

Old Colony Planning Council Regional Water Plan

Meeting 2
Economic Resilience and Sustainable Water Supply

Kirk Westphal, Kara Rozycki, Tarun Gill,
Dan Rodrigo, and Amara Regehr

February 28, 2024

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Agenda

1. OCPC Remarks and Public Outreach Overview
2. Public Comment
3. Guiding Principles
- Coffee Break
5. Themes from Meeting One
 - Mapping of Key Water Resource Issues
 - Common Themes Discussion
- Coffee Break
6. Second Example of the Planning Process
7. Update on Data Gathering
8. Discussion of Uncertainties
9. Preview of Workshop One and Public Meeting One
10. Feedback Survey

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OCPC Remarks and Public Outreach Overview



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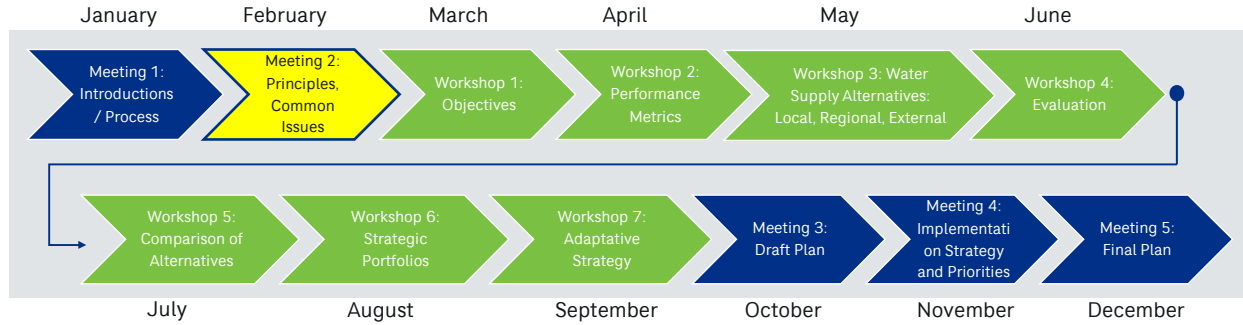


Public Comment



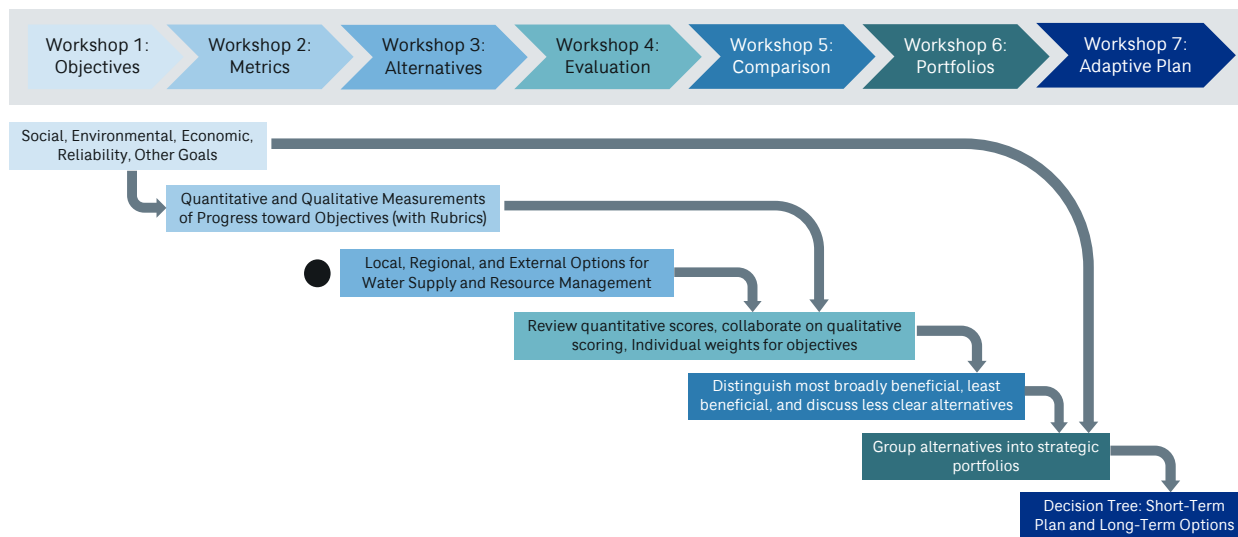
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Overview of Regional Water Plan Process



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Workshop Process

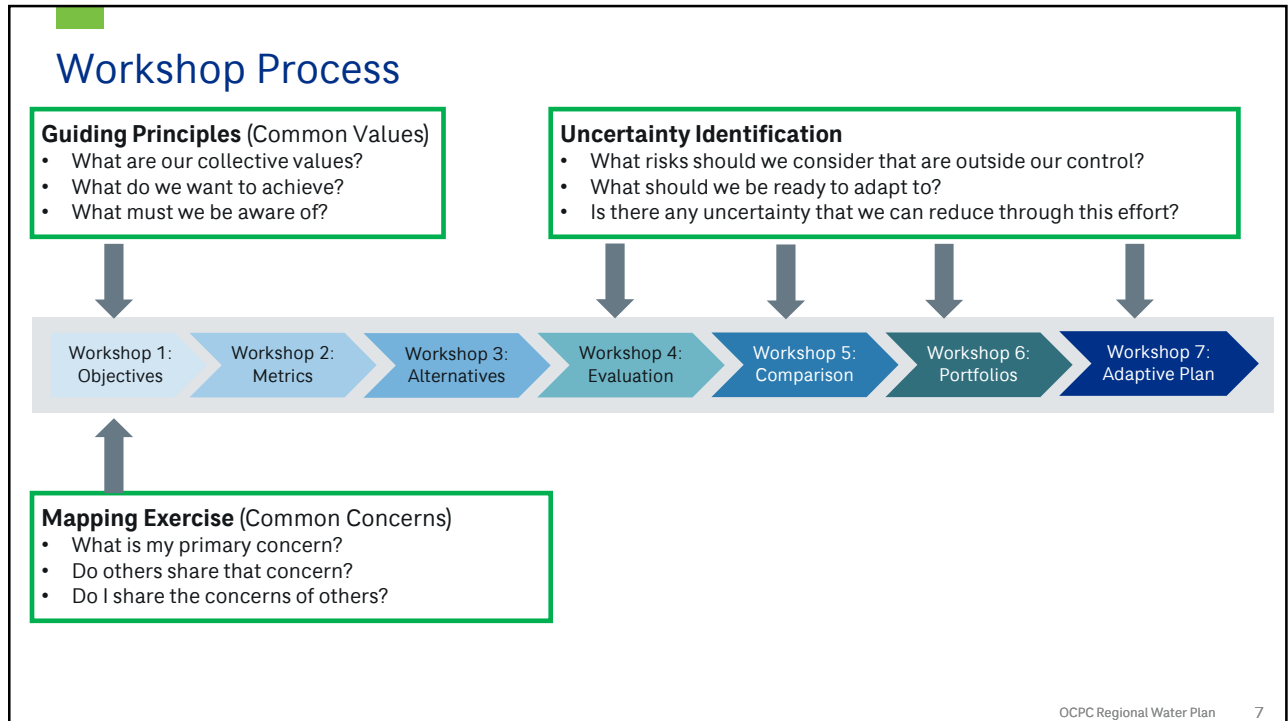


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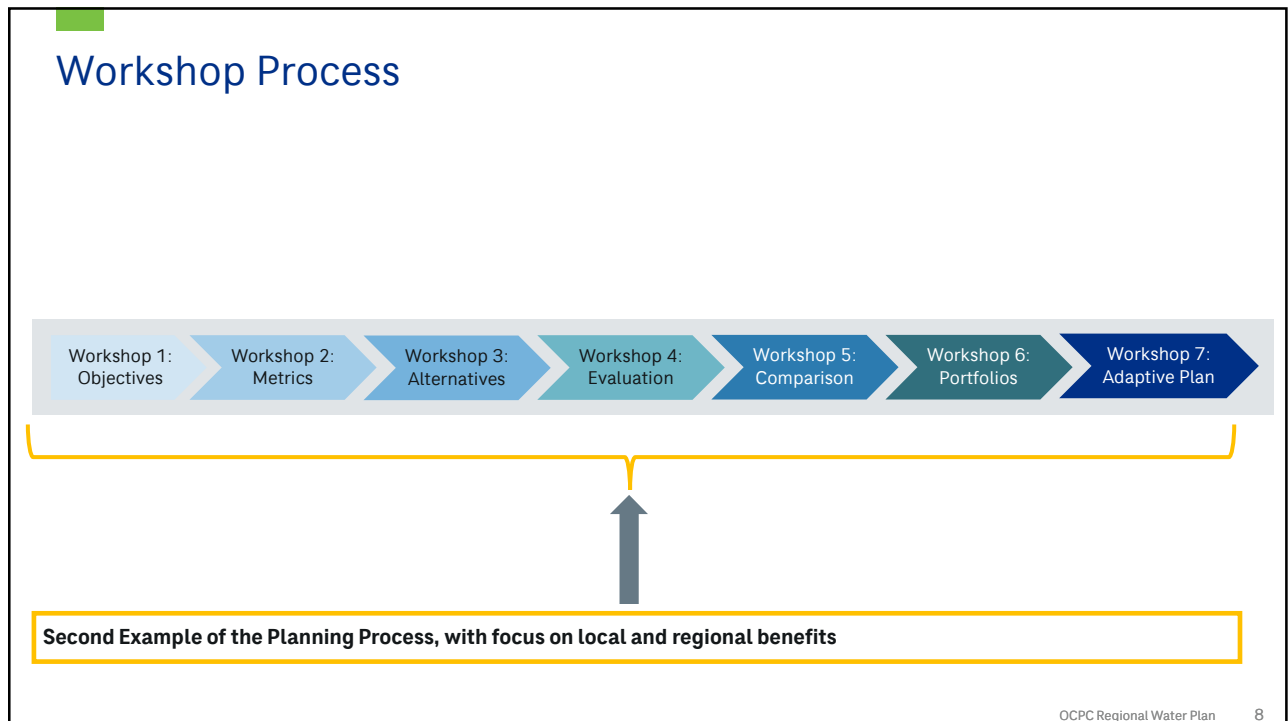
Slide 6

RAJ27 Amara to add in animation

Regehr, Amara J., 2/19/2024



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Introductions



- Name
- Community or organization you are representing
- Position/Title

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Guiding Principles

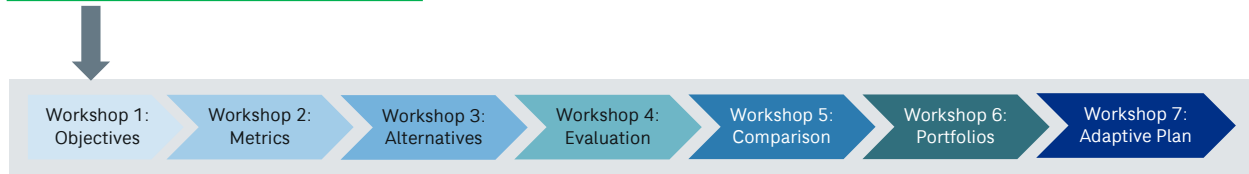


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Guiding Principles within the Workshop Process

Guiding Principles (Common Values)

- What are our collective values?
- What do we want to achieve?
- What must we be aware of?



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Engagement Protocols

Engagement Protocols

We agree that there will be one voice for each organization.

We will actively listen to others and take turns while speaking.

We will represent our organizations, as well as those with similar challenges, and the region

Regulators will join us to provide feasibility insights, lessons from other regions, guardrails and their own education about the needs in the region

We will seek to arrive at a point where we can advocate for the plan.

As a group, we will make recommendations, not necessarily decisions.

We will be patient with the pace of this project.

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Engagement Protocols Continued

Engagement
Protocols

For resolving conflict:

We will recommend what we agree on, based on regional progress toward objectives.

We will forge “pathways” for next steps on issues not resolvable within this timeframe.

We will document opinions on all sides of unresolved issues in the plan.

DA11A
R/RAJ45

Example Guiding Principles

- **Sustainability lens-** Balance social, economic, and environmental issues
 - **Gap in conservation. Is the education process where it should be? At what level could we consider education?**
 - **Environmental issues gap analysis-** we would need to clearly define what we are assessing.
- **Understand the limits of the resource we have**
 - **Incorporation of agricultural/ industrial users in this process (cranberry growers- Brian Wick)**
 - **How can we regenerate the resource for all users?**
 - **Do we understand the limits of groundwater use in this region?**
- Consider equity between and within communities
- Plan for uncertainty
- Consider innovative and alternative solutions- **what are we talking about? Can we consider reuse?**
- Support and promote growth and economic development of the region
 - **MBTA communities-** we have to balance infrastructure growth
 - **Herring harvests-** restore environmental health
- Identify fundable and permissible alternatives for OCPC to champion
- Align with existing regulations while influencing application and interpretation of the Water Management Act

Slide 14

RAJ44 Incorporate cranberrie / agricultural use in the conversation

Regehr, Amara J., 2/28/2024

RAJ46 Brian Wick (executive director)

Regehr, Amara J., 2/28/2024

RAJ45 Regehr, Amara J., 2/28/2024

Our Guiding Principles

RAJ47

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 Coffee Break Back at 10:07 (ish)



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Slide 15

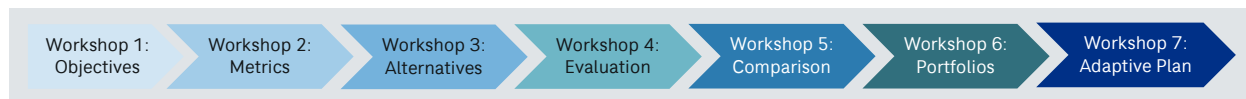
RAJ47 add in definition of guiding principle

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Common Themes within the Workshop Process



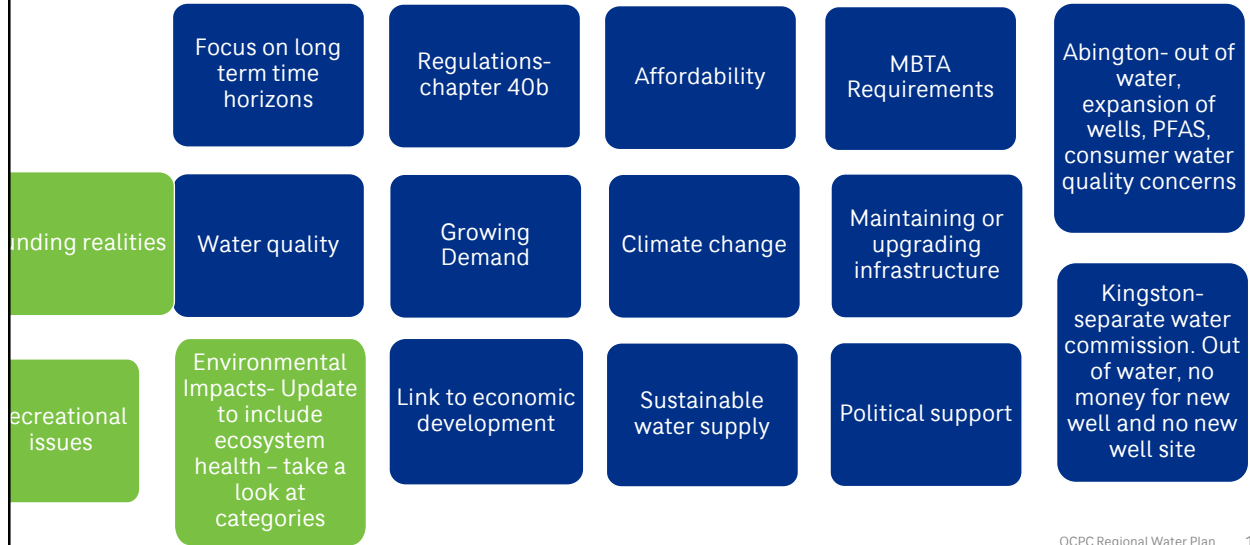
Mapping Exercise (Common Concerns)

- What is my primary concern?
- Do others share that concern?
- Do I share the concerns of others?

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Themes from Meeting 1: Discussion

What do you see are the most important issues for us to address?



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Mapping of Concerns

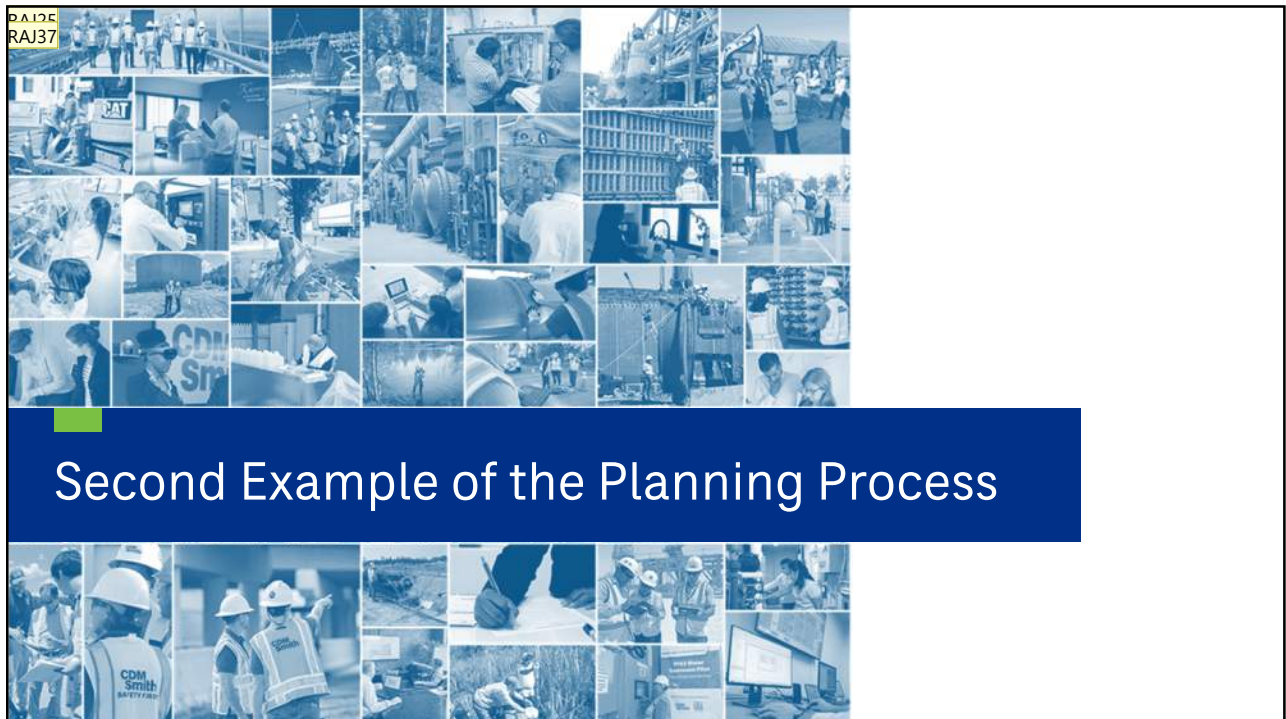
- Build consensus around top issues related to water in the region
- Lay the foundation for developing our objectives in the next meeting
- Questions to consider:
 - What is my primary concern?
 - Do others share that concern?
 - Do I share the concerns of others?

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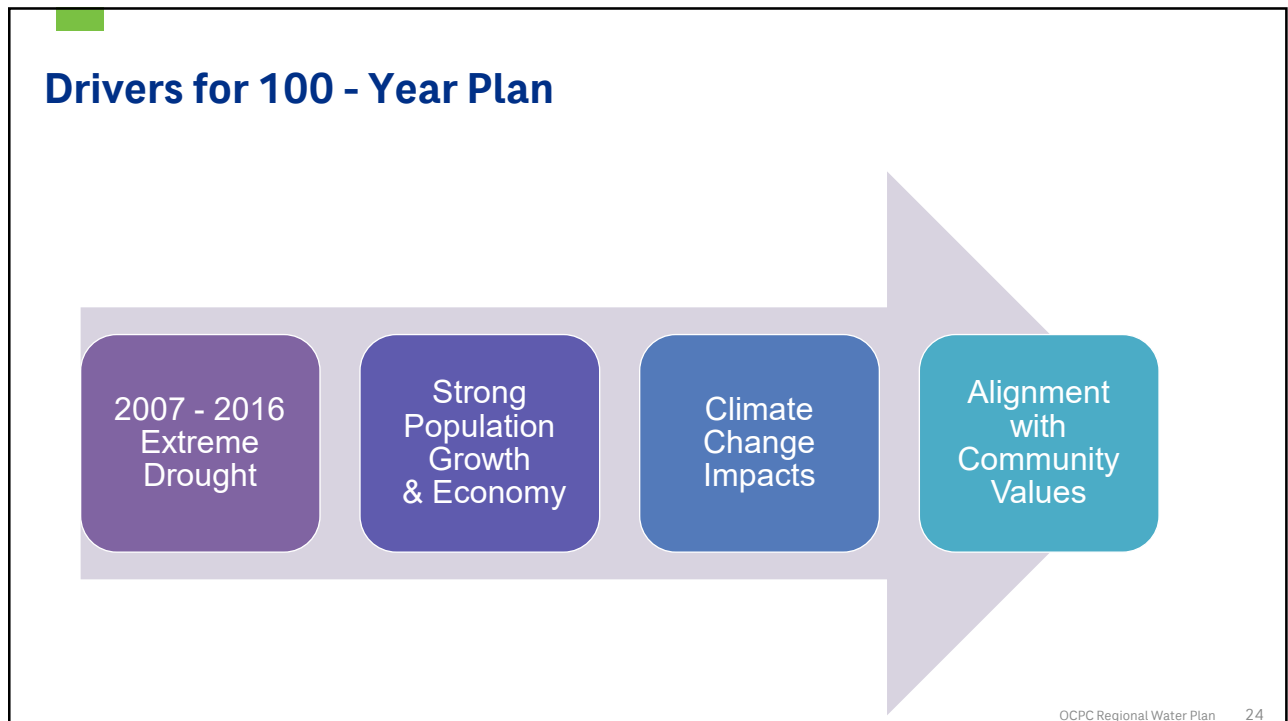
Slide 22

RAJ25 [@Westphal, Kirk S.] to add in second example that Dan creates
Regehr, Amara J., 2/19/2024

RAJ37 kirk to make a handout for meeting 2 based off of this example
Regehr, Amara J., 2/19/2024



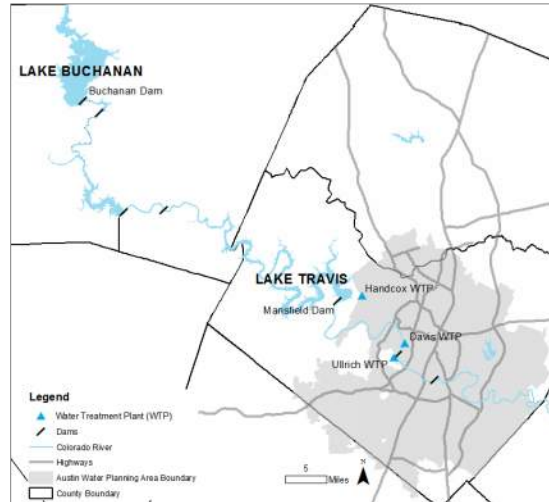
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Austin's Water Supply

- Colorado River and Highland Lakes
- Combination of state-granted water rights & long-term firm contract with Lower Colorado River Authority (LCRA)
- 12 other communities rely on LCRA for water supply besides Austin



Historic 2011-2016 Drought



Lake Travis, July 2010 and July 2015

Guiding Principles for Plan Development



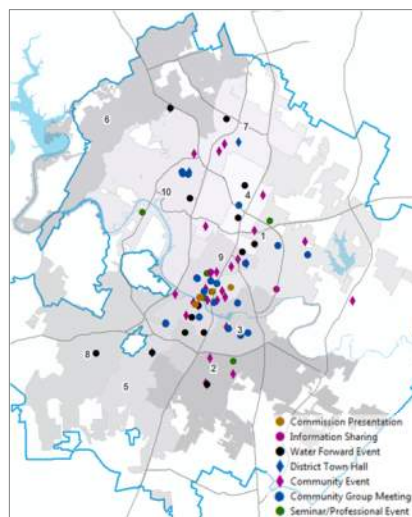
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Public Outreach Goals

- Identify community values to reflect in plan
- Seek input from local and regional stakeholders on plan development
- Inform and educate the community throughout the process

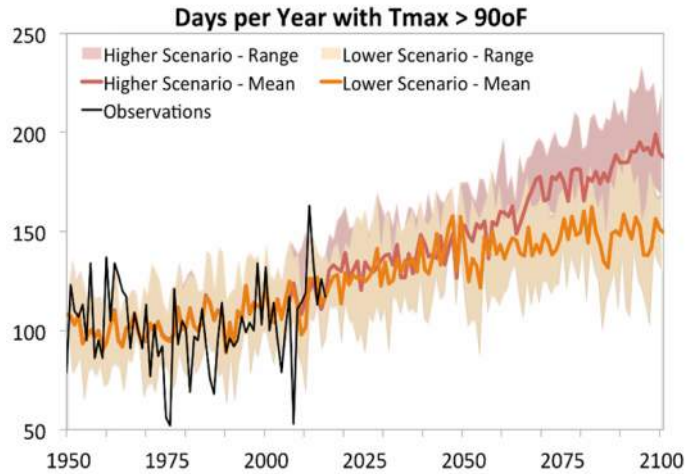
Map of over 90 public outreach events attended by Water Forward project team



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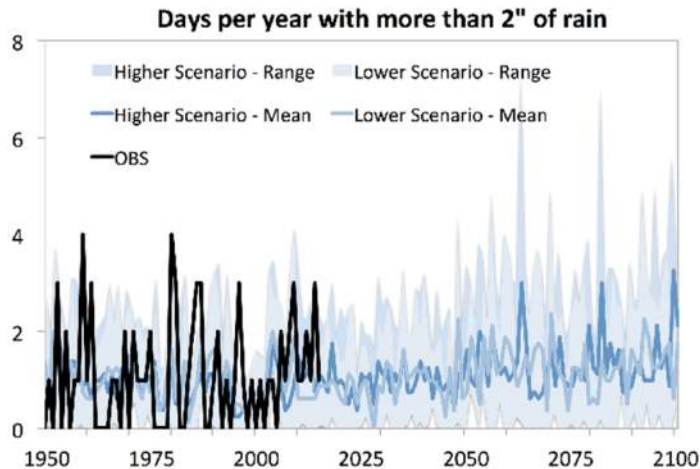
Incorporation of Climate Change- Findings for Austin Area



- 1. Substantially greater temperatures—leading to increased water demands, and increased evaporation in surface reservoirs

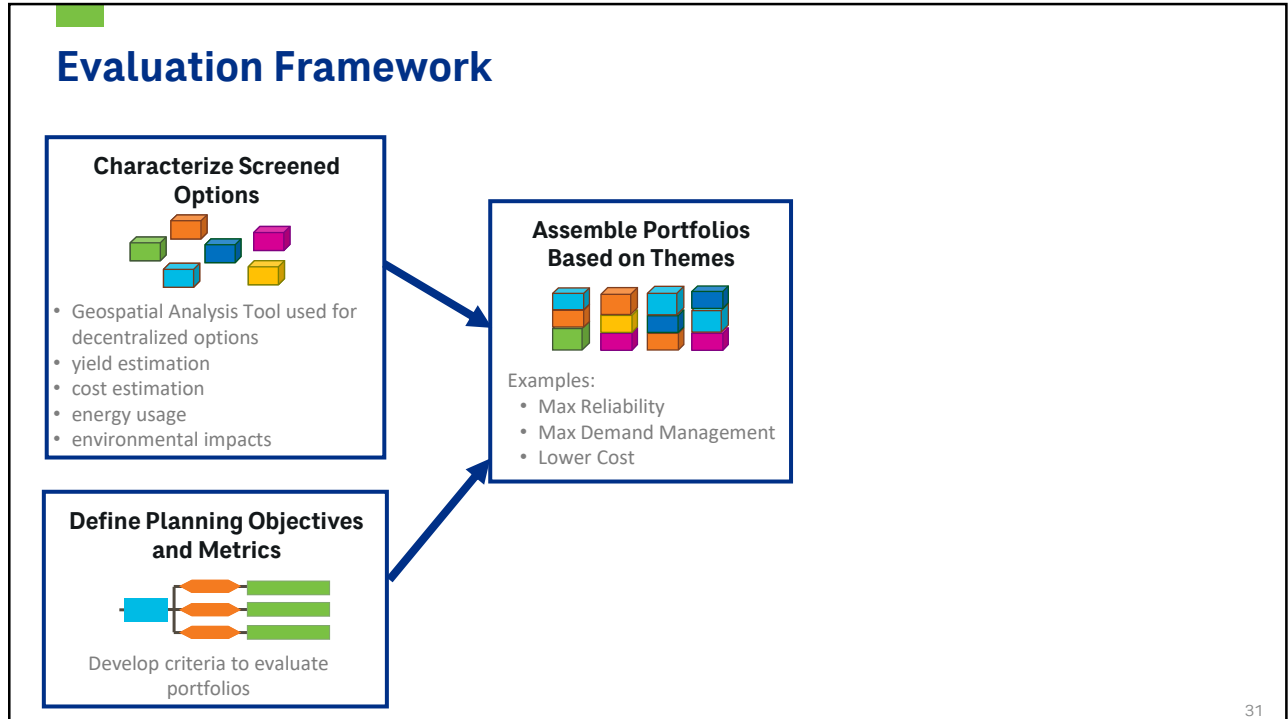
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Incorporation of Climate Change- Findings for Austin Area

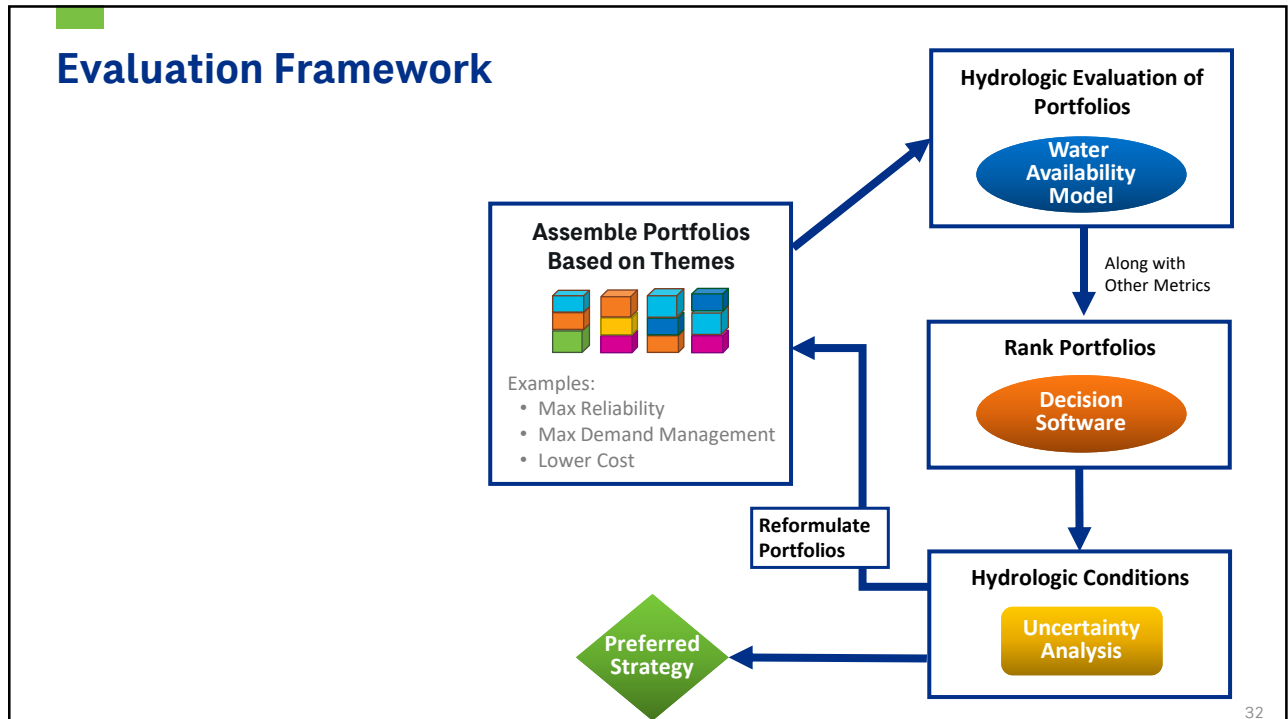


- 2. More variability in rainfall—leading to longer drought periods, but also increased storm intensities and opportunities for stormwater capture

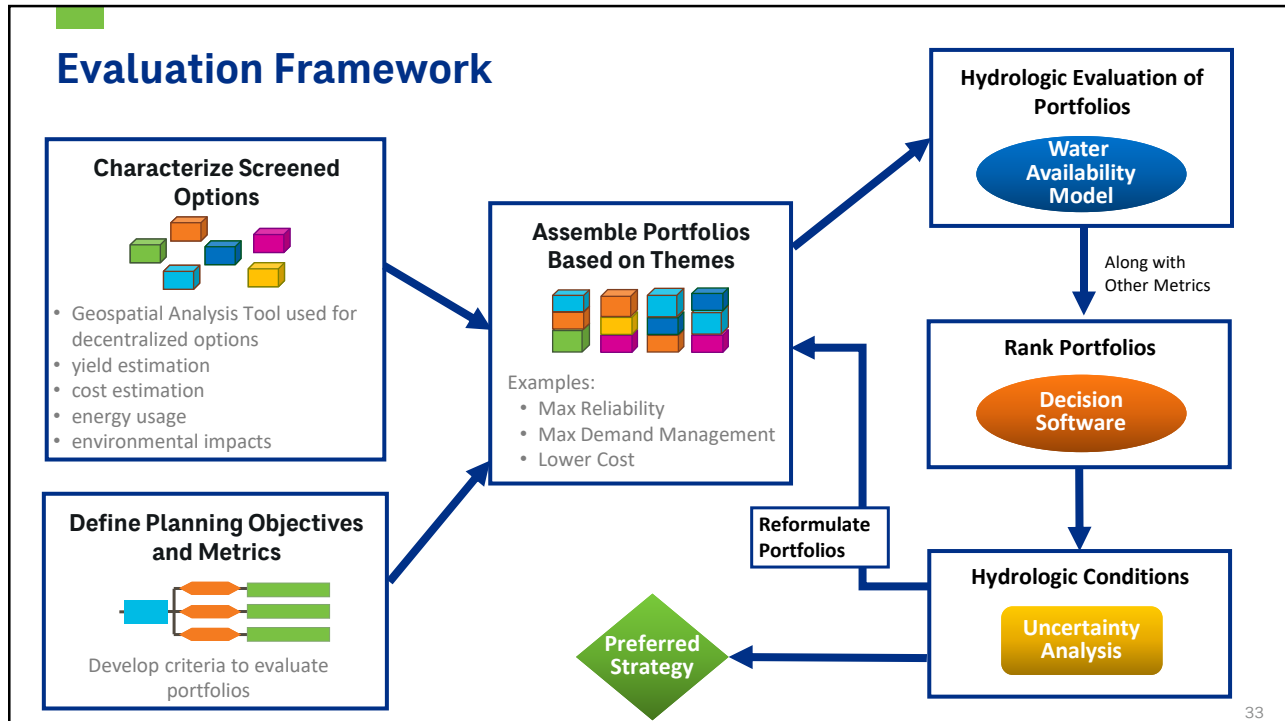
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Objectives and Criteria

Objective	Objective Weight	Criteria	Criteria Weight
Water Supply Benefits	25%	Maximize Resiliency	15%
		Increase Diversity of Sources	10%
Economic Benefits	25%	Provide Cost-Effective Services	15%
		Support Local/Regional Economy	10%
Environmental Benefits	20%	Reduce Impacts to Ecosystems	12%
		Meet GHG Emission Reductions	8%
Social Benefits	20%	Maximize Social Justice	10%
		Preserve Colorado River for All	10%
Implementation Ease	10%	Reflect Permitting/Legal Issues	10%

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Portfolios (Combinations of Options)

Portfolio Theme	Description
Maximize Cost-Effectiveness	Options with the lowest unit costs (\$/acre-foot/year) were generally selected.
Maximize Local Control	Options which are locally sourced or which Austin Water would have control over the projects and the water supplies in terms of cost, yield, development, and operations were generally selected.
Maximize Implementation	Options that have a higher degree of potential implementation success were generally selected.
Maximize Reliability	Options that provide higher supply reliability and resiliency in terms of climate and hydrology were generally selected.
Maximize Conservation	Options that conserve water and maximize the reuse of treated wastewater and stormwater were generally selected.
Hybrid 1	Built from the initial Maximize Conservation portfolio with the intent of increasing water supply benefits, while not significantly impacting the environmental and social benefits. This was achieved by increasing storage and reuse options.
Hybrid 2	Built from the initial Maximize Reliability portfolio with the intent of increasing environmental and social benefits, while reducing cost and risk. This was achieved by increasing demand management options, scaling back on seawater desalination and eliminating direct potable reuse.

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Ranking of Portfolios



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Plan Recommended Strategies

Demand Management

- Advanced Metering
- System Water Loss Control
- Water Use Benchmarking
- Water Budgets
- Landscape Transformations
- Irrigation Efficiency

Water Supply

- Expansion of Centralized Reclaimed Water
- New Aquifer Storage/Recovery
- New Off-Chanel Reservoir
- New Brackish Groundwater Desalination
- New Indirect Potable Reuse

Decentralized

New Lot and Neighborhood Scale Alternative Sources for Non-Potable Uses (Graywater/Blackwater, Rainwater Harvesting, Stormwater Capture, WW Scalping)

Anticipated Benefits

Local

- ✔ Reduced mandatory restrictions during droughts
- ✔ Improved delivered water quality
- ✔ Increased sustainability
- ✔ Stabilization of water rate increases
- ✔ Matching right quality of water to correct demand

Regional

- ✔ Reduced reliance on Colorado River
- ✔ Job creation and improved regional economy
- ✔ Protection of regional ecosystem and recreational resources



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Data Requests

Abington	Avon	Bridgewater	Brockton	Duxbury
East Bridgewater	Easton	Halifax	Hanover	Hanson
Kingston	Pembroke	Plymouth	Plympton	Stoughton
West Bridgewater	Whitman	Watershed Associations	Central Plymouth County Water District Commission	

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Data Requests

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Discussion of Uncertainties



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Slide 42

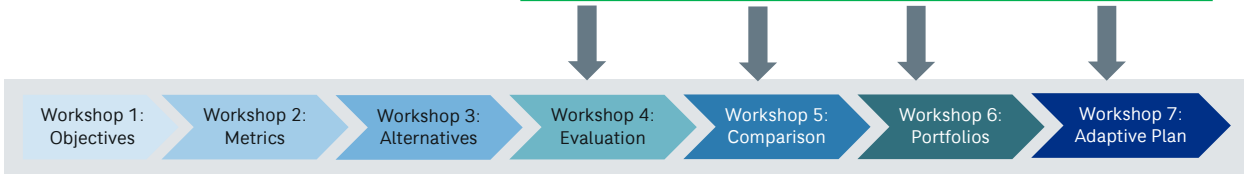
RAJ26 [@Westphal, Kirk S.] any thoughts on what visuals would be helpful to guide discussion?

Regehr, Amara J., 2/19/2024

Uncertainties within the Workshop Process

Uncertainty Identification

- What risks should we consider that are outside our control?
- What should we be ready to adapt to?
- Is there any uncertainty that we can reduce through this effort?



RAJ41

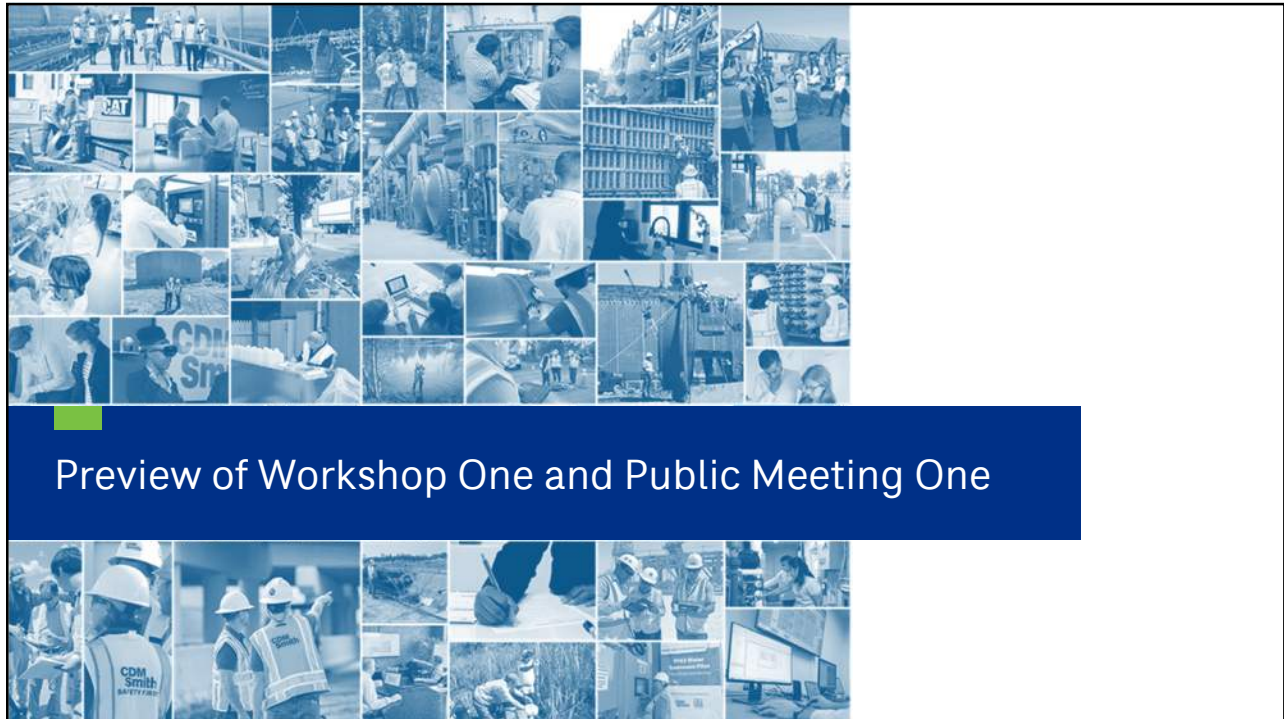
Discussion of Uncertainties

- What are factors that could affect the outcome of the plan?
- What are factors that could affect the planning process itself?

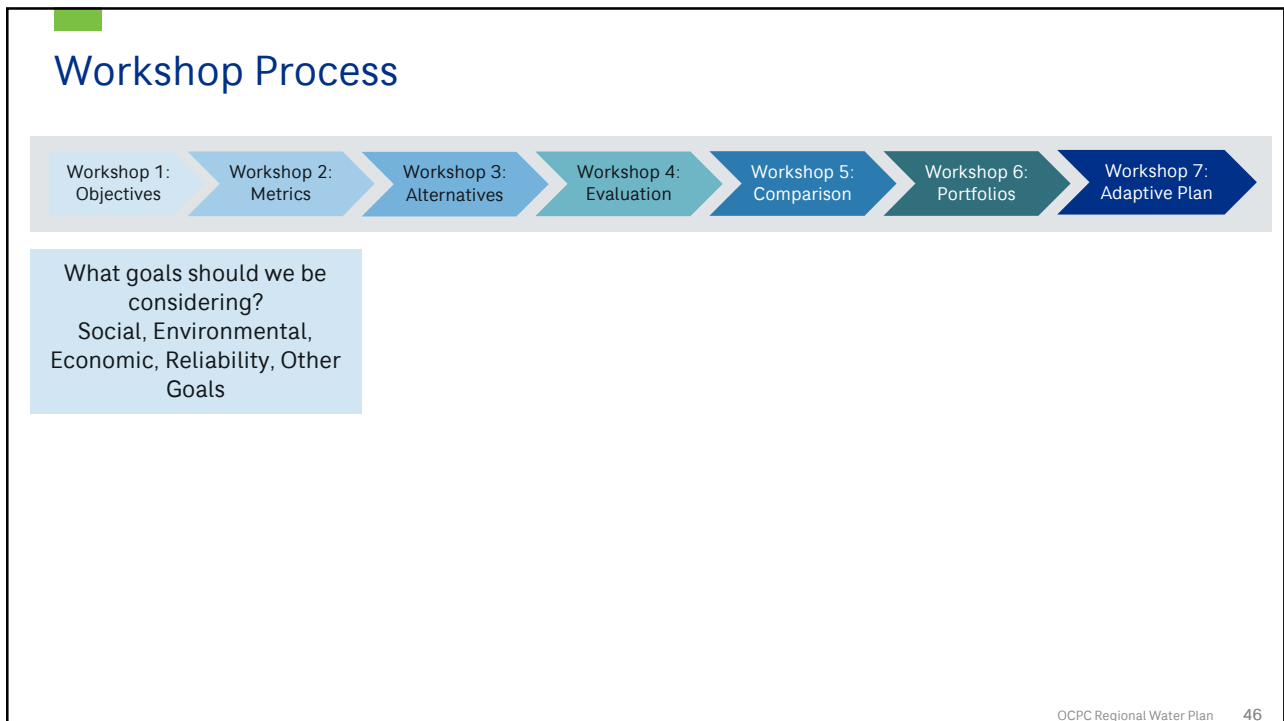
Slide 44

RAJ41 amara to talk to kirk about adding in a slide introducing adaptive management or talking to it when introducing this topic

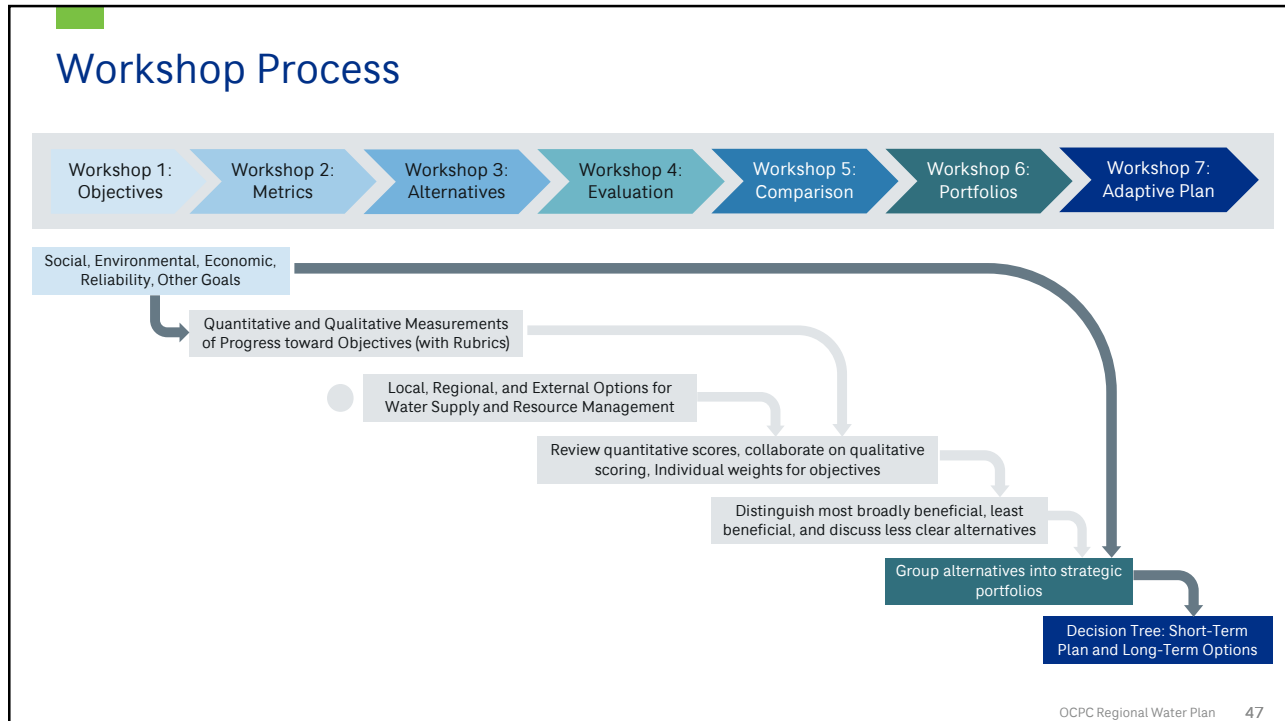
Regehr, Amara J., 2/20/2024



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Upcoming Schedule

WHEN	DETAILS
Monday, March 18 th 9:00 am – 12:00 pm	Workshop 1: Objectives
Tuesday, April 23 rd 9:00 am – 12:00 pm	Workshop 2: Metrics
Monday, May 20 th 9:00 am – 12:00 pm	Workshop 3
Tuesday, June 25 th 9:00 am – 12:00 pm	Workshop 4
Wednesday July 31 st 9:00 am – 12:00 pm	Workshop 5
Tuesday, August 27 th 9:00 am – 12:00 pm	Workshop 6
Tuesday, September 24 th 9:00 am – 12:00 pm	Workshop 7
Tuesday, October 29 th 9:00 am – 12:00 pm	Meeting 3
Monday, November 18 th 8:00 am – 12:00 pm	Meeting 4
Tuesday, December 10 th 8:00 am – 12:00 pm	Meeting 5

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