Scenario Design: An Accelerated Introduction to Scenario Planning

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Scenario Planning

• Scenario Planning IS about being prepared for whatever happens in the future

• Scenario Planning is NOT about envisioning what we want to happen in the future or predicting what will happen in the future
Scenario Planning

Cone of Uncertainty

Near-term Plan

Present (2017)

No or low Regrets

Preserving Options

Trigger Points

Planning Futures (2092)
Scenario Planning Process*

1. Define the planning context: focus, planning horizon, current conditions
2. Identify the driving forces
3. Rank the driving forces to establish most critical
4. Create the scenario / future matrix and develop narratives
5. Understand the implications of each future
6. Create a path of actions to address the emerging needs of each future
7. Compare and contrast actions. Identify common actions across futures.
8. Define triggers and build adaptive plan

*Adopted from Ralph Marra with SWRC
Western Water is a

- Mid to large water utility
- Provides drinking water services only
- Located in the southwest, semi-arid region
- Surface and ground water supplies
- One of the fastest growing communities in the SW
Western Water

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**Focal Question:** How can Western Water best prepare its water system and enhance its resources to meet customer water needs as future challenges and opportunities arise over the next 75 year?
Scenario Planning Process

Define the planning context: focus, planning horizon, current conditions

Identify the driving forces

Rank the driving forces to establish most critical

Create the scenario / future matrix and develop narratives

Understand the implications of each future

Create a path of actions to address the emerging needs of each future

Compare and contrast actions. Identify common actions across futures.

Define triggers and build adaptive plan
Drivers of Change

• External factors that will influence the context of Western Water’s future
• Things outside of WW’s control
• Long-term challenges
Drivers of Change

- External factors that will influence the context of Western Water’s (WW) future
- Things outside of WW’s control
- Long-term challenges

Two minute Brainstorm:
As a Water Resources Manager for WW, what keeps you up at night?
Exercise

Step 1: Brainstorm Drivers of Change (table) – 15 minutes
What are the most critical issues that could impact Western Water’s ability to meet long-term water needs?

Step 2: Select the top 3 most critical drivers (dots) – 10 minutes
What are the most critical drivers to meeting the focal question?

Step 3: Rank the top 10 (graph) – 15 minutes
How ‘important’ is the driver?
How ‘uncertain’ is the driver?
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Ranking the Drivers

Increasing Importance

Increasing Uncertainty

7/3/2018
Ranking the Drivers

Increasing Importance

Increasing Uncertainty
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External Drivers of Change
• External factors that will influence the context of the future
• Things outside of control
• Long-term challenges
Example: Ranking the Drivers

- Population:
  - Climate Change Regulations

- Increasing Importance
- Increasing Uncertainty
Personal Insights

1. No one-size-fits all approach
2. Pick the parts and pieces that work for you
3. Goal is adaptive planning

“In preparing for battle I have always found that plans are useless, but planning is indispensable.”
- Dwight D. Eisenhower
EMBRACING UNCERTAINTY

A Case Study Examination of How Climate Change is Shifting Water Utility Planning

Prepared for:

Water Utility Climate Alliance (WUCA)
American Water Works Association (AWWA)
Water Research Foundation (WRF)
Association of Metropolitan Water Agencies (AMWA)

Project Manager: Laurna Kaatz, Denver Water

Available at www.WUCAonline.org
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