

The Narragansett Bay Commission
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Vincent J. Mesoella
Chairman

Raymond J. Marshall, P.E.
Executive Director



OFFICIAL MINUTES OF:

Meeting of:	Long Range Planning Committee Meeting
Date:	March 17, 2015
Time:	9:00 a.m.

MEMBERS PRESENT:

Mario Carlino, Committee Chairman
Richard Burroughs
Seth Handy
Vincent Mesoella
Harold Gadon, CAC

MEMBERS ABSENT:

James S. Bennett
Ronald Leone
Alan Nathan

STAFF AND GUESTS PRESENT:

Raymond J. Marshall, NBC Executive Director
Thomas Uva, NBC
Jennifer Harrington, NBC
Karen Musumeci, NBC
William Fazioli, PFM
Richard Bernier, NBC
Jamie Samons, NBC
Steve Maceroni, PFM
Rich Raiche, MWH
Dan Berger, PFM
Leah Foster, NBC
Brenda Smith, NBC

Joanne Maceroni, NBC
Sherri Arnold, NBC
Tom Brueckner, NBC
Karen Giebink, NBC
Paul Nordstrom, NBC
Deborah Samson, NBC
Laurie Horridge, NBC
Meg Goulet, NBC
Lori Vernon, NBC
Kathryn Kelly, NBC
Cecille Antonelli, NBC
Robert Otoski, CDM Smith

1. Call to Order

Long Range Planning Committee Chairman Mario Carlino called the March 17, 2015 Long Range Planning Committee Meeting to order at 9:10 a.m.

2. Approval of Minutes – December 9, 2014 – Long Range Planning Committee

Chairman Carlino asked for a motion to approve the December 9, 2014 Long Range Planning Committee meeting minutes as written. NBC Chairman Mesolella moved to approve the minutes of the December 9, 2014 Long Range Planning Committee as written. Commissioner Burroughs seconded the motion. The vote taken by the Long Range Planning Committee was unanimous. The motion carries.

3. Items for Action

A. CSO Phase III Update and Discussion

Chairman Carlino stated that Tom Brueckner of NBC will be making a presentation that will review the Alternatives that were presented at the January 6 CSO Phase III Workshop and Dan Berger of PFM will be making a the Financial Analysis presentation.

Attached are the NBC and the PFM presentations for CSO Phase III.

4. Other Business

None.

5. Adjournment

A motion to adjourn was made by Commissioner Handy, seconded by Commissioner Burroughs and the Long Range Planning Committee meeting adjourned at 10:13 a.m.

Respectfully submitted,

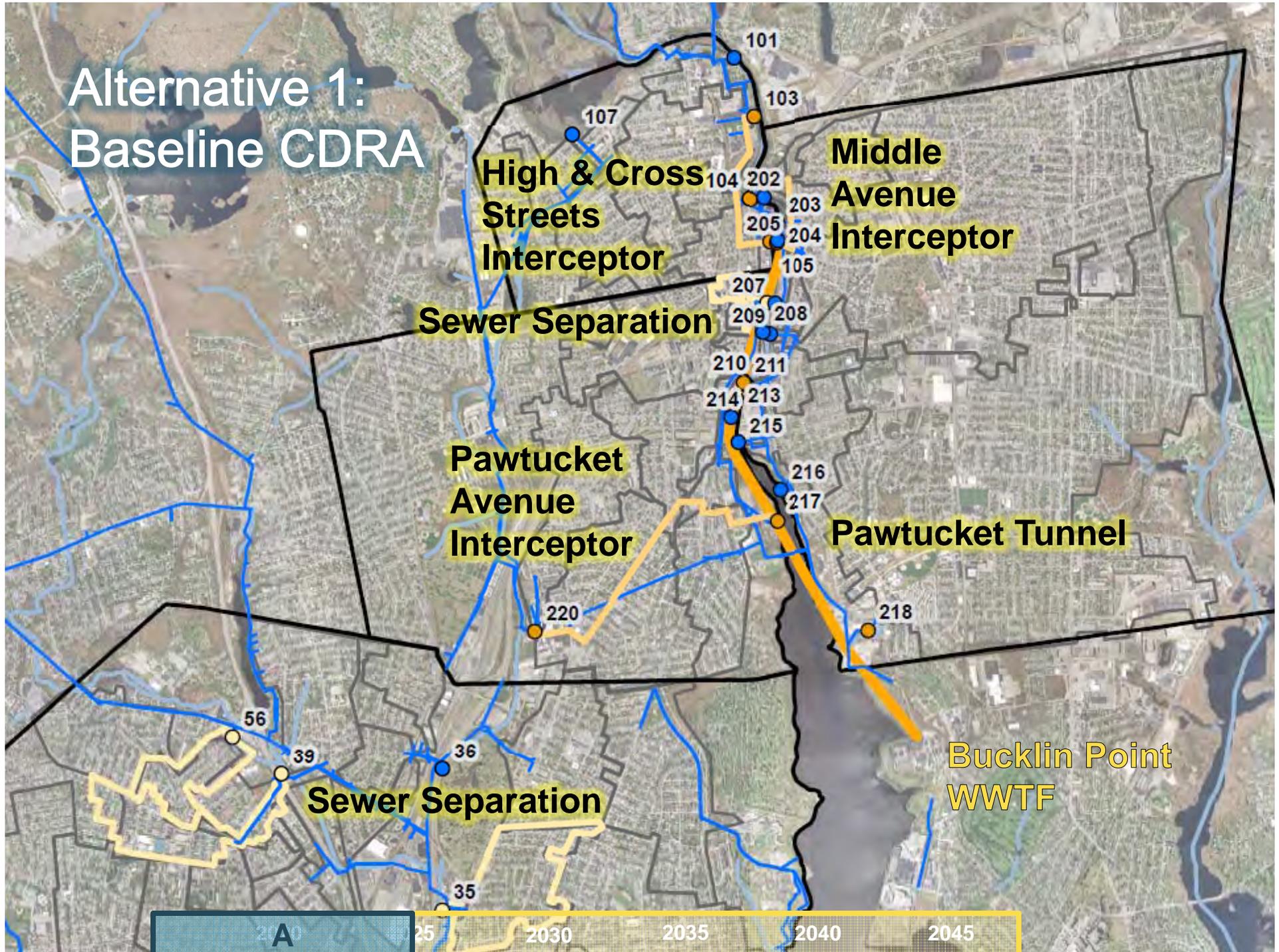


Raymond J. Marshall, P.E.
Executive Director/Secretary

Alternative Plans

- Alternative 1: Baseline CDRA – **Currently Approved Plan**
 - One phase
 - Complete 2025
- Alternative 2: Modified Baseline with Phased Implementation
 - Four phases
 - Complete 2038
- Alternative 3: Modified & Phased Baseline with Extended Schedule & Interim Water Quality Projects
 - Six phases
 - Complete 2047
- Alternative 4: BPWWTF Storage & Treatment (No Tunnel)
 - Different design goal
 - Four phases
 - Complete 2038

Alternative 1: Baseline CDRA



Alternative 2: Modified & Phased Baseline

High & Cross
Streets
Interceptor

Middle Street
Interceptor

Hybrid GSI/Sewer Separation

GSI in
Targeted Areas

220 Stub Tunnel or
Morley Field Tank

Pawtucket Tunnel

West River
Interceptor

Sewer
Separation

Bucklin Point
WWTF



Alternative 3: Modified, Extended & Augmented Baseline

High & Cross
Streets
Interceptor

Middle Street
Interceptor

Hybrid GSI/Sewer Separation

GSI in
Targeted Areas

220 Stub Tunnel

Pawtucket Tunnel

220 Disinfection

218 – BPWWTF
Interceptor

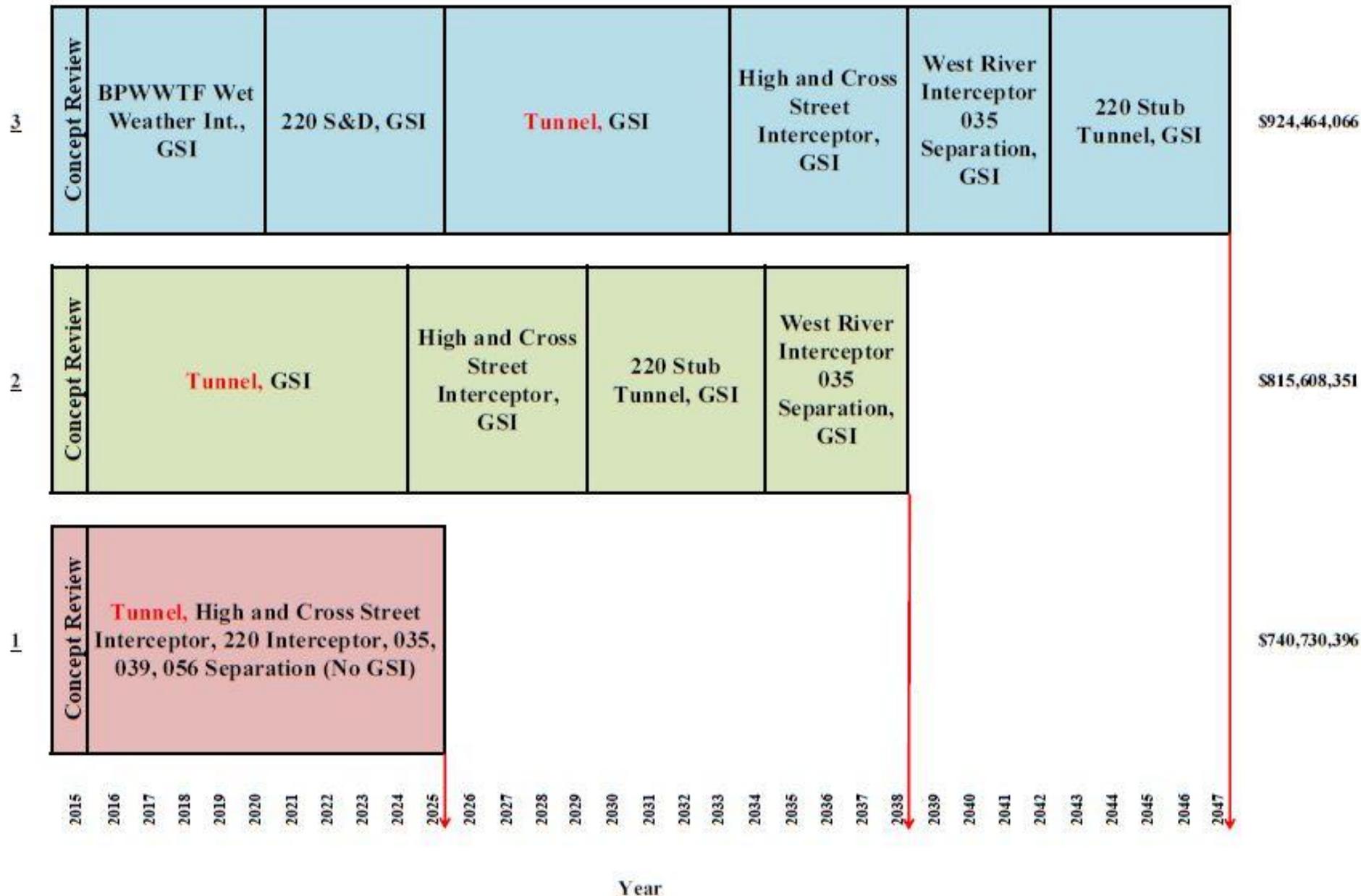
West River
Interceptor

Bucklin Point
WWTF

Sewer
Separation



Alternatives 1-3: Timeline & Cost





Narragansett Bay Commission Board of Commissioners Presentation CSO Phase III Financial Analysis March 17, 2015



10 Weybosset Street, Suite 902
Providence, RI 02903

2 Logan Square, Suite 1600
Philadelphia, PA 19103

Introduction

- Stephen Maceroni – Director
 - PFM Quantitative Strategies Group
- William Fazioli – Director
 - PFM Quantitative Strategies Group
- Daniel Berger – Senior Managing Consultant
 - PFM Quantitative Strategies Group

Presentation Overview

- Introduction
- Scope of Analysis
 - Review of MWH Projections
 - Review of Assumptions
 - Methodology Utilized
 - Scenarios Run
- Key Findings

Scope of Analysis and Background

- Perform an independent review of rate impact portion of MWH study on CSO Phase III Project
- Assessment of Required Items to Complete Phase III
 - Rate increases
 - Future debt issuances
 - Cash balances
 - Coverage ratios

Overview of Methodology

- PFM Praxis Model
 - Proprietary customized and integrated tool designed to permit easy analysis of operating and capital initiatives
 - Establish baseline of financial data for NBC
 - Project multiple scenarios of future budgetary trends and other cash flow data
 - Allows for annual ongoing updates as required

Assumptions

- Capital expenditures for both CSO and non-CSO related costs, and individual community needs were included as defined by MWH
 - Baseline and incremental (from CSO Phase III implementation) O&M costs taken from MWH as well
 - Alternatives 2 & 3 capital costs adjusted for inflation
- Debt options consist of up to \$25 million in SRF financing each year (except 2015-2019, which follow a schedule as provided by NBC) and open market bonds for any additional debt needs
 - Open market bonds funded with debt service reserve
- Individual line items kept flat, or grown at historical growth rates as needed
- Inflation assumption of 3% per year

Scenarios

- PFM modeled out numerous scenarios which contemplated different assumptions on the CSO Phase III alternatives
- Across each of the three available cost options for CSO Phase III implementation, the following variables were considered:

Scenario Breakdown			
Group	Borrowing Rate (SRF)	Borrowing Rate (OM)	Community Costs?
A	2.50%	5.00%	No
B	2.50%	5.00%	Yes
C	2.50%	4.00%	No
D	4.00%	6.00%	No

- Each scenario issued debt where needed to meet that year's capital costs (which could not be funded with excess cash)
- Each year's rate increases adjusted to meet 1.25x net debt service coverage

Fundamentals

- In terms of gross costs, Alternative 3 far exceeds Alternatives 1 and 2's costs
 - On a present value basis, the differential between 1 and 2, and the differential between 2 and 3 are roughly the same
- Alternative 3 is substantially more back-loaded than the others
- It is important to consider where 'spikes' occur in capital costs
 - Early spikes can cause rate increases which generate excess cash in interim years

CSO Phase III Assumption	Total Capital Expenditures*	Additional O&M	Total Costs	Total Costs (Present Value)	Weighted Year of Implementation
Alternative 1	1,102,476,394	16,092,000	1,118,568,394	858,528,842	2025
Alternative 2	1,314,995,898	31,787,036	1,346,782,934	978,203,315	2027
Alternative 3	1,722,681,846	69,523,000	1,792,204,846	1,092,406,054	2032

**Does not include individual community capital needs*

**Through 2047*

Results – Cost (Group A)

- Within each group of scenarios, the baseline cost of Alternative 1 was lowest, followed by Alternative 2, and then Alternative 3 as the most expensive
 - Cost in this instance is defined as the present value (3% discount rate) of all incremental O&M costs, plus the present value of all debt service payments issued by bonds in years 2016 and after
- Due to the front-loaded schedule of capital expenditures in Alternative 1, rate increases come early, and when capital expenditures drop off, excess cash is generated

Cap Ex	Sources	Cost		
Alternative	2045 Balance	PV DS	PV O&M	Total Cost
1	323,447,912	688,320,582	8,508,178	696,828,760
2	121,519,072	720,674,027	16,343,082	737,017,109
3	31,030,689	780,628,373	37,426,777	818,055,150

Results – Cost (Group B)

- When individual community costs are included (\$26.4 million per year) the excess cash generated by Alternative 1 is used very effectively
- While Alternative 1 is able to use this excess cash to handle a significant portion of these additional costs (particularly in the out years), Alternatives 2 and 3 are required to rely more heavily on debt issuances

Cap Ex Alternative	Sources 2045 Balance	Cost		
		PV DS	PV O&M	Total Cost
1	20,587,157	1,034,548,741	8,508,178	1,043,056,919
2	-	1,186,813,918	16,343,082	1,203,157,000
3	-	1,398,660,574	37,426,777	1,436,087,351

Results – Cost (Groups C & D)

- Group C, which has the same assumptions as Group A but with a interest rate of 4% (versus a baseline of 5%) borrowing assumption on open market rates, as expected showed decreased borrowing costs
 - On average, across all CSO Phase III alternatives, the cost of present value debt service decreased by \$38.9 million
- Group D, which increased SRF borrowing rates to 4%, and open market rates to 6%, showed expected increases to overall costs
 - All alternatives experienced an increase of between \$62-\$65 million in present value costs

Results – Rate Increases

- Across most groups of scenarios, Alternative 2 had slightly lower rate increases than 1, while Alternative 3 had the highest
 - Early spikes in Alternative 2 capital expenses, combined with *additional* bumps in capital needs later on, allowed for excess cash to cover these bumps, resulting in less debt needed and therefore less rate increases
 - Almost all of Alternative 1's capital expenditures are concentrated and early, meaning all are funded by debt (no excess cash built up) and therefore all requiring rate increases
 - Alternative 3's substantially higher costs and therefore higher debt needs required higher revenues across the board to support this debt
- For the Group A of scenarios, the following cumulative revenue increases from the 2015 starting values were needed (through 2045):
 - Alternative 1: 168.8%
 - Alternative 2: 167.2%
 - Alternative 3: 182.6%

Rate Increases – MWH Comparison

- PFM and MWH projected rate increases stay very consistent in the initial years
 - For the majority of the out years, both analyses have similar results, though Alternative 1 has some deviation
 - In order to fully vet any differences, a deeper dive into MWH's assumptions and methodology would be necessary

