

An aerial photograph of a suburban neighborhood. In the foreground, there is a large, open grassy field with some yellow wildflowers. To the left, there is a parking lot with several cars and a building with a brown roof. In the middle ground, there is a residential area with many houses, mostly with grey roofs and light-colored siding. Some houses have multiple stories. To the right of the residential area, there is a small pond or wetland area with some trees. In the background, there are mountains with some snow or light-colored rock. The sky is blue with some white clouds.

WATER EFFICIENT CITIES

MANAGING WATER AND GROWTH TOGETHER

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WHY?

- Water suppliers are faced with the prospect of:
 - Reduced supplies
 - Increased demand
 - Uncertainty
 - Climate change exacerbating everything
- Without a significant emphasis on water efficiency, we have a **water gap**

TRADITIONAL WATER CONSERVATION

- Water supplier focused
 - Rate structure
 - Tap fees
 - Maybe irrigation restrictions
- But water supplier has to serve whatever development the land use authority approves

WATER EFFICIENT DESIGN

- Initial configuration of development influences future water demand
- Enhanced ability to absorb growth and increase resilience
- Water savings can be used to further unique community goals
 - Preserve stream flows
 - Preserve nearby agricultural land

Integration is Hard!



CHALLENGES OF LAND/WATER INTEGRATION

- Water supplier and land use authority may be separate entities
 - Water district may serve parts of city and/or unincorporated areas of county
 - City water utility may serve areas outside city boundaries
- Denver Water serves 27 different land use authorities

COLORADO SPECIFICS

- Water providers must evaluate best practices for implementing water conservation through land use planning
- Colorado Water Plan - By 2025, 75% of Coloradans will live in communities that have incorporated water-saving actions into land use planning

AUTHORITIES

- Colo. Rev. Stat. § 29-20-301, -303
- A local government can't approve a development permit until the applicant demonstrates the **water supply is adequate**
- For development of ≥ 50 units

WATER ADEQUACY

- “Adequate” includes quality, quantity, dependability, and availability for the particular development
- May include reasonable conservation measures to account for hydrologic variability
- Local governments have great discretion in determining what adequate means

WATER ADEQUACY

- Possible uses of authority
 - Require water conservation in all development proposals
 - Decrease minimum for water adequacy review from 50 units to something less

GENERAL AUTHORITIES

- Basic

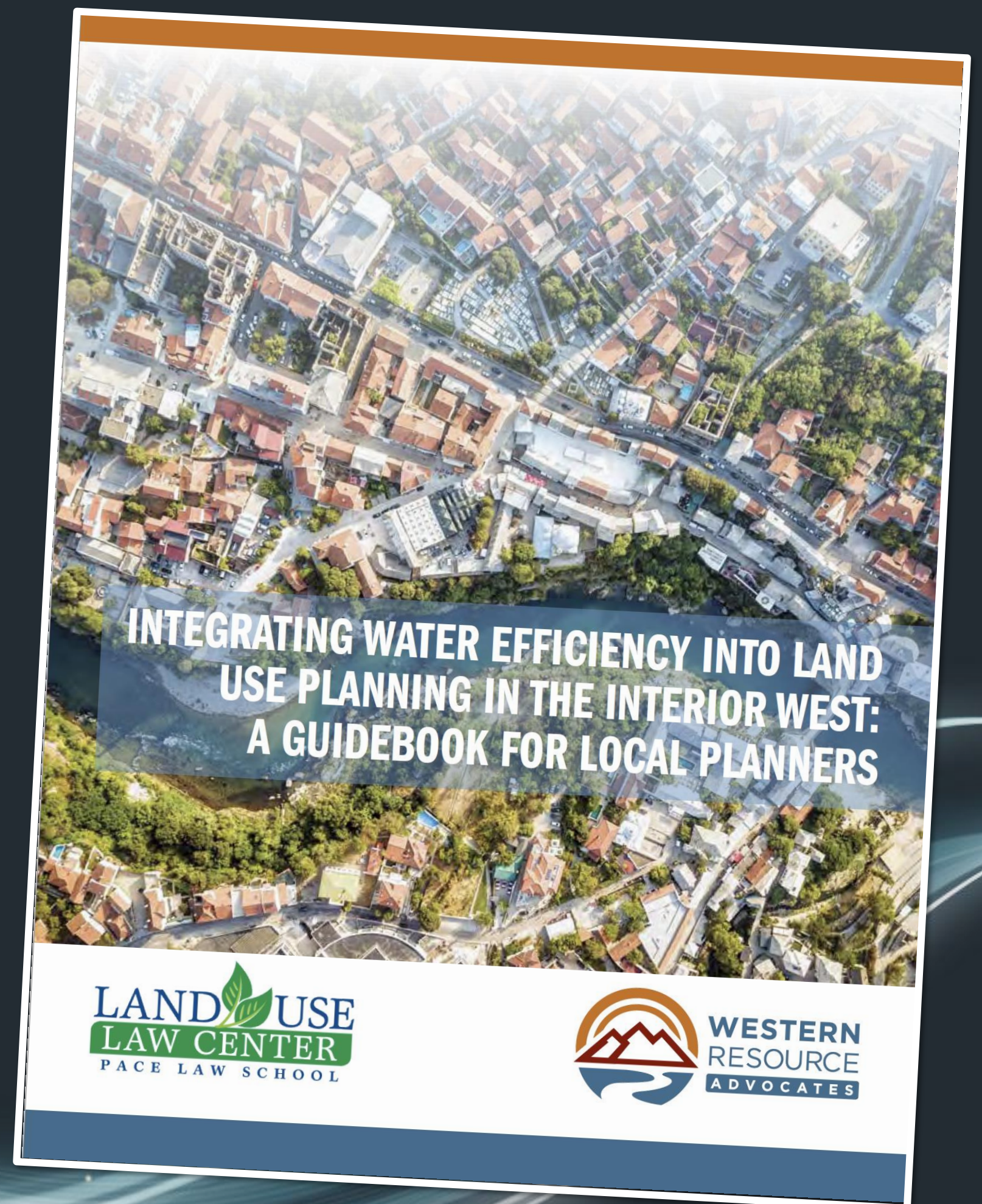
- Establish a land and water planning team
- Make sure they're using the same data
- Make water part of the development approval process

- Other possibilities

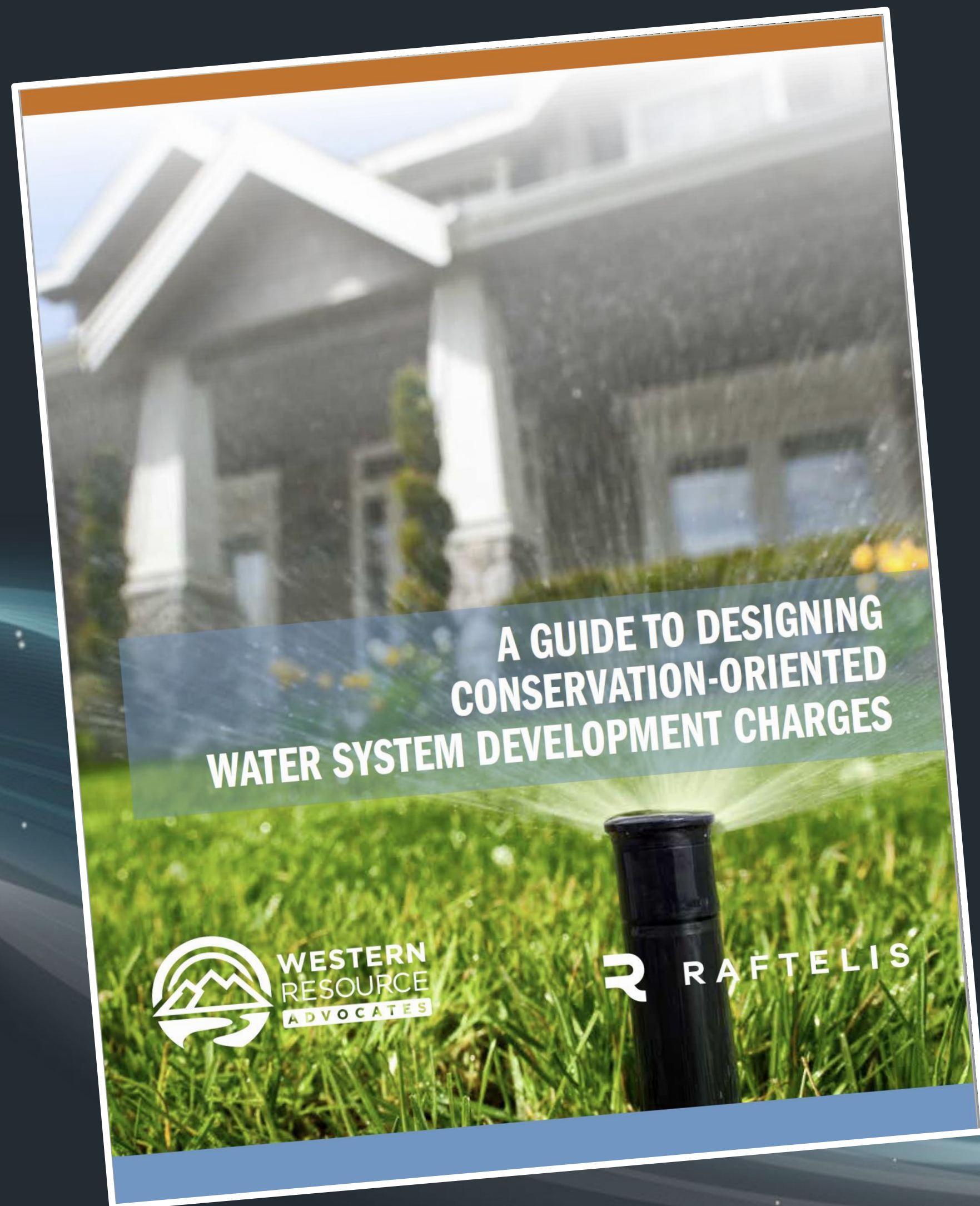
- Developer incentives
- Water efficient landscape code
- WaterSmart outdoor devices

TOOLS

Western Resource
Advocates:
Guidebook for Land
Use Planners
Chapters on:
Comp plans
Zoning
Subdivision regs



TOOLS



WRA Tap Fee Guide:

Reduce demand
using tap fees to
incentivize water
efficient homes and
development

TOOLS



- Colo Water and Growth Dialogue
- Describes effects of higher densities and landscaping policies
- Tools for developing growth scenarios and projecting water demand

TOOLS

- New guidance for water suppliers
- Best practices for using land use authority to implement water conservation



GUIDANCE

- More than 100 land use practices described for consideration
 - No one-size-fits-all
- Hundreds of examples and case studies
 - All with direct weblinks to more detail





Examples:

Any amendment to the **City of Westminster's** land use plan must, among other requirements, not negatively impact water infrastructure or water supply ([Westminster Municipal Code 11-5-21](#)).

Prior to permitting, new construction and remodeling in the **City of Santa Fe, New Mexico** are required to receive a certificate of compliance before permitting stating that all plumbing fixtures meet water conservation restrictions ([Santa Fe Ordinance No. 1997-17](#)).

- b. Include water demand and conservation among the considerations for **annexation**.



Example: The City of Colorado Springs coordinates its annexation policies with Colorado Springs Utilities to ensure there is projected available water surplus both at the time of the annexation request and into the foreseeable future ([Conditions for Annexation Code 7.6.203](#)).

4. Incorporate Water Efficiency into Zoning Codes and Rezoning Procedures

Extensive information on this subject is available in the CWCB and DOLA-sponsored training program on [Integrating Water Efficiency into the Zoning Code](#) and associated [webinar](#). See [Integrating Water Efficiency Into Land Use Planning in the Interior West: A Guidebook for Local Planners](#), Chapter 7, for a full overview of incorporating water into zoning codes and rezonings.

Case Studies: PUDs in Westminster and Eagle County

Westminster uses a PUD process for all sites two acres or greater and thus almost all development approvals are the result of negotiation. Water conservation is a key consideration with the PUD approval process, particularly in regard to site design and landscaping. See Westminster's PUD code ([11-4-7](#)) and comprehensive plan amendment code ([11-5-21](#)).

Eagle County and Eagle River Water and Sanitation District (ERWSD) work together to incorporate water-saving measures into new developments in the PUD process. Three developments have incorporated water efficiency measures as a result: [Fox Hollow](#); [6 West](#); and [Stillwater](#). Measures included outdoor irrigation budgets and planting limited to those on the [Colorado State University recommended plant list](#).

Additionally, ERWSD included language in the PUDs to allow for future adjustments: "These requirements may be adjusted with approval of the Eagle River Water and Sanitation District if such adjustments maintain the water efficiency goals as outlined in these requirements."

EXAMPLE PAGE