/ERU	Future Plant ($ / 1,000)	Future ERUs	Future $/ERU	Tap Fee $/ERU
Interceptors	$14,351	53,673	$267	$4,600	13,118	$351	$618
Collection	0	53,673	0	10,043	13,118	766	766
Total	$14,351		$267	$14,643		$1,117	$1,384
Tap Fee			**$267**			**$1,117**	**$1,384**
Current Fee							$360
Difference							$1,024

- Existing investment in 2021 $ (available capacity)
  - Does not include developer or grant contributions
  - Includes recent existing interceptors only
- Future capital plan is approximately $45.3 million; $14.6M specific expansion projects
- Current fee $30.00 per drain X 12 drain units = $360

Sewer Tap Fees



Community	Flat	Meter Size	Drains
Blue Springs MO, W&S		X	
Gardner, KS		X	
Olathe, KS		X	
JCW, MO		X	
Grain Valley, MO		X	
Oak Grove, MO		X	
Gladstone, MO	X		
Raymore, MO			X
Parkville, MO	X		
Proposed		X	
Belton, MO			X
Greenwood, MO	X		
Grandview MO, 4-inch		X	
Harrisonville, MO		X	
Current			X
Proposed		X	

Proposed Sewer Tap Fees

Implementation – System Wide

Meter Size	Meter Type	Meter Capacity[1] (gpm)	Capacity Mulitplier[2] (CM)	Calculated Tap Fee
5/8" x 3/4"	Displacement	15	1.0000	**$1,384**
3/4"	Displacement	25	1.6676	**2,309**
1"	Displacement	40	2.6676	**3,693**
1 1/2"	Displacement	50	3.3338	**4,615**
2"	Displacement	100	6.6676	**9,230**
2"	Compound	160	10.6676	**14,768**
3"	Compound	320	23.3338	**32,303**
4"	Compound	500	40.0000	**55,375**
6"	Compound	1,000	83.3338	**115,365**
8"	Compound	1,600	120.0000	**166,124**
10"	Compound	2,300	153.3338	**212,271**

1. Source for capacity figures:
   AWWA M6 Water Meters - Selection, Installation, Testing and Maintenance 1999
   Table 5-3, pp 54-55.
2. Capacity Multiplier (CM) = meter capacity relative to a 5/8 x 3/4" displacement type me
   Sample calculation for a 3/4" displacement meter: 25/15 = 1.67
3. Sample Tap Fee calculation for a 3/4" displacement type meter:

- System wide (New Approach)
- Based on water meter size not number of drains (New approach)

Questions?