




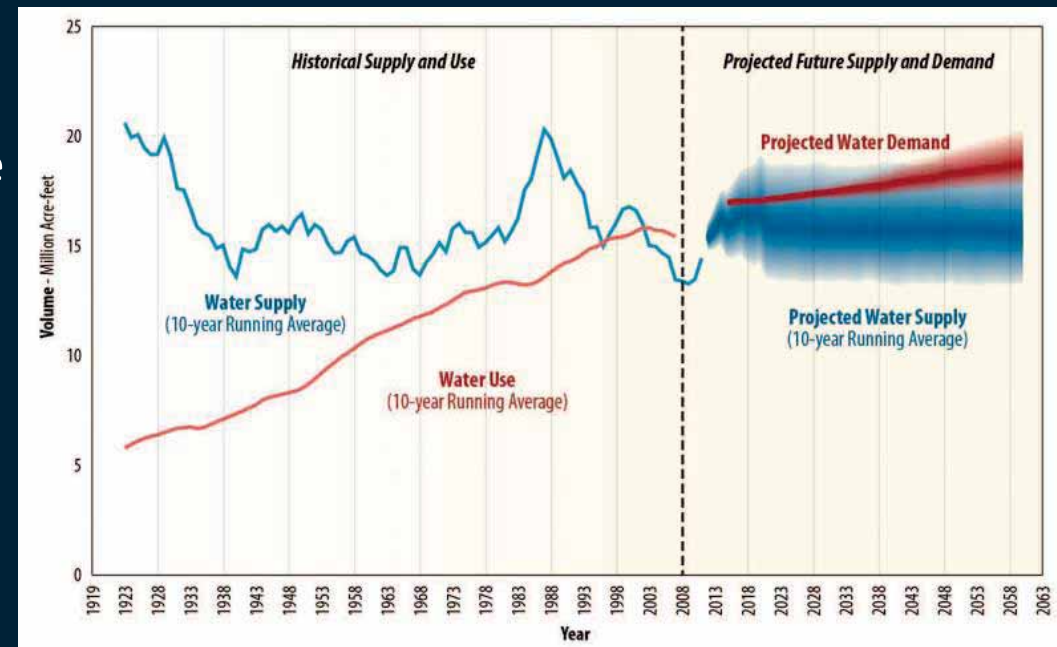
# Integrated Water & Land Use

Growth and Infrastructure Consortium 2016  
Denver, CO  
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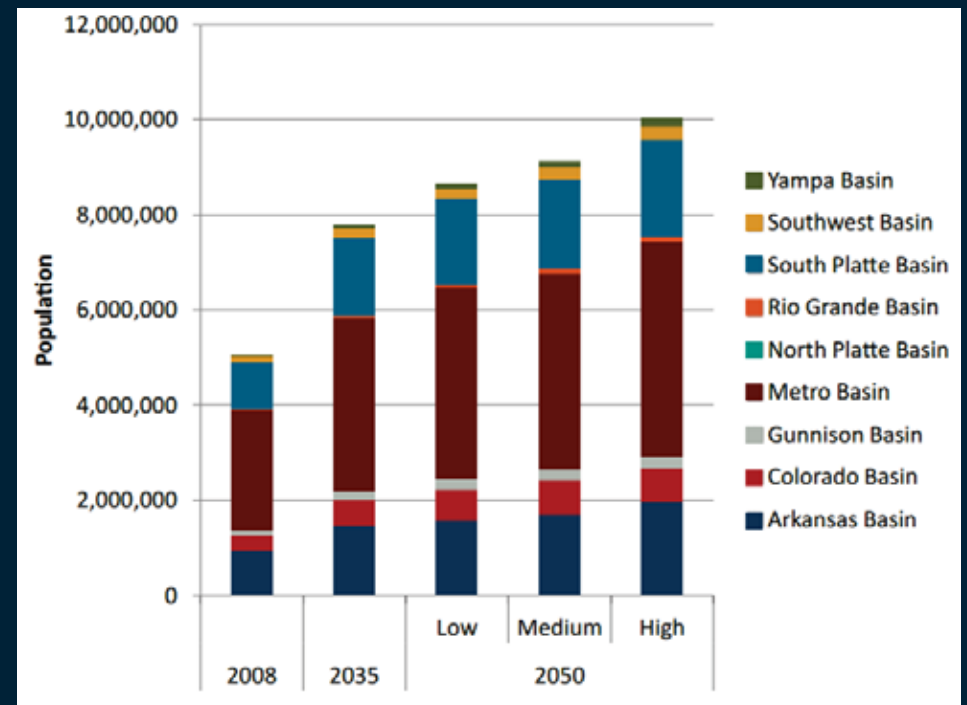
# Water Supply Decreasing

- CO to warm 4°F by 2050
  - Increases in evaporation
  - Lower elevation snowpack decline
  - Timing of runoff to shift earlier
- CO in “transition zone” on precipitation
  - More winter precipitation, less in summer?



# Population Increasing

- Doubling of population 2010-2040
  - CO top 6 for growth last 35 yrs
- Lots of land use decisions to accommodate this growth



# Land Use Affects Water Use



Highlands Ranch

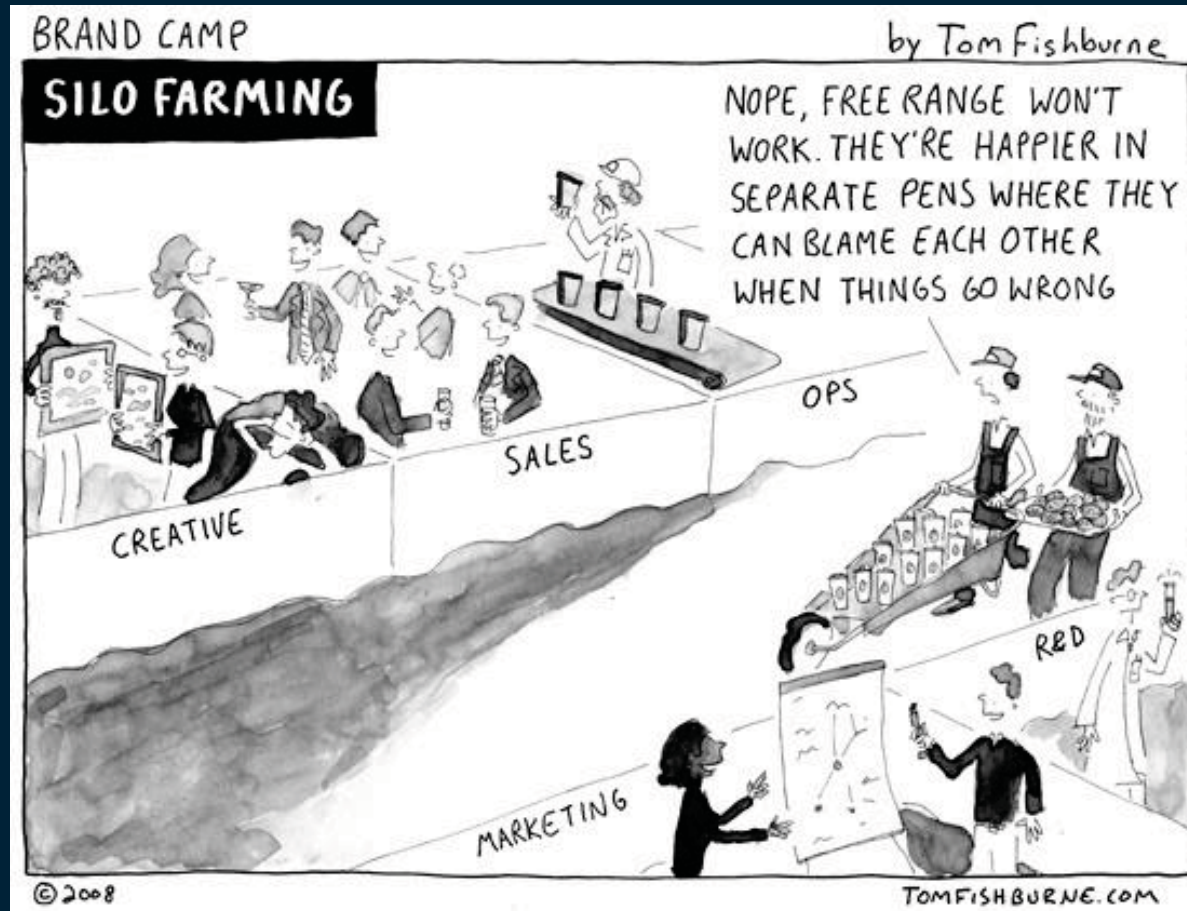


LoDo Denver

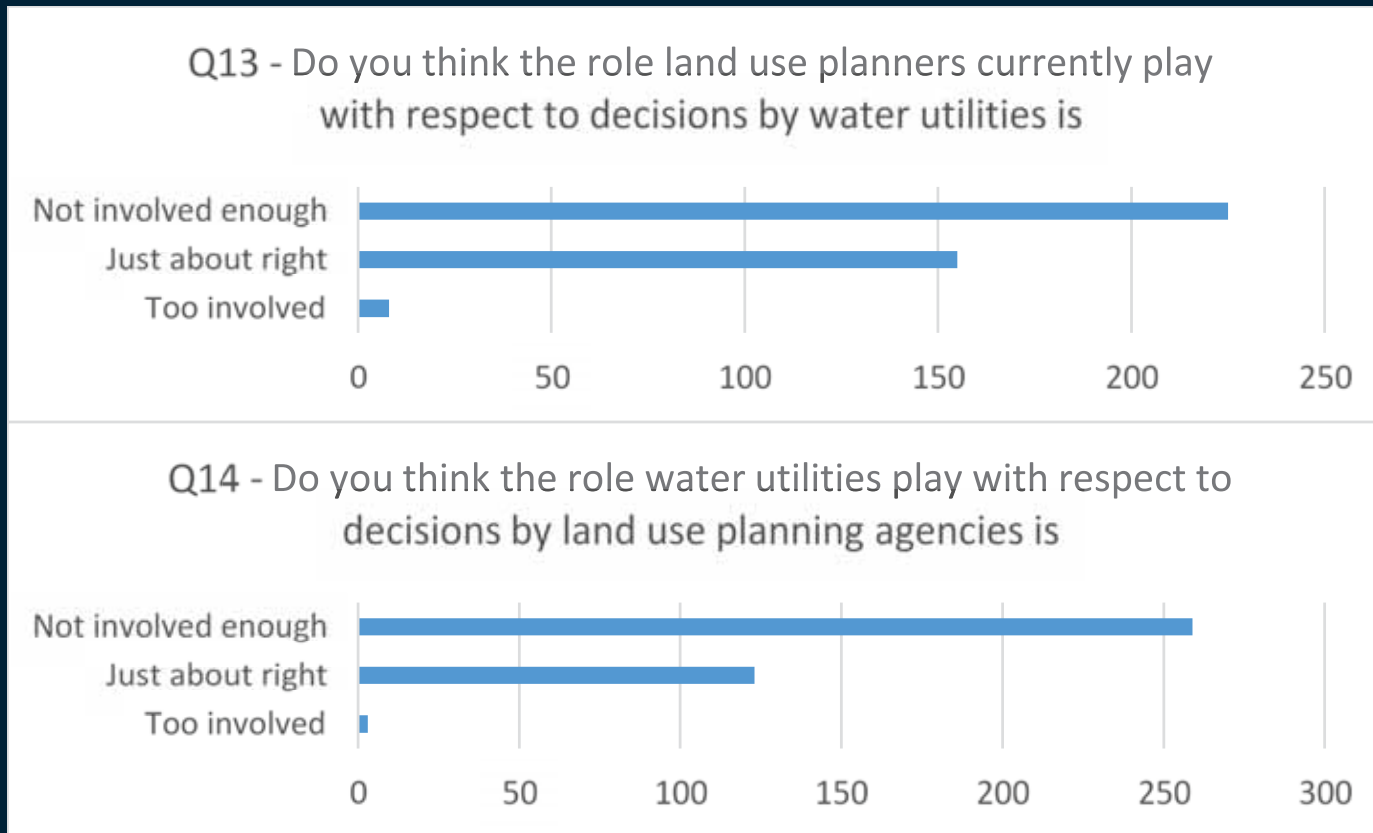


Stapleton

# Historical Paradigm



# Water Research Foundation (Project #4623)



Fedak, B., and D. Beckwith. Forthcoming. "Integrating Land Use and Water Resources: Planning to Support Water Supply Diversification." Project #4623. Denver, Colo: Water Research Foundation. ©2016 Water Research Foundation. Reprinted with permission.

# Land Use Manual TOC

- **Part I: Bkg/Intro**
- **Part II: Integrating Water Efficiency into Land Use Docs**
  - Comprehensive Master Plan
  - Sustainability Plans & Programs
  - Zoning Code
  - Subdivision Regulations
  - Site Plan Approval
  - Building Code & Plumbing Code
  - Supplemental Regulations

**PART I:  
BACKGROUND**

A. Introduction

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

C. Working Together: A Message to Planners

1. The Need for Cross-Education
2. The Value in Regional Planning & Communication
3. When Water Providers Take the Lead

**PART II:  
INTEGRATING WATER EFFICIENCY INTO LAND USE DOCUMENTS**

D. Getting Started: How to Engage the Process or Lead It

E. The Comprehensive Master Plan

1. Water Element in the Comprehensive Plan
2. Integrating Water throughout the Comprehensive Plan
3. Encouraging Water-Efficient Land Use Patterns
  - a. Urban Growth Boundaries
  - b. Cluster Development & Open Space Preservation
  - c. Infill Development
  - d. Multi-Family & Attached Housing
  - e. Green Infrastructure

- **Part III: Additional Strategies**
  - Non-Zoning Incentives
  - Development Agreements
  - Development Moratoria
  - Post-Occupancy Enforcement

# Subdivision Regulations

- **Cluster Development Subdivisions**
  - Milton, NY
- **Pre-Application Conference**
  - Broomfield, CO; Aurora, CO; Westminster, CO
- **Refer Application to Other Agencies**
  - Tombstone, AZ





## Non-Zoning Incentives

- **Financial Incentives for W.E. Development**
  - Fee reduction, grants/loans, tax abatement
  - Catawba County, NC; Wilmington, OH
- **Process Incentives to Encourage W.E.**
  - Fast-track permitting, priority inspections, guaranteed timeline
  - San Mateo, CA; Anchorage, AK
- **Assistance, Education, and Marketing Incentives**

