


October 5, 2020


# TAP Water Master Plan City Council Study Session

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## Agenda



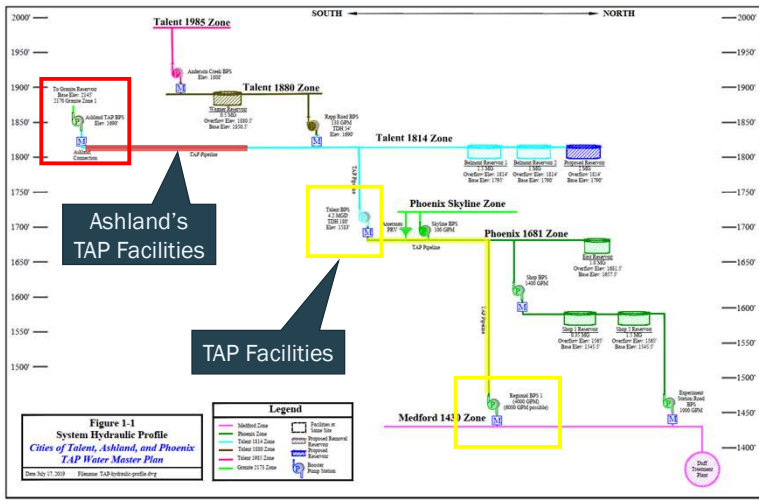
- City of Ashland’s TAP Goals
- Capital Improvement Recommendations
- Cost Sharing
- Financial Impacts
- Recommendations for updated TAP Intergovernmental Agreement

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# TAP Water System



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# Ashland's TAP Goals




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## Ashland's TAP Supply Goals



- Redundancy
  - Emergencies
  - Ashland Water Treatment Plant Disruptions
  - Drought Management
  - 2.13 millions of gallons per day (mgd) in 2020
  - 3.0 mgd by 2030
- Reliability
  - Backup power at all facilities

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## Capital Improvement Recommendations



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## TAP Needs a New Supply Connection by 2040



Table 4-5  
Regional BPS Total Capacity Evaluation in gallons per minute (gpm)

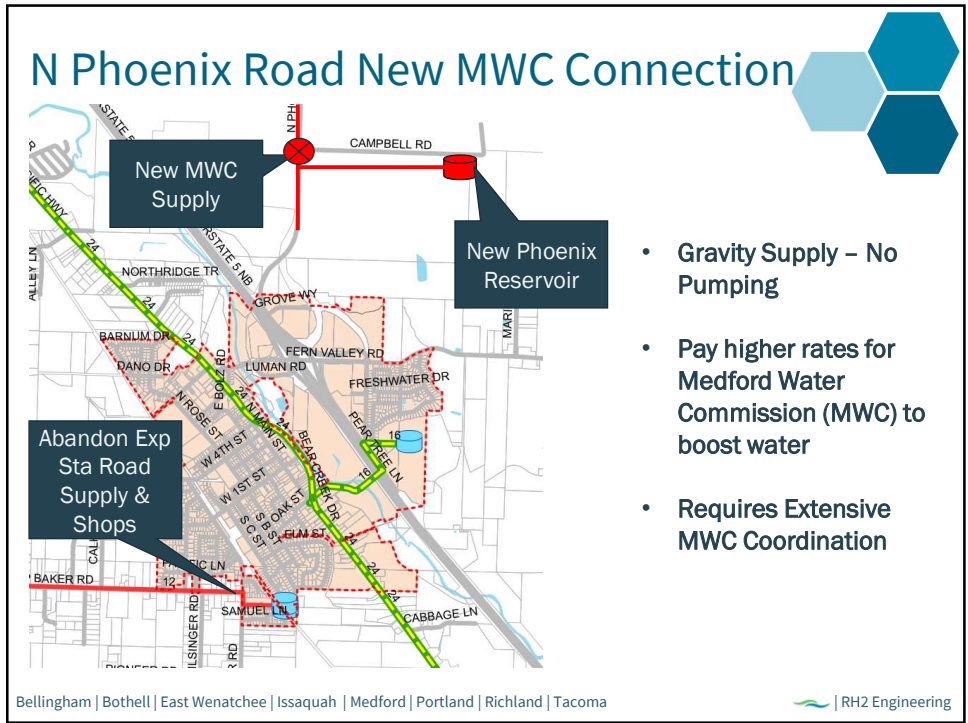
Year	Full TAP Maximum Day Demands* (gpm)	Experiment Station Road BPS Supply (gpm)	Regional BPS Total Capacity (gpm)	Surplus/ (Deficit) (gpm)
2020	4,563	292	4,500	229
2030	5,609	292	4,500	(817)
2040	6,215	-	4,500	(1,715)
2070	6,542	-	4,500	(3,041)

*\*Demands may change based on rebuilding, expanding to include the Charlotte Anne Water District, or additional conservation by Talent and Phoenix*

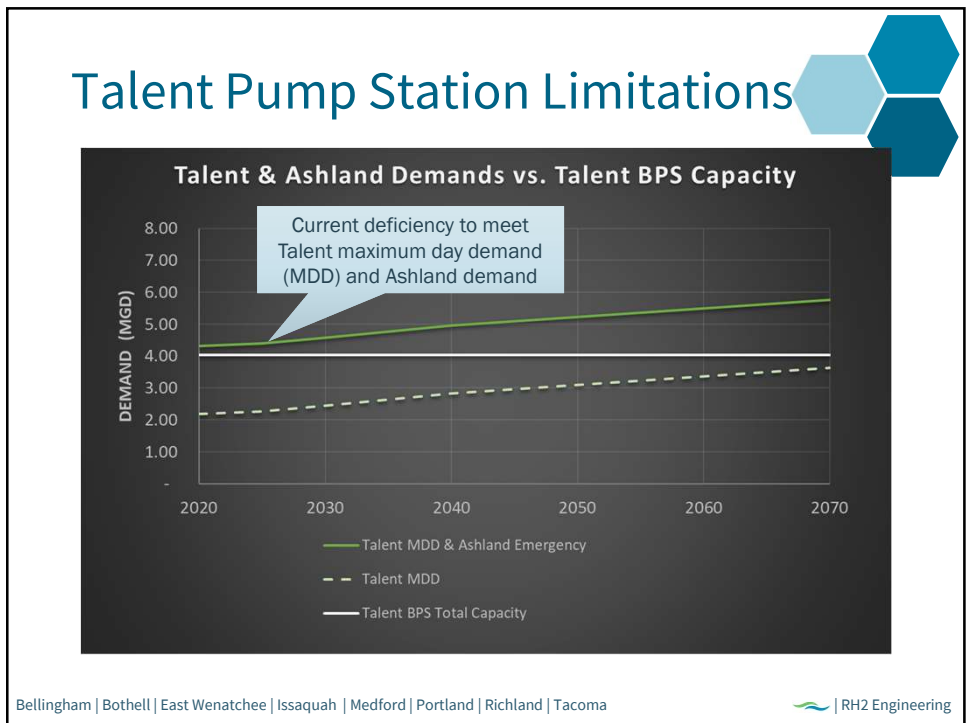
## Supply Recommendations



- Short-Term:
  - Install larger pump at Regional BPS
  - Ashland supply to Talent and Phoenix
- Long-Term:
  - New Connection to Medford Water Commission to provide capacity and redundancy

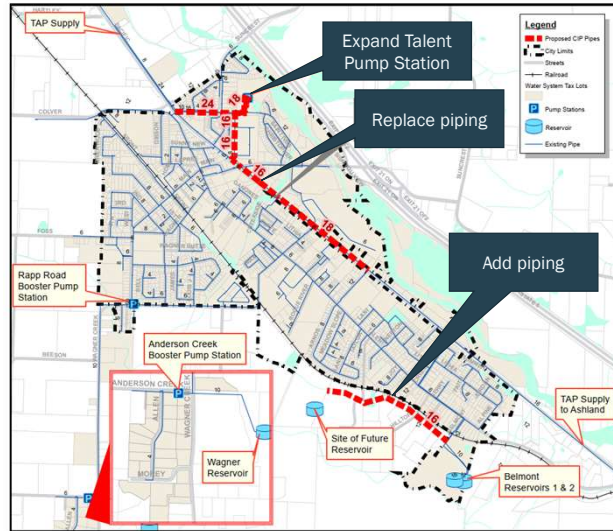


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## Ashland Supply Option 1 – Joint System

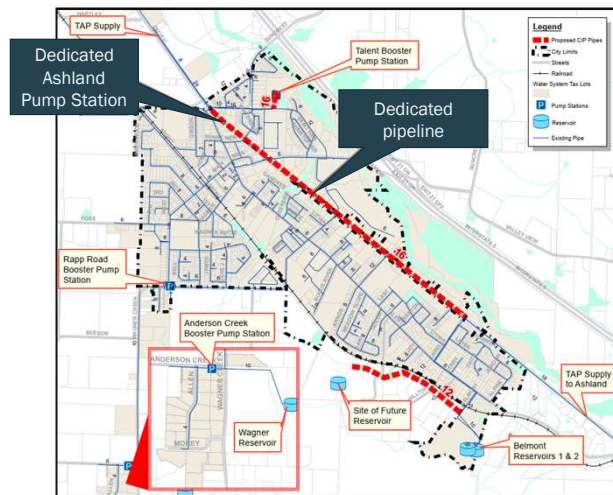


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## Ashland Supply Option 2 – Dedicated Ashland Pump Station

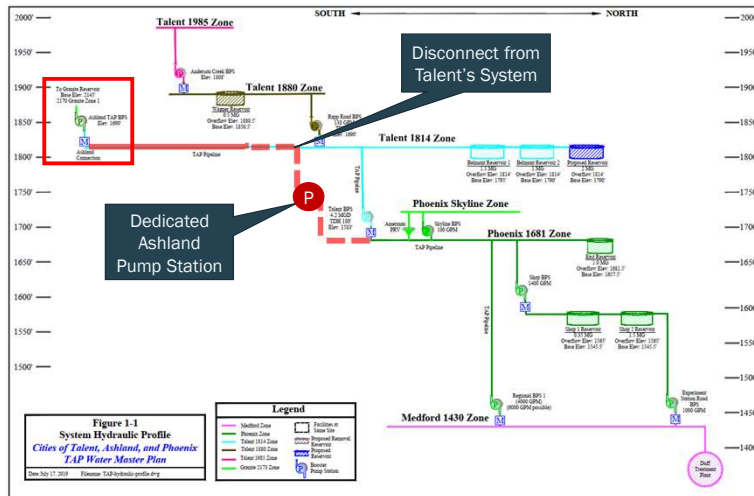


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# Ashland Supply Option 2 – Dedicated Ashland Pump Station



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# Total Buildout TAP Capital Improvement Plan



CATEGORY	OPTION 1 – Joint Ashland/Talent System	OPTION 2 – Dedicated Ashland Pump Station
SUPPLY	\$7,589,000	\$7,589,000
PUMP STATIONS	\$995,000	\$2,720,000
PIPELINES	\$6,031,000	\$6,316,000
RECOMMENDED STUDIES	\$515,000	\$515,000
<b>TOTAL CIP</b>	<b>\$15.1M</b>	<b>\$17.1M</b>

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# Cost Allocation



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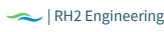
## Historical Flow Allocation For Cost Sharing

City	2000 TAP IGA 2050 Capacity Allocation (MGD)			2000 TAP IGA Amend 1	2017 Recommended Cost-Share <sup>3</sup>
	Flow-Based Percent of Capacity (%)	ADD <sup>1</sup>	MDD <sup>2</sup>	MDD	MDD
Talent	58.83%	1.858	3.972	4.0	2.2
Ashland	19.78%	1.600	1.600	1.6	2.1
Phoenix	21.78%	1.406	3.012	3.0	1.4
<b>Total</b>	<b>100%</b>	<b>4.864</b>	<b>8.584</b>	<b>8.6</b>	<b>5.7</b>

1. ADD = Average Daily Demand (MGD)  
 2. MDD = Maximum Daily Demand (MGD)  
 3. Based on historic use; recommended revisiting in a TAP Water Master Plan

Larger than  
RBPS Capacity

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# Recommended Cost Sharing



- Capital Projects
  - Cost sharing based on the capacity each City needs compared to capacity already purchased.
- Operation and Maintenance (including Depreciation)
  - Cost sharing based on actual use

# Each project was assigned a cost share based on capacity needed



**Table 3**  
Summary of CIP Costs by City -Option 2

Infrastructure	Cost Share by City			Estimated Cost	Cost Responsibility by City		
	Phoenix	Talent	Ashland		Phoenix	Talent	Ashland
<i>capacity cost share [1]</i>							
<b>Regional Booster (RBPS)</b>							
Replace [1] 50-hp pump with 125-hp	50.00%	0.00%	50.00%	\$50,000	\$25,000	\$0	\$25,000
Programming Updates	33.33%	33.33%	33.33%	\$35,000	\$11,667	\$11,667	\$11,667
<b>Subtotal RBPS</b>				<b>\$85,000</b>	<b>\$36,667</b>	<b>\$11,667</b>	<b>\$36,667</b>
<b>PUMP STATIONS</b>							
<b>Talent Booster (TBPS) [3]</b>							
Install 50-hp pump for operations	0.00%	100.00%	0.00%	\$50,000	\$0	\$50,000	\$0
Programming Updates	0.00%	100.00%	0.00%	\$25,000	\$0	\$25,000	\$0
Generator Upgrade	0.00%	100.00%	0.00%	\$250,000	\$0	\$250,000	\$0
Additional Hydraulic Analysis	0.00%	50.00%	50.00%	\$12,000	\$0	\$6,000	\$6,000
Seismic Upgrades	0.00%	100.00%	0.00%	\$70,000	\$0	\$70,000	\$0
Expansion	0.00%	100.00%	0.00%	\$178,000	\$0	\$178,000	\$0
<b>Subtotal TBPS</b>				<b>\$585,000</b>	<b>\$0</b>	<b>\$579,000</b>	<b>\$6,000</b>
New Ashland Booster Pump Station [4]	0.00%	0.00%	100.00%	\$2,050,000	\$0	\$0	\$2,050,000
Adjust for Previous Improvements to TBPS [5]				\$0	\$0	\$171,500	(\$171,500)
<b>Total Pump Stations</b>				<b>\$2,720,000</b>	<b>\$36,667</b>	<b>\$762,167</b>	<b>\$1,921,167</b>
<b>NEW SUPPLY</b>							
<i>capacity cost share</i>							
<b>N. Phoenix Rd</b>							
MWC Study	65.66%	0.00%	34.34%	\$50,000	\$32,832	\$0	\$17,168
Master Meter Connection	65.66%	0.00%	34.34%	\$325,000	\$213,407	\$0	\$111,593
Pipe Improvements to 2030	35.50%	0.00%	64.50%	\$2,871,000	\$1,019,205	\$0	\$1,851,795
Pipe Improvements to 2040	100.00%	0.00%	0.00%	\$3,053,000	\$3,053,000	\$0	\$0
Pipe Improvements through Buildout	65.66%	0.00%	34.34%	\$1,127,000	\$740,031	\$0	\$386,969
<b>Total N. Phoenix Rd Supply Project</b>				<b>\$7,426,000</b>	<b>\$5,058,475</b>	<b>\$0</b>	<b>\$2,367,525</b>
Ashland Non-Peak Supply Connection	52.11%	47.89%	0.00%	\$163,000	\$84,944	\$78,056	\$0
<b>Total New Supply</b>				<b>\$7,589,000</b>	<b>\$5,143,419</b>	<b>\$78,056</b>	<b>\$2,367,525</b>

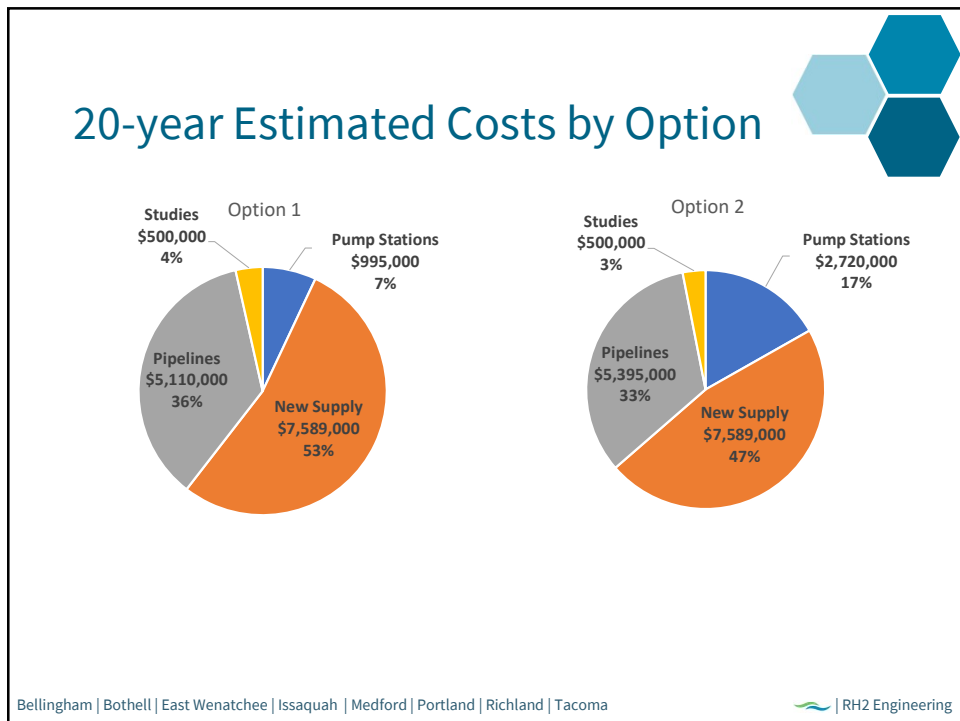


# Financial Impacts

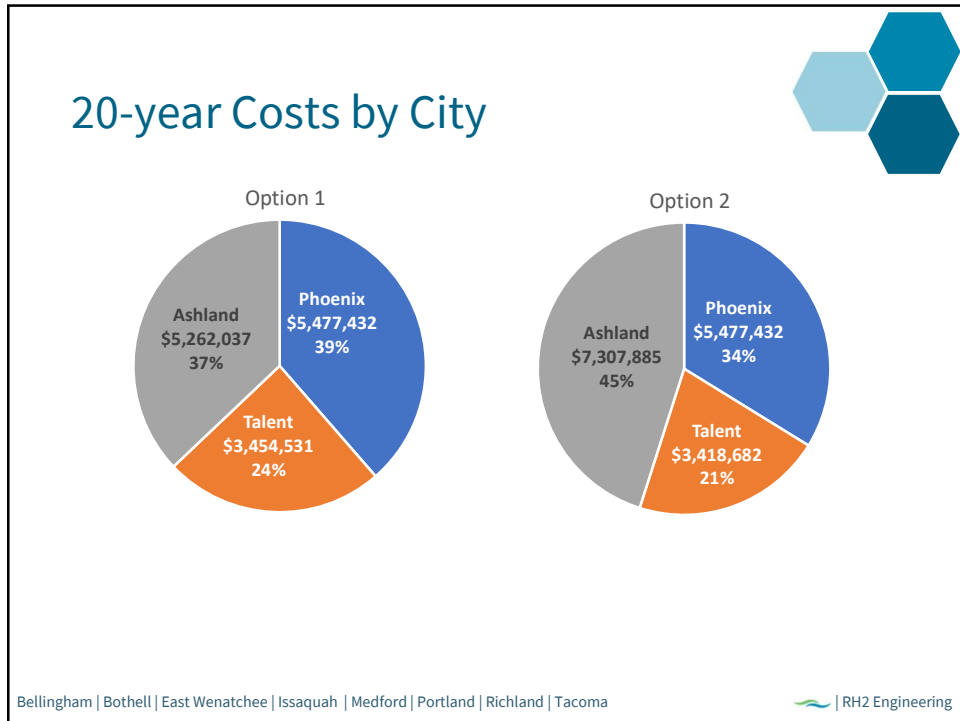
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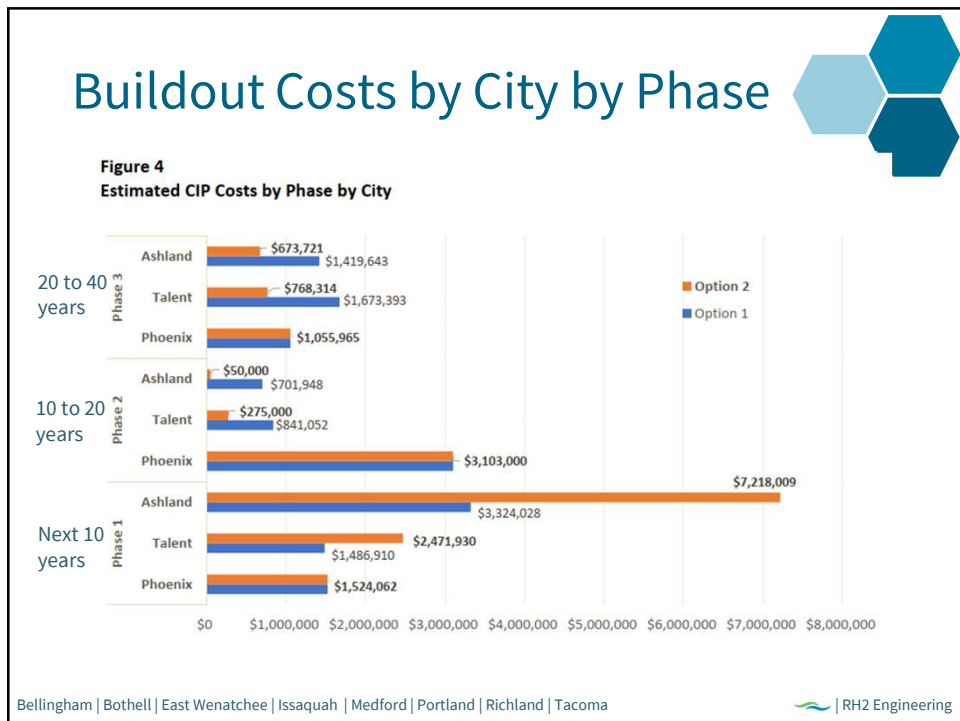
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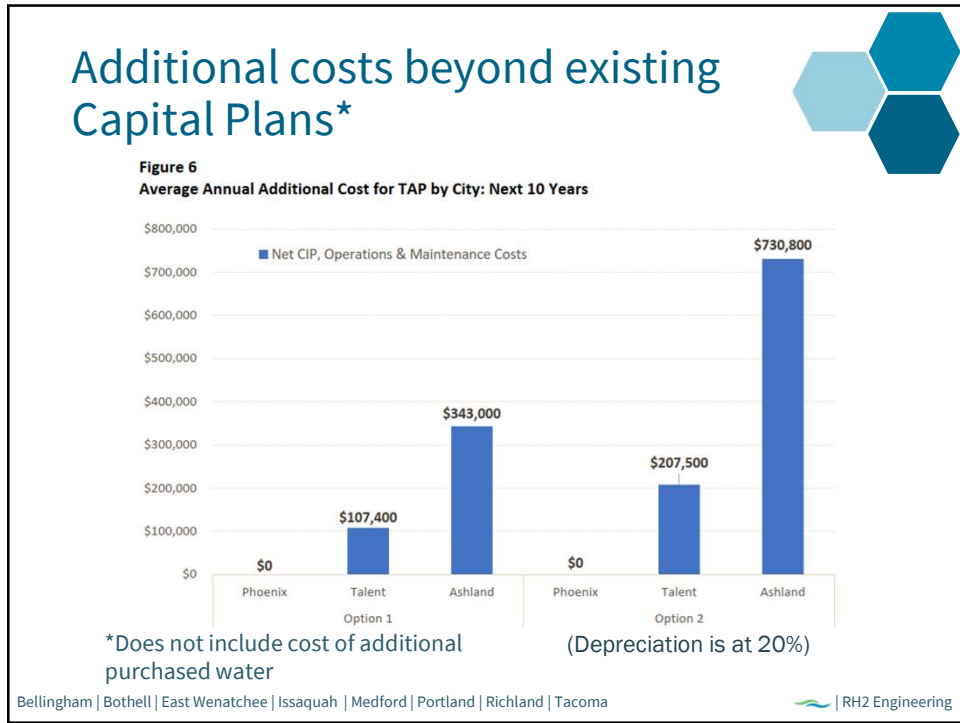
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## Impacts to Rates – 10-year Period

**Table 12**  
High-Level Analysis Impact of TAP System Phase 1 Costs

Item	Phoenix	Talent	Ashland	Phoenix	Talent	Ashland
	OPTION 1			OPTION 2		
CIP - Debt Service [1]	\$0	\$105,800	\$324,400	\$0	\$201,900	\$704,400
Operations & Maintenance	\$1,940	(\$974)	\$10,641	\$1,940	\$641	\$9,027
Depreciation @ 20%	\$16,428	\$30,186	\$4,237	\$16,428	\$30,186	\$4,079
<b>Totl Annual Add'l Cost</b>	<b>\$18,368</b>	<b>\$135,012</b>	<b>\$339,278</b>	<b>\$18,368</b>	<b>\$232,726</b>	<b>\$717,506</b>
Approx. Annual Thousands of Gallons Sold (2021-2030)	255,000	313,900	897,600	255,000	313,900	897,600
<b>Cost per Thousand Gallons</b>						
CIP - Debt Service [1]	\$0.00	\$0.34	\$0.36	\$0.00	\$0.64	\$0.78
Operations & Maintenance	\$0.01	(\$0.00)	\$0.01	\$0.01	\$0.00	\$0.01
Depreciation @ 20%	\$0.06	\$0.10	\$0.00	\$0.06	\$0.10	\$0.00
<b>Totl Annual Add'l Cost</b>	<b>\$0.07</b>	<b>\$0.43</b>	<b>\$0.38</b>	<b>\$0.07</b>	<b>\$0.74</b>	<b>\$0.80</b>
Monthly Home Use (gallons)	7,500	7,500	7,500	7,500	7,500	7,500
<b>Approx. Monthly Cost Impact</b>	<b>\$0.54</b>	<b>\$3.23</b>	<b>\$2.83</b>	<b>\$0.54</b>	<b>\$5.56</b>	<b>\$6.00</b>
CIP - Debt Service [1]	\$0.00	\$2.53	\$2.71	\$0.00	\$4.82	\$5.89
Operations & Maintenance	\$0.06	(\$0.02)	\$0.09	\$0.06	\$0.02	\$0.08
Depreciation @ 20%	\$0.48	\$0.72	\$0.04	\$0.48	\$0.72	\$0.03

Source: HEC July 2020. bill impact

[1] Debt service would not start until at least 6 months after bond sales (likely in second half of the 10-year period).

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## New TAP IGA Recommendations



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## IGA Recommendations



- Use third-party to provide moderating
- Clarify roles and responsibilities
- Document assets
- Formalize Cost-Sharing Method
  - Rather than actual values to provide flexibility
- Improve tracking of Operations and Maintenance
- Formalize funds for asset management/depreciation
- Incorporate regional water rights strategy

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Questions?

