Sustainable Rate Structure Analysis Stakeholder Advisory Group

July 13, 2021

NYC Environmental Protection

Welcome

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WELCOME & DEP OVERVIEW
Michael DeLoach
Deputy Commissioner of Public Affairs & Communications

DEP BUDGET BRIEFING
Joe Murin
Chief Financial Officer

SUSTAINABLE RATE STRUCTURE ANALYSIS
Erin Morey
Director of Demand Management & Resilience Policy

NEXT STEPS
Michael DeLoach
Deputy Commissioner of Public Affairs & Communications

DEP Overview

Michael DeLoach

DEPUTY COMMISSIONER OF PUBLIC AFFAIRS & COMMUNICATIONS

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Our Mission

To enrich the environment and protect public health for all New Yorkers by providing high quality drinking water, managing wastewater and stormwater, and reducing air, noise, and hazardous materials pollution.

Introduction to DEP

WATER SUPPLY

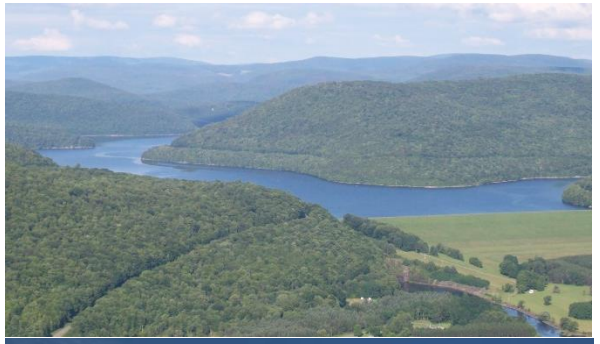
- Deliver 1.1 billion gallons of water to 9.6 million New Yorkers every day and maintain 7,000 miles of water mains
- Protect our 2,000 square mile watershed, including 19 reservoirs and three controlled lakes

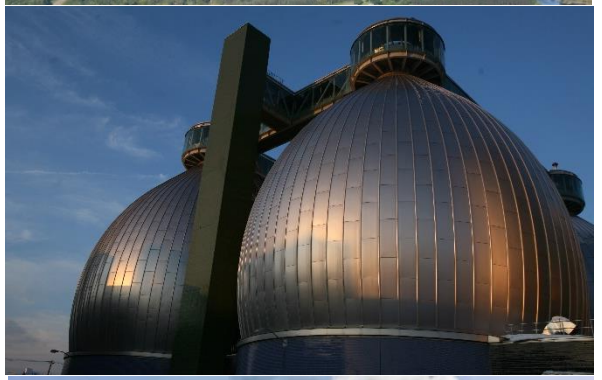
WASTEWATER TREATMENT

- Treat 1.3 billion gallons of wastewater each day
- Operate and maintain 14 plants, 96 pumping stations, and 7,500 miles of sewers

AIR, NOISE, AND HAZARDOUS WASTE

- Update and enforce the Air Code to reduce local emissions, and regulate hazardous waste and noise pollution





Water Supply

- Deliver one billion gallons of drinking water per day to nine million New Yorkers
- Manage 19 reservoirs and three controlled lakes with a storage capacity of 580 billion gallons
- Protect water quality to maintain our Filtration Avoidance Determination

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Water Distribution & Wastewater Collection

- Deliver and collect water through 7,000 miles of water mains and 7,400 miles of sewers
- Maintain more than 109,000 fire hydrants and 148,000 catch basins

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Wastewater Treatment

- Treat an average of 1.3 billion gallons of wastewater per day
- Operate 14 in-city wastewater treatment plants, 96 pump stations, four combined sewer overflow (CSO) facilities, and microbiology and process control labs

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Sustainability

- Coordinate CSO Control and MS4 water quality improvement programs
- Implement the *NYC Green Infrastructure Program*
- Evaluate new and emerging strategies in response to climate change
- Develop and launch water conservation initiatives

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DEP Budget

Joe Murin
CHIEF FINANCIAL OFFICER

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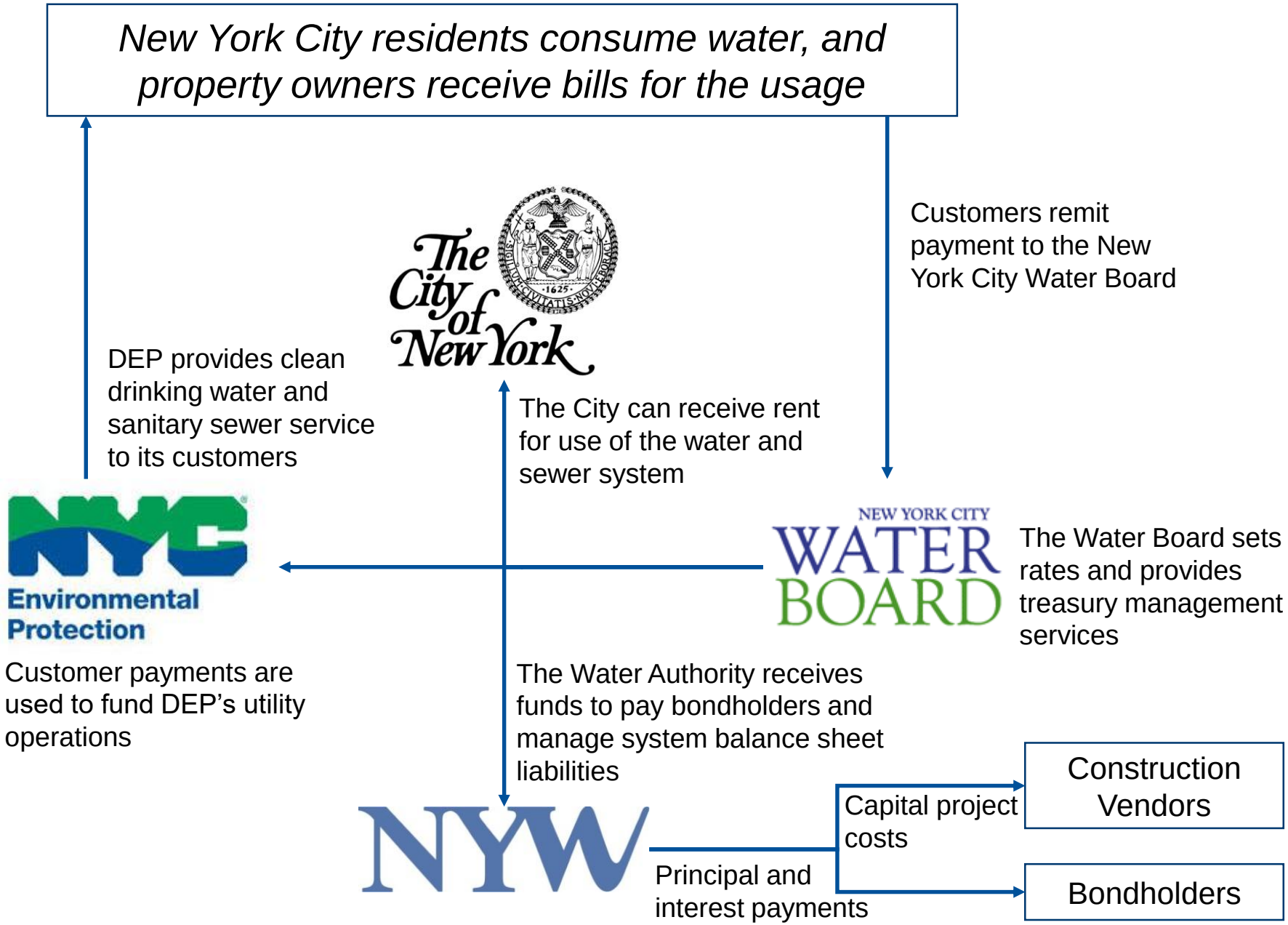
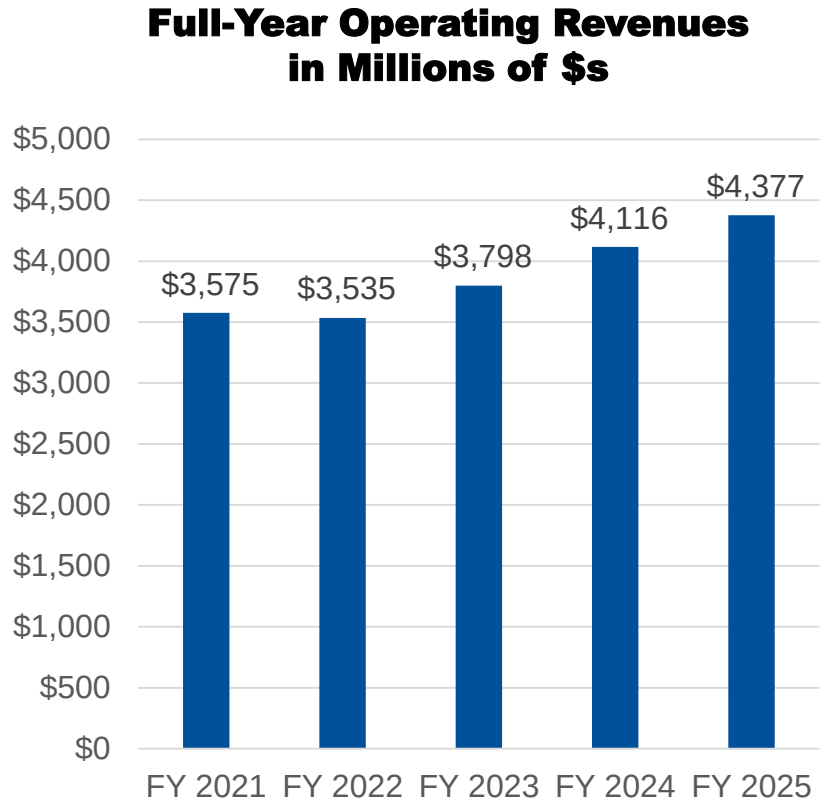
City of New York Water and Sewer System



Update on Board Operating Revenue Trends

- The Board's operating revenues were nearly 6% lower in FY 2021 compared to the previous year
- Major drivers: lower water usage and higher delinquencies
- FY 2022 is forecast to be a relatively flat year in revenue terms compared to the year before
- The forecast calls for FY 2023 onward to be years of recovery, with revenues increasing as water consumption begins to reflect normal levels of travel and occupancy in the City, and as delinquencies begin to decline



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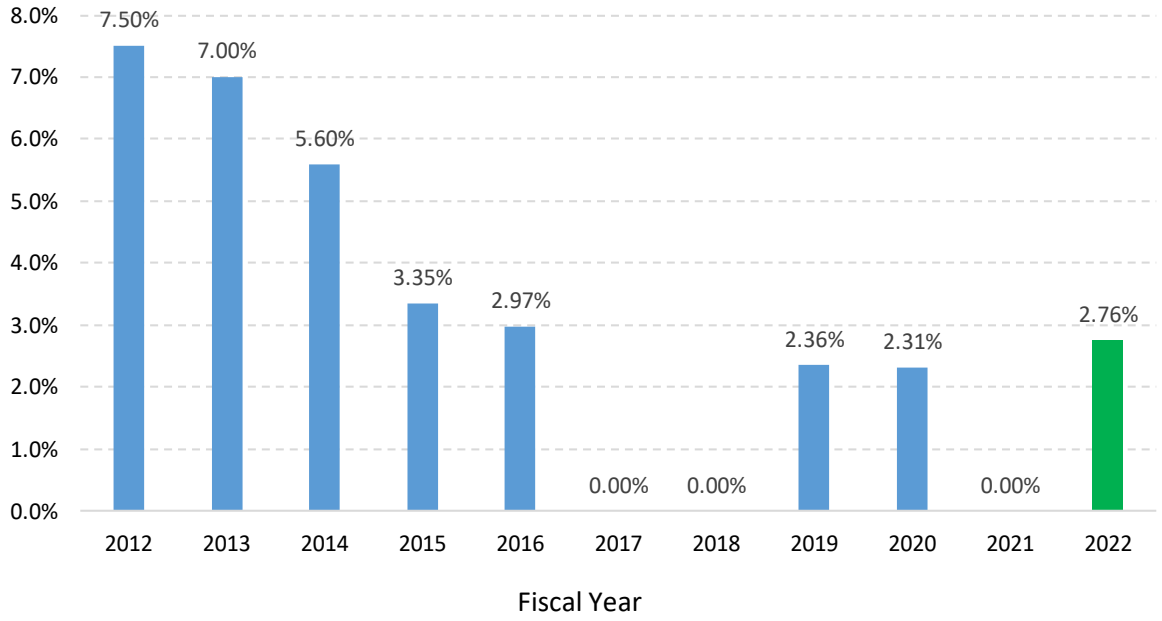
Source: FY 2021 based on Water Board 6/14/21 adopted budget; FY 2022 through FY 2025 based on WFA official statement dated 7/1/21

New Rate Effective July 1, 2021

- Water Board adopted a 2.76% rate increase for customers in New York City
- Rate package included a 50% expansion of existing customer affordability programs, reflecting $10 million of additional funds and a total program budget of $30 million
- No budgeted rental payment for FY 2022



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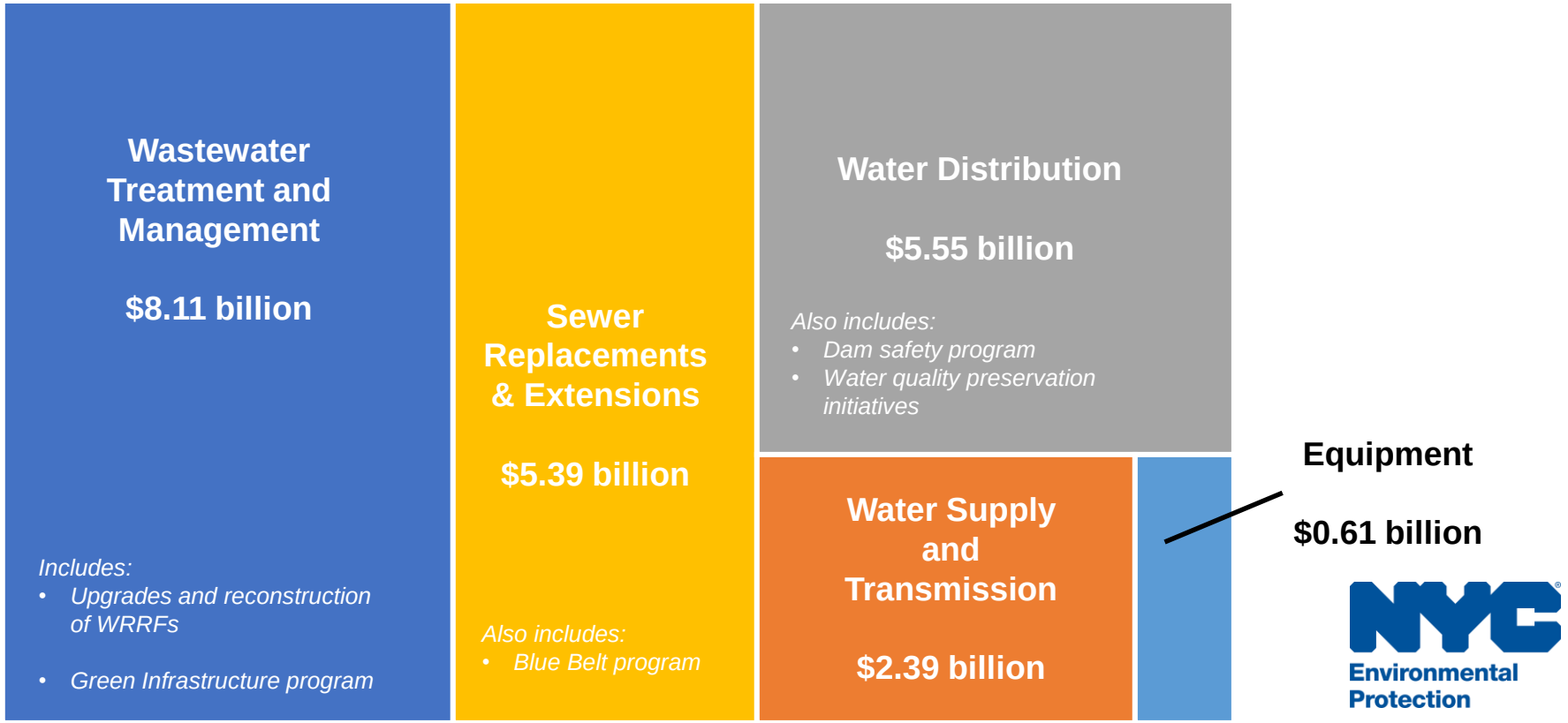
System Ten-Year Capital Investment Plan

Total City capital project funds, FY 2022 – FY 2031: $22 billion



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Source: NYC Municipal Water Financial Authority official statement dated July 1, 2021

Water Board Budget – FY 2022

Expense	Adopted FY 22 (millions of dollars)
Water Authority funds for debt service and cash-funded capital investment or defeasance of existing debt	$1,796 (51%)
DEP operations and maintenance, net	$1,629 (46%)
Water Board and Water Authority combined expense budgets	$110 (3%)
Total projected expenses	**$3,535**

Note: At this time, the Water Board budget is not projecting a rental payment, but one was reinstated in FY20 and FY21 for $128 million and $137 million respectively.

Sustainable Rate Structure Analysis

Erin Morey

DIRECTOR, DEMAND MANAGEMENT & RESILIENCE POLICY

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SRSA Overview and Objectives

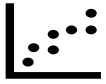
Sustainable Rate Structure Analysis (SRSA) is DEP's holistic rate structure study that will analyze water and wastewater rate structure options and customer assistance and credit programs.

SRSA will **provide recommendations and implementation options** for DEP to achieve a more predictable, equitable, and sustainable revenue stream.

Balance competing needs including State of Good Repair, Level of Service, climate resiliency, conservation, and green infrastructure

Promote equity and customer affordability among customer classes based on characteristics of service and demographic indices

Promote rate and revenue stability



Promote a reasonable correlation between cost of service and usage

Achieve compatibility with DEP's billing system (ease of implementation from a billing and customer service perspective, plus flexible ongoing maintenance)

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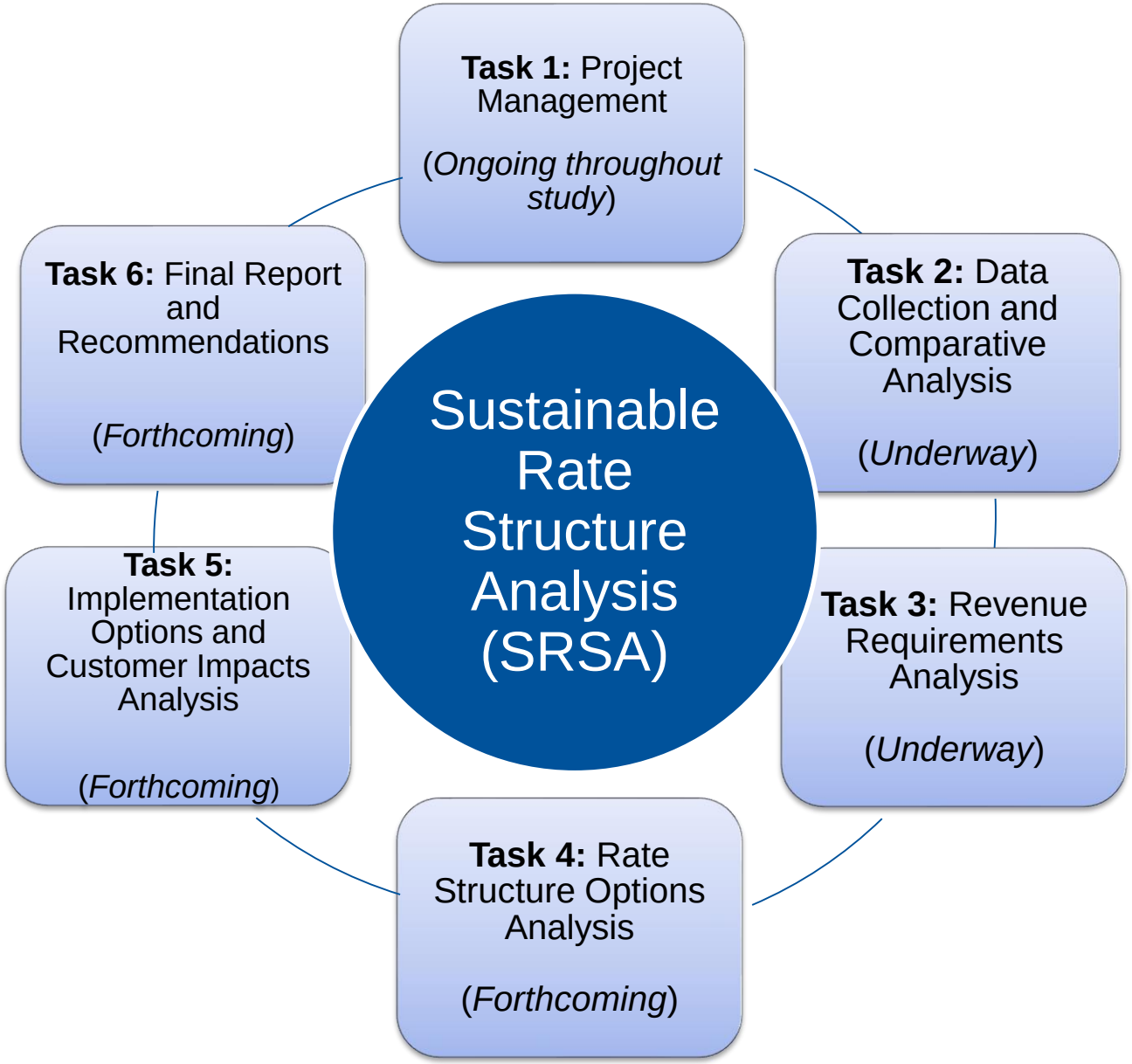
SRSA Tasks



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Task 2: Data Collection and Comparative Trends Analysis

Task Objectives	Ensure necessary data is collected to complete Tasks 3-5, and gather rate structure and program experience of other cities
Approach	Gaps: Needs vs. Available Data → Collect and document practices of other cities
Outcomes / Benefits	• Collect data needed to complete Tasks 3-5 • Collect lessons learned from other cities
Deliverables	Comparative analysis report of rate structures in other cities

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Task 2: Data Collection

The SRSA project team is leading significant internal coordination and data collection necessary to complete the study's tasks.

- Data is required from multiple DEP offices and bureaus including:
  - Bureau of Customer Services
  - Bureau of Information Technology
  - Bureau of Water and Sewer Operations
  - Office of the Agency Chief Engineer
  - NYC Water Board
- Most required data has been collected; data collection will continue during the study

Required Data
Customer billing data: volume, meter size, customer charges
Parcel attributes: impervious area, landuse type
Revenues and operating expenses: historical and budgeted
Capital expenditures: 10-year capital plan (1,000+ individual projects)
Outstanding debt
System and operational data: water demand

Task 2: Comparative Analysis

The Comparative Analysis compares the rate structures, rate implementation options, customer affordability programming, and industry best practices from 10 utilities that achieve multiple selection criteria.

Utility Selection Criteria
Large, urban population; population of low-income customers
High cost of living
Coastal city with resiliency challenges
Provides water, sewer, and stormwater service
Implemented a stormwater fee
Implemented affordability programming
Regulatory challenges

- The SRSA project team interviewed many of the utilities and collected data from each utility's website
- The analysis highlights strategies, best practices, and rate components that accomplish the study objectives
- DEP will continue to consult with other cities to ensure that the study's recommendations are based on best practices

Task 2: Comparative Analysis

DEP selected Atlanta, Baltimore, Fort Lauderdale, Houston, Ithaca, Philadelphia, San Francisco, Seattle, Tampa, and Washington DC for the Comparative Analysis.

Task 2: Comparative Analysis

Multiple rate structure options, including fixed charges, stormwater fees, development investment fees, and affordability-driven rates, will be analyzed under SRSA.

The surveyed utilities have adopted one or more of these rate structure options.

Utility	Fixed Charges	Stormwater Fee	Development Investment Fee	Affordability Rate Design[1]
New York				
Atlanta	✓			
Baltimore	✓	✓		
DC Water	✓	✓	✓	✓
Ft. Lauderdale	✓	✓	✓	✓
Houston	✓	✓	✓	✓
Ithaca	✓	✓		
Philadelphia	✓	✓		
San Francisco	✓	✓[2]	✓	✓
Seattle	✓	✓	✓	
Tampa	✓	✓	✓	

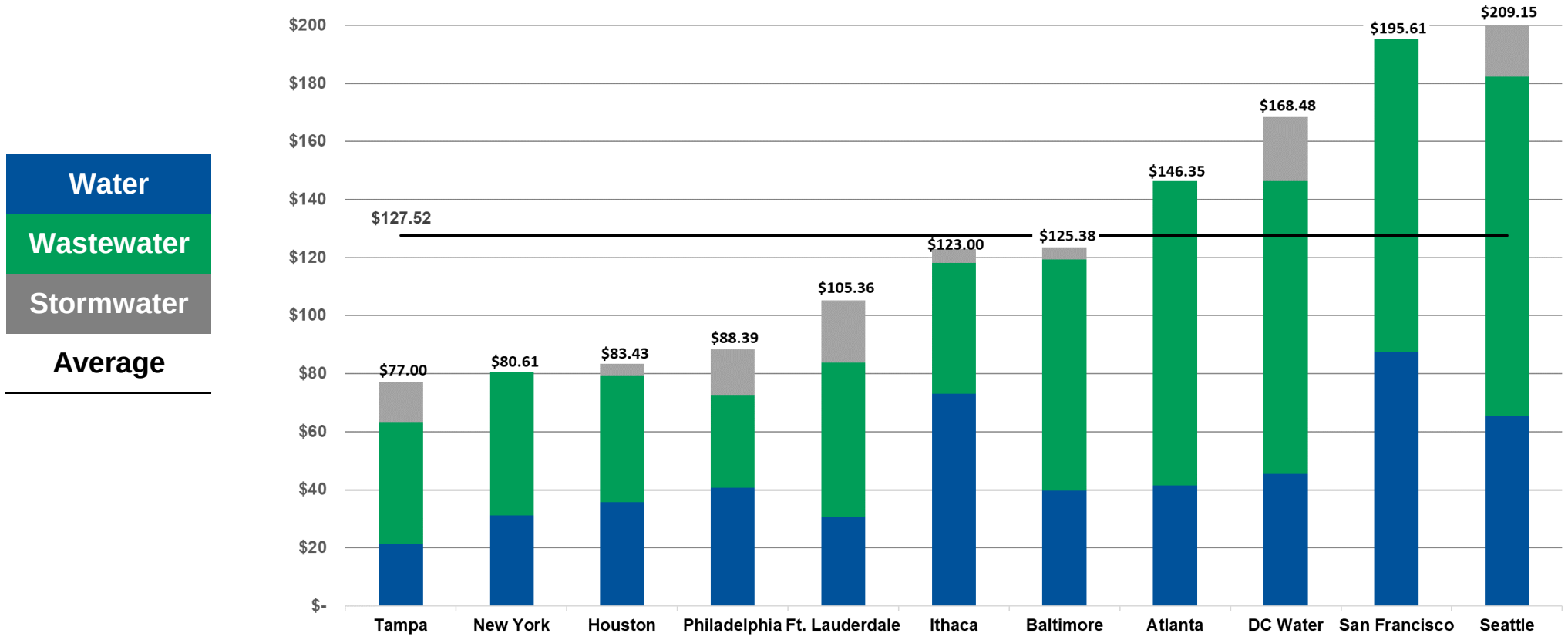
Notes:

[1] Cities that specifically have designed rates to provide affordability (e.g., "life-line" rates), outside of CAP program.

[2] San Francisco plans to implement a stormwater fee in FY 2022.

Task 2: Comparative Analysis

Average monthly Single-Family, Multi-Family, and Non-Residential bills were compared across utilities as part of the Comparative Analysis. The Single-Family comparison is shown below.



Task 2: Comparative Analysis

Comparison of Customer Assistance Programs (CAPs): CAPs were compared across utilities.

Most surveyed utilities have a Customer Assistance Program to assist low-income customers.

	Bill Discount	Temporary Assistance	Flexible Terms	Water Efficiency	Other
DEP	✓		✓	✓	Multi-Family Water Assistance Program (MFWAP)
Atlanta	✓	✓	✓	✓	Financial education/resources
Baltimore	✓	✓	✓		
DC Water	✓	✓	✓		Multi-family (MF) emergency assistance
Houston	✓				
Philadelphia	✓	✓	✓	✓	Non-residential bill discounts
San Francisco	✓	✓	✓	✓	Discount for affordable housing providers; non-residential emergency assistance
Seattle	✓	✓	✓		Discount to MF tenants who pay an electric bill
Tampa	✓			✓	

Task 3: Revenue Requirements Analysis

Task Objectives

Forecast 20-year revenue requirements by system (water, sewer, and stormwater)

Approach

Develop long-term forecast of revenue requirements → Allocate revenue requirements by system

Outcomes / Benefits

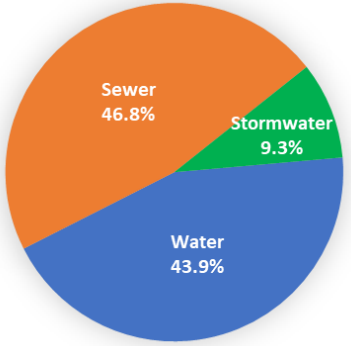
- Allocation of cost by system (water, sewer, and stormwater)
- Ability to evaluate capital funding scenarios
- Sensitivity analysis (customer demands)

Deliverables

#1: Financial forecasting model
#2: Revenue requirements report

The project team is currently allocating all line-item system operating expenses, capital projects, and debt by system (water, sewer, stormwater); an example is below.

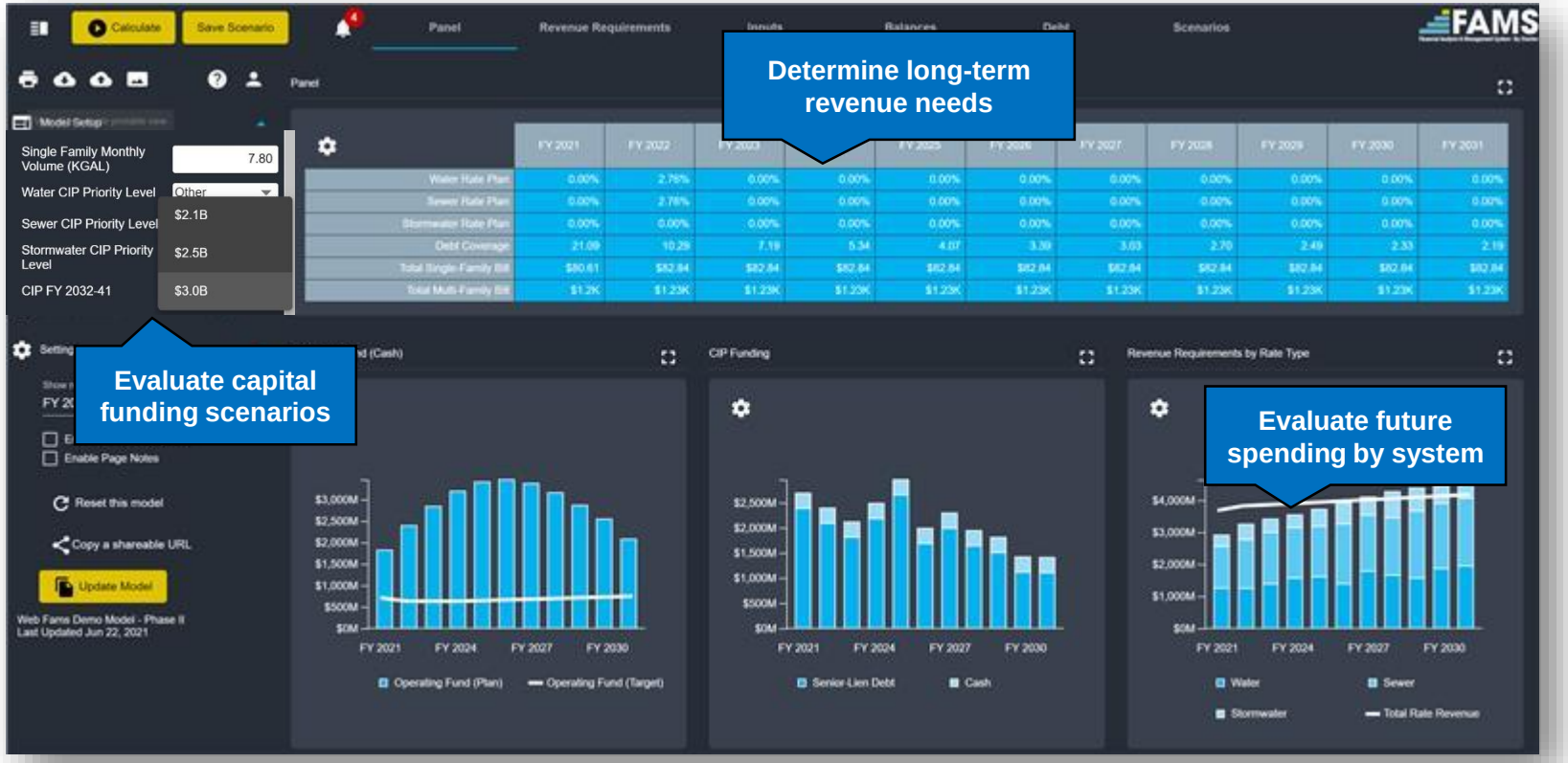
Budget Code Name	Allocation		
	Water System	Sewer System	Stormwater System
BWSO Bluebelt Engineering & Landscaping	0%	0%	100%
BWSO Sewer Reconstruction	0%	100%	0%
BWSO Sewer Reconstruction Queens	0%	100%	0%
Chief Engineer's Office	43%	48%	8%
CMOM Program	0%	50%	50%



Task 3: Revenue Requirements Analysis

Stantec is forecasting DEP's 20-year revenue requirements by system (water, sewer, stormwater) within a dynamic financial model.

The model allows for rate structure options and customer affordability options to be modeled for Task 4 (Rate Structure Options Analysis) and Task 5 (Implementation Options and Customer Impacts Analysis).

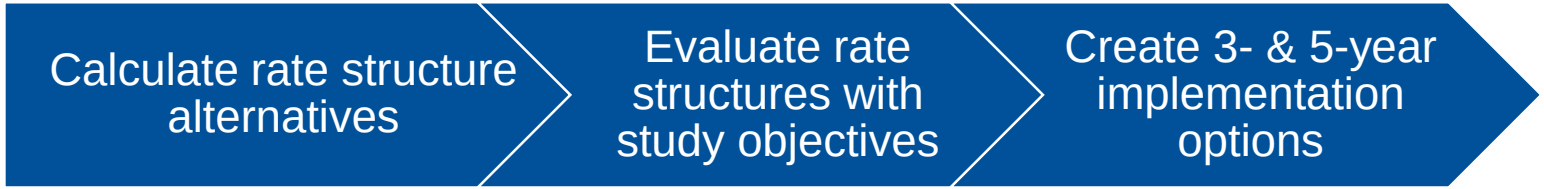


Task 4: Rate Structure Options Analysis

Task Objectives

Develop 3- and 5-year implementation options for 5 rate alternatives

Approach



Outcomes / Benefits

- Dynamic integrated rate structure tool
- Understanding of fixed and variable components
- Evaluation of structures against study objectives
- Annual revenue impacts by option and structure

Deliverables

#1: Rate structure options analysis model
#2: Rate structure options report

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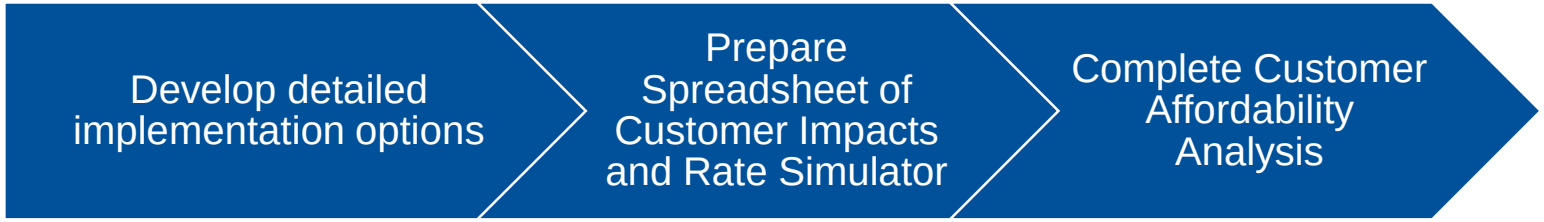
Task 5: Implementation Options and Customer Impacts Analysis

Task Objectives

Prepare 3- and 5-year implementation plans that fully consider all customer impacts and affordability

Approach



Outcomes / Benefits

- Implementable rate structure plans
- Clear and complete understanding of customer impacts
- More robust and effective affordability programs
- Understanding of impacts to most vulnerable customers

Deliverables

#1: Implementation alternative analysis model and report
#2: Customer impacts analysis model, report, and rate simulator tools
#3: Customer affordability analysis model and report

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Task 6: Final Report and Recommendations

Task Objectives

Documentation of study findings, conclusions, & recommendations

Approach

Outcomes / Benefits

- Inclusion and documentation of feedback received
- Open discussion of concerns and any identified issues
- Material the community and decision makers can understand

Deliverables

#1: Presentation of study
#2: SRSA report with recommendations

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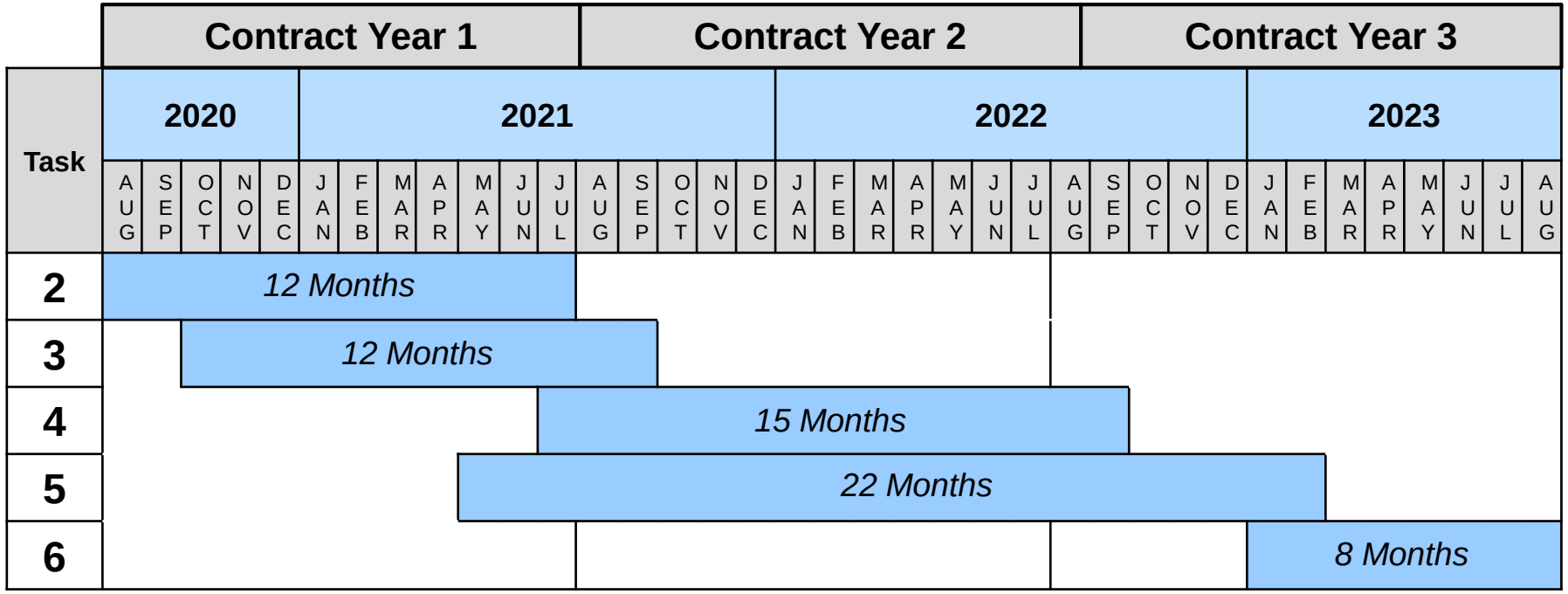
SRSA Schedule

Note: Task schedules and overall schedule may shift as the study progresses.



Task 2: Data Collection and Comparative Analysis

Task 3: Revenue Requirements Analysis

Task 4: Rate Structure Options Analysis

Task 5: Implementation Options and Customer Impacts Analysis

Task 6: Final Report and Recommendations

SRSA Advisory Group Meeting Schedule

Meeting	Topic	Proposed Schedule
Kickoff	DEP Overview & Budget, Study Scope of Work, and Progress-to-Date	July 13, 2021
Meeting #2	DEP Billing System, Comparative Analysis of Other Cities' Rates, and One Water	October 2021
Meeting #3	USWR Update, Rate Structure Scenario Planning/Options, and Customer Impacts Scenario Analysis	February 2022
Meeting #4	Update on Rate Structure Scenario Planning/Options	October 2022
Meeting #5	Update on Customer Impacts Scenario Analysis and Implementation Options	March 2023
Meeting #6	Final Recommendations	June 2023

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Thank You!

nyc.gov/dep/sustainableratestructureanalysis

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