



Bull Run
TREATMENT
PROJECTS

*Our water: Safe and abundant
for generations to come*

PORTLAND WATER BUREAU

Bull Run Treatment Projects

Managing a Diverse, High-Performance Team for Portland's Bull Run Filtration Project

April 28th, 2022



PNWS-AWWA
Water 2022
Tacoma, WA • April 27-29

Successful projects are built on strong relationships and robust management systems



Filtration
facility
overview

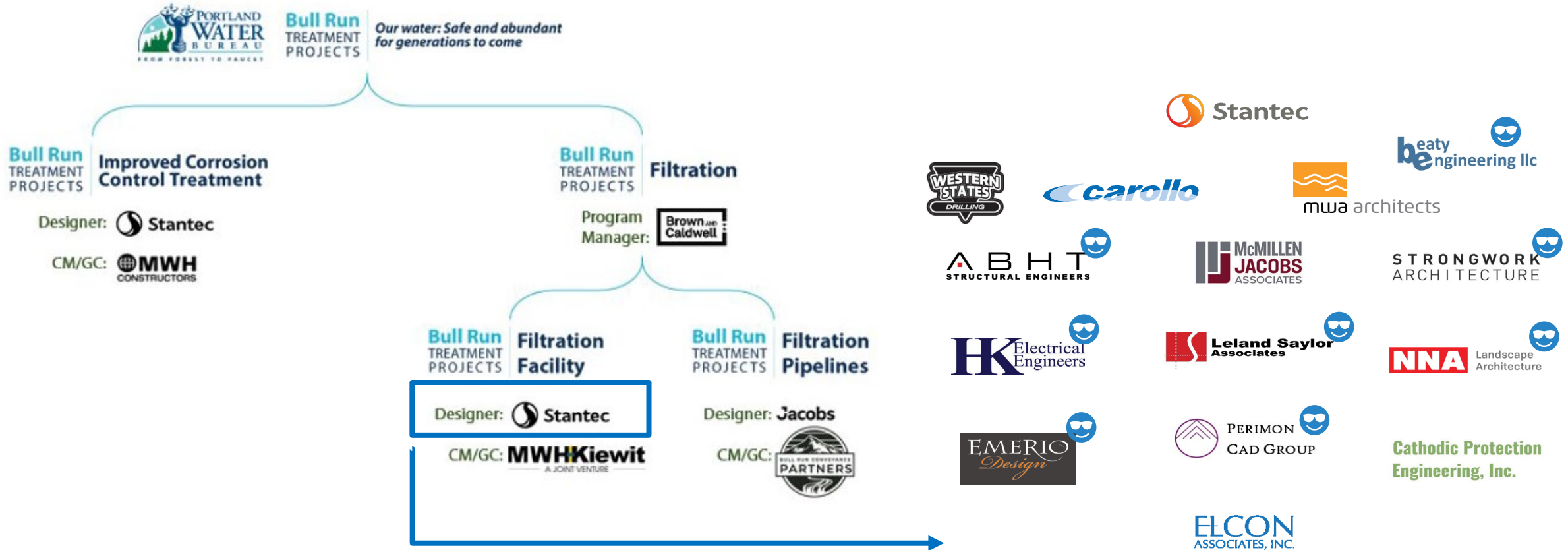
Diverse
management
perspectives

Quantifying
success

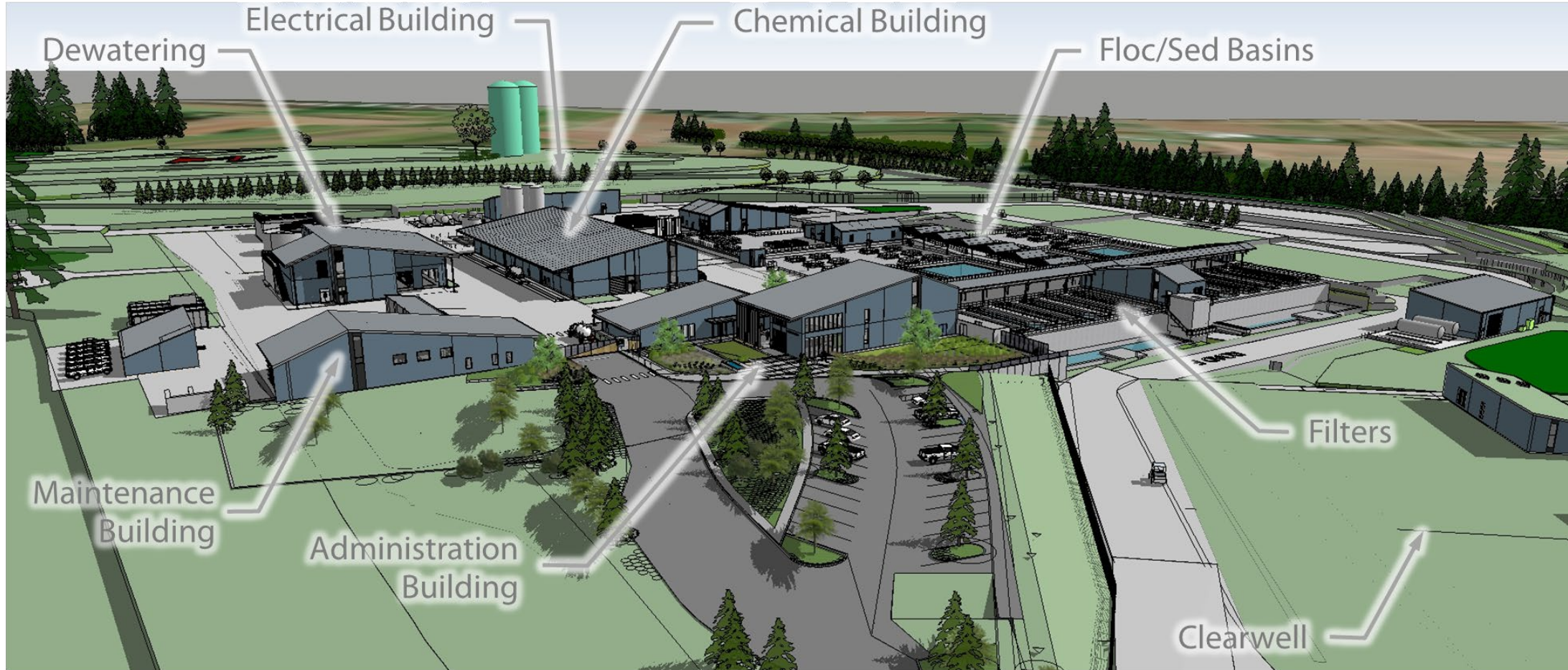
The Bull Run Treatment Projects will help keep our water safe and abundant for generations to come



17 firms on the Filtration Facility design team; 11 are equity contractors



Modern filtration facility capable of producing up to 135 MGD



Filtration
facility
overview

Project
vision and
goals

Project team
structure

Treatment
overview

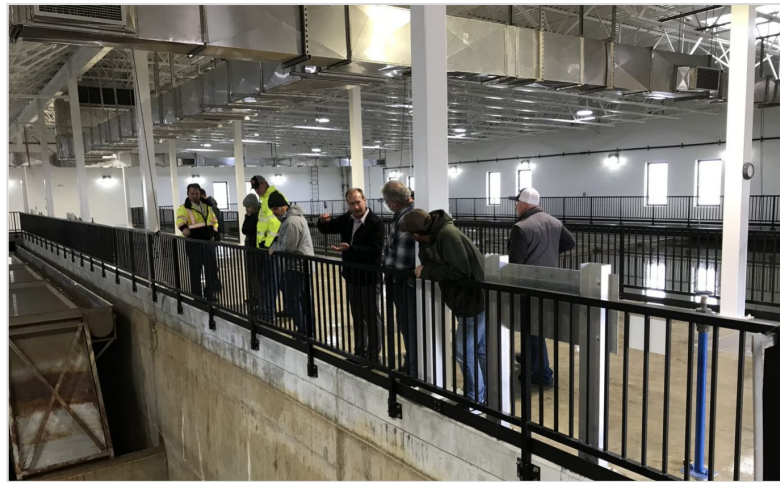
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Planning to be successful

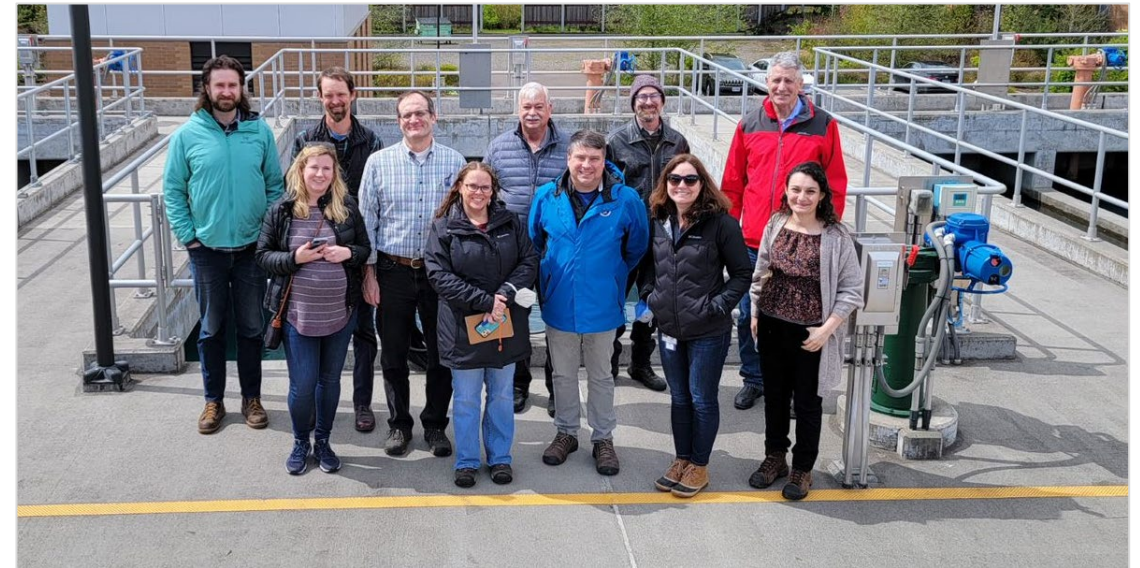
Challenges

- Utility without filtration
- Water Bureau's largest project ever
- Bilateral Compliance Agreement with September 2027 deadline for serving filtered water



Solutions

- Developed dedicated internal team
- Tours and chats
- "Go slow to go fast"



Filtration
facility
overview

Diverse
management
perspectives

Owner

Program
manager

Large firms

Equity firms

Quantifying
success

Setting ourselves up for success and fun

- Set up clear decisions
- Right people in the right room so decisions stick
- Put some fun in with the engineering

Poll 0: It's Taco Tuesday on Cinco De Mayo!

What Level of Service do you expect from your Tacos, based on Shell Integrity Rate (SIR)?

1. Standard Taco
 - 75% SIR
2. Resilient-Shell Taco
 - 90% SIR through use of flour tortilla
 - 1.0x cost
 - Significantly reduced crunch factor
3. Redundant Shell (e.g. Cheesy Gordita Crunch)
 - 95% SIR
 - 1.8x cost
4. N+2 Redundant Units
 - 98% SIR
 - Free Pepsi
 - 3.0x cost



1. Standard Taco



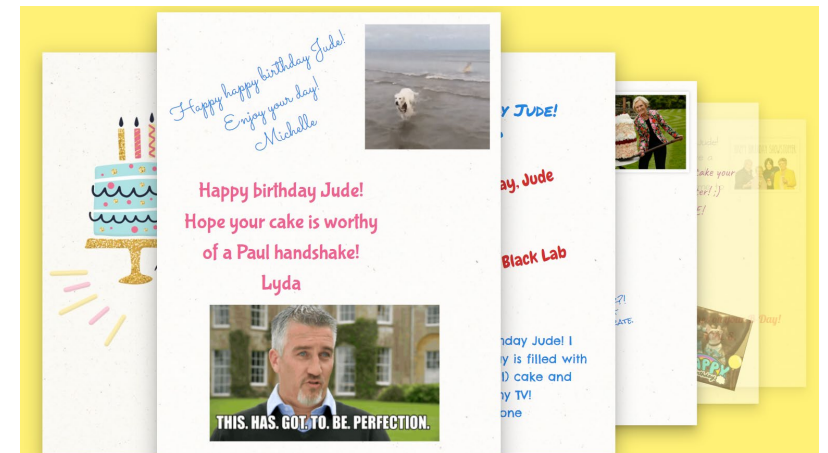
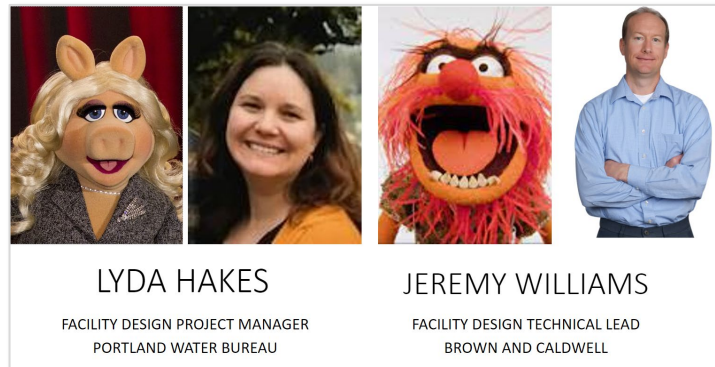
2. Resilient Shell



3. Redundant Shell

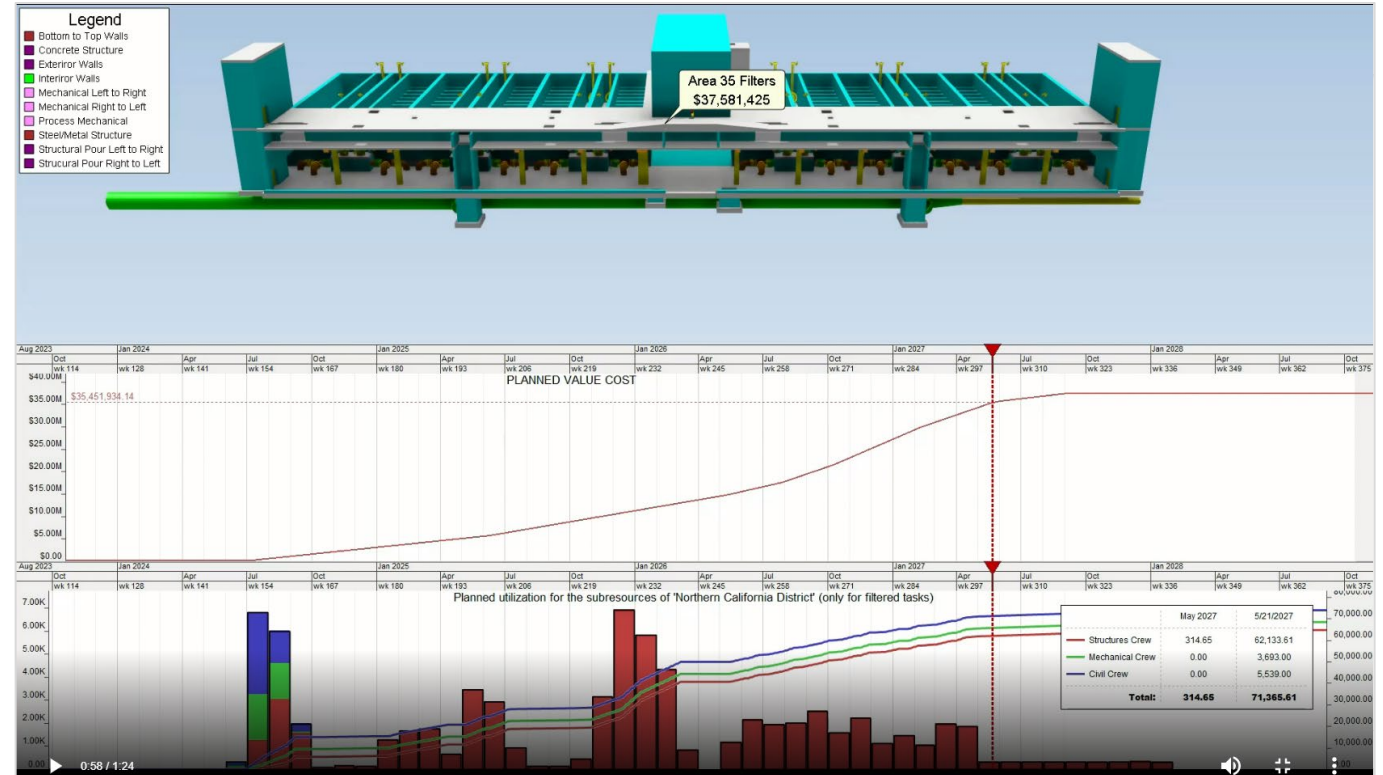


4. Redundant Tacos



Connecting Water Bureau's vision to action

- Collaboration
- Standardization and consistency
- Proactive
- Transparency
- Integrated cost and schedule
- Clear, defensible, real-time reporting



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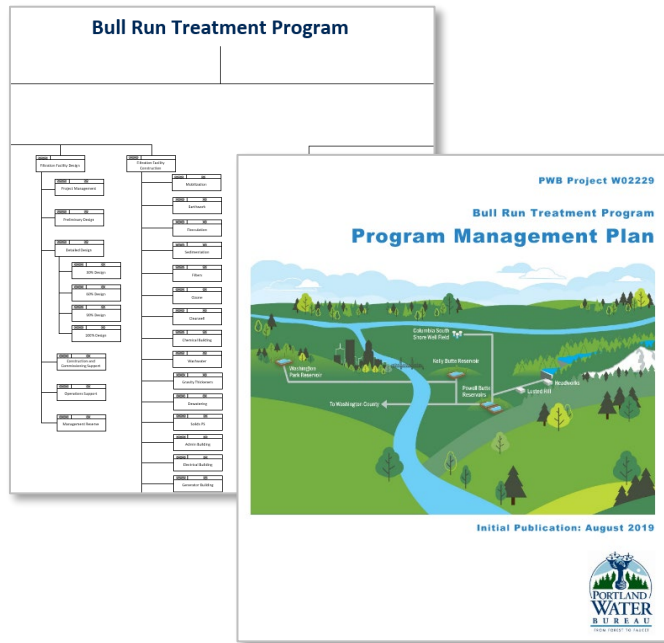
Large firms

Equity firms

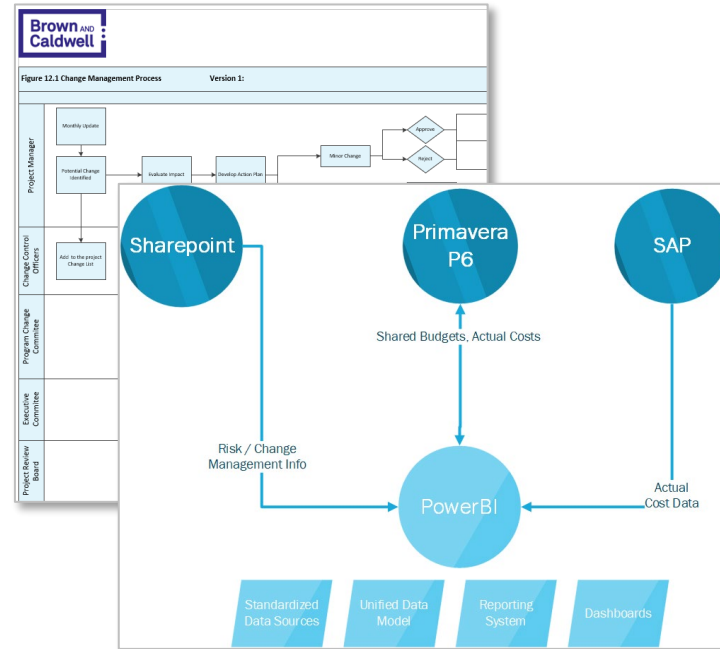
Quantifying
success

Configure tools to encourage desired behavior

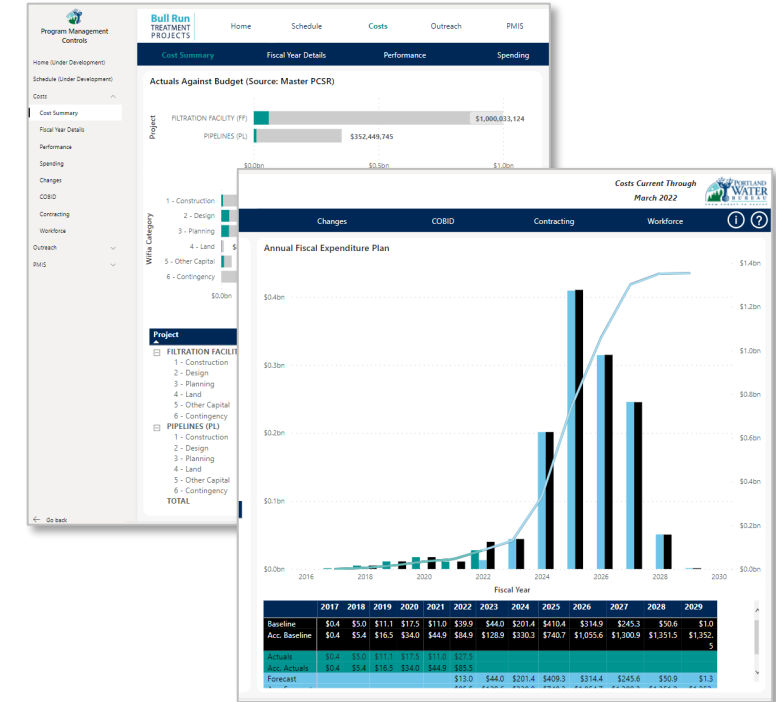
Program Management



Select and Configure Tools



Rewards



Filtration facility overview

Diverse management perspectives

Owner

Program manager

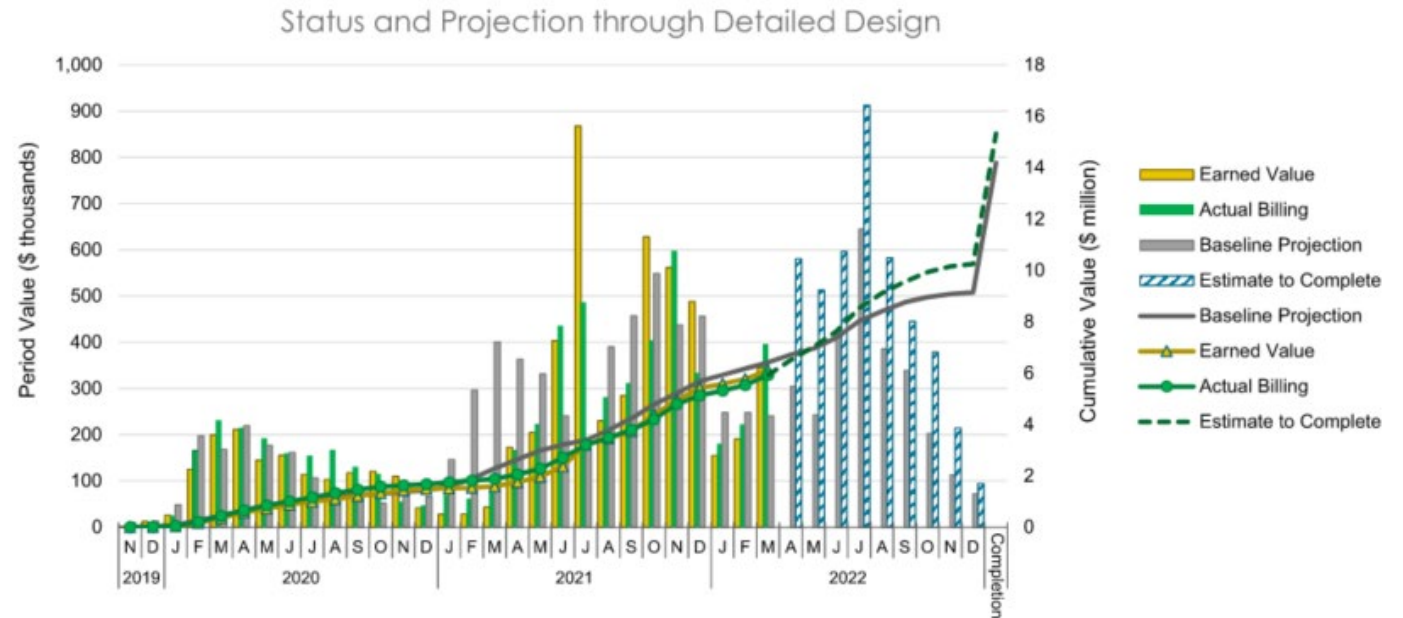
Large firms

Equity firms

Quantifying success

Consistent management tools provide clear communication to Owner and Program Manager

- Earned value management
 - Consistency
 - Easy to understand
- Monthly check-ins
 - Pro-active management actions
 - Decision making
- Transparency
 - Effective communication
 - Established trust



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Quantifying
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Strong relationships are based on communication and trust



- Diverse skillsets
- Developing professionals
- We are better together
- Communication
- Trust
- Protect your team



Working effectively with equity contractors starts with communication



Pacific Northwest Nice is not so nice.



We can put systems in place to support small firm success—both now and into the future

SUPPORTING DISADVANTAGED BUSINESSES



**TODAY'S
SUCCESSSES**

Performance Management program focused on clear feedback and successful project delivery.



**CAPACITY
FOR THE
FUTURE**

Firms self-select the support they need to move forward. We don't assume we know best—we ask.

Filtration facility overview

Diverse management perspectives

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Quantifying success

Success comes in many forms

- Seamless transition from in person collaboration to fully remote during the pandemic.
- Buy-in from executive committee and technical advisors has led to decisions that stick.
- Project has remained on schedule despite the complexity.
- Team has successfully navigated value engineering changes needed to maintain affordability.
- Equity contractors have greatly benefited from participation in this project—both in economic opportunity and technical and project management skills they can continue to build on.



Questions?



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Learn More portland.gov/bullrunprojects

Thank you!