



RAFTELIS

Attachment B

# DC WATER

## *Retail Rates Committee*

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***2021 Cost of Service Study***

Draft Results | November 19, 2019

# AGENDA

- Background
  - Objectives of the Cost of Service Study
- Revenue Sufficiency Analysis
- Cost of Service Analysis
  - Background
  - Methodology
- Next Steps

**Background**

# Background

DC Water has conducted a Cost of Service (COS) Study every three years, and will now conduct a COS Study every other year to coincide with two-year rates. Raftelis performed prior studies in 2012, 2015, and 2018.

## Study Components

1. Revenue Sufficiency Analysis – Do the proposed rates recover adequate revenue to meet expenditures?
2. Cost of Service Analysis / Rate Equity – Are proposed existing rates equitably recovering the costs of providing service?
3. Alternative Rate Structure Analysis – Are there alternative rate structures that may more effectively meet DC Water's highest priority pricing objectives?

# DC Water Rate Setting Policies

- Resolution #11-10:
  1. Rates that, together with other revenue sources, **cover current costs** and **meet or exceed all bond** and **other financial requirements** as well as goals set by the Board
  2. Rates that yield a **reliable and predictable** stream of revenues, taking into account trends in costs and in units of service
  3. Rates based on **annually updated forecasts of operating and capital budgets**
  4. Rate structures that are **legally defensible**, based on objective criteria, **and transparently designed**
  5. Rate structures **that customers can understand** and DC Water can **implement efficiently and efficaciously**
  6. Rates increases, if required, are implemented **transparently and predictably**

# Revenue Sufficiency Analysis

*Revenue requirements are the total cash needs of the utility to fund operating and capital costs including all debt service obligations and reserve fund contributions.*

# Revenue Sufficiency Process

Raftelis projects revenue based on proposed rates and units of service (number of accounts, billed consumption, and impervious ERUs)

- Will proposed rate increases be sufficient to fund DC Water cash needs in FY 2021 and 2022?
- Will reserve funds be maintained at target levels?
- Is debt service coverage adequate to meet required bond covenants?

# Cost Drivers & Trends

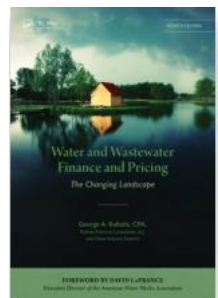
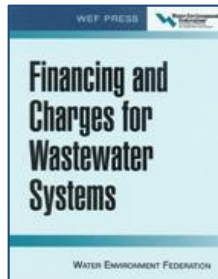
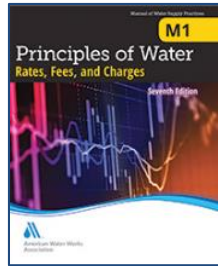
- Capital costs are increasing due to regulatory requirements and infrastructure rehabilitation, particularly for wastewater and CSO mitigation
- Last year's CIP added funding for small diameter water and sewer main replacement
- DC Water continues efforts to lower Operating and Maintenance expense increases to keep rates as low as possible for customers
- Per capita consumption continues to decrease causing overall billable consumption to decline



# Cost of Service Process

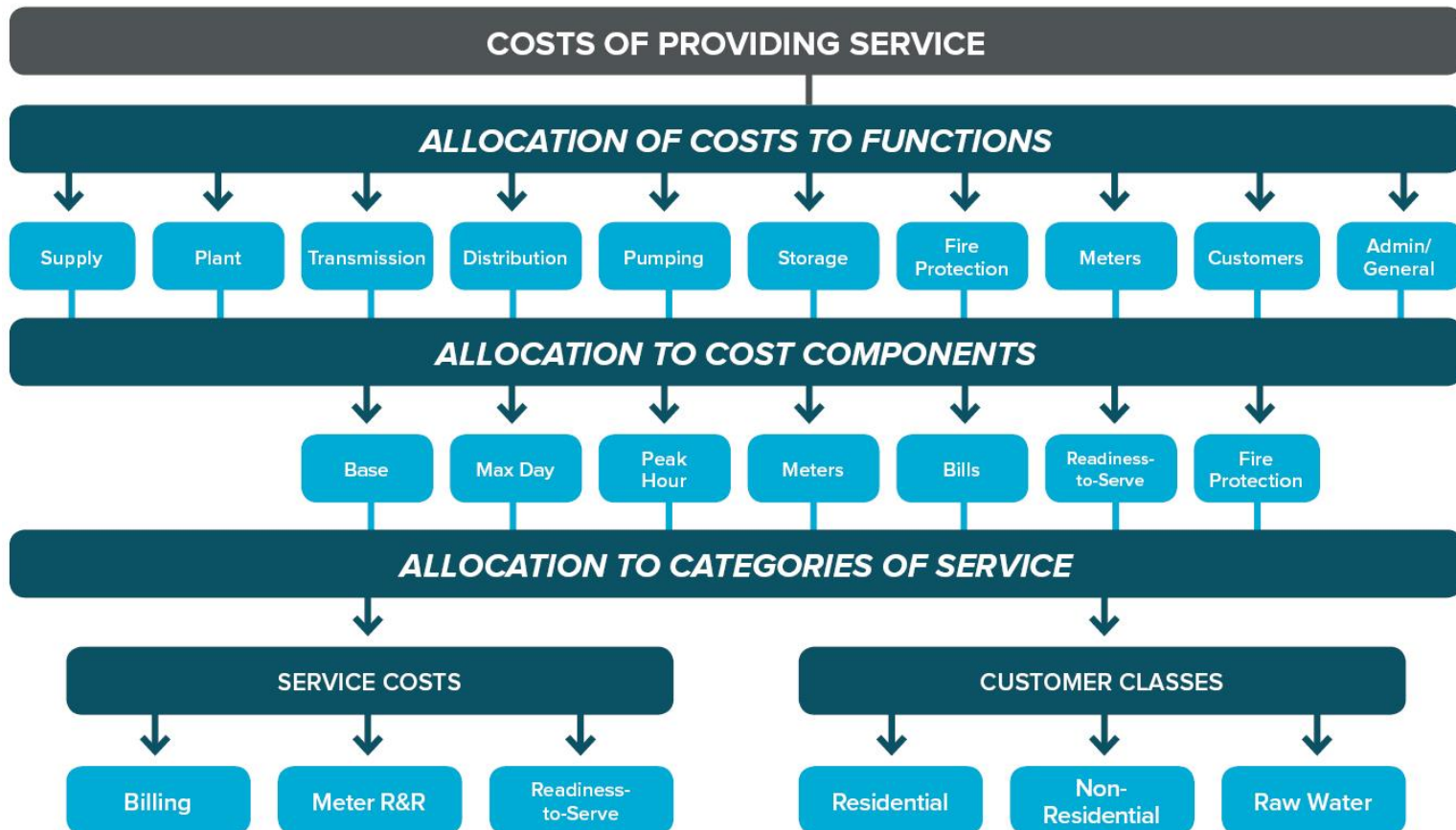
*Cost of service analyses apportion the revenue requirements to customers based on the demands they place on the utility system.*

# Basis for COS Analysis



- Cost of service (COS) analysis is standard across the water and wastewater industry
  - Considered the most rigorous form of rate-setting
- Designed to precisely allocate revenue requirements to each customer class in proportion to the demands that customer class places on utility infrastructure
- The COS process is customized to the circumstances of each utility and its rate structure

# Cost of Service Methodology



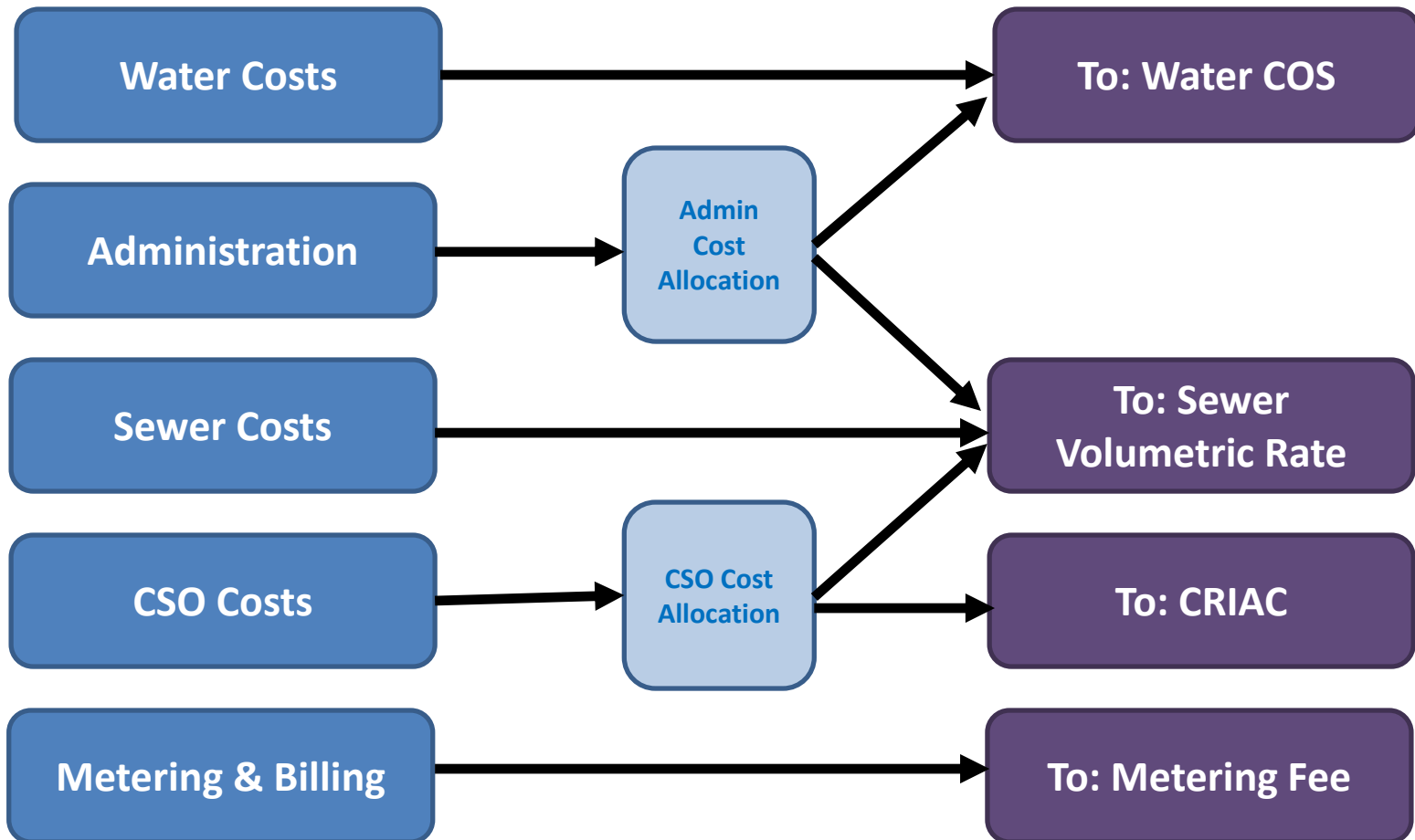
# Step 1: Determine Revenue Requirements

Revenue requirements are the annual cash needs of the utility

- **Operations & Maintenance Costs**
  - » Personnel
  - » Contractual Services
  - » Water Purchases
  - » Chemicals and Supplies
  - » Energy and Fuel
  - » Equipment
  - » Biosolids Remediation
  - » Other operating costs
- **Capital Costs**
  - » Existing Debt Service from Outstanding Bonds
    - Long term indebtedness of about \$3.5 billion in FY 2019
  - » New Debt Service from Additional Bonds
    - Issuance of new bonds over the financial planning horizon
  - » Cash Funded Capital
    - Paygo and other cash funded capital covers ongoing investments in equipment, and water main replacement [12](#)

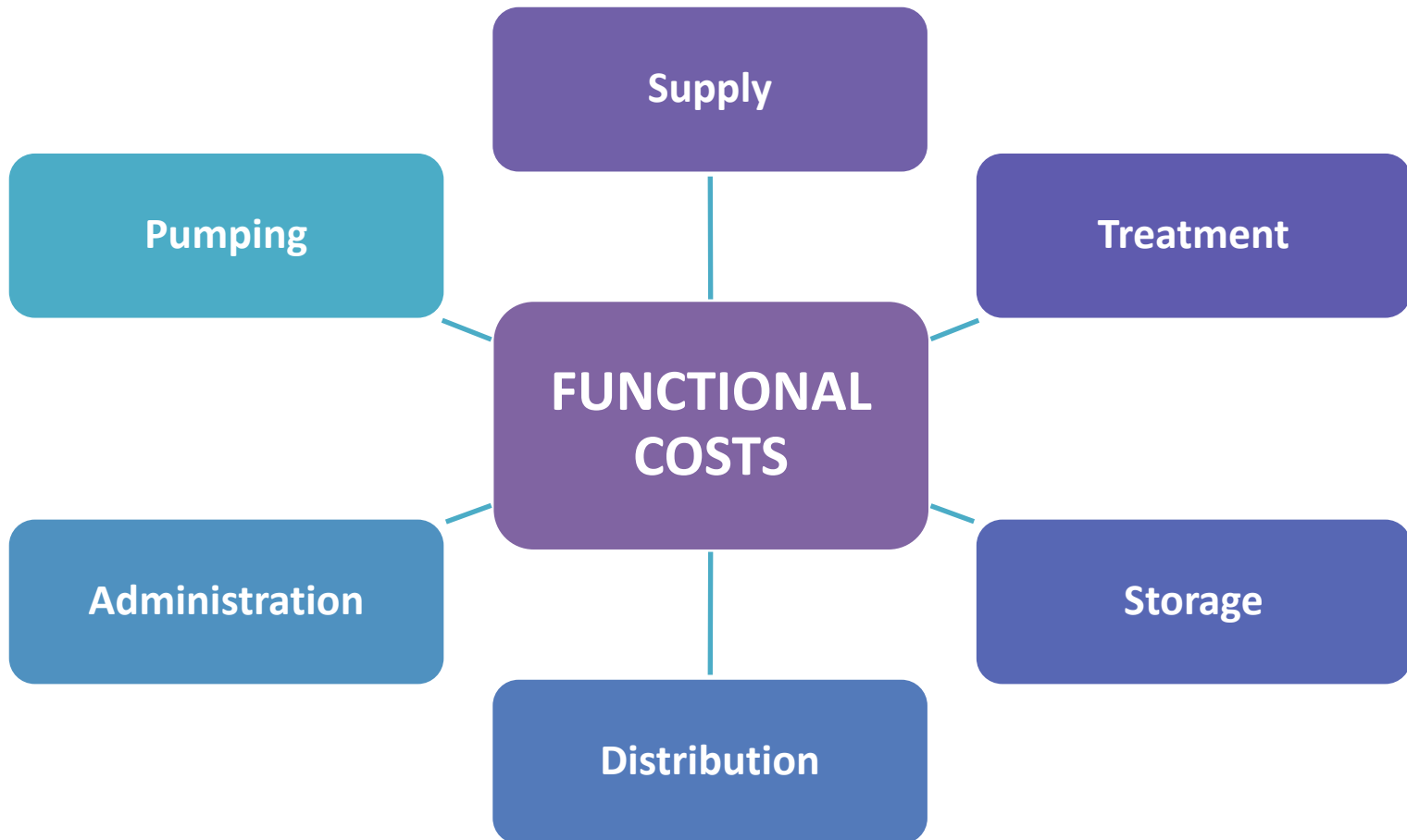
# Step 2: Allocate Revenue Requirements to Utilities

COS Allocations are dependent on the utility's rate structure



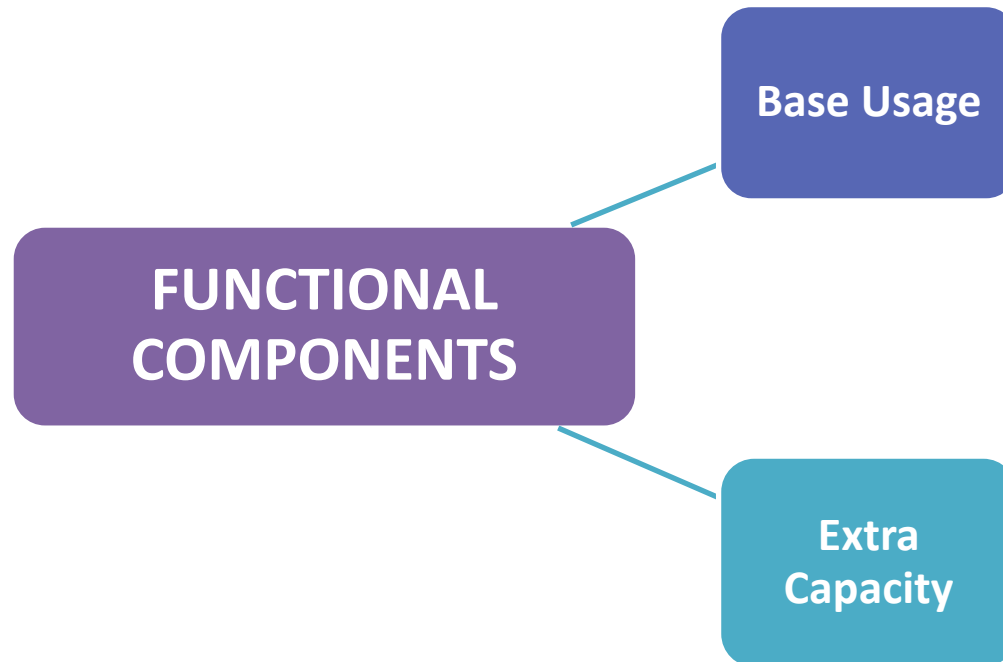
# Step 3: Allocate Water Revenue Requirements to Functional Components

Water Cost of Service allocates costs to each utility function



# Step 4: Allocate Functional Components to Cost Components

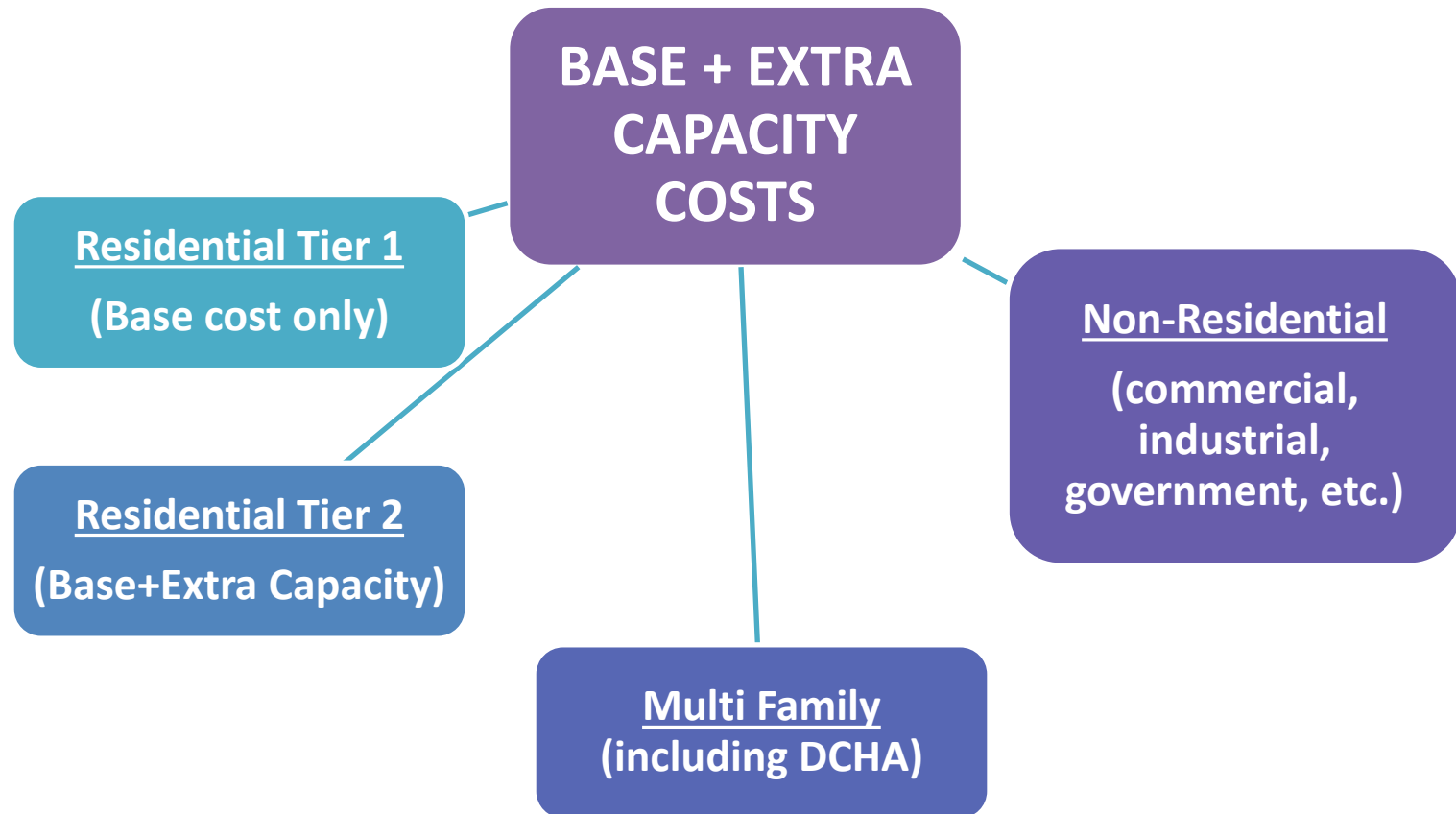
Function costs are split between base and extra capacity usage



- Base usage reflects average day water use
- Extra capacity usage reflects peak usage

# Step 5: Calculate New Water Rates

Each customer class is assigned a portion of base and extra capacity costs resulting from their class peaking characteristics





# Next Steps

# Cost of Service Study Timeline



- Present cost of service methodology - November 19, 2019
- Finalize Operating Budget and CIP, present COS rate recommendations to Board Committees – January 2020
- Authorize publication of rates for public comment – March 2020

# THANK YOU

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