

NECPUC Symposium 2021 Hot Topics in Water

October 28, 2021

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Maine's Public Water Systems

- * 1,900 Public Water Systems in Maine
 - * More than half are transient, non-community systems: restaurants, hotels, campgrounds, even gas stations
- * 680,000 Mainers served by 381 Community Water Systems – roughly ½ of Maine's population
- * 152 Community Water Systems are also Public Utilities
- * Maine's Drinking Water Systems received a Grade of C in 2020 ASCE Infrastructure Report Card



Maine Drinking Water Regulatory Framework

- * All things Public Health
 - * Safe Drinking Water Act
 - * CDC has primacy from EPA



- * All things environmental
 - * Water withdrawals, discharges



- * All things financial
 - * Consumer protections
 - * Business affairs



Customers Expect A Resilient Utility



- * Meeting Customer Expectations
 - * Water Quality
 - * Communications
 - * Cybersecurity
 - * Storm Response
 - * Trust
- * The Value of Water
 - * Affordability
- * Aging Infrastructure –When is a good time to replace it?

What is Resilience?

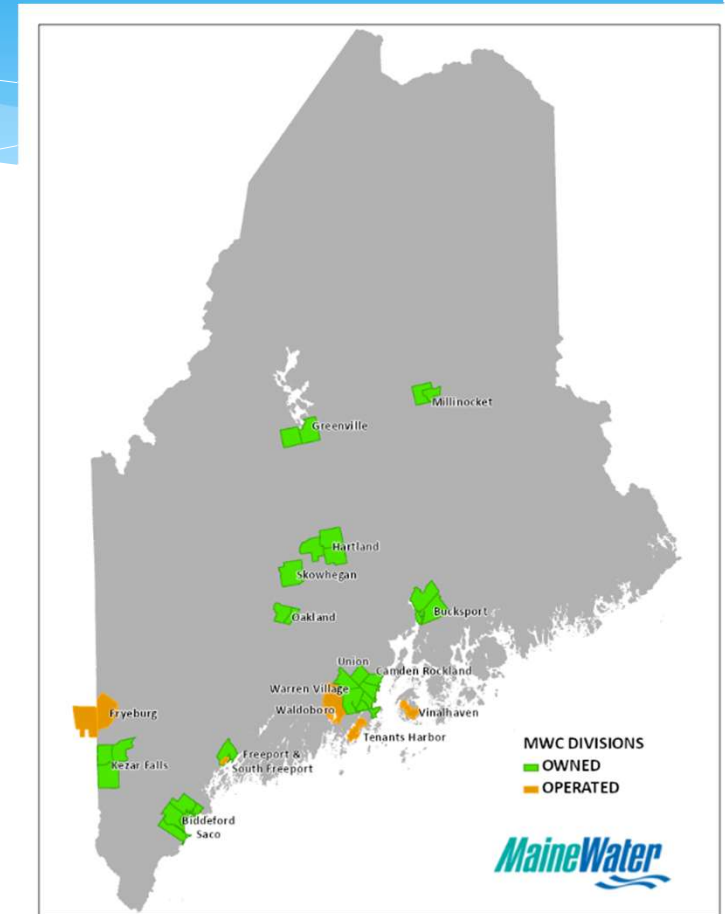
Reliability vs Resilience

- * Reliability is the ability to maintain utility service to customers in the face of routine uncertainty in operating conditions, for example raw water quality fluctuations, routine main breaks

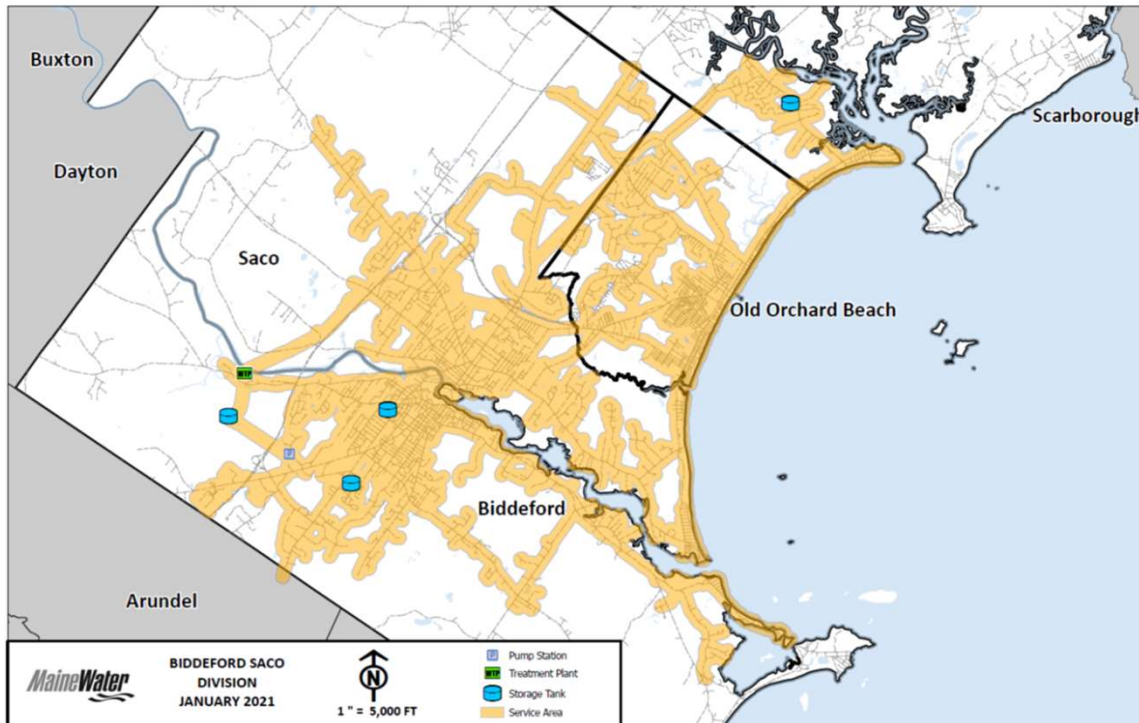
Resilience focuses on preparing for, absorbing, adapting to, and recovering from low probability, high-consequence disruptive events. Resilience events typically result in longer outage durations and larger geographic areas of impact (states, regions). As a result, they could lead to cascading impacts in other critical infrastructures and parts of the economy.

Maine Water Company

- * MWC serves 80,000 in 21 municipalities
- * Team of 80 water professionals
- * 12 Public Water Systems
- * Investor Owned - Subsidiary of San Jose Water Group
Ticker SJW, NYSE *SJW Group*
- * Produce 3.3 billion gallons of drinking water annually
- * Operate & Maintain 540 miles of water main
- * \$130 million in system improvements since 2012
- * Full retail price is about 1 ¢ per gallon



Biddeford Saco Water System



- * Serves 40,000 in Biddeford, Saco, Old Orchard Beach and Pine Point area of Scarborough
- * 2nd largest water system in Maine behind Portland Water District
- * Saco River is the single source of water
 - * 1700 sq mile watershed
- * Acquired by MWC in 2012

Existing Saco River Water Treatment Facility



Saco River Water Treatment Facility Project

Key Early Decisions

- * A Major Investment... what's our Risk Tolerance?
 - * System failures/Service interruptions/Water Quality Violations
 - * Climate change and Saco River flooding
- * Timing?
 - * Competing Community Projects?
 - * Pace of Price increases
- * Repair or Replace?
 - * 2014 Life Cycle Cost Assessment recommended Replacement over Renovation
 - * Site constraints limit repair scope: wetlands, shoreland zone, floodplain
 - * Risk of Operating while under construction

Proposed Saco River Water Treatment Facility

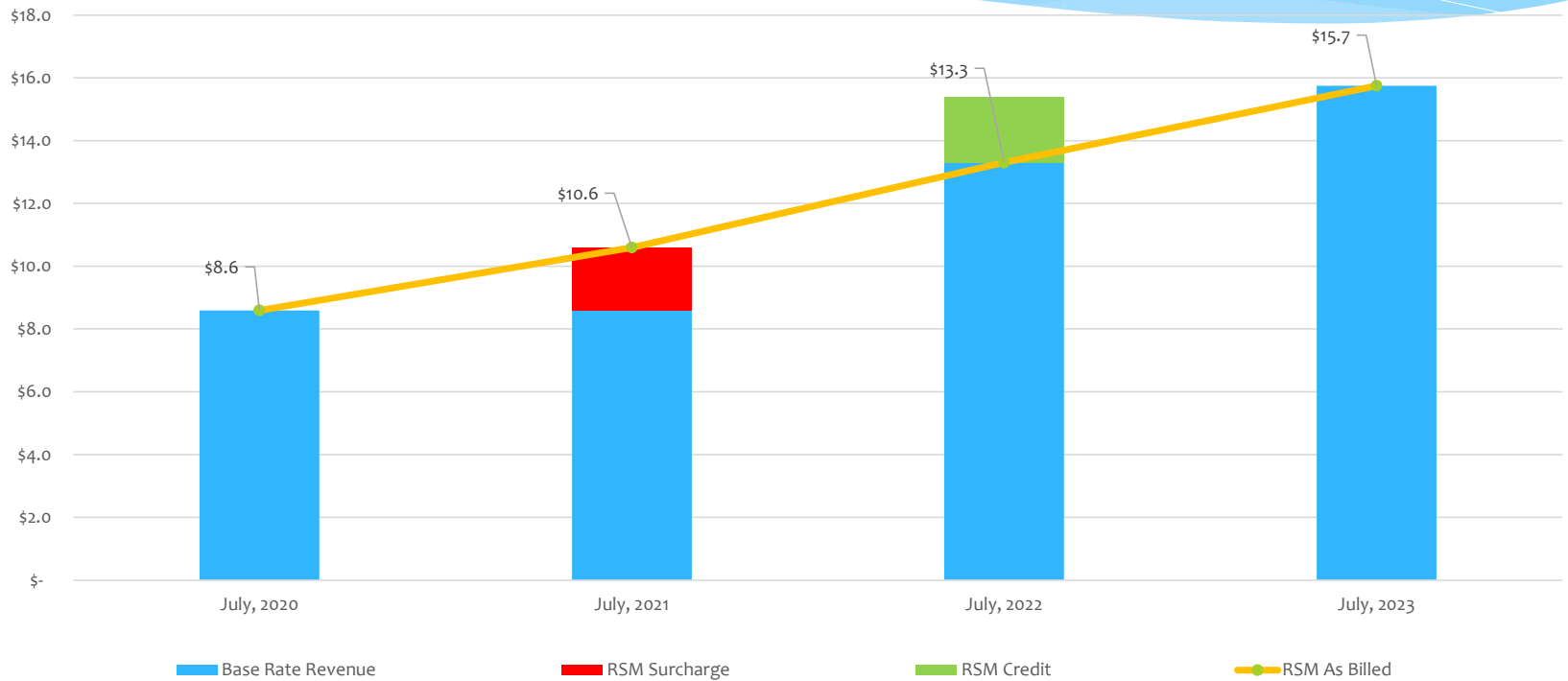


Time Lapse Construction

<https://app.truelook.com/?m=16026595481531228919897>

Rate Smoothing Mechanism

BS RATE PLAN with RSM



MPUC Order Approving RSM

- * Finally, the Commission emphasizes that the RSM and the RSMA represent a unique solution to a unique situation: the construction of a large, once-in-a-century water treatment facility that will result in a dramatic increase in rates. Accordingly, any precedent created by this Order is quite narrow, and this Order should not be construed as implying the appropriateness of a similar rate smoothing scheme for other utility projects. (Commission Order 23 June 21 2021-00053)

Wrap Up

- * Utilities have unique mechanisms to fund infrastructure improvements and to seek support for and recovery of those investments
- * Designing infrastructure that is expected to serve for 100 years or longer brings interesting challenges
- * Sustainability concepts applied to infrastructure design enhances the final product
- * Thank You! Please follow our project at www.mainewater.com/newwaterfacility
- * Questions: Mark Vannoy, mark.Vannoy@mainewater.com