CUSTOMER SERVICES 2019/2020 BUDGET PRESENTATION

August 22, 2018

Steve Hatcher

Customer Services Manager

TACOMA POWER | TACOMA WATER | TACOMA RAIL

TACOMA PUBLIC UTILITIES

Tacoma

AGENDA

- Mission/Vision
- Customer Service Strategic Goals
- Services Provided
- Budget Overview
- Budget Drivers
- Expenses and Staffing
- Next Steps

MISSION/VISION

MISSION:

We engage customers through exceptional service and customer-focused solutions.

VISION:

To be known for Excellence in our Service to Customers.

CUSTOMER SERVICES STRATEGIC GOALS

- **Empowering customers with easy to use self service tools that fit their individual needs**
- **Routing customers to the most knowledgeable employees to answer customer inquiries quickly, efficiently, and completely**
- **Maintain and enhance customer service by empowering staff with the required authority to accomplish 1st call resolution with robust and modern utility tools**
- **Developing strategies that meet the needs and requirements of each of our customer segments – Residential, Small and Mid-size business, Key accounts and Low-Income**
- **Position ourselves to support/participate in Tacoma Power, Water and Environmental Services strategic initiatives**

SERVICES PROVIDED

- **Administration –** Division oversight and management, strategic planning.
- **Customer Solutions –** Utility and resource assistance for seniors/disabled and low income.
- **Business Office** – Call center/lobby services, billing, payments and commercial services.
- **Performance Solutions –** Benchmarking/analytics, staff training/development and project management.

SERVICES PROVIDED (continued)

- **Support Services –**TPU switchboard services, administrative support and contract management.

- **Field Operations –** Meter reading, field investigative services and mail services operations.

BUDGET OVERVIEW

- **Enhance low-income assistance effectiveness**
  - ✓ Expanded staffing – elevates program emphasis and customer support
  - ✓ Higher participation from improved marketing, outreach, and overall program resources
- **AMI preparations prior to deployment**
  - ✓ Begin training of Contact Center staff
  - ✓ Continue transition of Field Operations staff
  - ✓ Work with Click! to train and transition some personnel into Call Center

BUDGET DRIVERS

- **Staffing cost increases due to general wage and benefit assumptions.**
- **Increase the number of personnel assigned to support the expansion of the Low-Income Assistance Programs.**
- **Increase in licensing/maintenance costs associated with software and customer-facing self-service systems.**
- **Implement a Request for Proposal (RFP) in preparation of the Customer Interaction Center (CIC) replacement project, scheduled for the 2021/2022 biennium.**
- **Execute a contract with an external call center to add complementary staffing to support the operation of the CS Contact Center.**

EXPENSES AND STAFFING

TPU Customer Services	2017-2018 Budget	2019-2020 Budget	2017-18 to 2019-20 Budget Comparison	
SUMMARY - Operation & Maintenance by Category				
Salaries & Wages	$ 20,917,991	$ 23,230,278	$ 2,312,287	11.1%
Employee Benefits	9,549,165	9,817,518	268,352	2.8%
Capital Credit & Labor To/From Others	(530,900)	(327,250)	203,650	38.4%
Total Personnel Costs	**29,936,256**	**32,720,546**	**2,784,290**	**9.3%**
Supplies	1,019,565	1,105,913	86,348	8.5%
Services	1,779,767	2,373,111	593,344	33.3%
Other Charges	3,862,015	4,958,880	1,096,865	28.4%
Total Assessments	3,829,165	3,949,688	120,523	3.1%
Total Supplies, Other Services & Charges	**10,490,512**	**12,387,592**	**1,897,080**	**18.1%**
Subtotal	**40,426,768**	**45,108,138**	**4,681,370**	**11.6%**
Capital Outlay	**2,835,000**	**584,420**	**(2,250,580)**	**-79.4%**
Total Customer Services	**$ 43,261,768**	**$ 45,692,558**	**$ 2,430,790**	**5.6%**
PERSONNEL - Budgeted FTEs	**147.0**	**152.9**		

MEETING SUMMARY

We welcome your thoughts and ideas about how we can best serve Tacoma Public Utilities and its customers.

Additional Questions?

Next Steps and Follow-up items…

Workforce Connect Project

City of Tacoma | Tacoma Public Utilities
Enterprise Technology Project

Public Utility Board Study Session
August 22, 2018

Objectives

- To provide a background on the Workforce Connect enterprise project
- Review of the vendor selection process
- Describe project implementation approach
- Background of contract to be approved at Public Utility Board meeting

Workforce Connect & MWM

Enterprise Mobile Workforce Management (MWM) systems:

- **Optimize** work from within or from core utility systems such as SAP and Outage Management
- **Support** complex workflows and resources such as:
  - Maintenance and inspection orders
  - Construction orders with information about field assets
  - Work processes across multi-commodity utilities
  - A wide spectrum of scheduler, dispatcher, and field worker roles
- **Deliver** information from back-office systems such as SAP and GIS on a mobile device

Current State

- Current Mobile Workforce Management system (ABB Ventyx) was implemented over 15 years ago
- In use by a number of City of Tacoma and TPU departments and is end of life
- Opportunities to automate additional manual field work processes are hampered by our current solution
- Growing field asset data and location information needs from the users are difficult to accommodate

Strategic & Business Drivers

- Government Performance
  - Accountable, Efficient and Transparent services
  - Engage Employees

- Built and Natural Environment
  - Reduced city vehicle trips

- Digital Engagement Strategy
  - *"As a field worker, I need mobile access to maps, data, and work management tools, so that I can effectively serve our customers"*
- Strategic Initiatives
  - Do our work better
  - Performance management capability
  - Strengthen safety culture

Industry Direction

Product advancement in the mobile workforce management market has been accelerating:

- Consumerization of mobile technology
- Improved geospatial capabilities
- Maturing cloud-based delivery models
- Emergence of commercial wearable computing products
- Development of a more digital 'smart' utility and city

Digital worker enablement **transforms** operations...

Workforce Connect Benefits

Common Industry Benefits

15-25%	↑ Field technician productivity	90%+	% of work auto-scheduled
< 60 sec	↓ Service order close time	60 min.	Dispatch productivity gains
5-10%	↓ Technician windshield time	12%	↓ Estimated restoration times
10-20%	↑ Customer satisfaction ratings	50%	↓ Planning and assigning work
17%	↓ Asset inspection effort / time	60%	↓ In customer complaints

Project Objectives

- Replace legacy Mobile Workforce Management solution with a modern Enterprise Solution
- Expand initial user base from 200 to 500+
- Increased business functionality to include:
  - Initiate work from the field
  - Enhanced off-line capabilities
  - Dynamic resource management
  - Electronic access to documents & photos
  - Automated time entry
  - Advanced scheduling & dispatching functionality
  - Complementary AMI functionality

User Stories

- As a mobile user...
  - I would like an automated way to populate and submit my time card to the back-office
  - I would like greater access to mobile order details with digitally downloaded work packets, photos, and GIS map overlays
  - I would like the option to work on a variety of mobile devices that best suit my working environment
- As a Supervisor or Dispatcher...
  - I would like to optimize work assignment routing to reduce drive time
  - I would like to easily monitor and dispatch work assignments and emergencies to the right crews at the right time
  - I would like the ability to remotely monitor and control work assignments so I can spend more time in the field

Optimization

Data Access

Automated Timecards

Device Flexibility

Project Schedule

2017: Planning, Selection

- Q1-Q3 Solution RFP Development
- Q4 RFP & Selection

2018: Contract, Procurement, Infrastructure

We are here.

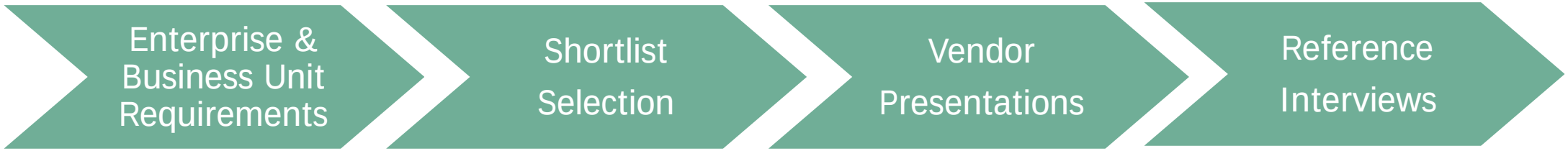
- Q1 Solution Contract
- Q2-Q3 ISGB, PUB, CC
- Q4 Infrastructure / Design

2019 – 2020: Develop and Deploy

- Q1 Release 1 – Locates
- Q2/19 – Q1/20 Release 2 – Other Work Types
- Q1/20 Decommission ABB Service Suite
- Q2/20 Release 3 – Long Cycle

MWM Replacement Selection

- Engaged consultant to facilitate our vendor selection process
- Clevest Mobile Work Management was selected through a competitive RFP process



RFP Scoring Results

Respondent (weighting)	Technical Requirements (40%)	Price (30%)	Risk (20%)	SBE/MWBE Certification (5%)	Submittal Quality, Organization & Completeness (5%)	Score
Clevest Solutions, Inc.	1979	1484	989	0	247	4700
ABB Enterprise Software, Inc.	1845	1384	923	0	231	4382
SAP America, Inc.	1837	1378	918	0	230	4362
Smart Energy Water LLC	1799	1349	899	0	225	4272

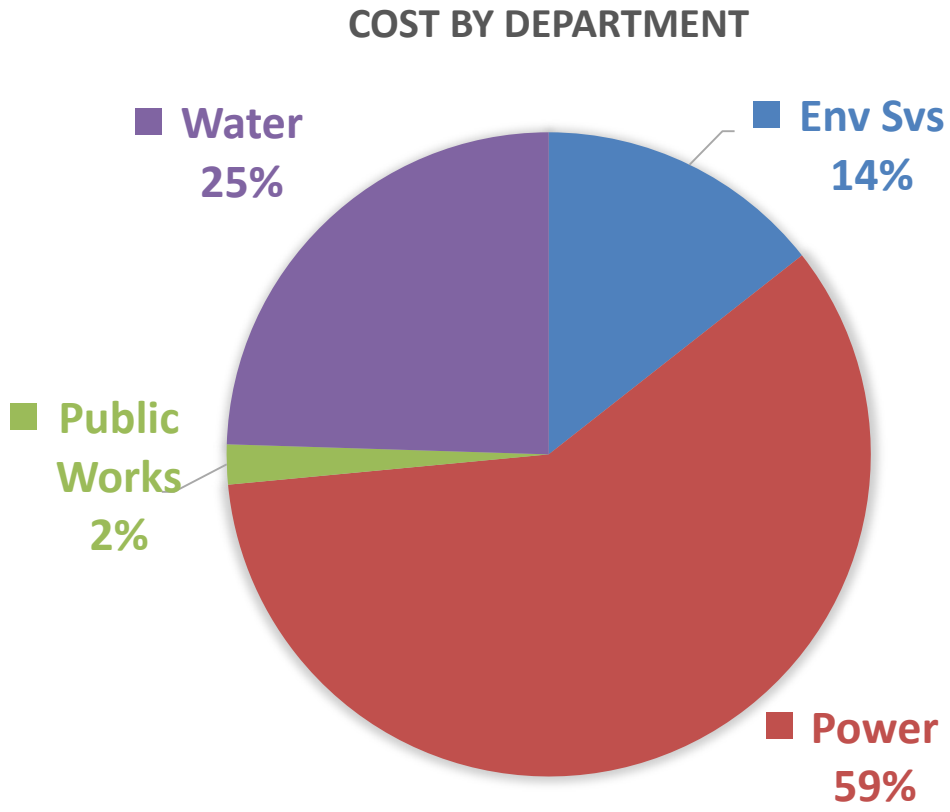
Clevest Contract Agreement

Component/Deliverable	Amount
Software	$607,500
Maintenance Support (7 years)	$675,500
Product implementation services & warranty	$1,177,260
Training	$33,196
Other	$178,200
Total Contract Value	$2,671,656

- Notable features of agreement:
  - Negotiated $500/user license
  - Maintenance of 20% for agreement term
  - Not subject to yearly escalations or adjustments

Workforce Connect Budget

2018-2020 External Costs	Total Line Item Costs
Software	$607,500
Hardware	$33,389
Clevest Professional Svcs	$1,177,260
Augmented Professional Svcs	$1,170,300
Consultant Svcs	$1,029,820
Travel	$178,200
Training	$565,546
Total External Costs	**$4,762,015**
2018-2020 Internal Labor Costs	Allocated
Division Labor	$2,292,763
Cust Svcs (All others)	$84,675
TPU UTS Labor (Allocated)	$244,197
Total Internal Labor Costs	**$2,621,635**
Project Total	Total Cost
GRAND TOTAL (Capital and O&M)	**$7,351,424**



Net Cost / Benefit Analysis

Clevest Solution	
One-Time Project Cost	$7.4M
Ongoing Costs	$3.8M
Project Benefits	$11.8M
Project Cash Flow	$1.0M
NPV	$288k
ROI	8.9%
Payback Years	9.6
Lower Monthly Cost (per user)	$219

Key Takeaways

- Business driven
- Better served customers/citizens
- Multiple business units participating in project & governance
- Transformational opportunity

Recommendations/Next Steps

- Contract approval at Public Utility Board
- Info session with City Council
- Continue project preparation activities
- Project initiation planned for Q4 2018

TACOMA WATER
TACOMA PUBLIC UTILITIES

Water Resource Planning

- Water System Plan
- Integrated Resource Plan

August 22, 2018

Today's Agenda

Water System Plan Update

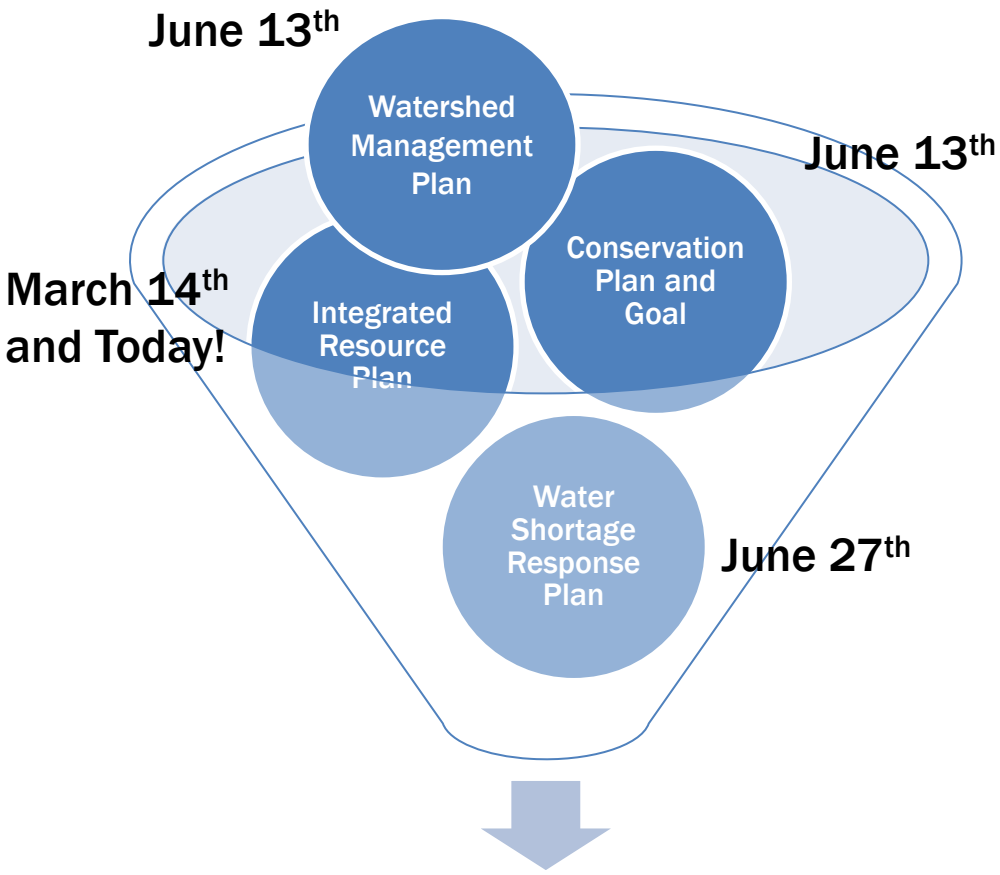
Integrated Resource Plan Results/Conclusions

- **Overview of Sources**
- **Overview of Modeling results**
- **Resource Performance**
- **Potential Solutions**

Additional Considerations

Next Steps

2018 Water System Plan –
collecting our planning in one place



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Overview of Existing Sources –
Green River System

The Green River is Tacoma's primary water source. In recent years, it is the source of 95% of our water.

- Tacoma has two water rights on the Green River
- Both water rights are constrained to ensure adequate minimum instream flows

TACOMA WATER DIVERSION DAM AND INTAKE

Overview of Existing Sources – Green River System

North Fork Wells

Eagle Gorge Reservoir

Held empty in Winter
Filling in Spring
Emptying in summer

HHD

GRFF

Green River Filtration Facility (GRFF)

To Municipal Water System

Palmer Measurement Point

P

GREEN

A

RIVER

Auburn Measurement Point; Must maintain greater than 250 cubic feet per second

To Duwamish River

Stored water is released:

- To augment river flows for fish
- To be used as drinking water

HHD = Howard Hanson Dam

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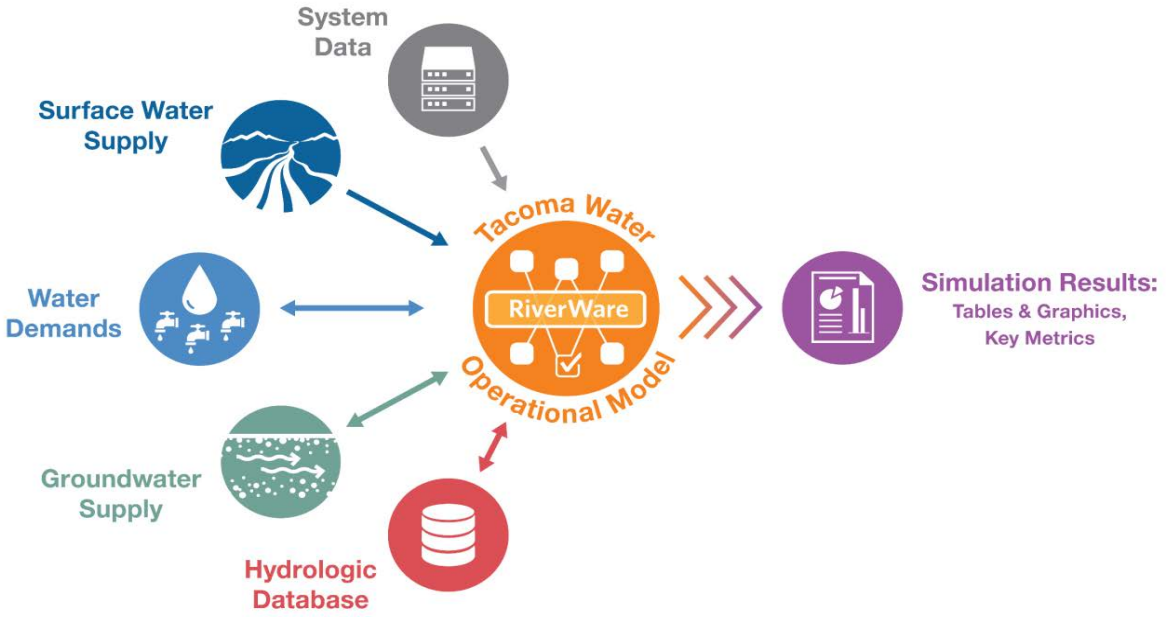
Overview of Existing Sources - Groundwater

- 55 MGD of installed capacity /~40 MGD currently reliably available
- Aquifer in South Tacoma is a key component
- Normally ~5% of supply
- Can provide up to 40-50% of summer demand
- Drought resilient

MGD = Millions of Gallons per Day

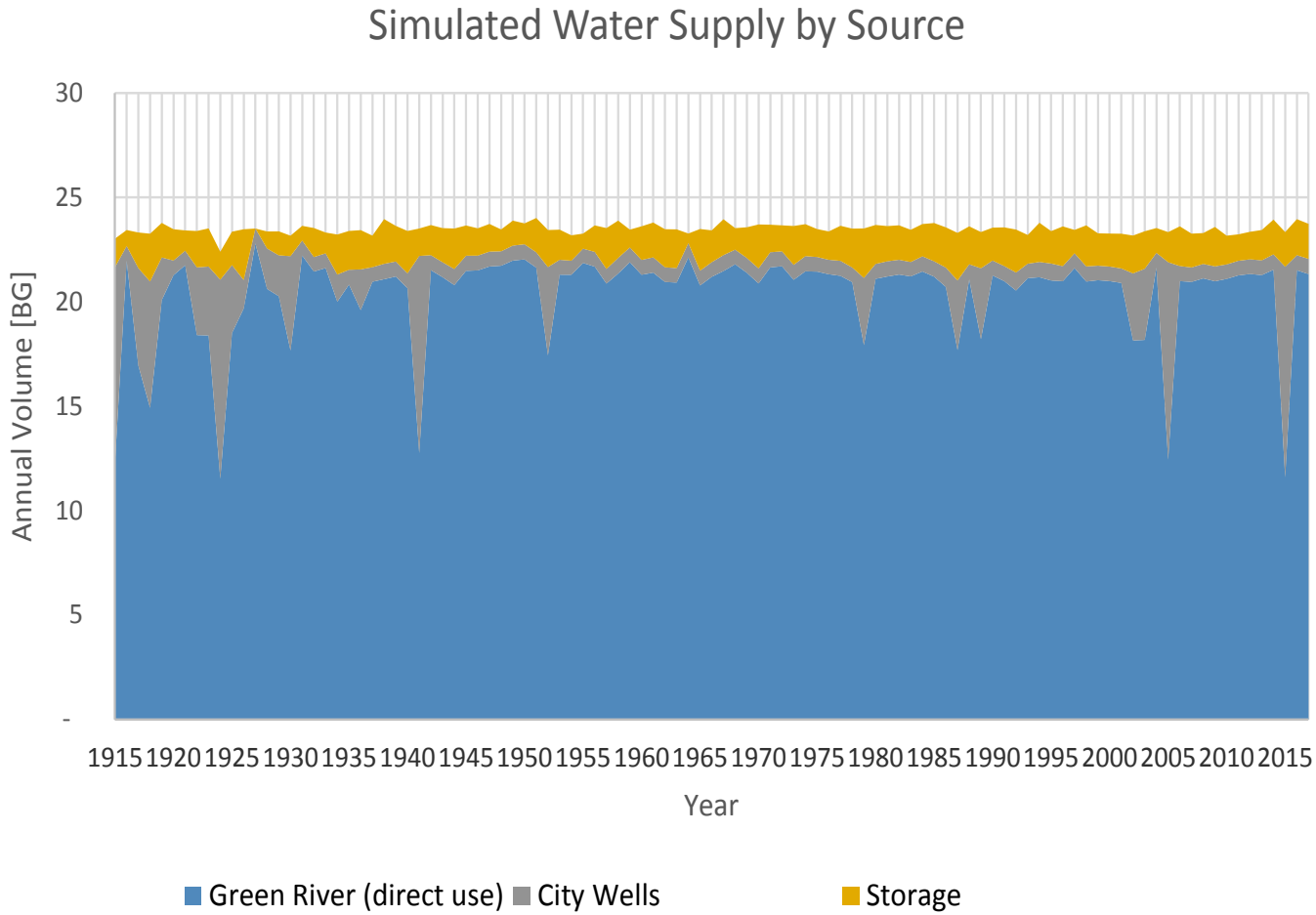
Overview of Modeling Results

- Performance of existing sources
- Impacts of climate change
- Resource Adequacy Standard
- Future scenarios evaluated
- Firm Yield vs demand forecast



Existing Resource Performance - Past

zero curtailments in this simulation



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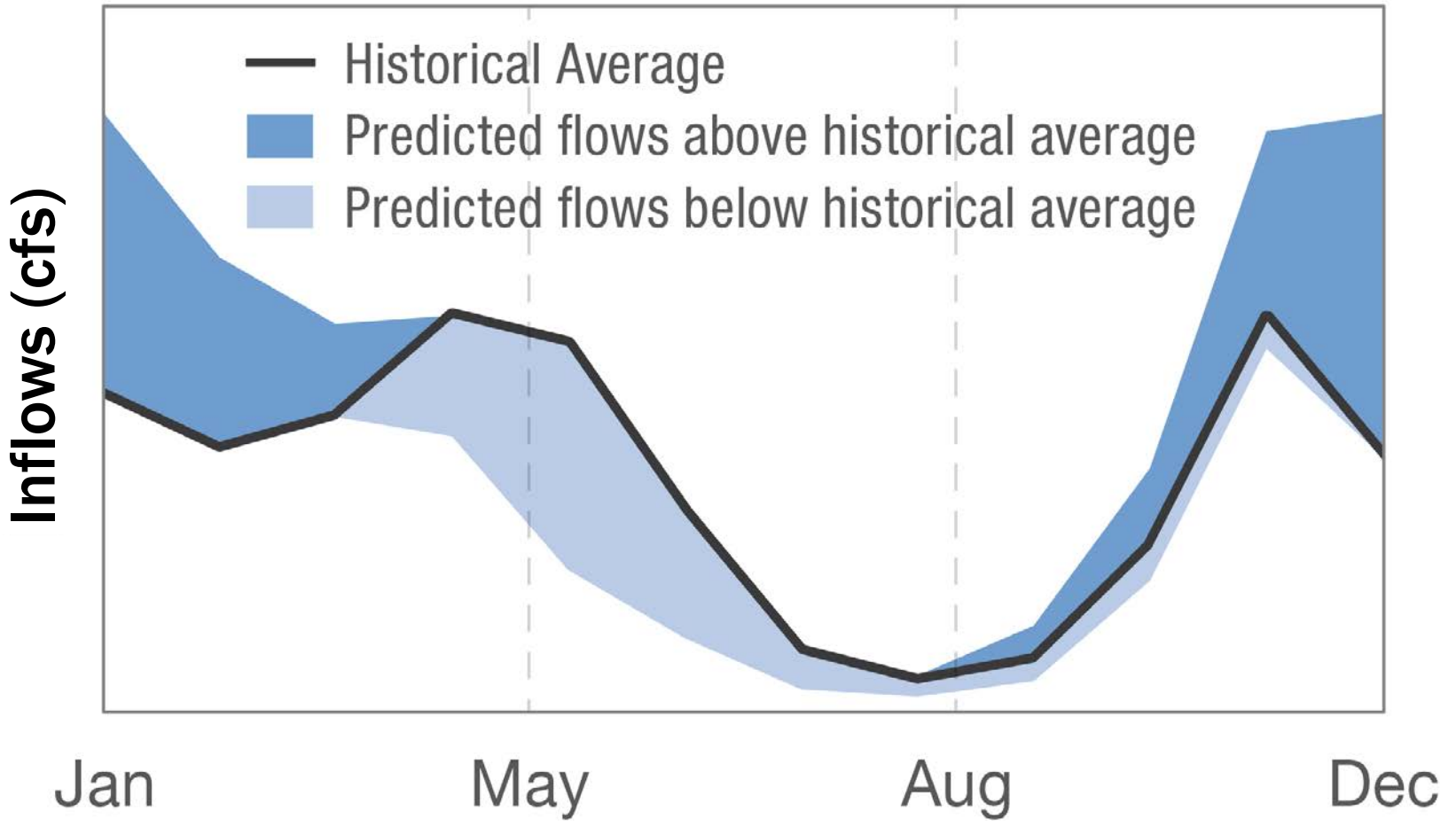
Impacts of Climate Change - 2050

Average Monthly Simulated Inflows – Eagle Gorge Reservoir



cfs = Cubic Feet per Second

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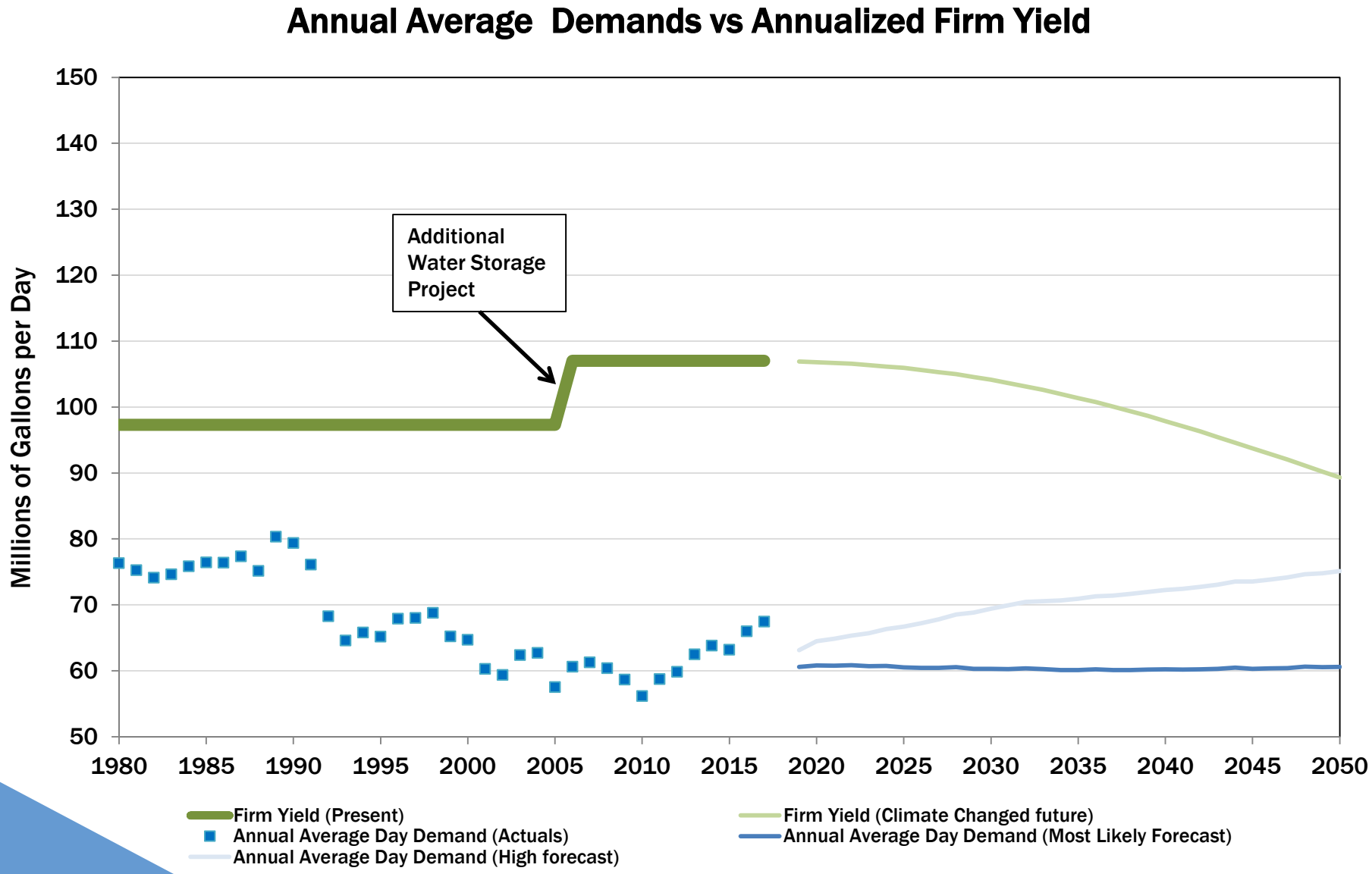
Resource Adequacy Standard (RAS)

Presented at March 11, 2018 Public Utility Board Study Session:

Policy Decision

Water sources and systems will be sufficient to meet demands such that mandatory curtailments will occur not more than once in 25 years, as a long term average.

Firm Yield



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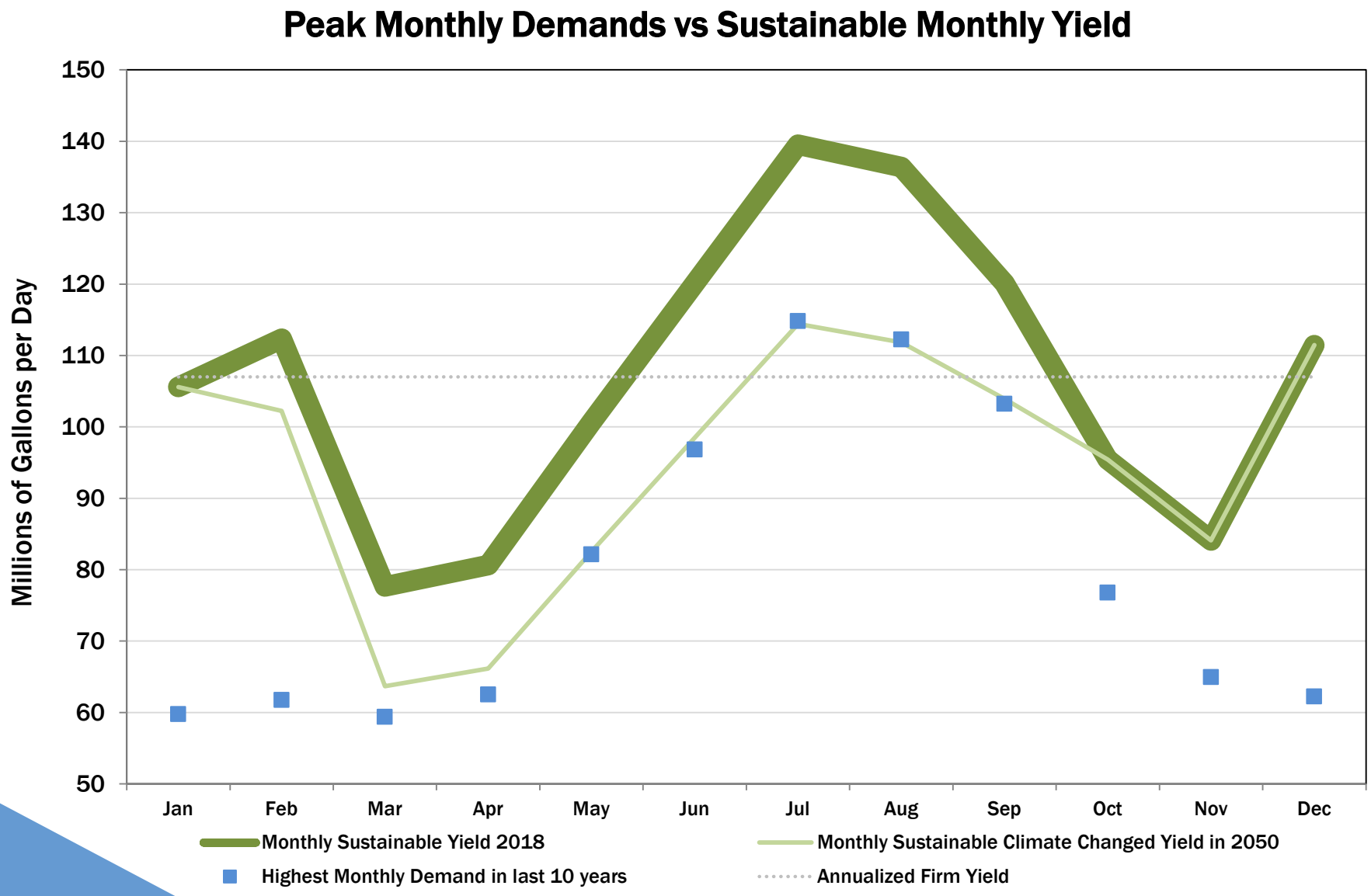
Firm Yield



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Scenarios Evaluated

Least-Stressed

- ✓Improved technologies
- ✓Water conservation

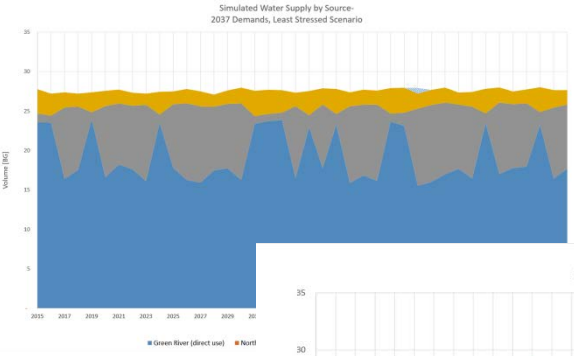
Most Likely

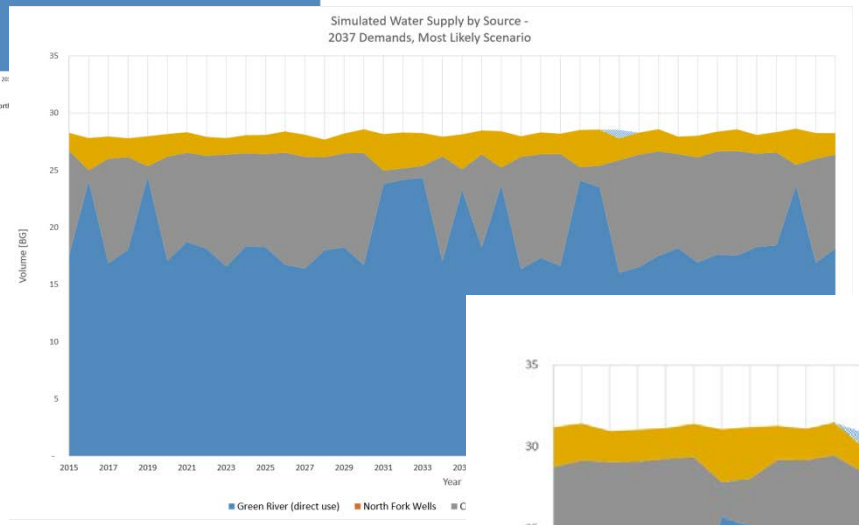
- ✓Continues demands, growth trends
- ✓Climate change is moderate but accelerates

Most-Stressed

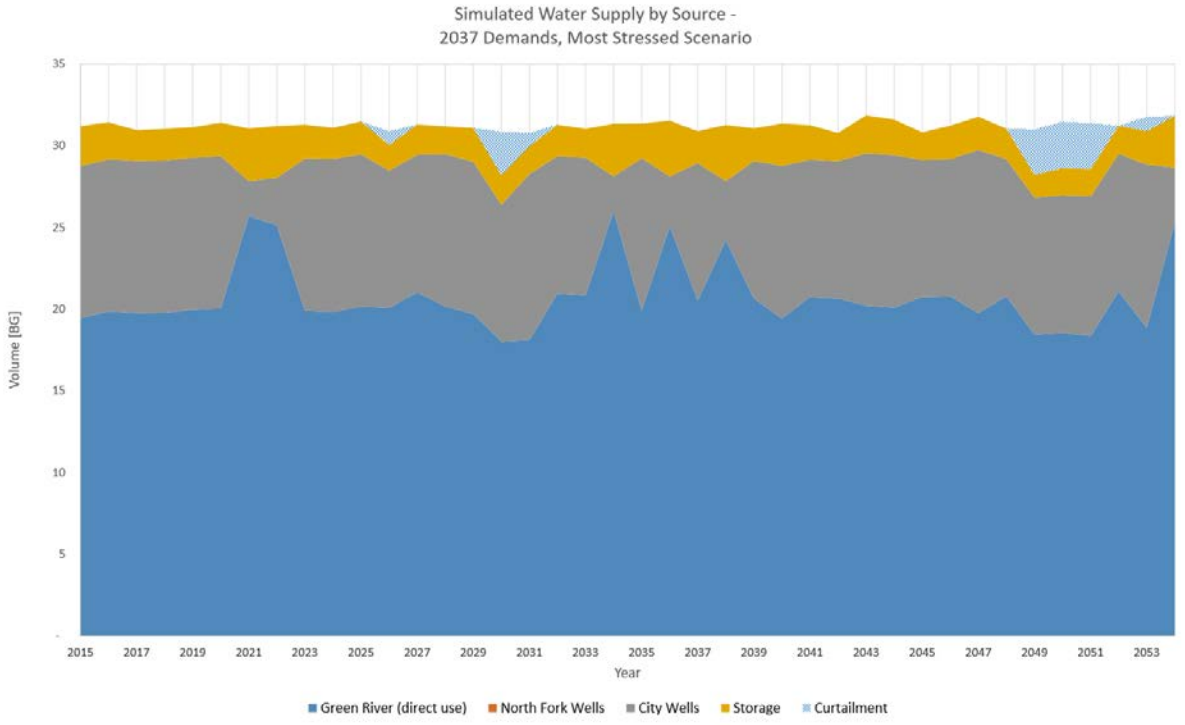
- ✓Higher demands due to increased economic activity
- ✓Climate change is hotter and drier

Existing Resource Performance - Future





Available Supplies, as a function of Scenario – Good performance for all but Most-Stressed Scenario



Existing Resource Performance - Future

- System is robust except when in the Most-Stressed Scenario
- Only Most-Stressed Scenario does not meet RAS
- Responsibility to be prepared should Most-Stressed Scenario occur

RAS = Resource Adequacy Standard

2037 results | 2050 results

	Least-Stressed	Most-Likely	Most-Stressed
Number of voluntary curtailments *(out of 25 years)*	<1	<1	2
	3	2	5
Number of mandatory curtailments *(out of 25 years)*	0	0	3
	0	<1	5
Is the RAS met?	Yes	Yes	No
	Yes	Yes	No
Percent of groundwater rights utilized	50%	55%	60%
	60%	60%	70%

Number of curtailments represents the long-term average, standardized to the expected frequency in any 25-year period.

Potential Solutions – Most-Stressed Scenario

- Additional Water Storage Project Phase 1 (AWSP1) – Complete phase 1 to receive up to 10,000 Acre-feet
- Aggressive Peak Shaving – Reduce summer peak demand in hot and dry years
- Develop Groundwater – Enhance pumping capacity of well fields
- Additional Water Storage Project Phase 2 (AWSP2)– Raise Eagle Gorge Reservoir an additional 10 feet
- Oasis – Aquifer Storage and Recovery (ASR)

Potential Solutions – Most-Stressed Scenario

Number of mandatory curtailments is improved to meet the RAS in each of the proposed solutions

- Potential for curtailments reduced
- Analyze and prioritize
- Uncertainties

2037 results 2050 results

	Current Sources	OASIS	AWSP Phase 1 (Howard Hanson Fish Passage)	AWSP Phase 2 (Reservoir Pool Raise)	Develop Full Groundwater Rights	Aggressive Peak Shaving
Number of voluntary curtailments (out of 25 years)	2	4	2	2	<1	<1
	5	2	5	5	2	2
Number of mandatory curtailments (out of 25 years)	3	<1	<1	<1	0	0
	5	4	<1	<1	0	0
Is the RAS met?	No	Yes	Yes	Yes	Yes	Yes
	No	No	Yes	Yes	Yes	Yes
Percent of groundwater rights utilized	60%	60%	60%	60%	75%	55%
	70%	70%	70%	70%	95%	67%

RAS = Resource Adequacy Standard

Additional Considerations

- Fish Passage Facility completion and funding (Additional Water Storage Projects Phase 1 and Phase 2)
- Groundwater resources in an urban environment
- Water rights – complex and changing

Green River Water Rights

First Diversion Water Right ("FDWR")

- Statement of Claim
- Tacoma filed in 1971 (based on 1906 and 1908 priority dates)
- Point of Diversion: Headworks

Second Diversion Water Right ("SDWR")

- Permit issued in 1986 (1933 priority date)
- Development schedule (next milestone: 2021)
- Point of Diversion: Headworks

Types of Water Rights

Permits & Certificates:

- Issued by Dep't of Ecology
- Pursuant to the "Water Code" (i.e., state legislation)
- 1917 surface water / 1945 ground water
- Permit is a water allocation under development
- Certificate documents a vested property right.

Claims:

- Assertion of vested right predating Water Code
- Statements of claim required by 1967 law
- Ecology accepts for recording, but not approved or confirmed in substance.

Department of Ecology -
Water Right Permit Process

- **Application**
- **Permit**
- **Development Schedule**
  1. **Start Construction**
  2. **Complete Construction**
  3. **Put Water to Full Use**
     → **or request extension of time**
- **Proof of Appropriation**
- **Certificate**

2003 Municipal Water Law ("MWL")

- Before 2003, law was not clear about how to vest (or "perfect") a municipal purpose water right
- 2003 MWL clarified that actual "beneficial use" of water required
- Certificates now issue with quantities put to actual use

Restrictions and Factors as to "Beneficial Use" of Green River Water

- Water rights terms and conditions imposed by Dep't of Ecology
- Agreement with Muckleshoot Indian Tribe (1995)
- Project Cooperation Agreement with US Army Corps of Engineers (2000)
- Habitat Conservation Plan (2001)
- Regional Water Supply System (2002) – RWSS Partnership

Overview of Partnership Agreement

- Tacoma is the owner and operator of the Second Supply Project (SSP)
- Tacoma has a 15/36 share; Kent, Covington and Lakehaven each have 7/36 Shares in the Second Supply Project
- Decisions are made by vote of the Project Committee
- Each Partner has paid for rights to use its share of the available Second Diversion Water Right, including water stored in the Eagle Gorge Reservoir
- Investment from the three Partners since 2005 has been $196 for capital facilities, and $20 for O&M

Next Steps

- Finalize Planning Documents
- Ongoing Public Education
- Develop strategies and outreach communication plan for Aggressive Peak Shaving
- Continued engagement with Federal Agencies & the congressional delegation to complete Additional Water Supply Project Phase I
- Further Evaluation of Supply solutions, including prioritizing groundwater improvements