

Strategic Directive 14 Update

December 14th, 2022

SD14: Resource Planning



SD14 Resource Planning



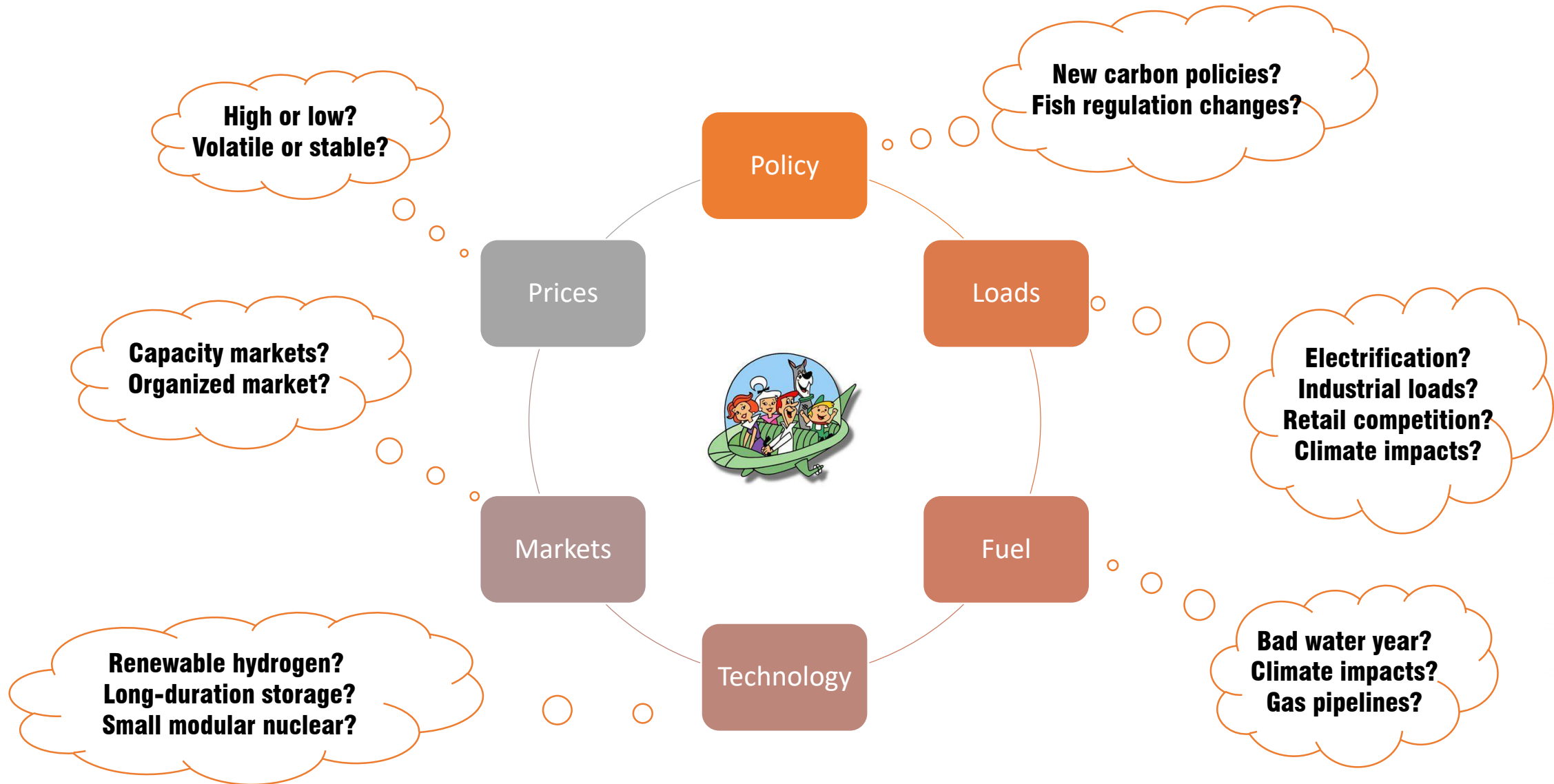
Tacoma Public Utilities' highest priority is providing safe and reliable power, water, and rail services that meet or exceed customer needs over the long term (20 to 60 years).

Power Resource Planning

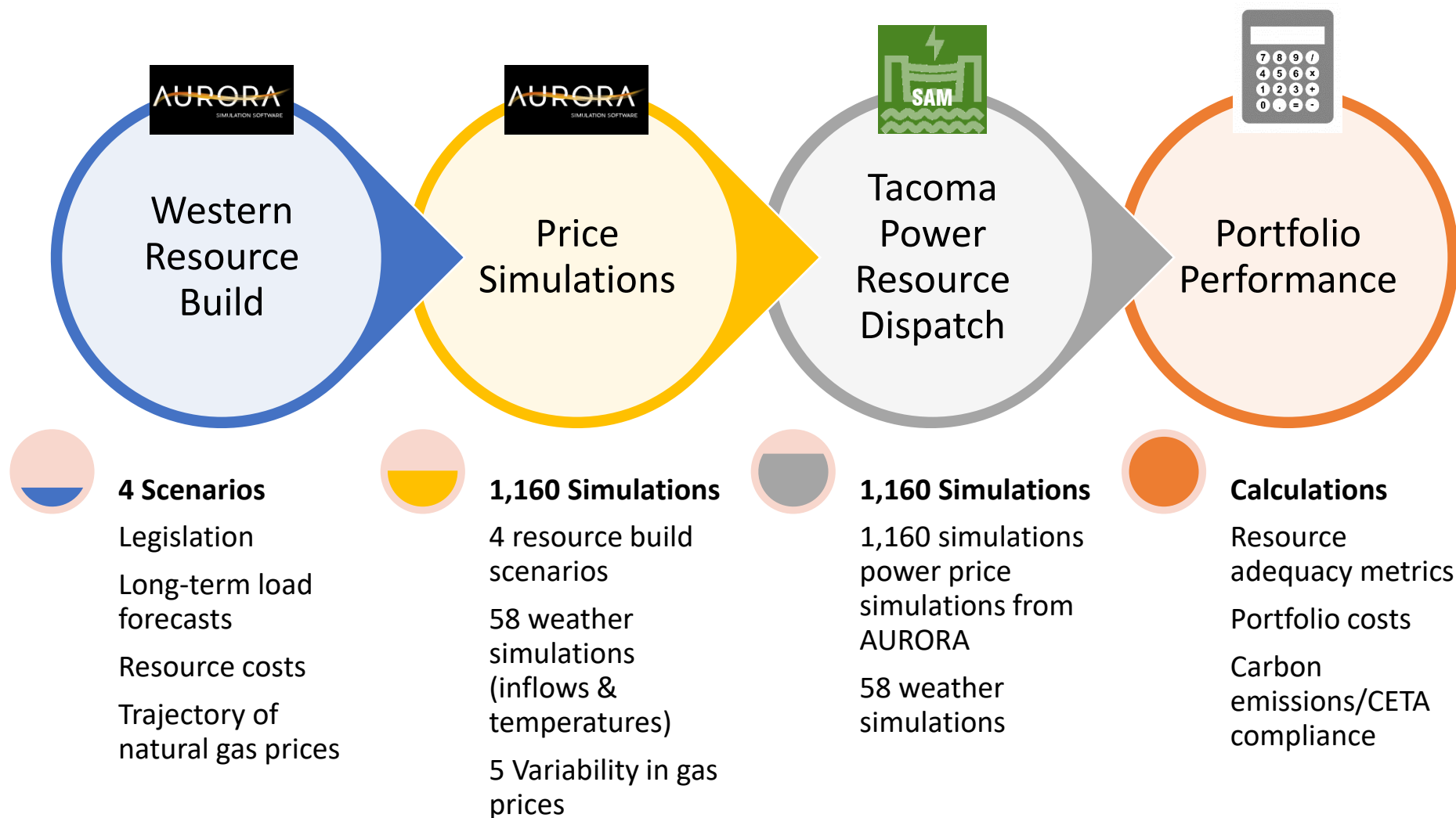
Power Integrated Resource Plan (IRP)

- Two-year cadence, per state law (RCW 19.280)
 - Full update every 4 years
 - Smaller update every 2 years
 - Last IRP completed August 2022
- 20-year outlook
- Public input process accompanies each IRP

Where will we be in 20 years?



Our IRP modeling framework



Key 2022 IRP Recommendations

(1) Renew Slice/Block product in 2028 if it remains similar to today's product

- **Update:** We continue to advocate for a product similar to today's product.

(2) Continue to acquire all cost-effective conservation identified in CPA

- **Update:** On track to acquire target.

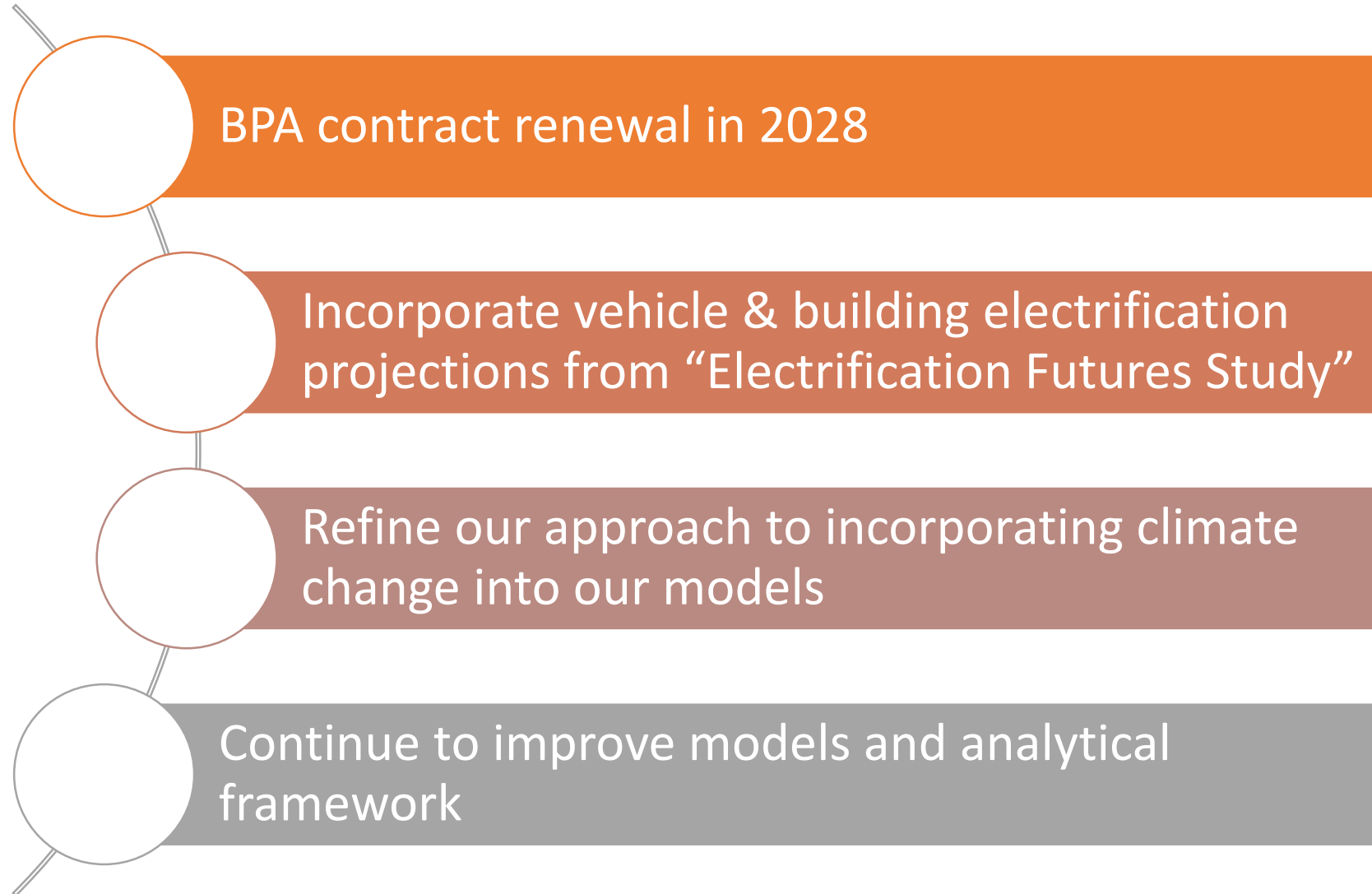
(3) Continue to develop capability to acquire demand response (DR)

- **Update:** We are working with industrial customer to create a mutually beneficial product to pilot.

(4) Make final decision on joining Western Resource Adequacy Program (WRAP) and continue involvement in the meantime

- **Update:** PUB approved participation in WRAP on Nov 16, 2022

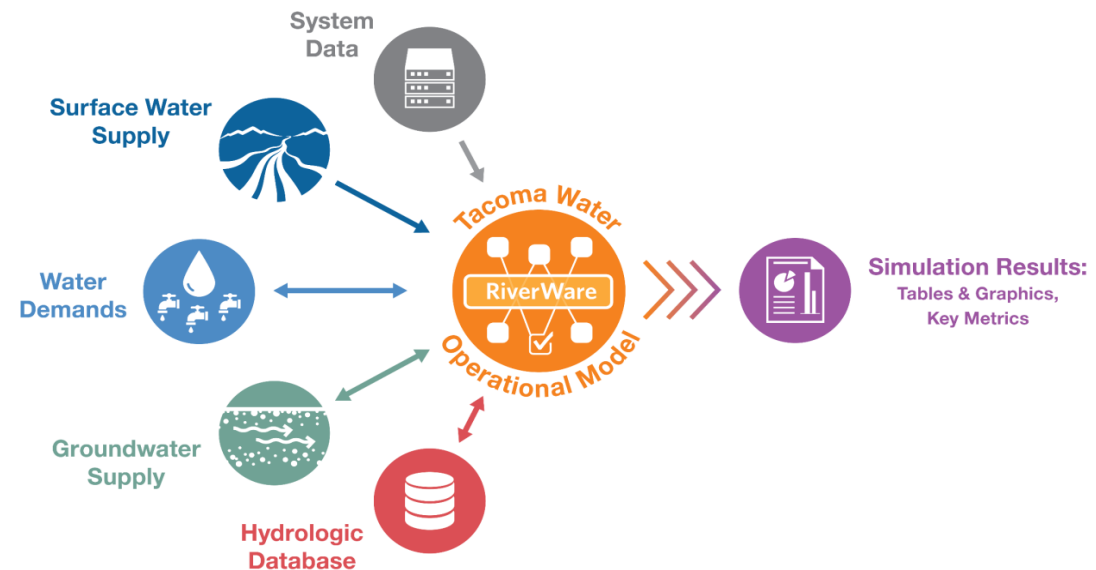
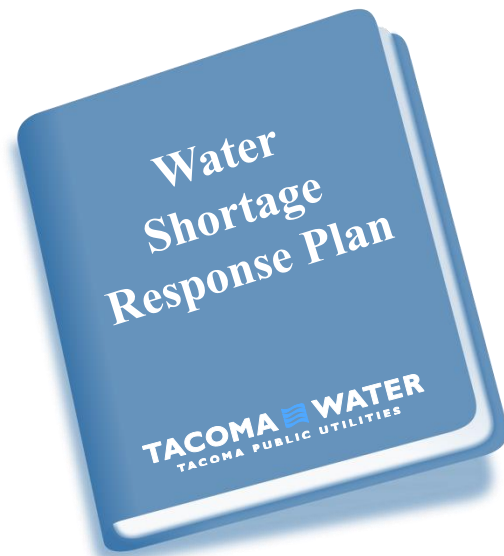
2024 IRP Focus Areas



Water Resource Planning

First Integrated Resource Plan in 2018

- Developed Water Yield Supply and Demand (WYSDM) Model with climate change integration
- Developed Resource Adequacy Standard (RAS)
- Performed a Conservation Program Update
- Conducted a Reclaimed Water Check-in
- Recreated Water Shortage Response Plan
- Not required by law, but we redo our IRP every 6 years



Potential Methods to Further Enhance Resource Adequacy & Reliability

Actively working on:

- Improving Groundwater – Wells Master Plan, improving well
- Additional Water Storage Project Phase 1 (AWSP1)– Completion of this project in 2030 will result in an additional 10,000 Acre-Feet of storage at Howard Hanson Dam

For future consideration:

- Additional Water Storage Project Phase 2 (AWSP2)– Raise Eagle Gorge Reservoir an additional 10 feet
- Oasis – Aquifer Storage and Recovery (ASR)
- Aggressive Peak Shaving – Reduce summer peak demand in hot and dry years

Current Efforts



Making progress on recommendations from the Wells Master Plan

Making Progress on Additional Water Supply Project Completion



Factors in the next IRP in 2023-2024

- Update climate change information
- Update demand forecast
- Additional wholesale opportunities may be emerging
- Groundwater questions & concerns have been expressed
- Regional data, modeling improvements are quickly developing
(Corps – Forecast Informed Reservoir Operations(FIRO),
USGS – groundwater model)

Rail Resource Planning

Areas of Focus for Rail

- Battery-Electric Locomotive Project
 - Tacoma Power assisted with horsepower to kilowatt hour conversions
 - Puget Sound Clean Air Agency as Co-applicant for Puget Sound Regional Council (PSRC) funding.
 - \$3,645,000 awarded
 - Recently submitted application for \$4.1M in funding from U.S. DOT Consolidated Rail Infrastructure and Safety Improvement (CRISI) program
 - Recently engaged with WA Dept. of Ecology staff to explore options for leveraging the Volkswagen settlement funds

Areas of Focus for Rail

- South Intermodal Yard (SIM)
 - Current lease with the Port set to expire in 2025
 - Anticipate hypothetical rail service futures
 - Rail desires to assume operational control
 - Detailed strategy being developed
 - Primary stakeholders
 - Port of Tacoma, Class I railroads, SSA Marine, and ILWU Local 23 (Longshore Labor)
 - Future Study Session updates
- Geospatial Intelligence System (GIS)
 - Leverage technology to refine processes
 - Continue mapping track infrastructure
 - Track geometry and curve analysis
 - Identify space constraint locations and limitations for future opportunities
 - Data analysis to identify annual track condition changes