



Stakeholder Advisory Group

**Board of Water Supply
City & County of Honolulu**

**Thursday, May 28, 2020
Meeting 34 - Virtual**

WATER FOR LIFE

Safe, dependable, and affordable water now and into the future



Board of Water Supply
City and County of Honolulu

Dave Ebersold

Facilitator

WELCOME

3 Important Controls



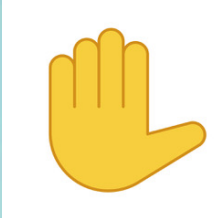
Mute
microphone

Raise your
hand

Meeting
chat

Virtual Meeting Best Practices

- 💧 Please stay muted unless you are speaking

- 💧 Use 

or meeting chat to let us know you want to ask a question

- 💧 If you don't have the "raise hand" function or meeting chat, unmute your mic/phone and speak

- 💧 Speak one person at a time

- 💧 Expect something to go wrong

- 💧 Remember that patience is a virtue

Let's Try It Out

- Introductions
 - Raise Your Hands (*if you have this function*)
 - Send a Chat Message (*if you have this function*)
 - Turn Your Mic On and Off
-
- Virtual meetings will get us through this challenging time but are not intended to be the “new normal” for the BWS Stakeholder Advisory Group

Meeting Objectives

- Receive updates regarding the BWS
- Accept notes from meeting #33
- Learn about how BWS is responding to COVID-19
- Get stakeholder feedback and address any questions
- Discuss the Risk Assessment and Emergency Response Plans

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Public Comments on Agenda Items

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Ernest Lau

BWS Manager and Chief Engineer

BWS UPDATES

Public Participation in Board Meetings Now Looks Like This



Haiku Stairs – April 27 Public Hearing

💧 Approximately 3,700 comments received

- 3% supported removal
- 97% opposed removal

💧 Board voted 7-0

- Transfer stairs and land to City and County for managed access
- Transfer must occur within 18 months
- If transfer is unsuccessful, stairs will be removed

Environment

The Navy Replaced Its Leaky Fuel Tanks In California. Why Not Oahu?

In California and Washington, the Navy said its World War II-era tanks should be retired. But in Hawaii, the Navy says its tanks from the same era are working great.



<https://www.civilbeat.org/2020/05/the-navy-replaced-its-leaky-fuel-tanks-in-california-why-not-oahu/>

NOAA Predicts Near- or Below-Normal 2020 Hurricane Season

- 💧 75% chance of near- or below-normal tropical cyclone activity in Central Pacific
- 💧 2-6 tropical cyclones are predicted, a near-normal season has 4 or 5
- 💧 Does NOT predict whether or how many will affect Hawaii

Natural Hazards Preparedness Webinar via Zoom

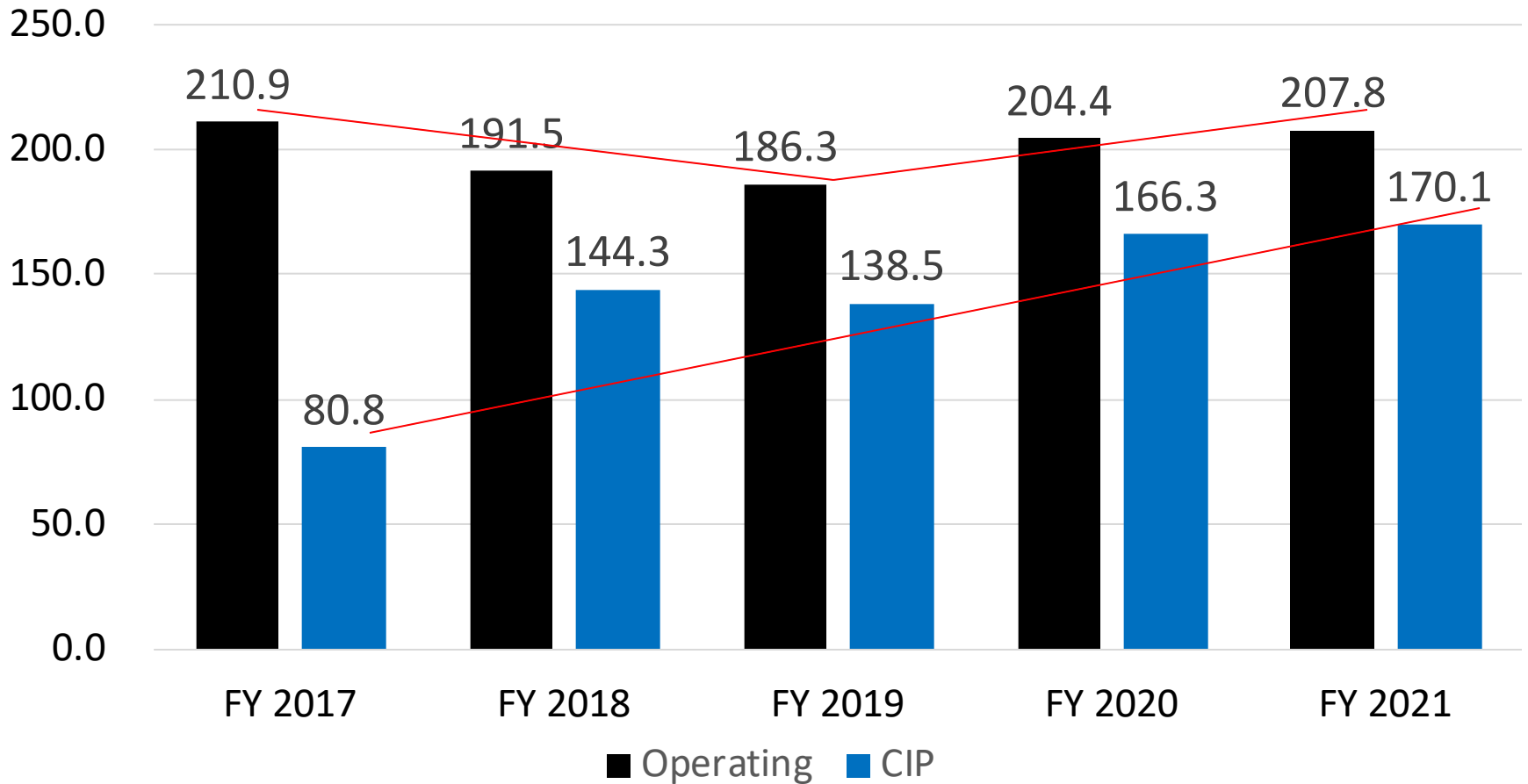


- 💧 Thursday June 4th, 2020
5:00 – 6:00 PM
- 💧 Advance registration required
<https://www.eventbrite.com/e/10519830696>
- 💧 For more information contact
Katia Chikasuye at kateyc@hawaii.edu
- 💧 Download free Hawaii Homeowner's Handbook to
Prepare for Natural Hazards
<http://bit.ly/HawaiiHomeownersHandbook>

Board Adopted FY 2021 Operating and CIP Budget on May 26, 2020

	FY 2019 Adopted	FY 2020 Adopted	FY 2021 Adopted	\$ Change	% Change
Operating Budget	\$186,290,999	\$204,460,138	\$207,848,937	\$3,388,799	1.7%
Capital Improvement Program Budget	\$138,461,000	\$166,305,000	\$170,127,500	\$3,822,500	2.3%
Total	\$324,751,999	\$370,765,138	\$377,976,437	\$7,211,299	1.9%

Operating and CIP Budget 6-Year Summary (\$ million)



Revenues are Expected to be Flat in FY 2021

Revenue Sources	FY 2019 Actual	FY 2020 Budget	FY 2021 Budget	% Change
Metered Sales				
Potable & Non-Potable Water	\$220,236,905	\$231,056,500	\$230,000,000	-0.5%
Recycled Water	\$6,645,794	\$6,275,300	\$6,361,000	1.4%
Other Revenues	\$8,681,331	\$8,905,100	\$8,728,300	-2.0%
TOTAL REVENUES	\$235,564,030	\$246,236,900	\$245,089,300	-0.5%

Board Adopted Financial Policies

4.4.2 Debt Service Coverage – FY21 **1.6x**

Per Board Resolution No. 873, 2017, the financial plan supports the BWS maintaining a minimum of 1.6x debt service coverage on total debt.

4.4.3 Working Capital – FY21 **41 days**

Revenue requirements include targeting 180 days of unencumbered working capital while never having less than 60 days.

WATER FOR LIFE

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City and County of Honolulu

Mahalo!

Questions & Answers





Action

Review and accept notes from

- Stakeholder Advisory Group Meeting #33 held on Thursday, January 16, 2020



CORONAVIRUS (COVID-19)

Ernest Lau

BWS Manager and Chief Engineer

BWS'S RESPONSE TO COVID-19

SAFE – Our Water Supply is Safe to Drink

- 💧 “Presence of the COVID-19 virus has not been detected in drinking-water supplies and based on current evidence the risk to water supplies is low.” *World Health Organization, US EPA*



SAFE – Educating, Informing and Communicating with Our Staff



Coronavirus (COVID-19) Updates

See these coronavirus updates from the City & County of Honolulu and the Board of Water Supply.

Dept of Health: COVID-19 Updates

Check out recent updates from the Department of Health regarding coronavirus, COVID-19. You may sign up to receive these updates via email, which is generally distributed in the Department of Health newsletter on Monday through Friday.

- Monday, May 18, 2020
- Tuesday, May 19, 2020
- Wednesday, May 20, 2020
- Thursday, May 21, 2020
- Friday, May 22, 2020

City to Support COVID-19

THURSDAY, MAY 21, 2020



City Employee COVID-19 Questions Panel

Board of Water Supply (BWS) employees are invited to watch the recording of the panel discussion featuring City subject-matter experts, including Mayor Kirk Caldwell, as well as City employees who have been diagnosed with COVID-19. City employees may submit questions for the panel discussion via the following video panels: <https://www.surveymonkey.com/r/mycov>

COVID-19 Information For BWS Employees

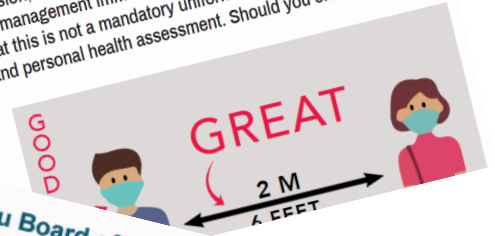
Aloha! We hope that this message finds you healthy and safe. We recognize these are uncertain and scary times, and we appreciate your unfailing dedication to the BWS. Thank you for continuing to come to work to ensure our community is provided the most basic and essential of survival needs: water. While wearing a cloth face mask in the workplace is a personal decision, when Honolulu Mayor Caldwell made a recommendation for all Oahu residents to wear a cloth mask, BWS management immediately began looking for a local resource to provide these cloth masks to our employees. We underscore that this is not a mandatory uniform addition; you may elect to wear a cloth face mask based on your specific situation and personal health assessment. Should you elect to wear a

TO: ALL BWS EMPLOYEES
FROM: ERNEST Y. W. LAU, P. E. *EYL*
 MANAGER AND CHIEF ENGINEER
SUBJECT: SICK EMPLOYEES WITH COVID-19 SYMPTOMS

DATE: May 6, 2020

On April 30, 2020, Mayor Kirk Caldwell issued Mayor's Directive 20-7, see Attachment 1. The BWS is complying with the Mayor's Directive. In addition, BWS issues the specific guidelines below in an effort to prevent exposure to and slow the spread of COVID-19 in our workplaces. The following is effective as of the date of this memorandum and shall continue until superseded or rescinded.

As recommended by the Centers for Disease Control (CDC), to ensure continuity of operations of essential functions, critical infrastructure workers may be permitted to continue work, provided they remain asymptomatic and additional precautions are implemented to protect them and the community. The following represents the BWS current plan to address employees with COVID-19 symptoms in the workplace:

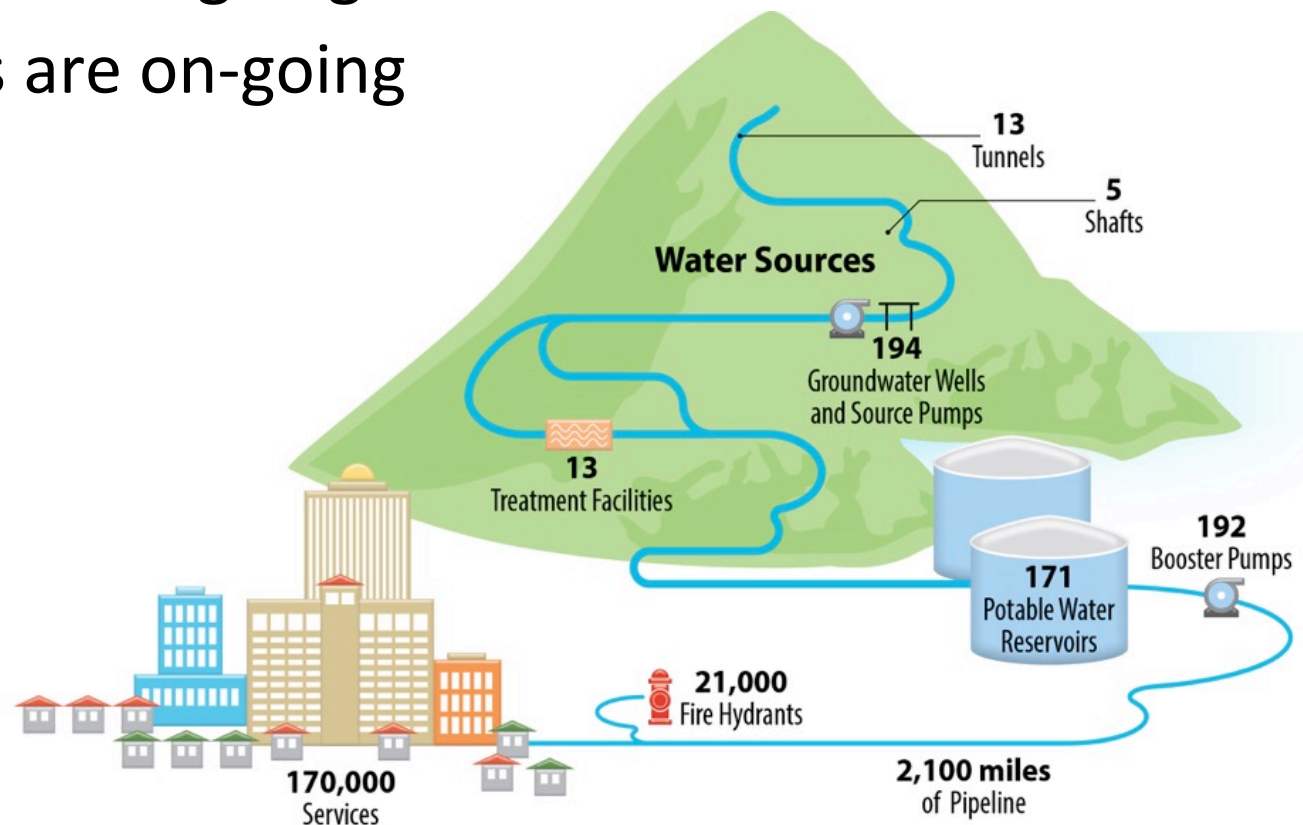


SAFE – Step Up Disaster Preparedness

- Disaster preparedness kits should now include
 - Face coverings
 - Hand sanitizers
 - Soap and paper towels
- If possible, hurricane-proof your home to shelter in place to avoid going to a shelter

DEPENDABLE – Our Water System is Fully Operational

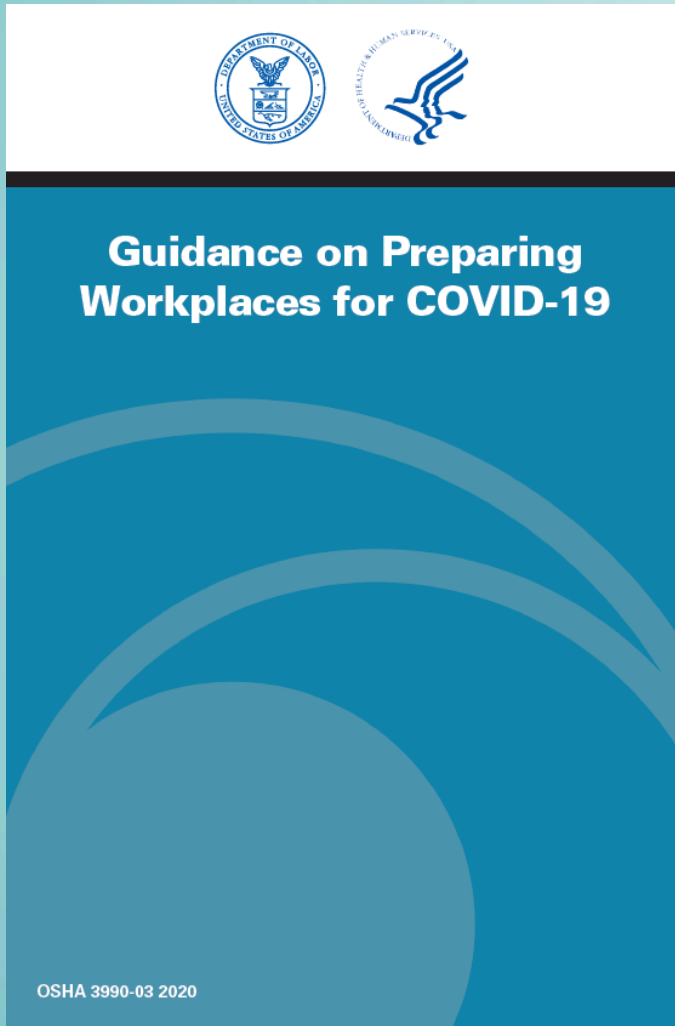
- 💧 BWS provides essential core services that are exempt
- 💧 Operations and Maintenance activities on-going
- 💧 Capital projects on-going
- 💧 Hiring efforts are on-going



DEPENDABLE - Continuity of Operations Plan (COOP)

- BWS Updates to 2014 COOP
 - Reviewed essential functions and mitigation options
- Specific scenario and mitigation planning for a pandemic
 - Absenteeism, change in patterns of commerce, interrupted supply/delivery
- Active participation and information sharing across the City and other water utilities

DEPENDABLE - Preparing Workplaces for COVID-19

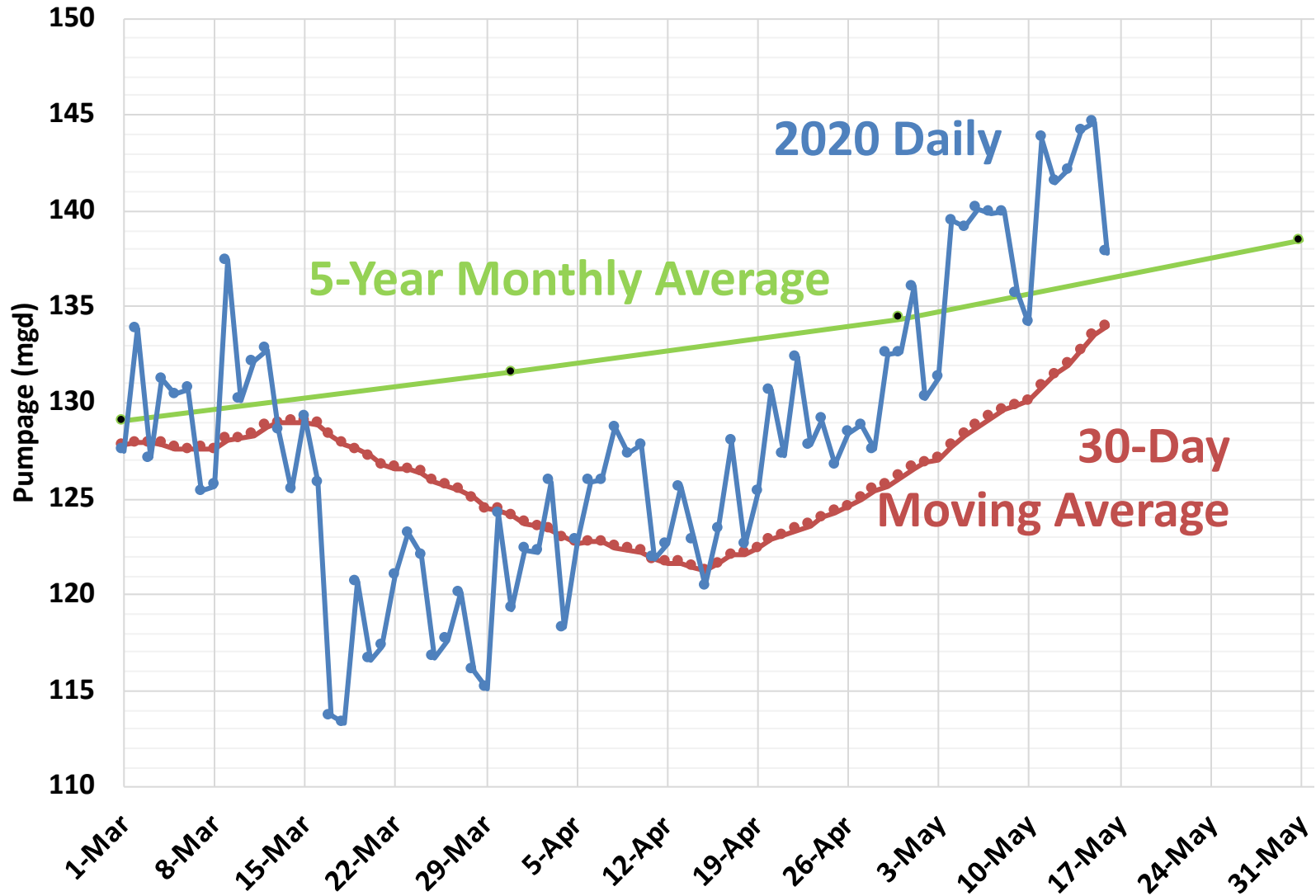


- Implement basic infection prevention measures
- Establish procedures for prompt identification of sick people
- Implement and communicate about workplace flexibilities and protections
- Implement workplace controls

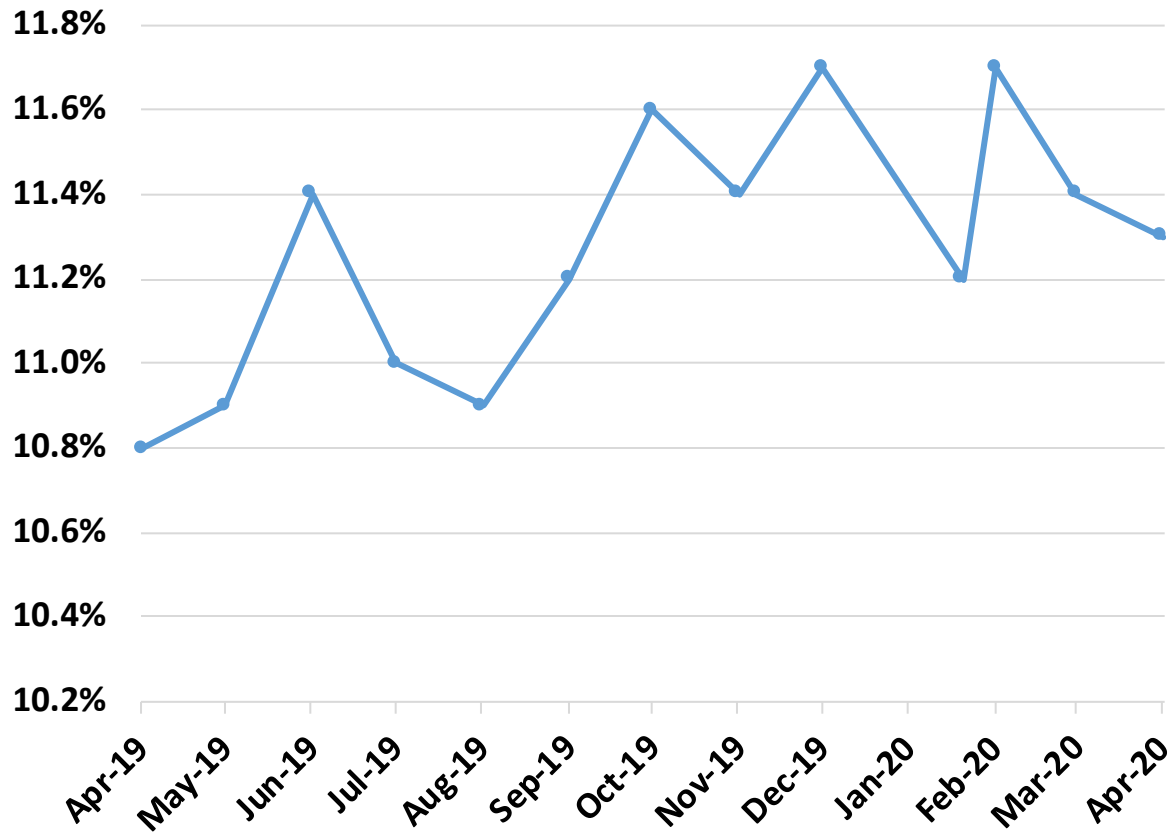
AFFORDABLE - BWS Is In This With You

- 💧 Temporarily, BWS is not shutting off water because customers can't pay
- 💧 We're making case-by-case arrangements for payment plans
- 💧 BWS is examining impacts of COVID-19 on revenues and costs
- 💧 Updating Long Range Financial Plan

Total Island Potable Water Production Since March 1, 2020



Number of Water Accounts 30 Days Past Due



Note: BWS uncollectable accounts average 2015-2019 = 0.2% of operating revenue (\$459,490)

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Mahalo!

Questions & Answers





Dominic Dias

BWS Civil Engineer, Long Range Planning

Judy Nishimoto

CDM Smith Senior Environmental Engineer

AMERICA'S WATER INFRASTRUCTURE ACT: RISK ASSESSMENT AND EMERGENCY RESPONSE PLANS

Mission: To provide safe, dependable, and affordable water now and into the future



S U S T A I N



C A P T U R E



T R E A T



M O V E



S T O R E



D E L I V E R

America's Water Infrastructure Act (AWIA) of 2018, Senate Bill S3021

- Signed Oct 23, 2018
- Two Required Components
 - Risk and Resilience Assessment
 - Emergency Response Plan
- Water system serving >100,000 must submit a certification of completion for assessments by March 31, 2020
- Emergency Response Plan must be updated within 6 months after assessment completion



AWIA requires a more holistic approach to assessing risk and resilience

- Risk to the system from malevolent acts and natural hazards
- Resilience of pipes and constructed conveyances, physical barriers, source water, water collection and intake, pretreatment, treatment, storage and distribution facilities, electronic, computer, or other automated systems (including the security of such systems)
- Monitoring practices of the system
- Financial infrastructure of the system
- Use, storage, or handling of various chemicals
- Operation and maintenance



Natural and Man-made Threats and Risk to the Water System

Common Threats

- Small spills
- Contractor damages a pipe
- Component fails due to age/condition
- Graffiti

Severe Threats

- Major fuel tanker spill
- Theft of material
- Contamination detected
- Flooding
- Fire

Major Threats

- Drought
- Seawater intrusion into aquifer
- Source Water Contamination
- Category 4 or 5 Hurricane
- Tsunami
- Earthquake
- Major fuel/oil source leaking
- Area settlement
- Terrorist Attack



RISK

Natural and Man-made Threats and Risk to the Water System – the Holistic View

- O&M budget
- Maintenance crews
- Repair parts stocked in warehouse
- Claims process for assessing damage

Common Threats

- Small spills
- Contractor damages a pipe
- Component fails due to age/condition
- Graffiti

- Insurance
 - Penalties, Fees, Lawsuits
 - Regulatory Agencies lead (SDWB, City, Police, Fire)
 - Additional as-needed contracts for support
- ## Severe Threats

- Major fuel tanker spill
- Theft of material
- Contamination detected
- Flooding
- Fire

Major Threats

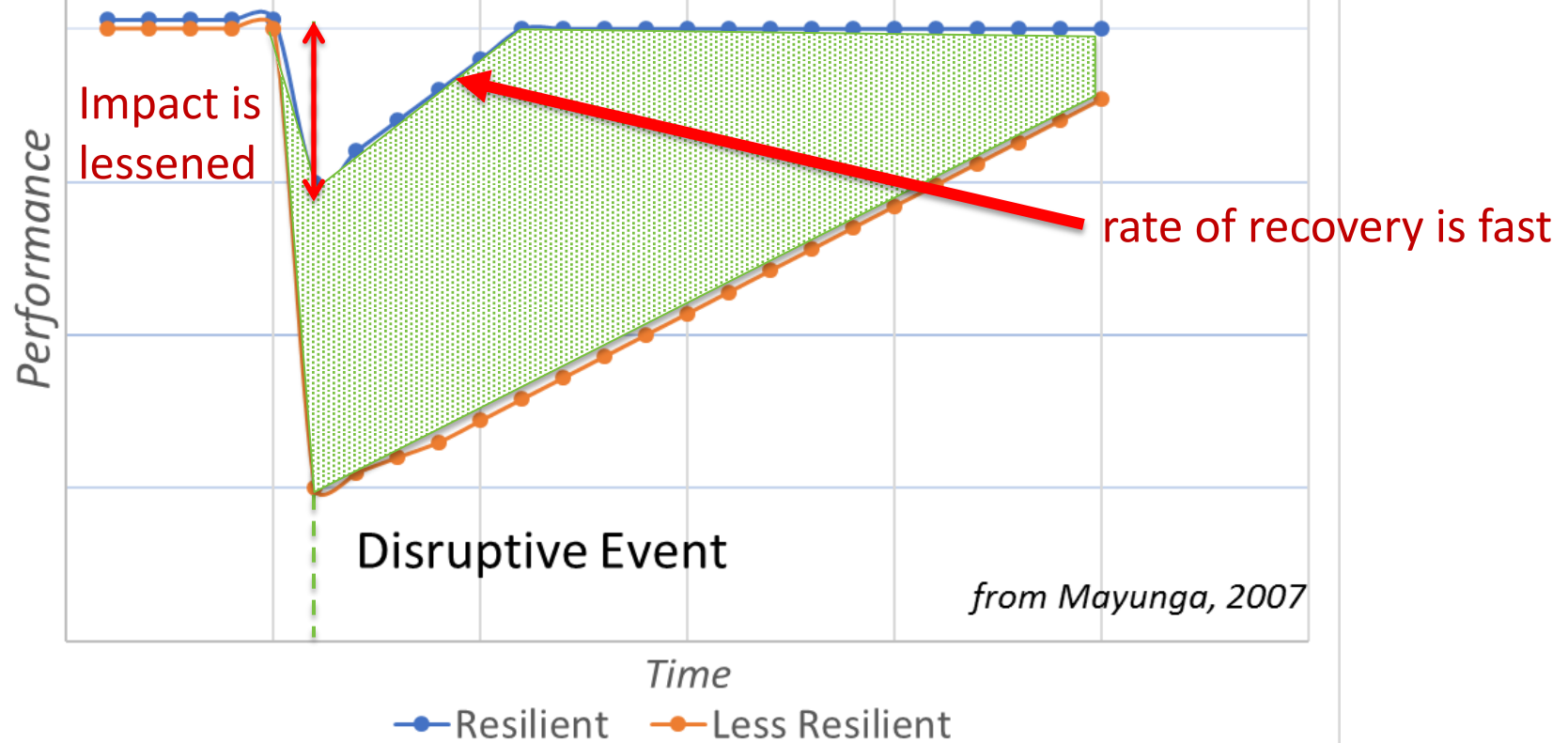
- Drought
 - Seawater intrusion into aquifer
 - Source Water Contamination
 - Category 4 or 5 Hurricane
 - Tsunami
 - Earthquake
 - Major fuel/oil source leaking
 - Area settlement
 - Terrorist Attack
- City, County, State and Federal assistance needed



RISK

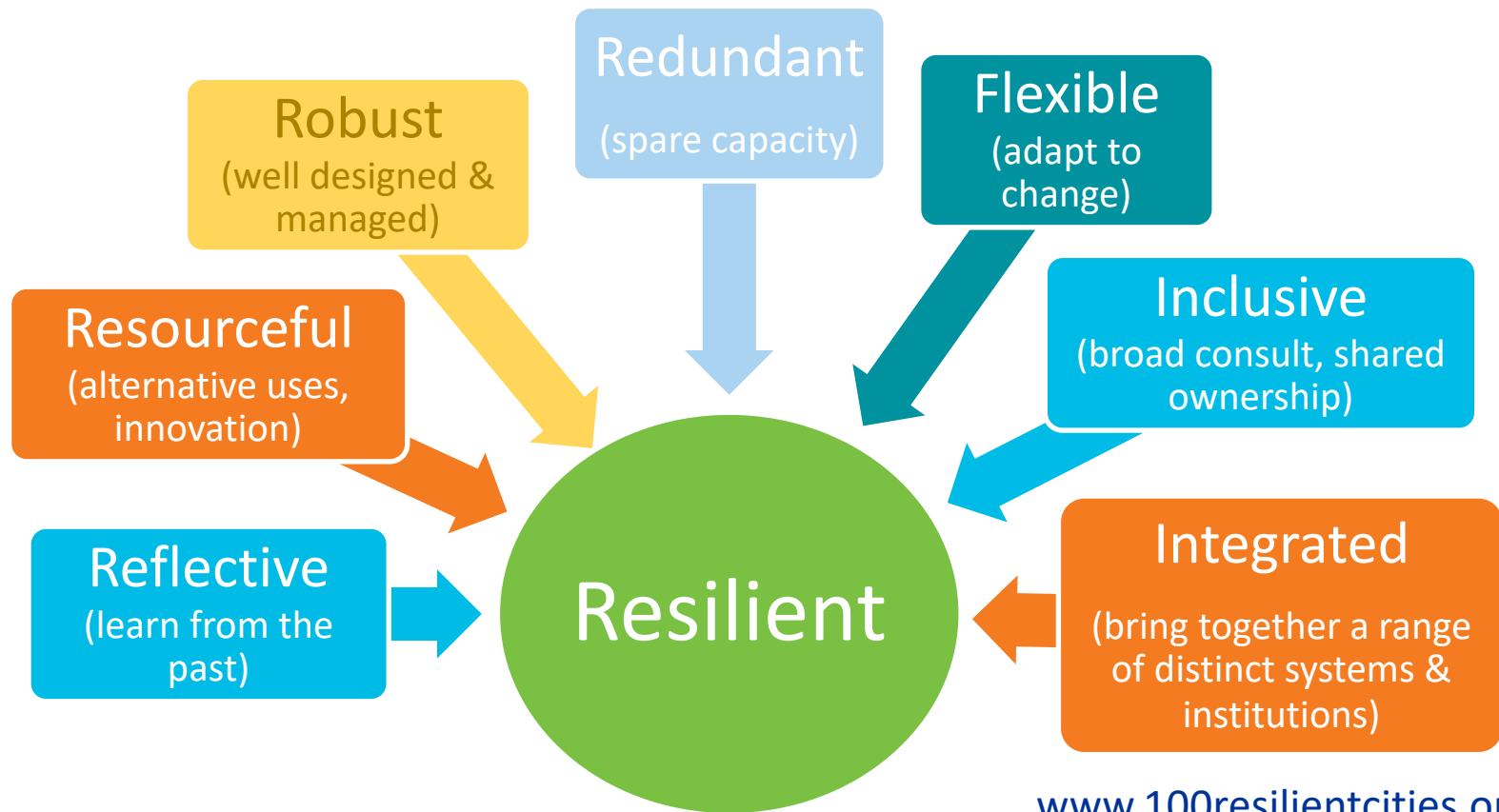
What is a Resilient Water System

“Resilience is the ability of an asset or system to withstand an attack or natural hazard without interruption of performing the asset or system’s function or, if the function is interrupted, to restore the function rapidly”. – AWWA J100



What the Resiliency Strategy could Look Like

7 Qualities of a Resilient City that allows it to withstand, respond to, and adapt more readily to shocks and stresses:



www.100resilientcities.org

The assessment is used to develop a Risk Management Plan

- Strategies and resources to improve the resilience of the system, including the physical security and
- Plans and procedures that can be implemented, and identification of equipment that can be utilized, in the event of a malevolent act or natural hazard
- Actions, procedures and equipment which can obviate or significantly lessen the impact of a malevolent act or natural hazard
- Strategies that can be used to aid in the detection of malevolent acts or natural hazards
- Includes projects requiring capital investment that can achieve significant risk reduction



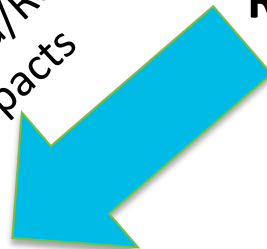
Risk Management Planning

Short list of Highest Risks



**Risk and Resiliency
Management
Strategies and
Recovery Goals**

*Avoid/Reduce
Impacts*



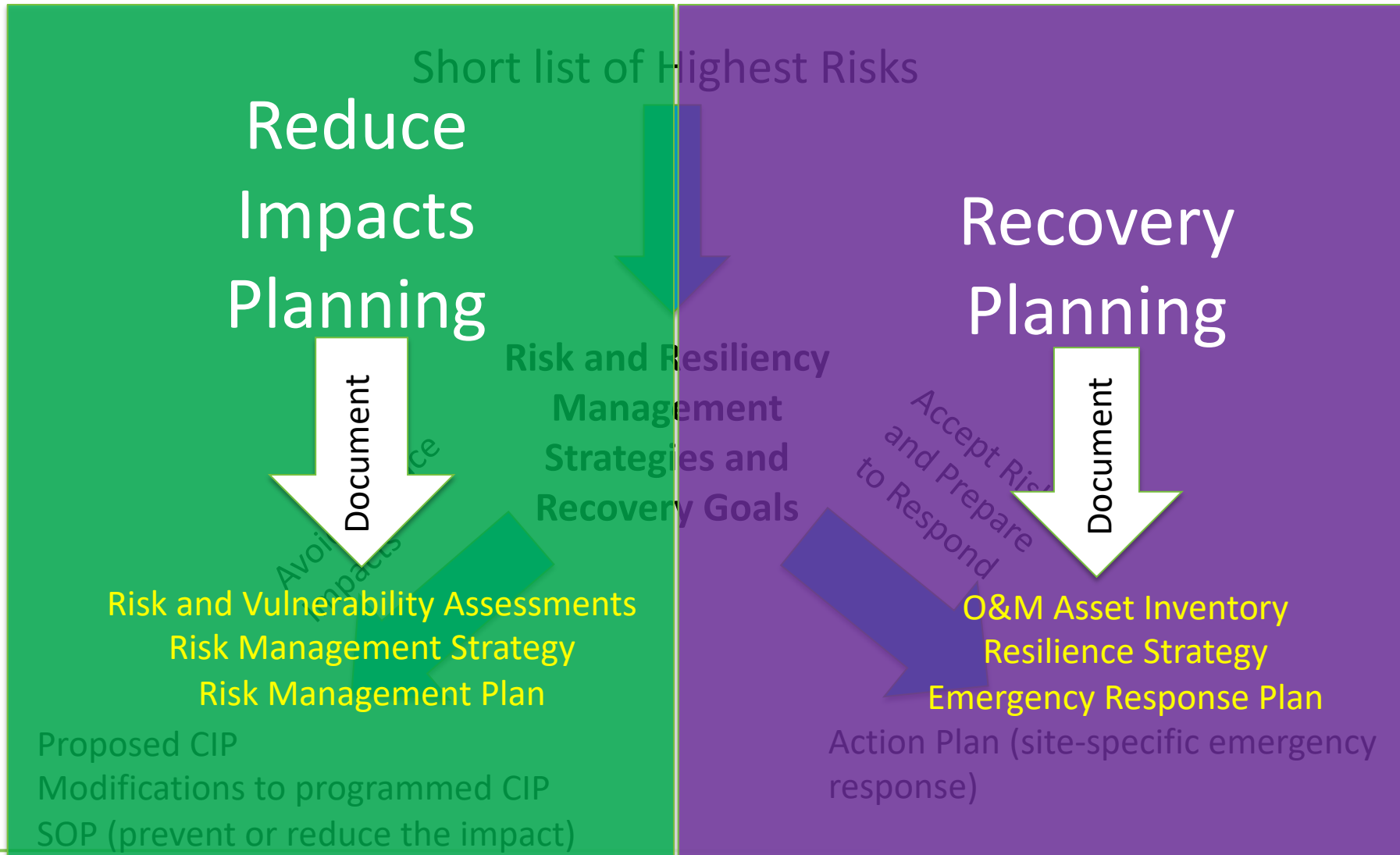
*Accept Risk
and Prepare
to Respond*



Proposed CIP
Modifications to programmed CIP
SOP (prevent or reduce the impact)

Action Plan (site-specific emergency
response)

Risk Management Planning



AWIA Emergency Response Plan (ERP) Requirements

- Must be updated within 6 months after the risk and resiliency assessments have been certified complete to EPA
- Must describe all the required asset categories and incorporate learnings from the assessments
- Certification to EPA is required
- Must be updated to follow EPA's template, released in July 2019

EPA's Community Water System Emergency Response Plan Content

Required Content	AWIA ERP Criteria
RESILIENCE STRATEGY	Strategies and resources to improve the resilience of the system, including the physical security and cybersecurity of the system
EMERGENCY PLAN & PROCEDURES	Plans and procedures that can be implemented, and identification of equipment that can be utilized, in the event of a malevolent act or natural hazard that threatens the ability of the community water system to deliver safe drinking water
MITIGATION	Actions, procedures, and equipment which can obviate or significantly lessen the impact of a malevolent act or natural hazard on the public health and the safety and supply of drinking water provided to communities and individuals, including the development of alternative source water options, relocation of water intakes, and construction of flood protection barriers
DETECTION STRATEGY	Strategies that can be used to aid in the detection of malevolent acts or natural hazards that threaten the security or resilience of the system

Emergency Plans & Procedures

- Follows Homeland Security's National Incident Management System (NIMS) Framework
- BWS has several already
- Plans are being developed for:
 - Cyber-attack
 - Loss of SCADA
 - Pandemic
 - Low groundwater
 - Specific critical asset failures that could result in long-duration outages or reduced system capacity
- BWS is also updating the Continuity of Operations Plan

Emergency Planning and Community Right-to-Know Act (EPCRA) - Amended

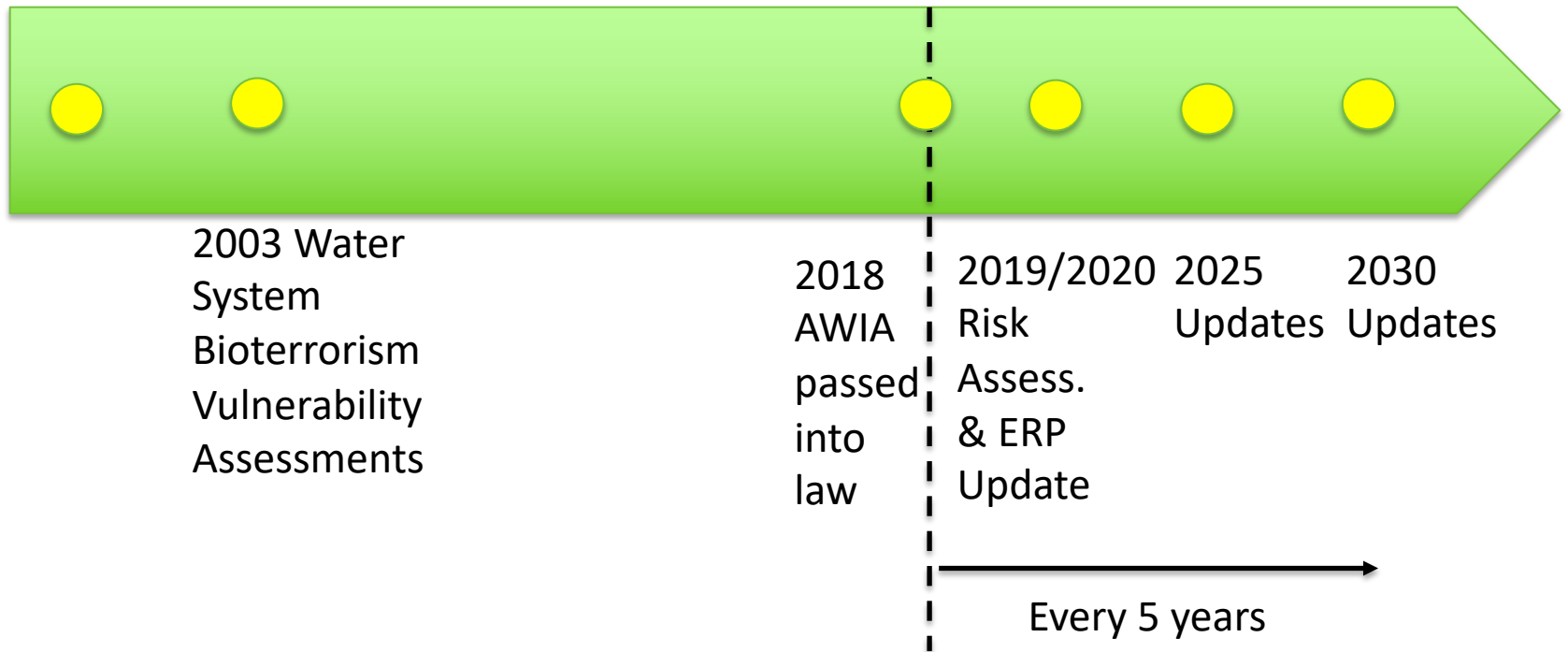
- EPCRA has been in place since 1986
- EPCRA enables proactive planning
 - provides local emergency planning committees and first responders with location, quantity and type of chemical hazards stored
- Requires details and notification immediately to local emergency planning committees and first responders of a hazardous chemical release
- Requires sharing the written corrective actions, known or anticipated health impacts associated with the release and recommended medical attention for exposed individuals

Amendment to EPCRA adds community water systems to the communications and planning

Timeline

Major Events

2001	2005	2012	2017
9/11 Terrorist Attacks	Hurricane Katrina	Hurricane Sandy	Hurricane Maria



Adapting to Events

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Questions & Answers



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Facilitator

SUMMARY AND NEXT STEPS

Next Meeting - TBD

- Virtual meetings not our intended “new normal”
- Next scheduled meeting is July 16 – actively evaluating options
 - Outdoor locations?
 - Hybrid virtual/in-person?
 - Delay until August?
- We will not meet in person if it is not safe

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