



WTD Capacity Charge Rate Structure Study: Options

Presented to:

Metropolitan Water Pollution Abatement Advisory
Committee

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Background

- New trends in development since current capacity charge allocations established
- Capacity Charge Rate Structure Study evaluated how the capacity charge is allocated among classes of *newly connecting structures*

Current Capacity Charge Rate

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Building Type	Residential Customer Equivalent (RCE)
Single Detached Dwelling Unit	1.00 RCE per unit
Multi-family building (2-4 units)	0.80 RCE per unit
Multi-family building (5 or more units)	0.64 RCE per unit
Interim classification: Attached and Detached Accessory Dwelling Unit (ADU)	0.60 RCE per unit
Special Designations: Senior citizen, low income, special purpose housing	0.32 RCE per dwelling unit
Micro-housing, group housing, dorms, homeless shelters	RCEs based on number and type of plumbing fixtures
Commercial and industrial property	RCEs based on number and type of plumbing fixtures

Rate Structure Goals

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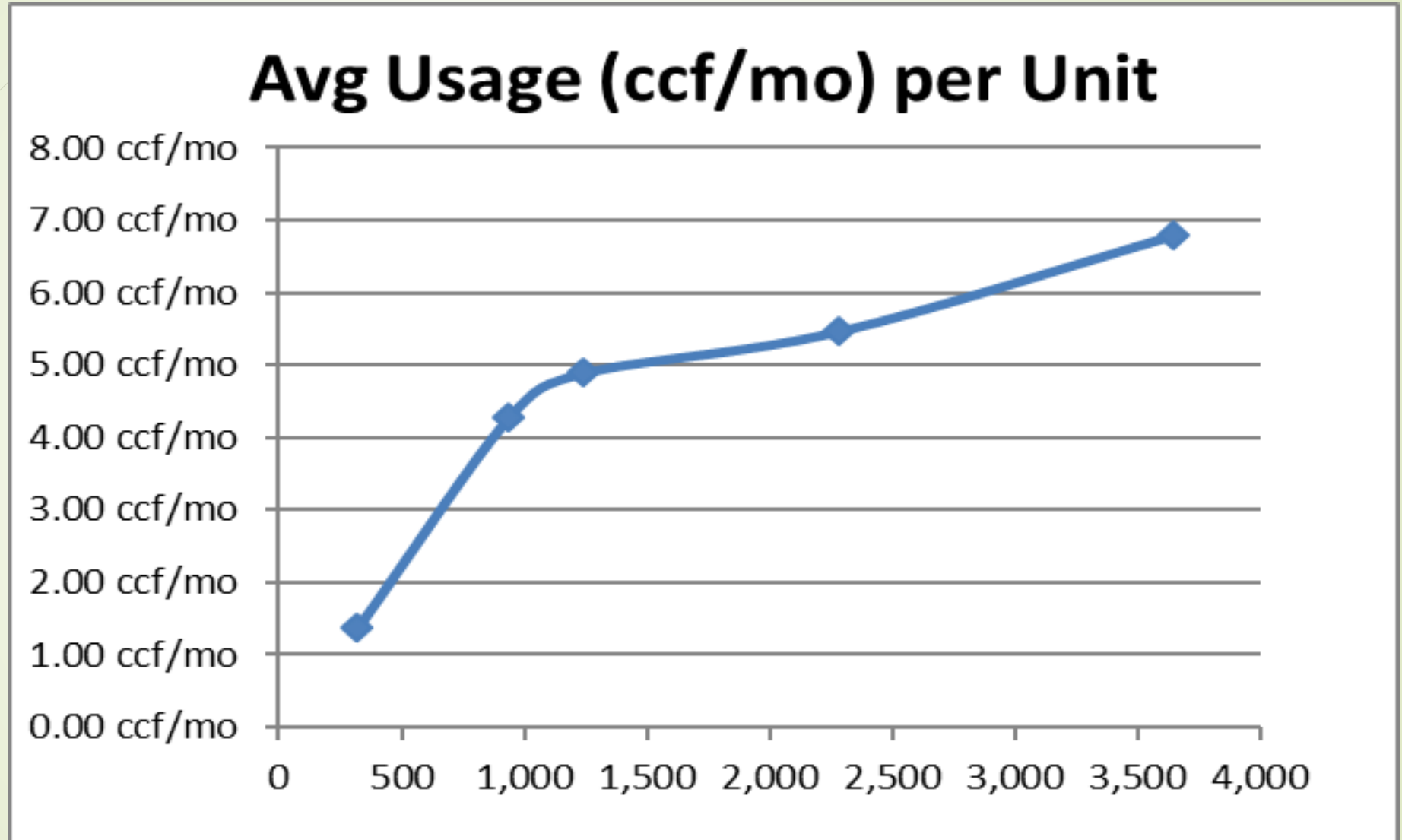
- Accuracy: Is the best reflection of water consumption for each type of building being used?
- Administrative feasibility: Is the necessary information available when the structure connects to sewer?
- Transparency: Is the structure for determining the RCEs and administering the charge understandable?
- Flexibility: Can the structure be adjusted to reflect changing development conditions?
- Reasonableness: Is the underlying logic sound?
- Revenue neutrality: No change in total revenues

Approach to the Study

- Consultant support for quantitative study and survey
- Literature review -- survey of metrics, driving factors and methods
- MWPAAC Work Group:
 - Advice for WTD staff and consultant, and
 - Recommendation to the WTD Director
- Stakeholder engagement:
 - Interviews with, and presentations to, development experts
 - Surveys of MWPAAC member agencies
 - Newsletters, web page, response to questions from public

Water Consumption Increases With Size

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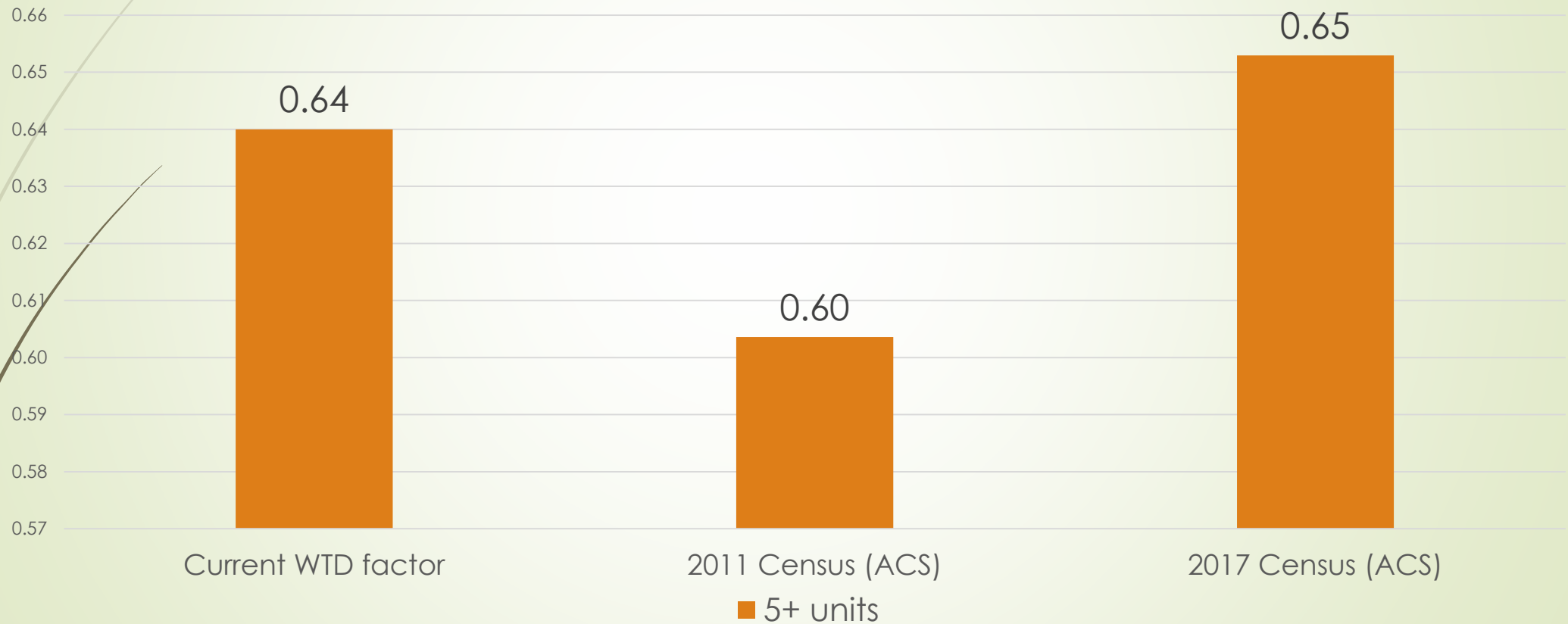


Single and Multifamily Combined

WTD Multi-unit RCEs Are Close to PPH Ratios*

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Comparison, WTD Conversion Factors with Census (ACS) Persons per Household



*American Community Survey data. Uses PPH for all single family units as numeraire.

Residential Options Under Consideration

- Option 1: Status Quo with updated RCEs
 - ✓ Persons per household (PPH) by number of units for RCE factor
 - ✓ Use single dwelling unit as representative residential customer (RCE=1)
 - ✓ Multi-unit still grouped by number of units in the building
 - ✓ No change to ADU or non-residential classes

- Option 2: Adds size classes for single-unit detached
 - ✓ Single Detached Dwelling units grouped into large, medium and small, based on finished square footage.
 - ✓ Medium single family used as numeraire (RCE=1)

Options Summary

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Dwelling Type/RCE	Current	Option 1	Option 2*
Basis for RCE	Historical	PPH	PPH
Single Unit Detached	All = 1.00 RCE	All = 1.00 RCE	Small = 0.81 RCE
			Medium = 1.00 RCE
			Large = 1.16 RCE
Multi-unit 2 -4 units	0.80 RCE	0.84 RCE	0.81 RCE
5+ units	0.64 RCE	0.65 RCE	0.63 RCE
Accessory Dwelling Units (att&detach)	0.6 RCE	0.61 RCE	0.59 RCE
Micro-housing	Fixtures, 0.35 RCE (approx)	0.36 RCE	0.35 RCE

*1 residential customer based on medium size, 1,500-2,999 finished square feet, dwelling

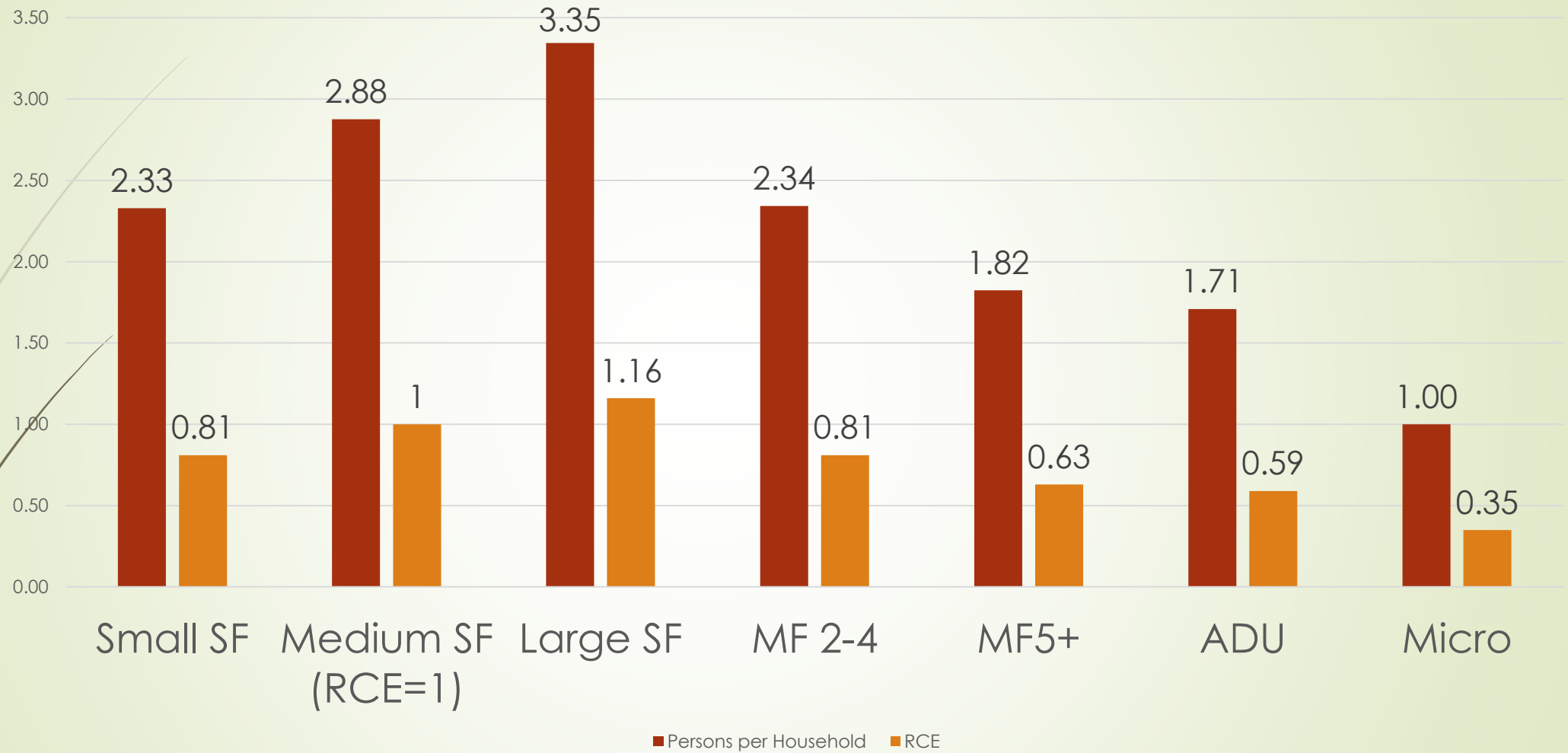
Pros and Cons of Options

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<u>Option</u>	<u>Pros</u>	<u>Cons</u>
#1: Update Status Quo with Persons per Household (PPH)	Uses existing administrative structure	No distinction among single detached units as to sewage generated
	PPH data easy to obtain and apply; generally accepted best practice; readily updated and understood	Requires updating of equivalencies
#2: As Above with Size Classes for Single Unit Dwellings (S-M-L)	Better reflects differences within Single Detached class	New data needed on broad size classes for single detached dwellings
	More comprehensive use of PPH approach across customer classes	Boundary issues and true-up needed
	Requires updating of equivalencies	Requires updating of equivalencies

Persons Per Household (PPH) and RCE Factors*

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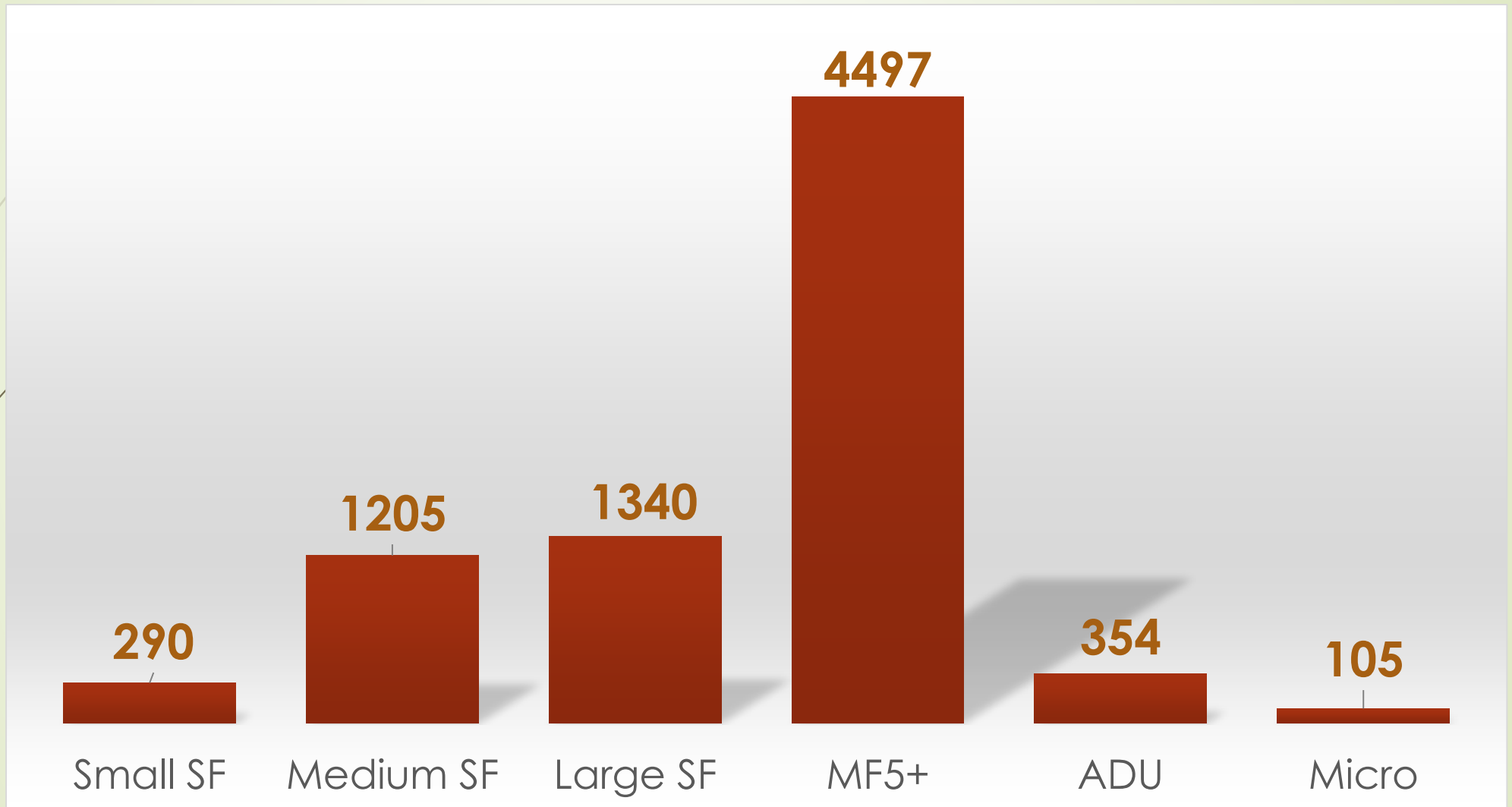
*Option 2, Single family PPH based on American Housing Survey data. Medium single unit, 1,500-2,999 finished sq. ft.

RCE and Cost Changes by Customer Class

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Option/ Dwelling	Small SF	Medium SF	Large SF	MF 2-4	MF5+	ADU	Micro
RCE Factors Calculated from Persons Per Household							
Current	1.00	1.00	1.00	0.8	0.64	0.6	0.35
Option #1	1.00	1.00	1.00	0.84	0.65	0.61	0.36
Option #2	0.81	1.00	1.16	0.81	0.63	0.59	0.35
Capacity Charge by Customer Class, (adjusted for revenue neutrality)							
Current (monthly)	\$66.35	\$66.35	\$66.35	\$53.08	\$42.46	\$39.81	\$23.22
15 year total	\$11,943	\$11,943	\$11,943	\$9,554	\$7,644	\$7,166	\$4,180
Option #1 (monthly)	\$65.52	\$65.52	\$65.52	\$55.03	\$42.58	\$39.96	\$23.59
15 year total	\$11,793	\$11,793	\$11,793	\$9,906	\$7,665	\$7,194	\$4,245
Option #2 (monthly)	\$53.46	\$66.00	\$76.56	\$53.46	\$41.58	\$38.94	\$23.10
15 year total	\$9,623	\$11,880	\$13,781	\$9,623	\$7,485	\$7,009	\$4,158
Percentage Change in Billing by Customer Class							
Current	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Option #1	-0.7%	-0.7%	-0.7%	4.1%	1.3%	0.7%	1.6%
Option #2	-19.4%	-0.5%	15.4%	0.7%	-2.1%	-2.2%	-0.5%

Projected Distribution by Dwelling Type*



*New connections by class estimated from historical WTD data and King County Assessor's files.

Discussion Questions:

What do you think of using persons per household as the basis of RCEs?

What do you think of dividing single detached units into groups?

What administrative challenges do you see and how can they be overcome?

Survey: <https://publicinput.com/5066/>

Next Steps

September – Stakeholder engagement continues

Newsletter

Online survey

Meetings with industry groups and other stakeholders

October – DNRP/WTD prepares legislative package for Executive Office review and consideration

Discussion of Options

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