# Water Strategy Workshop

## Agenda

**August 21, 2019**
8:45 a.m. – 12:00 p.m.

Blue River Boardroom, Fifth floor, 121 S Tejon Street

**Workshop objective:** Inform Utilities Board and receive input on regional water and wastewater service

<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Time</th>
<th>Topic</th>
<th>Objective</th>
<th>Presenters</th>
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<tr>
<td>1.</td>
<td>8:45 a.m. – 9:00 a.m.</td>
<td>Introduction and Workshop Goals</td>
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<td>Chair Jill Gaebler Aram Benyamin</td>
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<td>2.</td>
<td>9:00 a.m. – 9:45 a.m.</td>
<td>Regional Water and Wastewater Needs, Overview and Industry Drivers</td>
<td>Information</td>
<td>Pat Wells, Abby Ortega</td>
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<td>3.</td>
<td>9:45 a.m. – 10:30 a.m.</td>
<td>Integrated Water Resource Plan and UPAC Assignment</td>
<td>Information</td>
<td>Pat Wells, Abby Ortega</td>
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<td>10:30 – 10:40</td>
<td>BREAK</td>
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<td>4.</td>
<td>10:40 a.m. – 11:10 a.m.</td>
<td>Collaboration with the City of Colorado Springs</td>
<td>Board Discussion/ Input</td>
<td>Pat Wells, Abby Ortega</td>
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<td>5.</td>
<td>11:10 a.m. - 11:45 a.m.</td>
<td>Regional Water and Wastewater Services Technical Studies</td>
<td>Information</td>
<td>Pat Wells, Abby Ortega</td>
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<td>6.</td>
<td>11:45 a.m. – 12:00 p.m.</td>
<td>Timeline and Summary</td>
<td>Board Discussion/ Input</td>
<td>Pat Wells, Abby Ortega</td>
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Regional Water and Wastewater Service

Water Strategy Workshop

August 21, 2019, 8:45 a.m. – 12:00 p.m.
Blue River Board Room, 5th Floor, Plaza of the Rockies
Topics

- Introduction and Workshop Objectives
- Regional Water and Wastewater Needs Overview and Industry Drivers
- Integrated Water Resource Plan and UPAC Assignment
- Collaboration with City of Colorado Springs
- Regional Water and Wastewater Services Technical Studies
- Timeline and Summary
Workshop No. 1: Introduction to the Regional Water and Wastewater Service Policy Program

Goals

• Deliver foundational regional water and wastewater services information to Utilities Board
• Provide a forum for Utilities Board to interact and provide feedback
• Lay groundwork for understanding the trends and drivers for policy development regarding regional water and wastewater services
Key Questions for Today:

• Why is it important to spend time investigating and working through the challenges related to regional water and wastewater services?

• What current and future drivers continue to compel discussion on this issue?

• What are Springs Utilities current policies regarding regional services?

• What is the program for informing policy decisions through understanding risks, potential consequences and tradeoffs of different scenarios?
Proposed Policy Development Program

Workshop 1
Regionalization Overview
Drivers
IWRP and UPAC
Assignments
Scope and Schedule

Quarter 3: 2019

Workshop 2
Current Conditions
Infrastructure
Supply
Demands
Forecasts

Quarter 4: 2019

Workshop 3
Risks
Scenarios

Workshop 4
Modeling Results
Infrastructure and Operations
Costs and Benefits

Quarter 1: 2020

Final Policy Discussion
Summarize Findings
Mitigation of Risks
Recommendations

Quarter 2: 2020

JULY  AUG  SEPT  OCT  NOV  DEC  JAN  FEB  MAR  APR  MAY  JUN
Regional Services Policy Development Program Objective

By the end of the policy development program:

1. Utilities Board will have information on the benefits, risks, and drivers for regional water and wastewater service;
2. Technical studies will identify and answer questions that inform policymaking; and
3. The final policy workshop will encompass recommended policy changes to realize potential benefits and mitigate risks of regional service.
2019 to 2023 Strategic Plan – Strategy Map

Utilities Board Strategic Focus

**Rates**
- Build Financial Strength
  - Maintain a "AA" bond rating
  - Prepare for infrastructure investment
  - Manage revenue reliability
  - Mitigate risk
  - Manage debt

**Utilities Board Strategic Focus**
- Leverage Infrastructure
  - Utilize available capacity
  - Increase economies of scale
  - Diversify resources
  - Strengthen resiliency
  - Collaborate with regional entities

**Relationships**
- Benefit Citizens and Customers
  - Collaborate with Municipal Government
  - Promote transparent decision making
  - Engage stakeholders
  - Involve community partners
  - Support economic growth

- Focus on the Customer
  - Understand customer preferences and enhance interactions
  - Improve customer satisfaction and loyalty
  - Communicate effectively with customers
  - Provide innovative customer solutions and options
  - Be a trusted advisor

- Deliver Utility Solutions
  - Provide innovative data-driven solutions
  - Explore new business opportunities and partners
  - Provide programs for responsible utility use
  - Embrace applicable technologies

**Strategic Objectives and Initiatives**

- **Stakeholder**
  - Keep Bills Competitive
    - Target average base bill adjustment at or below CPI
    - Continue a twenty-year rate and revenue requirement infrastructure plan
    - Maintain five-year business service plans with spending limits
  - Optimize Operations
    - Embrace and leverage applicable technology
    - Balance cost of service and level of service risk
    - Improve rigor in operational processes
    - Responsibly reduce costs
    - Manage policies and procedures
    - Increase productivity
    - Integrate sourcing
    - Transfer knowledge

- **Customer**
  - Provide Safe, Resilient and Modern Utility Services
    - New or exceed regulatory requirements
    - Protect and secure information and assets
    - Provide reliable service
    - Mitigate planning risks
    - Support economic growth
  - Plan, Build, and Maintain Assets and Infrastructure
    - Collaborate with Municipal Government
    - Plan for potential climate, regulatory and resource changes

- **Internal**
  - Strategic Initiatives
    - Innovative Rate Design
    - Four-service Integrated Asset Management

- **Foundation**
  - Attract, Develop and Retain a Skilled and Diverse Workforce
    - Strategic workforce planning
    - Build a culture of engaged employees
    - Provide market-competitive compensation and benefits
    - Build internal pipeline of talent
    - Develop employees
    - Foster a diverse and inclusive work environment

- **Core Values:**
  - Safety
  - Trust
  - Responsibility
  - People
  - Collaboration
  - Continuous Improvement
Current Policy for Water/Wastewater Service Outside City

Water Supply Management (I-7)

The Chief Executive Officer shall direct that new and existing water resources and systems are aggressively developed and optimized to maintain and enhance water system sustainability and responsibly balance costs and risks to reliably meet the needs of current and future customers.

I-7 Paragraph 8 A-E, Special Contracts

City Code 7.6 Part 2 Annexations
- 7.6.201 C Policy Statements for Outside City
Drivers and Issues
Megatrends Affecting Water & Wastewater Service

• Population growth and urbanization of Western United States
• Water scarcity is driving competition and costs
• Changing demographics and water use preferences
• More stringent regulations and business complexities driving consolidation
Drivers for Collaboration

- Regulations
  - Clean Water Act
  - Safe Drinking Water Act
  - NEPA and Permitting
- Costs
- Economies of Scale
  - WISE
  - SPROWG
  - Regional Planning Recommendations
Demographic and Demand Drivers – Statewide Projections

• Growth can be difficult to accurately predict.

• Colorado has one of the fastest growing economies.

• Under high growth scenarios population could double by 2050.
Demographic and Demand Drivers – Arkansas Basin Projections
Colorado Springs Utilities Drivers

• The Pikes Peak region is facing a water supply gap that will grow over time

• Regional water districts are looking to Springs Utilities for:
  • Emergency Services
  • Short-Term and Long-Term Service Contracts
  • Wastewater Services

• Proactively addressing water supply sustainability now gives us the time to responsibly plan and implement solutions

• Potential solutions can benefit both Springs Utilities and the City

• Collaboration with the City on annexation planning and regional discussions
Water supply takes decades to develop

- El Paso Canal (1871)
- Colorado Springs Established (1871)
- Local Systems (South Slope 1891, North Slope 1908, Northfield 1949)
- Homestake Phase 1 (1890s–1930s)
- Blue River System (1953)
- Homestake Phase 1 (1967)
- Fry-Ark Project (Start Receiving Water) (1970s–1980s)
- Woodmen Water System (1970s–1980s)
- Twin Lakes System (1972)
- Exchange Decrees (1980)
- Woodmen Water System (1986)
- Exchange Decrees (1987)
- Fountain Mutual Irrigation Company and Chilcott Ditch Company shares (2014)
- Colorado Canal System (1987)
- Southern Delivery Phase 1 (2002)
- Southern Delivery Phase 1 (2016)
- Denver Basin Groundwater Development Project (2016)
- LAWMA Share Purchase (2018)
- Denver Basin Groundwater Development Project (2018)
- Denver Basin Groundwater Development Project (2018)
- Woodmen Water System (2018)
- Fountain Mutual Irrigation Company and Chilcott Ditch Company shares (2018)
We have a history of entering into regional water and wastewater service agreements.
Current Conditions – Northern Neighbors

- Monument
- Palmer Lake
- Triview
- Woodmoor
- Donala

Palmer Lake Town Council, July 12 and 26

Well fails; council declares water emergency

By James Howald and Jackie Burhans

The Palmer Lake Town Council ordered sweeping water restrictions on July 28 because of a well failure. The first meeting of the month, on July 12, was a regular council meeting and the second, on July 26, was largely devoted to producing nothing. He added that only a limited amount of water could be drawn from the reservoirs by law.

The council voted unanimously to approve the resolution, which took effect immediately.

By James Howald
Sustainability of Denver Basin Aquifers

- Declining water levels and hydrostatic pressures are impacting regional water sustainability

- Water level declines of 20-50 ft/yr observed in some locations

- Well pumping will become physically and economically impractical in coming decades
Additional wells needed to maintain water supply over the years

• 30 AF/yr supply needed
• 100 year aquifer life
• Each well costs about $500,000 to develop
Issues and Challenges

“Water purveyors in the northern El Paso County and in the southeastern part of the Arkansas Basin are highly dependent on nonrenewable groundwater sources that are approaching the end of their useful life. The lack of cost-effective alternatives for renewable supplies have resulted in some Denver Basin purveyors pursuing the development of remote well fields. Using nonrenewable groundwater as an interim solution for depleted groundwater aquifers only extends the problem while diminishing the economic resources for a permanent solution.”

Arkansas Basin Implementation Plan
Executive Summary Page 5
Current Conditions – Eastern Neighbors

- Cherokee Metro District
- Meridian Ranch
- Woodmen Hills
- Falcon Highlands
Current Conditions – Southern Neighbors

- Colorado Center
- Fountain
- Security
- Stratmoor Hills
- Widefield
Board Discussion

• Which drivers and issues need more focused discussion?

Summary of Drivers and Issues

Water Services
Regulation Compliance
Requests for Services
Water Supply Development
• Declining Denver Basin supplies
• Time and resources to develop

Wastewater Services
Regulatory Compliance
• Discharge limitations
Requests for Services
Current Wastewater Collaborations
IWRP and UPAC Assignments
UPAC and IWRP Assignments Timeline

- 2007: Cherokee Emergency Service
- 2009: Southern Delivery 1041 Permit Issued
- 2009-2010: UPAC Assignment Current Policy on Short Term Contracts
- 2010-2017: Short Term Contracts for Water & Wastewater Service
- 2017: IWRP Considers Regional Water Service
- 2017-2018: UPAC Assignment on Regional Collaboration
Integrated Water Resource Plan (IWRP)

It is a comprehensive approach to water resource planning that incorporates water supply and demands, water quality, infrastructure reliability, environmental protection, water reuse, financial planning, energy use, regulatory and legal concerns, and public participation.

Integrated Water Resource Plan
Approved February 2017

• Meet indoor water demand 100% of the time

• Maintain a minimum of 1.0 years of demand in storage at all times; and

• Maintain a minimum of 1.5 years of demand in storage 90% of the time
IWRP Balanced Portfolio

- **Colorado River Projects**: 10,000 – 15,000 acre-ft/year of new supply
- **Agricultural Transfers**: 15,000 – 25,000 acre-ft/year of new supply
- **Demand Management**: 11,000 – 13,000 acre-ft/year of demand savings
- **Storage**: 90,000 – 120,000 acre-ft of new or enlarged Arkansas Basin storage
- **Reuse**: 50 to 75 MGD of IPR and 1,200 – 2,500 acre-ft/year of new nonpotable demand

Additional water supply is needed to meet Colorado Springs anticipated population growth.

IWRP utilized the existing 200 square mile Colorado Springs City limits.
IWRP Buildout

- 200 square mile boundary anticipated
- Population ~ 720,000 people
**2017 IWRP Regionalization Policy Question**

**Question:** What is an appropriate approach for Colorado Springs Utilities to follow in meeting water demands within the Pikes Peak Region?

**Utilities Board Adopted Recommendation:** Proactively pursue regionalization in a manner that assists in meeting regional water demands, while protecting ratepayer interests and water supply investments and providing a benefit to Colorado Springs Utilities ratepayers and citizen owners.
UPAC’s 2018 Regional Collaboration White Paper

• Identify opportunities for regional collaboration for Electric, Natural Gas, Water and Wastewater services.
• Examine the potential benefits and risks of regional collaboration to Colorado Springs Utilities and its customers.
• Recommend any policy changes needed to achieve the potential benefits and protect against risks.
2018 UPAC Recommendations for Outside City Water and Wastewater Contracts (not adopted by UB)

- Proactively pursue contracts that are financially beneficial to citizens and the region
- Provide leadership for regional water solutions
- Ensure contracts do not injure Colorado Springs Utilities water rights
- Use Cost of Service-based pricing methodology for each component of service
- Contract customers pay for specific costs to physically connect to system
- Contract customers bear the financial burden for the additional water supply needed to meet their projected demand
- Establish a rate multiplier that is not a barrier to regional contracts
- No Colorado Springs Utilities customer subsidization of outside-city contract customers
- Ensure outside-city contracts do not erode inside-city service reliability
Proactively pursue regional agreements while protecting ratepayer interests

Utilities Board Direction

UPAC Recommendations

Financial

Water Supply and Wastewater Service

Infrastructure

Types of Service

Legal and Administrative
Board Discussion

• Staff recommends following UPAC Assignment Considerations in future workshops. Are there any other areas the Board would like focus on?

IWRP and UPAC Assignments Considerations

• Maintain Level of Service Criteria
• Identify and develop recommendations for policy gaps
• Develop a Cost of Service based pricing methodology
• Ensure services and contracts do not injure Colorado Springs water rights
Collaboration with the City of Colorado Springs
City of Colorado Springs Planning

- Comprehensive Plan for Colorado Springs
- Annexation Plan Update
  - Just beginning
  - Last completed in 2006
City and Springs Utilities Collaboration

Interagency Strategic Team

Annexation Plan Monthly Staff Meetings
Water and Wastewater Regional Services Studies
Regional Service Planning Objectives

First Phase

Technical Scoping
- Issues Identification
- SME Survey
- Technical Priorities
- Technical Study Task List

This Phase

Technical Studies
- Water Supply
- Wastewater
- Water Operations and Water Quality
- Legal
- Economics

Implementation Phase

Utilities Board Policy Development
Phase 1 Technical Studies Scoping

• Cross-discipline team identified data gaps and issues
  • Legal
  • Environmental
  • Customer Services
  • Water Services
  • Planning and Projects

• Deliverable was narrowed scope of work for technical studies to inform policy development
Regional Service Considerations

• Water Districts needing service
• Future population centers
• Infrastructure
• Type of water service
  • Capacity only
  • Capacity and water
• Reliability of water service
  • Full service (firm)
  • Interruptible
  • If and when
Regional Service Considerations

• Constraints on delivery volumes
• Appropriate water service rate
• Water quality
• City and Utilities policy
• Relevant terms and conditions
  • Relation to other permits, contracts, agreements
Regional Service Considerations

Benefits
- Revenue and Cost Sharing
- Maximum Utilization of Infrastructure and Supplies
- Colorado Water Plan Alignment
- Regional Economic Vitality and Stability

Challenges
- Permitting/Legal Hurdles
- O&M Cost Uncertainties
- Need Date for Additional Infrastructure and Supplies
- Required Policy Changes
Regional Service Planning Objectives

First Phase

- Technical Scoping
  - Issues Identification
  - SME Survey
  - Technical Priorities
  - Technical Study Task List

This Phase

- Technical Studies
  - Water Supply
  - Wastewater
  - Water Operations and Water Quality
  - Legal
  - Economics

Implementation Phase

- Utilities Board Policy Development
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<th>Workshop 2</th>
<th>Workshop 3</th>
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<td>Workshop 3 Risks Scenarios Workshop 4 Modeling Results Infrastructure and Operations Costs and Benefits</td>
<td>Final Policy Discussion Summarize Findings Mitigation of Risks Recommendations</td>
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**Quarter 3: 2019**

**Discussion Topics**
- Challenges and Pressures
- Why develop policy?
- Issue Gaps
- Path Forward

**Quarter 4: 2019**

**Discussion Topics**
- IWRP and City Water Supply Needs
- Estimated Regional Demands
- Current Supplies (Pikes Peak Region)
- Demand Gap
- Transient Demands for City
- Infrastructure Capacity
- Wastewater Capacity
- Regional Entities Capacity and Upgrades
- Current Operations

**Quarter 1: 2020**

**Discussion Topics**
- Development of future supplies
- Reusable Return flow
- Regulatory Risks
- Social – Political Risks
- Land Use and Development
- Costs of Service
- Infrastructure Standards
- Operational Standards
- Water Quality (Delivery to Discharge)
- Legal Considerations

**Quarter 2: 2020**

**Discussion Topics**
- Policy Questions
- Pros and Cons
- Risks and Benefits
- Service Options
- Mitigation
- Tariffs
- Legal and Administration

**JULY**

**AUG**

**SEPT**

**OCT**

**NOV**

**DEC**

**JAN**

**FEB**

**MAR**

**APR**

**MAY**

**JUN**

Colorado Springs Utilities
Board Discussion

- Do these foundational questions begin to frame the discussions and development of future policy?

Future Policy Questions

1. To what extent should Springs Utilities provide regional water and wastewater service outside its existing territory?

2. What water policy changes are necessary to implement Springs Utilities preferred alternative?

3. How will Springs Utilities appropriately balance costs and risks while providing appropriate benefit to Springs Utilities ratepayers and the City of Colorado Springs?
Summary
Workshop No. 1: Introduction to the Regional Water and Wastewater Service Policy Program

Goals

• Deliver foundational regional water and wastewater services information to Utilities Board
• Provide a forum for Utilities Board to interact and provide feedback
• Lay groundwork for understanding the trends and drivers for policy development regarding regional water and wastewater services
Key Questions for Today:

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Next Steps

• Tentative Workshop 2: October or November
• Refined Schedule
• Continued Technical Studies