

This presentation premiered at WaterSmart Innovations

watersmartinnovations.com



Integration of Water Efficiency into Land Use Planning

John Berggren and Amelia Nuding
Western Resource Advocates



October 2, 2019
Water Smart Innovations



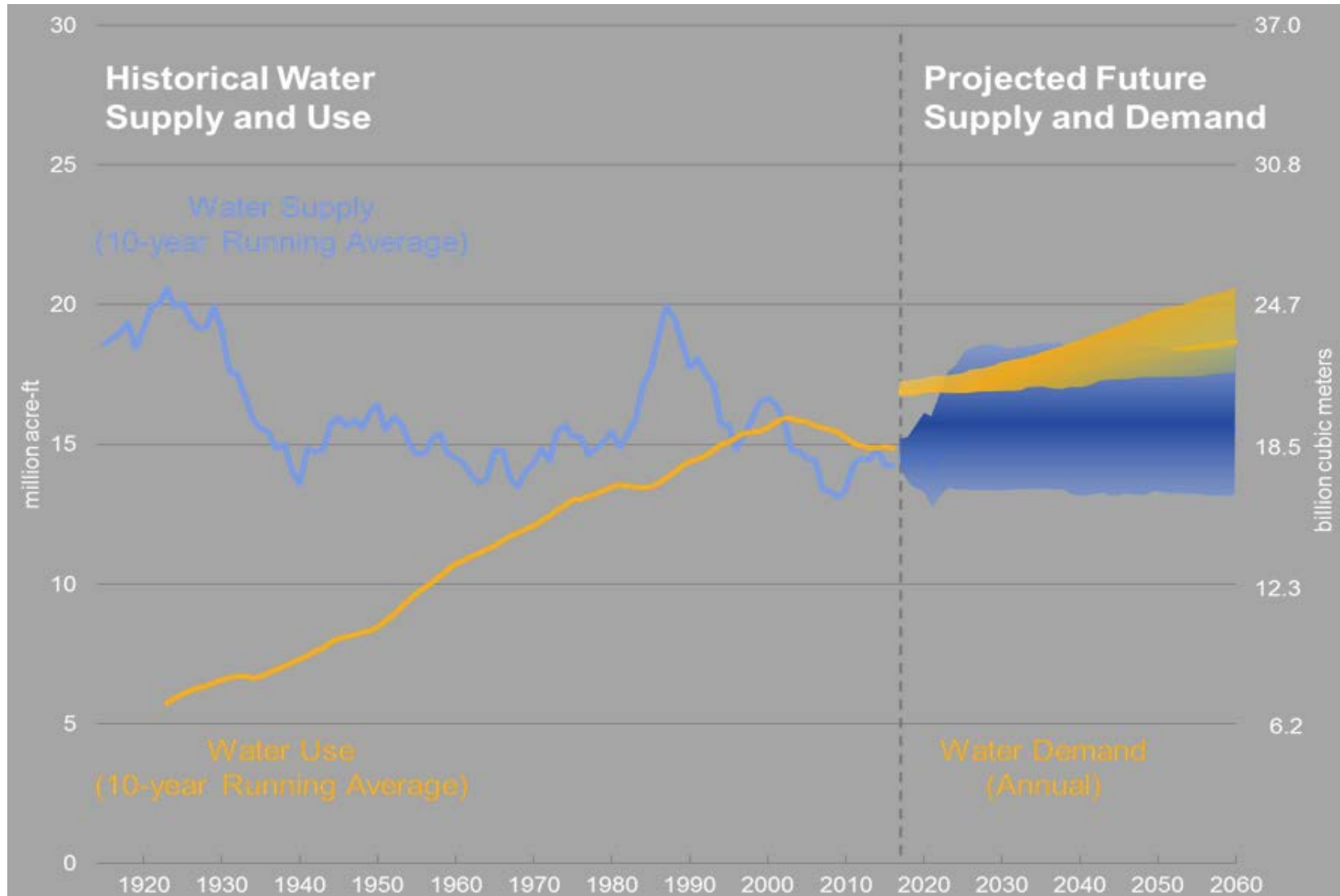
Outline

- ▶ 1. Importance of integrating water and land use planning
- ▶ 2. Barriers and challenges
- ▶ 3. Beginning the process
- ▶ 4. Specific integration policies, programs, and plans
- ▶ 5. Next steps
- ▶ 6. Q&A

Western Resource Advocates

- Western Resource Advocates protects the West's land, air and water to ensure that vibrant communities exist in balance with nature.
- 30 years, 7 Western States
- 6 years in integrated land use -water planning: research, education & community assistance

Why care about integrating water efficiency into land use planning?



Demand for water in the Colorado River Basin is outpacing supply.

Why care about integrating water efficiency into land use planning?

“Yes, you can continue growing, but you cannot do it the way you have in the past. You have limited water resources and you live in a fragile environment, so you’re going to have to plan development that is much friendlier with outdoor water use.”

*-Pat Mulroy, former General Manager
Southern Nevada Water Authority*



Why care about integrating water efficiency into land use planning?

“It’s more cost effective to build ‘water smart from the start’ than incentivizing retrofits down the road. And for some communities, reducing new demands is much more cost effective than obtaining new supplies.”

*-John Berggren, Friendly Water Expert,
Western Resource Advocates*



Why care about integrating water efficiency into land use planning?

“The paradigm has shifted - water utilities are not just water providers, they are key players in shaping community growth. Integrated land use and water planning is the next frontier in water efficiency - this requires new thinking, new skills, and new relationships.

-Amelia Nuding, Somewhat Friendly Water Expert, Western Resource Advocates



Why care about integrating water efficiency into land use planning?

“By 2025, 75 percent of Coloradoans will live in communities that have incorporated water-saving actions into land-use planning.”



COLLABORATING ON COLORADO'S WATER FUTURE

COLORADO'S
WATER PLAN

EXECUTIVE SUMMARY

Why care about integrating water efficiency into land use planning?

- ▶ Can be very effective in reducing future water demands
- ▶ For example:
 - ▶ An average home today:
 - ▶ ~160 GPCD or 0.54 AFY
 - ▶ A water efficient new home in Sterling Ranch, Colorado:
 - ▶ ~65 GPCD or 0.22 AFY

Barriers and challenges

- ▶ Historically, the two processes are siloed
- ▶ Many communities lack the staff capacity (i.e. really busy), lack relevant expertise and information, and/or lack political support to integrate
- ▶ Institutional inertia—it can be difficult to change how things have been done in the past

Beginning the process

- ▶ Build political will
 - ▶ Education to elected officials is key, especially regarding water supply challenges and related population growth

Beginning the process

- ▶ Provide staff with the requisite information and expertise



COLORADO

Colorado Water
Conservation Board

Department of Natural Resources



COLORADO

Department of Local Affairs

Division of Local Government

Colorado Water and Land Use Planning Alliance Workshop
Wednesday, March 7 | University of Denver, Sturm College of Law

Meeting Summary

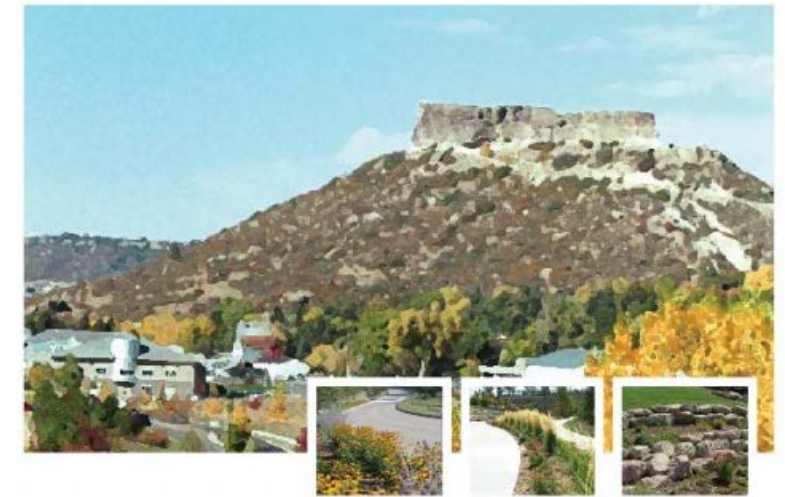
Participants:

Tim York (Aurora Water), Drew Beckwith and Amelia Nuding (Western Resource Advocates), Susan Daggett (RMLUI), Andre Dozier (CSU), John Duggan (CDPHE – WQCD), Stu Feinglas (Westminster), Greg Fisher (Denver Water), Jim Holway and Erin Rugland (Babbitt Center), Torie Jarvis (NWCCOG-QQ), Peter Kinney (Metro Mayor's Caucus), Rocky Piro (CO Center for Sustainable Urbanism), Peter Pollock (Lincoln Institute of Land Policy), Jayla Poppleton (Water Education Colorado), Flo Raitano (DRCOG), Jeremy Stapleton (Sonoran Institute), Susan Wood (APA Colorado), Kevin Reidy (CWCB), Anne Miller and Logan Sand (DOLA), & Matt Mulica and Jonathan Geurts (Keystone Policy Center)

Specific policies, programs, and plans

► Landscaping ordinances

- Can require or incentivize plant types, turf limits, soil amendments, certification of landscapers, and more
- Can be adopted through zoning ordinance, subdivision regulation, site plan regulations or a stand alone landscaping ordinance



TOWN OF CASTLE ROCK

Landscape and Irrigation Performance Standards

AND CRITERIA MANUAL

April 3, 2018



100 N. Wilcox St., Castle Rock, CO 80104

Specific policies, programs, and plans

- Conservation-oriented system development connection charges (i.e., tap fees)

Fountain's Residential Landscape Fee Incentives

| Lot Size | Water Aquisition Fee | Water Aquisition Fee with Conservation Insentive: 50% or Less Irrigated Area | Water Aquisition Fee with Conservation Insentive: 30% or Less Irrigated Area |
|---------------------------|----------------------|--|--|
| Less than 9,000 sq ft | \$4,875 | \$2,438 | \$1,024 |
| 9,001 to 13,000 sq ft | \$5,688 | \$2,844 | \$1,706 |
| Greater than 13,000 sq ft | \$6,500 | \$3,250 | \$1,950 |

Fees are smaller for smaller turf areas and for smaller lots.

Guide to Designing Conservation Oriented Tap Fees:

https://westernresourceadvocates.org/wp-content/uploads/2019/06/WRA_Guide-to-Conservation-Oriented-SDCs_web.pdf

Specific policies, programs, and plans

- ▶ Water elements in local government comprehensive plans
 - ▶ Comp plans are the community's vision for the future, with a roadmap for getting there
 - ▶ Provides a check-list for planners to look at when approving developments
 - ▶ Provides a legal basis for land use approvals (laws vary by state)

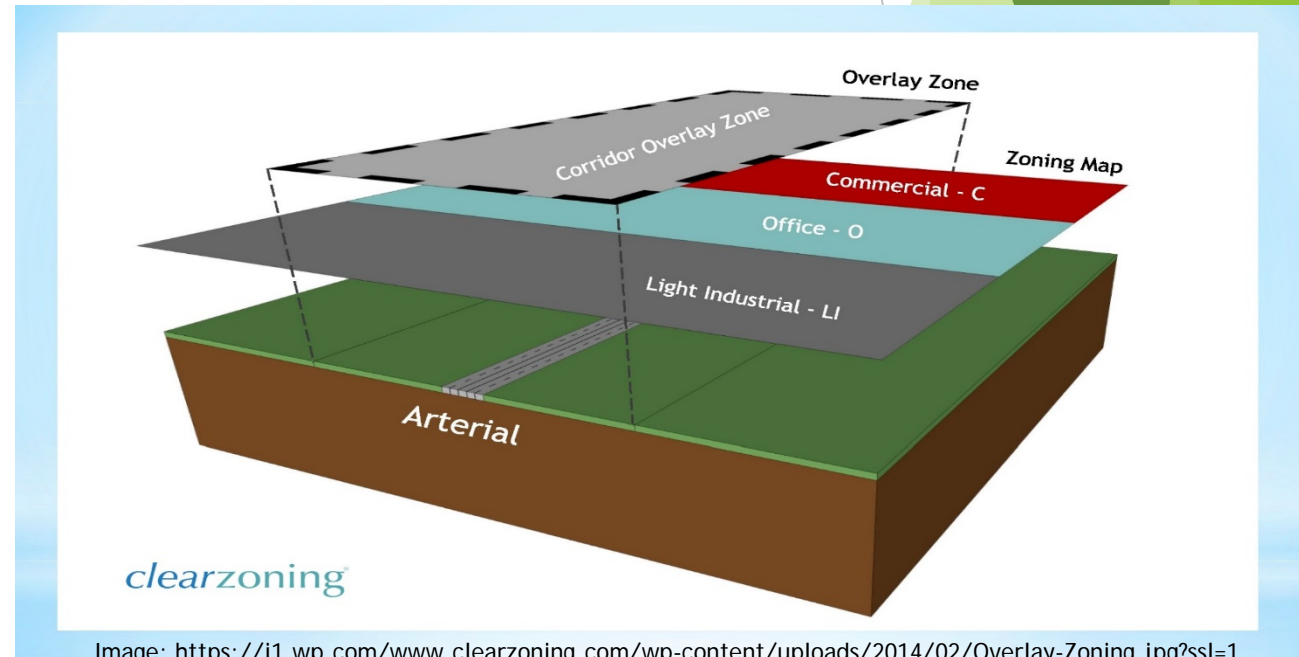
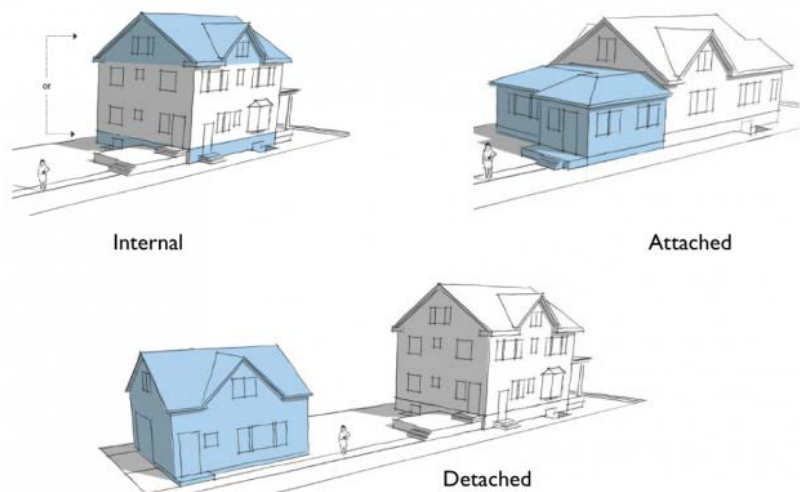


Specific policies, programs, and plans

- ▶ Water elements in local government comprehensive plans
 - ▶ Goals
 - ▶ To absorb market demand for new housing and economic development while lowering per capita water consumption
 - ▶ Objectives
 - ▶ To reduce per capita water consumption by X% from baseline
 - ▶ Strategies
 - ▶ Project future per capita demands by calculating water demands associated with different land uses and densities, and plan accordingly.

Specific policies, programs, and plans

- ▶ Water efficiency zoning
 - ▶ Zoning ordinances can set the minimum lot size, density, & landscape requirements
 - ▶ Water-Efficiency Overlay zone
 - ▶ For example, permitting Accessory Dwelling Units (ADUs)



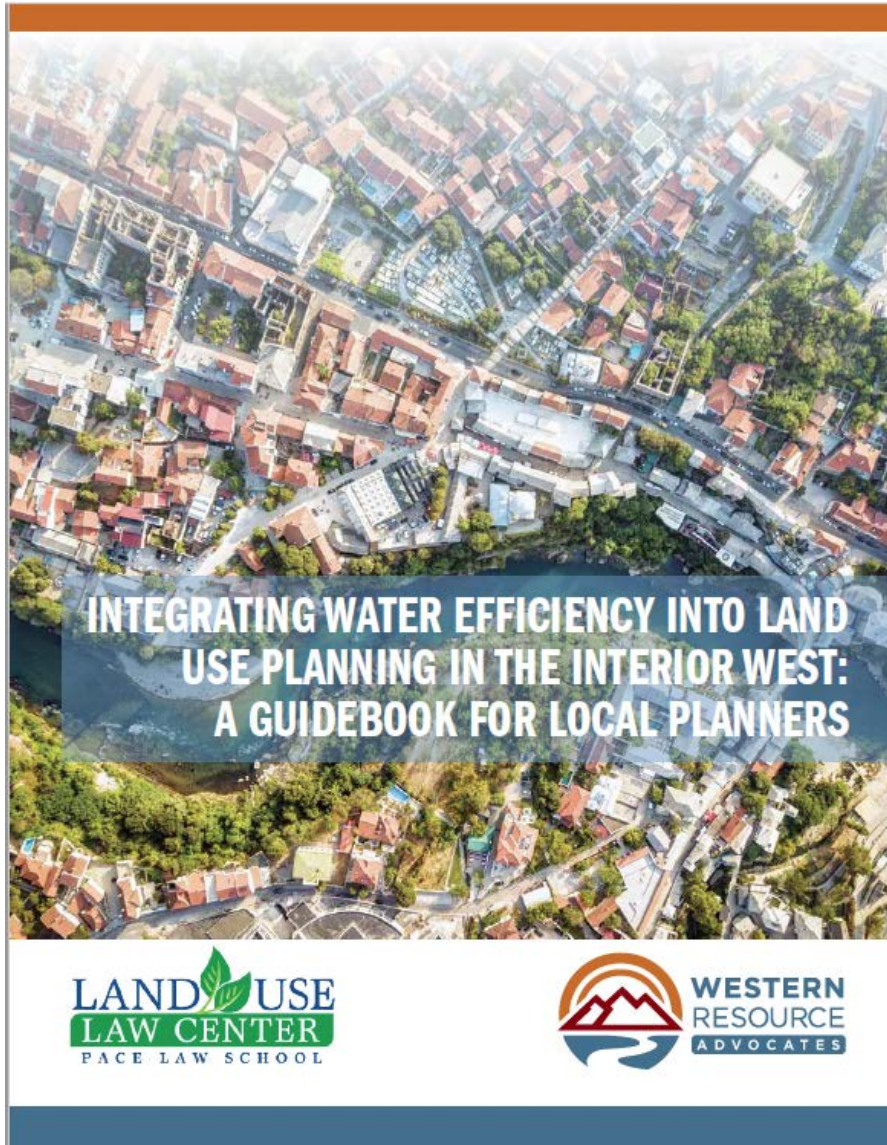
Specific policies, programs, and plans

► Subdivision regulations

- Can dictate individual parcel size, which impacts density and therefore per capita water usage
- Can include water supply adequacy requirements
- Can require pre-application conference to discuss water



Specific policies, programs, and plans



Guidebook Chapters:

- Comprehensive Master Plans
- Sustainability Plan
- Zoning Code
- Subdivision Regulations
- Site-Plan Regulations
- Building and Plumbing Codes
- Supplemental Regulations
- Development Moratoria
- Development Agreements
- Non-Zoning Incentives
- Post-Occupancy Enforcement

Next steps

- ▶ Meet with your local planner director, City Manager, or utility director
- ▶ Ten Steps to Better Collaboration ([WRF Guide](#))
- ▶ Attend a free webinar (see final slide)
- ▶ Check out some resources (see final slide)
- ▶ Find outside assistance (see final slide)

WRA's Next Steps

- ▶ Western Resource Advocates, in partnership with the WaterNow Alliance, have been providing direct assistance to communities in Colorado.
- ▶ For example:
 - ▶ Helping the City of Golden develop, implement, and pilot a new greywater ordinance
 - ▶ Researching and reviewing development policies related to water efficiency and raw water in Greeley, CO
- ▶ Contact us if you're interested!

Thank you! Questions?

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Colorado Water Conservation Board Webinars: <https://www.colorado.gov/pacific/cowaterplan/integrating-water-land-use-planning>

Colorado Water Conservation Board Grants: <http://cwcb.state.co.us/LoansGrants/Colorados-Water-Plan-Grants/Pages/main.aspx>

Sonoran Institute Growing Water Smart Workshops: <https://sonoraninstitute.org/resource/growing-water-smart-rfp/>

WaterNow Alliance Project Accelerator: <https://waternow.org/our-work/our-work-projects/wna-project-accelerator/>

Western Resource Advocates Guidebook For Local Planners: <https://westernresourceadvocates.org/publications/integrating-water-efficiency-into-land-use-planning/>

Western Resource Advocates Tap Fee Report: https://westernresourceadvocates.org/wp-content/uploads/2019/06/WRA_Guide-to-Conservation-Oriented-SDCs_web.pdf

Western Resource Advocates State Policy Database: <https://westernresourceadvocates.org/state-water-policy-program-database/>