Water and Planning in Colorado

Erin Rugland
CO APA
10/4/18
Why Integrate Water and Land Use Planning?

- Land use planning and development approval influence water use
  - “Build smart from the start”
  - After occupancy, water rates have the most influence
Plan Types

• **Comprehensive Plans**
  - Incorporate water throughout
  - Water elements/sections

• **Water Efficiency Plans**
  - Required for many providers
  - Access to CWCB grant funds
Why Comp Plans?

• *Foundational to other land use efforts*
  
  o Creates a blueprint for community development
  
  o Establishes a legal foundation
  
  o Zoning amendments must conform with comp plans
    ▪ Per COLO. REV. STAT. § 31-23-303
  
  o Often coupled with land use code or other plan updates
Why Comp Plans?

• *Helps meet 2015 CO Water Plan goal:*

  - By 2025, 75 percent of Coloradans will live in communities that have incorporated water-saving actions into land use planning
Why Comp Plans?

- *Coordination of goals among plans & departments*
  - Break down silos
  - Comp plan process an opportunity to do a policy scan
    - “What are the opportunities?”
    - “What are the obstacles?”
    - “Where do we need to act?”
Why Comp Plans?

- Public engagement
  - Where does your water come from?
  - Create a baseline understanding for changes in behavior
What information do I include?
Comprehensive Plan Review

- 49 **Colorado** towns, cities, and counties
  - 333 jurisdictions (15%)
  - 209 accessible plans (25%)

- Every Arizona town, city, and county (106)

- At least three jurisdictions in other CO River Basin states
Current State Overview

Answer the questions:

Where does our water come from?

How much do we have?

How is it used?

Which sectors and land use types use the most? The least?

How is the infrastructure?
Current State Overview

Ownership of Water System
Description of Water Supplies
Water System Capacity
Water Infrastructure
Stormwater Management
Water Use Measurement
Water Use by Sector
Water Challenges and Goals
Non-Revenue Water
Water Conservation
Water Reuse
Water Quality
Water Infrastructure Financing
Current State Overview

Ownership of Water System
Description of Water Supplies
Water System Capacity
Water Infrastructure
Stormwater Management
Water Use Measurement
Water Use by Sector
Water Challenges and Goals
Non-Revenue Water
Water Conservation
Water Reuse
Water Quality
Water Infrastructure Financing
Current State Overview

Ownership of Water System
Description of Water Supplies
Water System Capacity
Water Infrastructure
Stormwater Management
Water Use Measurement
Water Use by Sector
Water Challenges and Goals
Non-Revenue Water
Water Conservation
Water Reuse
Water Quality
Water Infrastructure Financing
Future Resiliency

*Answer:*

What is our population growth?

What are our development expectations?

Do current water supplies line up with these projections?
Future Resiliency

Population Growth
Development Expectations
Projected Water Demand
Water Demand Scenarios
Water Adequacy
Drought Planning
Water Supply Sustainability
Recharge/Recovery/Storage Program(s)
Transferable/Acquirable Water Rights
Future Resiliency

Population Growth
Development Expectations
Projected Water Demand
Water Demand Scenarios
Water Adequacy
Drought Planning
Water Supply Sustainability
Recharge/Recovery/Storage Program(s)
Transferable/Acquirable Water Rights
Future Resiliency

Population Growth
Development Expectations
Projected Water Demand
Water Demand Scenarios
  Water Adequacy
  Drought Planning
  Water Supply Sustainability
Recharge/Recovery/Storage Program(s)
Transferable/Acquirable Water Rights
Major Takeaway from Review:

- Communities that have more filled in Thorough Understanding & Future Resiliency components tend to undertake more Land Use Planning Efforts

  - **Understanding your water is critical** to creating and implementing land use interventions for better management
Land Use Tools

Answer:

How does our urban form impact our water use?

Do buildings use water efficiently?

Is water used efficiently outdoors?

How does land use impact our watersheds?
Land Use Tools

Low Water Use Development Strategies
Innovative Zoning Techniques
Green Infrastructure/LID
Requirements for Interior Fixtures
Requirements for Outdoor Use
Preservation/Stewardship of Watersheds
Regional Watershed Planning Coordination
Land Use Tools

Low Water Use Development Strategies
Innovative Zoning Techniques
Green Infrastructure/LID
Requirements for Interior Fixtures
Requirements for Outdoor Use
Preservation/Stewardship of Watersheds
Regional Watershed Planning Coordination
Land Use Tools

Low Water Use Development Strategies

- Innovative Zoning Techniques
- Green Infrastructure/LID

Requirements for Interior Fixtures
Requirements for Outdoor Use

Preservation/Stewardship of Watersheds
Regional Watershed Planning Coordination
Future Resource

INCORPORATING WATER INTO COMPREHENSIVE PLANS IN COLORADO COMMUNITIES

Available by request
Online release in Fall 2018
Results of CO Comp Plan Review
## Review Matrix

### Structure

|-------------------------|------------------|-----------|------------------------------------------|-----------------------------------|----------------------------------------------------------|--------------------------------------|
Communities Integrating Water + Land

| Less: | 30 | Integrated: | 14 | More: | 5 |

~30% of CO’s population currently lives in communities integrating land and water within their comprehensive planning.
Water Efficiency Plans

“…Best management practices for water demand management, water efficiency, and water conservation that may be implemented through land use planning efforts”

Future Resource

Water Efficiency Plans for Colorado Covered Entities

Best Practices for Implementing Water Conservation and Demand Management Through Land Use Efforts

Prepared for:
Colorado Water Conservation Board, 1313 Sherman St, Room 721 Denver, CO 80203

Prepared by:
Anne Castle, Getches-Wilkinson Center, University of Colorado
Erin Rugland, Babbitt Center for Land and Water Policy

To be considered by CWCB
January 2019
Lessons Learned from Providers

Interviews with 10 water providers revealed:

1. Land use planning and development approval influence water use initially
   - Crucial tool for lowering water use in new development
   - After development, water use is influenced by provider rates
Lessons Learned from Providers

Interviews with 10 water providers revealed:

2. All providers can collaborate with land use authorities
   - All sizes
   - Municipal and special districts
   - ...so long as motivation from both parties is there
Lessons Learned from Providers

Interviews with 10 water providers revealed:

3. Long-range planning and development approval processes are two important points of collaboration
   - Meaningful involvement helps influence policy & practice
   - Identify gaps, problems before they occur
Lessons Learned from Providers

Interviews with 10 water providers revealed:

4. Value of technical assistance & tools
   - Growing Water Smart training from Sonoran Institute
   - Tools – Keystone Report
Resource Round Up

**Available by Request**

Release Winter 2018

**Comprehensive plan integration for Colorado communities**

**To be considered by CWCB in January 2019**

**Release Winter 2018**

**Addendum to existing CWCB Guidance on WEPs**

**Manual on Integrating Water into Land Use Planning**

**Water Efficiency Plans for Colorado Covered Entities**

**Best Practices for Implementing Water Conservation and Demand Management Through Land Use Efforts**

**INTEGRATING WATER EFFICIENCY INTO LAND USE PLANNING**

**IN THE INTERIOR WEST: A GUIDEBOOK FOR LOCAL PLANNERS**

**Contents**

A. Introduction & Overview .................................................. 5

1. The Problem (Why to Use This Book) .................................. 5

2. The Purpose of This Guidebook (When to Use This Book) .......... 6

3. The Audience (Who Should Use This Book) ............................. 7

4. User’s Guide (How to Use This Book) ................................. 7

B. Water Supply & Population Growth Issues in the Interior West ...... 10

1. Increasing Population Growth ........................................... 10

2. Decreasing Water Supply .................................................. 10

C. Working Together: A Message to Planners .............................. 13

1. A Call to Action ................................................................. 13

2. The Need for Cross Education ............................................ 16

3. The Value in Regional Collaboration .................................... 20

4. When Water Providers Take the Lead ................................... 25

5. Other Lessons Learned .................................................... 29

6. Final Words ....................................................................... 30

7. To Do List.......................................................................... 30

8. Where To Go Next .............................................................. 36

E. The Comprehensive Master Plan ........................................... 40

1. First Steps .......................................................................... 41

2. Draft a Water Element for the Comprehensive Plan ................ 44

3. Integrate Water Efficiency Measures throughout the Comprehensive Plan .......................................................... 49

4. Foster a Water Conserving Land Use Pattern ....................... 72

a) Designate Priority Areas for Growth & Areas for Conservation ........................................................................ 73