



WTD Capacity Charge Rate Structure Study: Options

Presented to:

Metropolitan Water Pollution Abatement Advisory Committee

Rates & Finance Subcommittee

September 5, 2019

Background

- New development trends 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 Structure

<u>Building Type</u>	<u>Residential Customer Equivalent (RCE)</u>
Single Detached Dwelling Unit	1 RCE per unit
Multi-family building (2-4 units)	0.8 RCE per unit
Multi-family building (5 or more units)	0.64 RCE per unit
Interim classification: Attached and Detached Accessory Dwelling Unit (ADU)	0.6 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

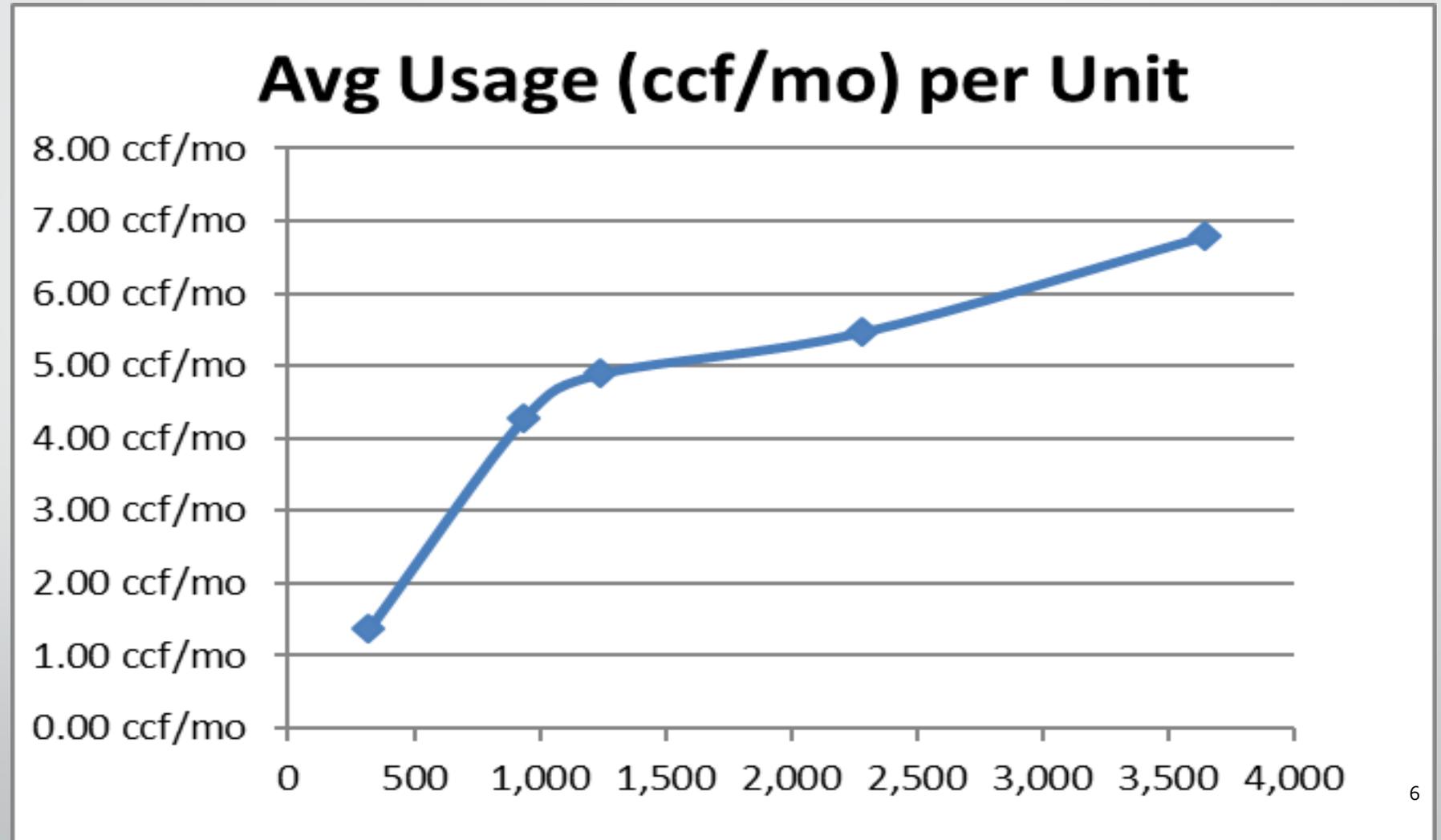
Rate Structure Goals

- Accuracy: Best reflection of wastewater consumption for each type of building
- Administrative feasibility: Availability of necessary information when the structure connects to sewer
- Transparency: How clear is the structure for determining the RCEs and administering the charge
- Flexibility: Ability to readily adjust the structure as development conditions change
- Reasonableness: Underlying logic is 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
 - ✓ Recommendations to the WTD Director for a rate structure
- Stakeholder engagement:
 - ✓ Interviews with development experts
 - ✓ Surveys of MWPAAC member agencies
 - ✓ Newsletters, web page, response to questions from public

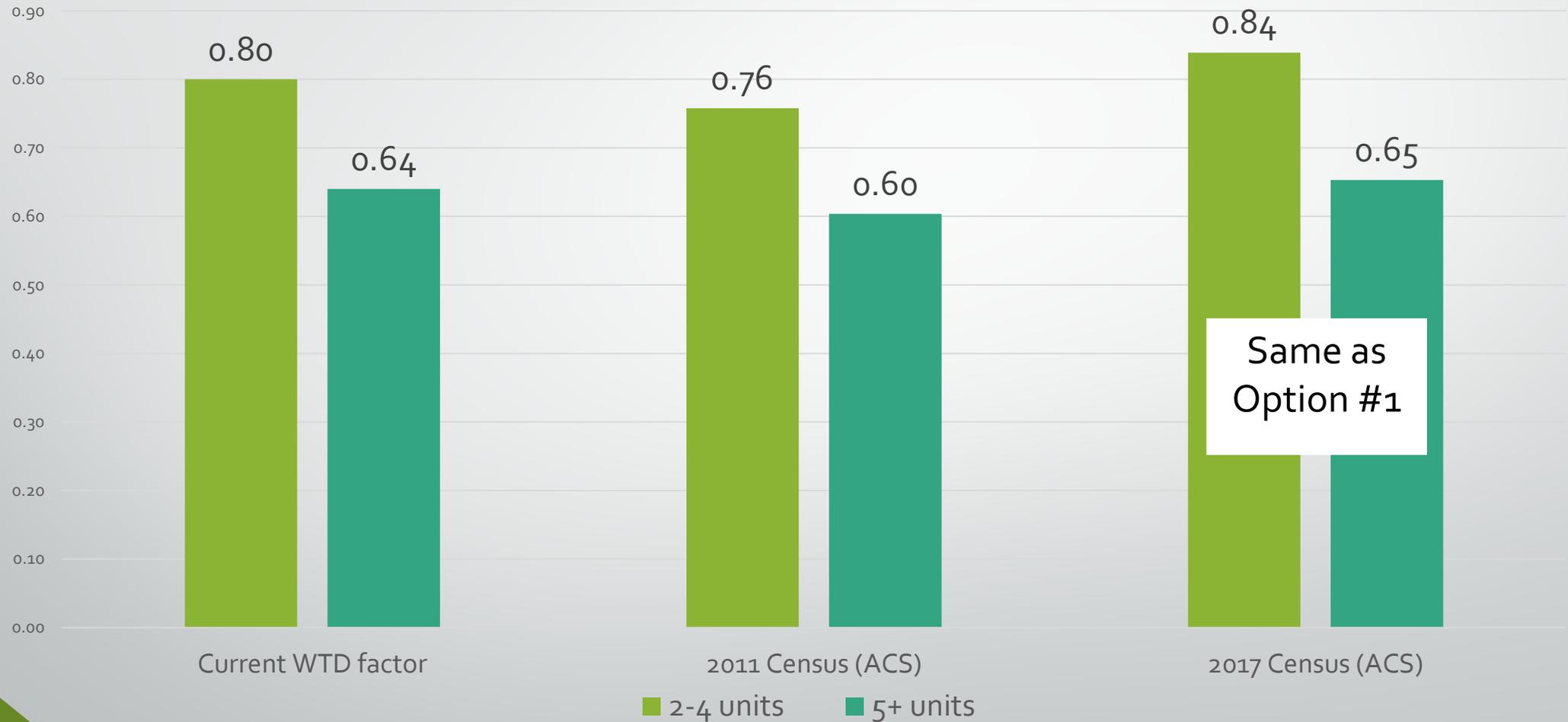
Consultant Finding: Water Consumption Increases With Size



Single and Multifamily Combined

Historic WTD Multifamily RCE Equivalency Factors Are Close to PPH Ratios*

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



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

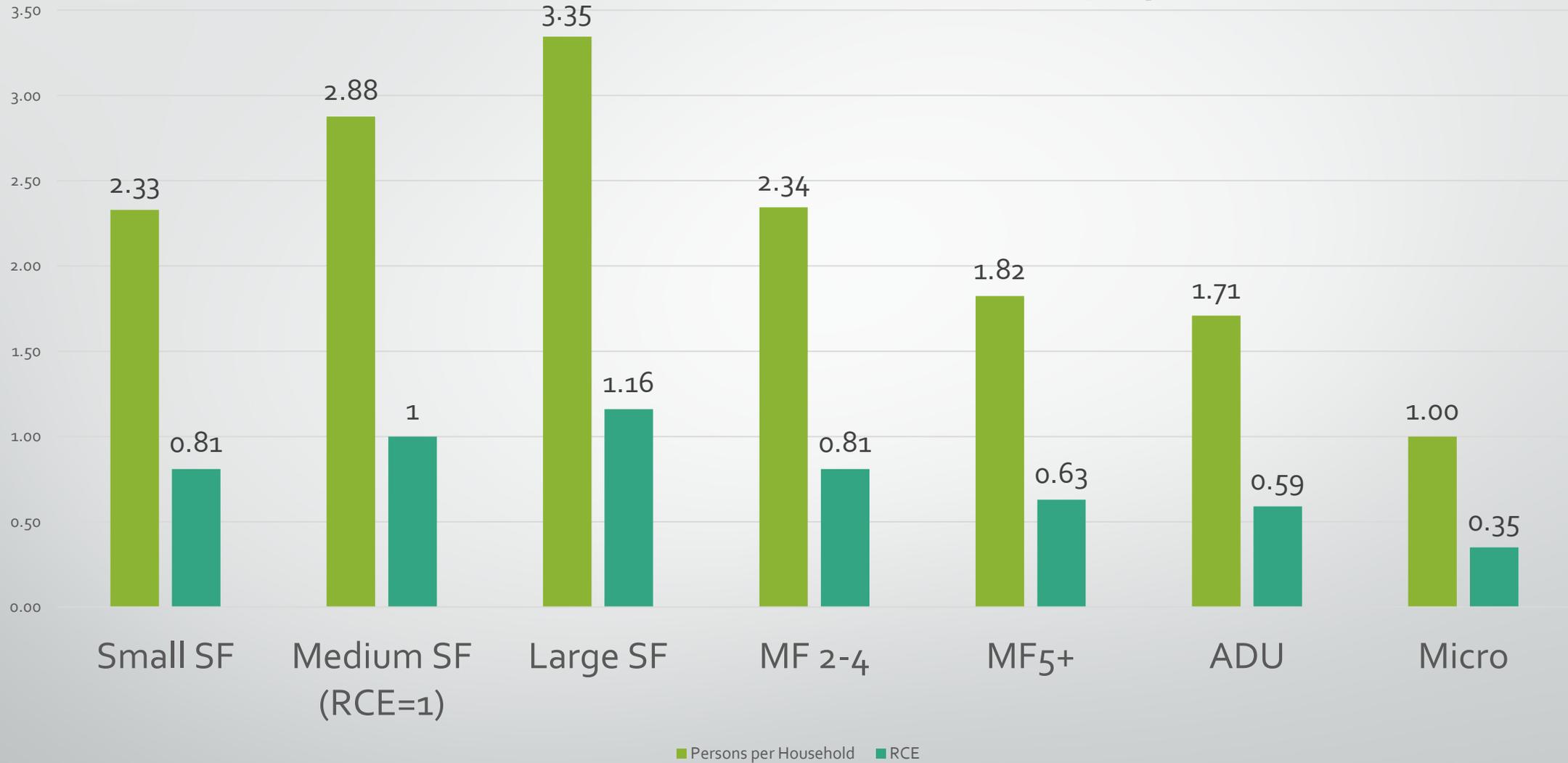
Residential Options Under Consideration

- Option 1: Status Quo with updated equivalence factors.
 - ✓ Persons per household (PPH) by number of units for equivalency 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 dwellings.
 - ✓ Single Detached Dwelling units grouped into *large, medium and small* based on square footage.
 - ✓ Medium single family used as numeraire (RCE=1)

Option Summary

Dwelling Type/RCE	Current	Option 1	Option 2*
Basis for RCE	Historical	PPH	PPH
Single Unit Detached	All = 1 RCE	All = 1 RCE	Small = 0.81 RCE
			Medium = 1 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
Detached and Attached Accessory Dwelling Units	0.6 RCE	0.61 RCE	0.59 RCE
Micro-housing	Fixtures, approximately 0.35 RCE	0.36 RCE	0.35 RCE

Persons Per Household (PPH) and RCE Factors, Option #2*



*Single family PPH based on American Housing Survey data. Medium single unit is 1,500-2,999 finished square feet.

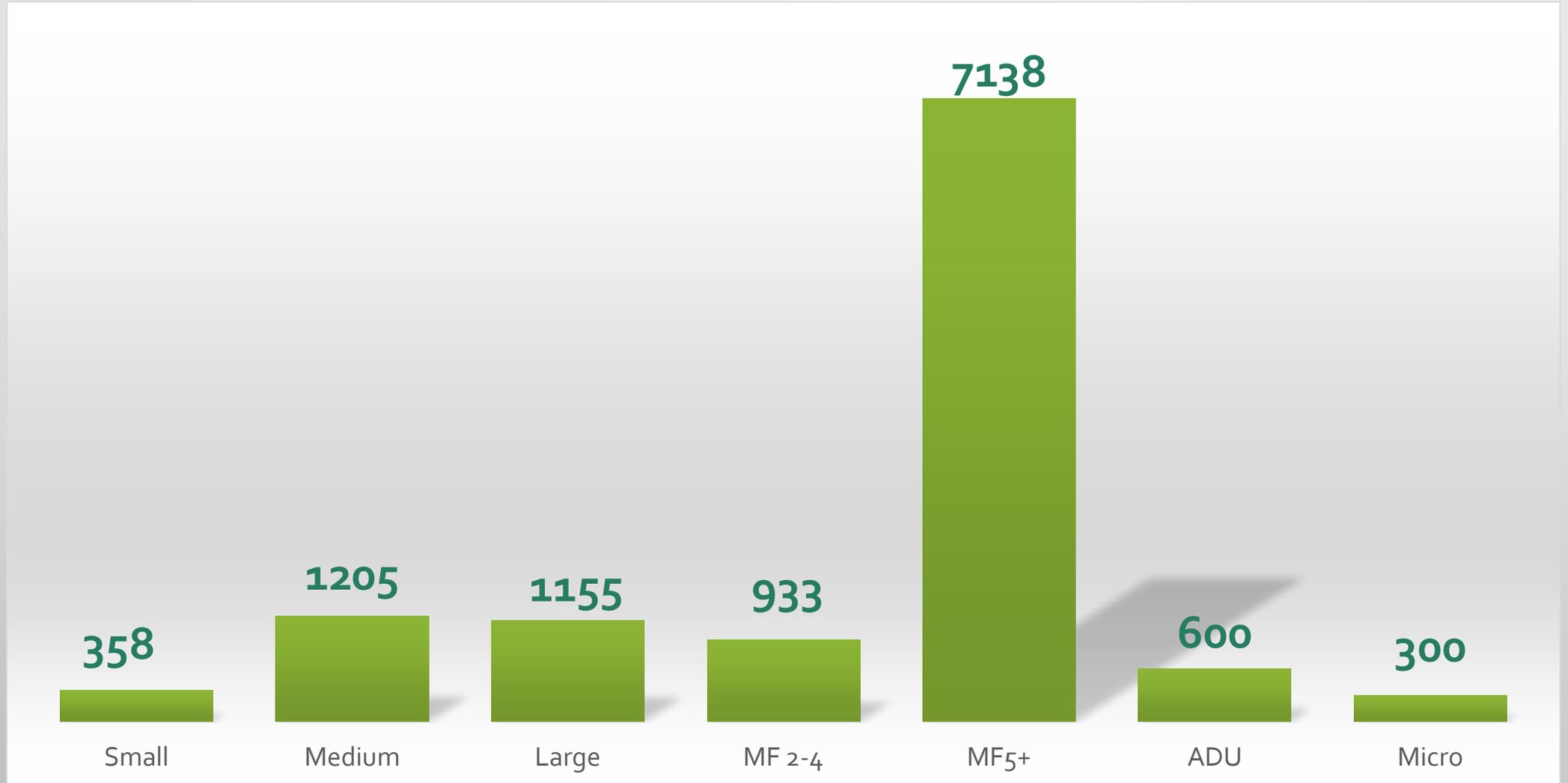
Pros and Cons of Options

<u>Option</u>	<u>Pros</u>	<u>Cons</u>
#1: Update Status Quo with Persons per Household (PPH)	Mostly uses existing administrative structure	No distinction among single detached units as to sewage generated
	PPH data are 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 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

RCE Factors and Cost Changes by Customer Class

	Small SF	Medium SF	Large SF	MF 2-4	MF5+	ADU	Micro
RCE's							
Current	1.00	1.00	1.00	0.80	0.64	0.60	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
Monthly Charge, 2020 (with Revenue Neutrality)							
Current	\$66.35	\$66.35	\$66.35	\$53.08	\$42.46	\$39.81	\$23.22
Option #1	\$65.52	\$65.52	\$65.52	\$55.03	\$42.58	\$39.96	\$23.59
Option #2	\$53.46	\$66.00	\$76.56	\$53.46	\$41.58	\$38.94	\$23.10
% Change in Monthly Charge, 2020 (with Revenue Neutrality)							
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.

Next Steps

September – Stakeholder engagement continues

Newsletter

Online survey

Meetings with industry groups and other stakeholders

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

Discussion of Options

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