

El Paso County Water Master Plan

Planning Commission
December 4, 2018

FORSGREN
Associates Inc.



ELEMENTS OF THE MASTER PLAN

The El Paso County Master Plan currently exists as:

- El Paso County Policy Plan (1998)
- Topical Elements (6 elements)
- Small Area Plans (10 Plans)
- Drainage Basin Plans (18 Plans)
- Sketch Plans (21 Plans)

PUBLIC INPUT AND MEETINGS

- MetroQuest Survey
 - Direct contacts (HOA's, CONO, NEPCO)
 - Notices on organization websites
 - Publication notices
 - District notices
 - County web pages (Main page, department page)
 - Identification at public meetings (BoCC, PC, HBA, NEPCO, etc)
 - 1000+ visited the site
 - 370 filled out the survey
- Open House notices
 - 50 + people in attendance
- Notice to Military bases in accordance with CRS 29-20-105.6
 - Military base staff involved in the steering committee
 - Direct notice of Planning Commission hearings(s)
- Notice through EDARP online review system to all water providers and review agencies (110)
- Legal notice of the Planning Commission hearing(s) November 21
- Notice to surrounding counties was provided in accordance with CRS 24-32-3203(2)(a)

WATER PROVIDERS

- A water providers survey was provided to all identified centralized water providers (53)
 - Cities and Towns
 - Special Districts providing water service
 - Private water companies, utilizing a public water supply list by the state

REGULATORY STANDARDS FOR DEVELOPMENT

- El Paso County has adopted and the courts have upheld the requirement to utilize a 300 year water supply standard for subdivisions instead of the state required 100 year supply.
- Generally, renewable water supplies (surface water and alluvial groundwater) are treated differently than non-renewable supplies
- Typically, and in accordance with county regulations, the sufficiency review of the water supply occurs at the final plat stage of development. (CRS 30-28-133)
- However, CRS 29-20-301 does allow an adequacy review at other stages of development, with certain limitations.
- The 1041 permit requirements specifically include review in accordance with the Master Plan

Overview

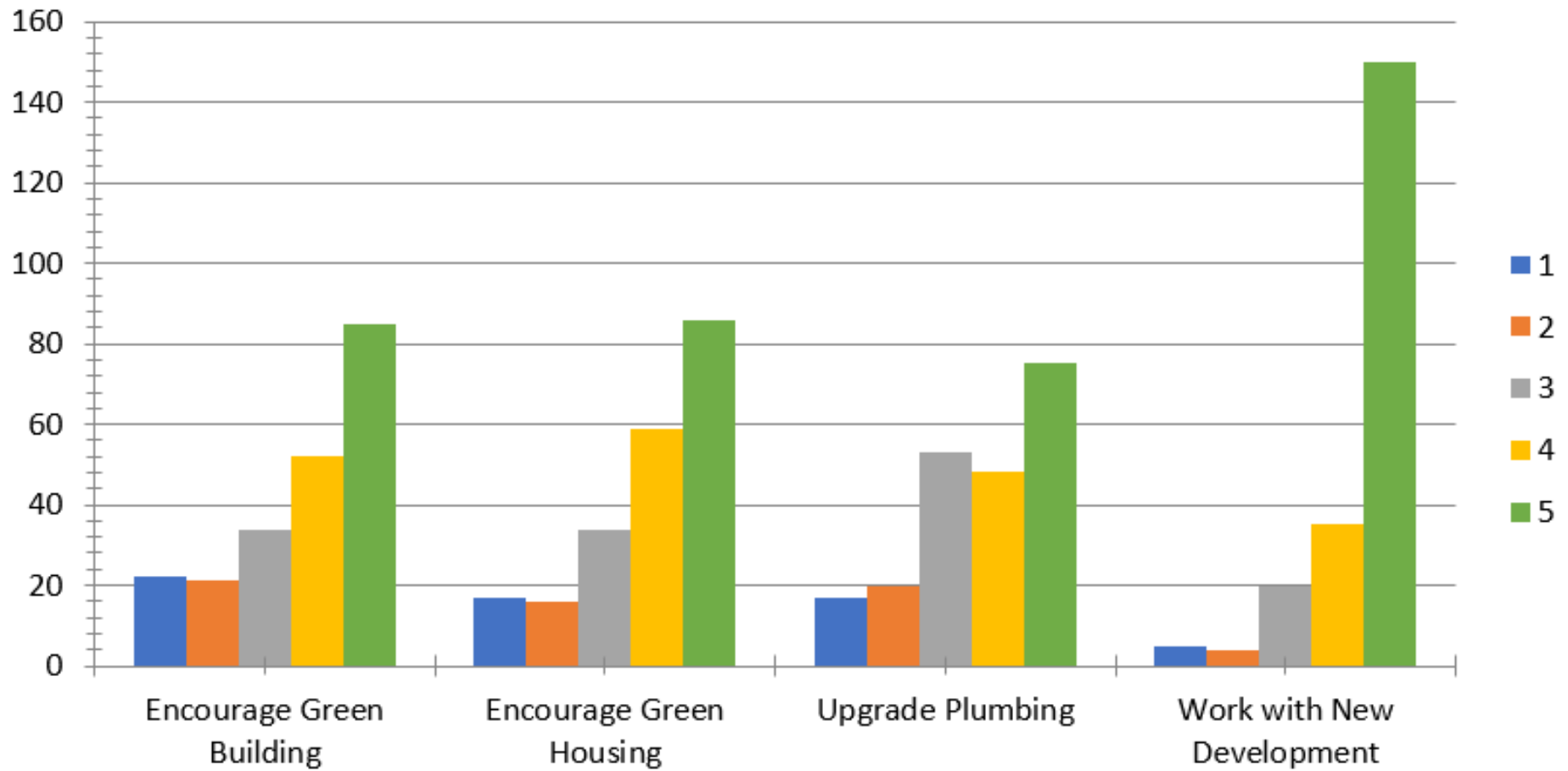
- ***Purpose of the Plan***
- ***Public Feedback***
- ***Water Supplies***
 - *Denver Basin Groundwater*
 - *Renewable Water*
- ***EPC Water Plan Regions***
- ***Current Supplies***
- ***CS Utilities Water Supplies***
- ***Regional Planning***
- ***Expected Growth Areas***
- ***Projected Water Demands***
- ***Strategies***
 - *Reuse*
 - *Aquifer Storage and Recovery*
 - *Land Use with Water Demand*
- ***Next Steps***
- ***Draft Goals and Policies***

Purpose of the Plan

- Understand ***water supply & demand*** conditions
- ID possible ***efficiencies***
- Encourage ***best practices*** - water demand mgmt & conservation
- Balance efficient use of limited supplies with ***need for reliability***
- ***Cooperate with water providers*** in their planning efforts
- Provide basis for ***review of planned water supplies*** for new development
- Evaluate ***a range of alternatives*** to meet demand
- Integrate water supply into short and long-range ***land use planning***
- Integrate ***water conservation and landscape planning***
- Provide ***guidance for review of 1041 or other utility permit apps.***
- Implement local aspects of ***Colorado's Water Plan***

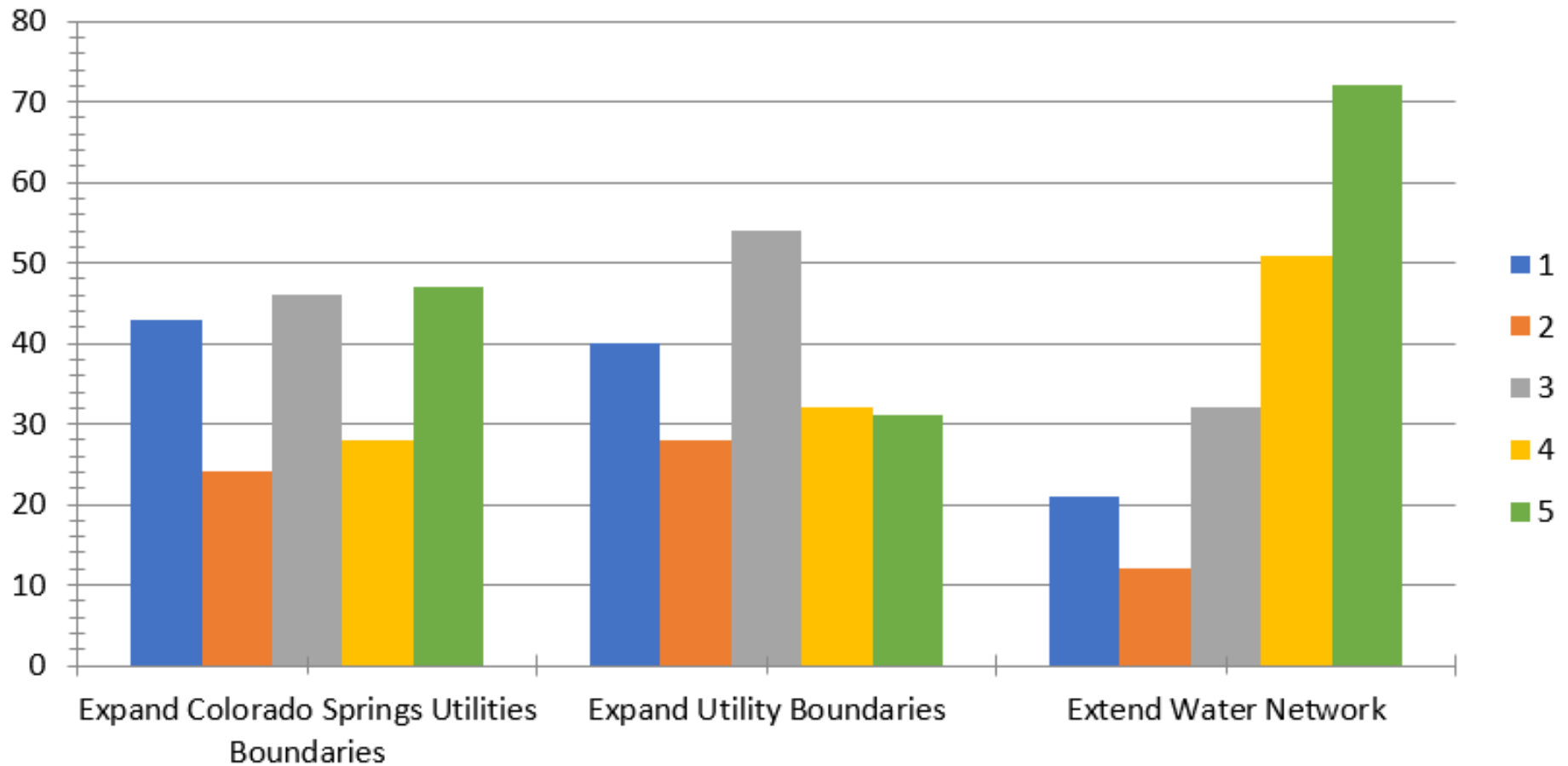
Public Feedback

Building Landscaping



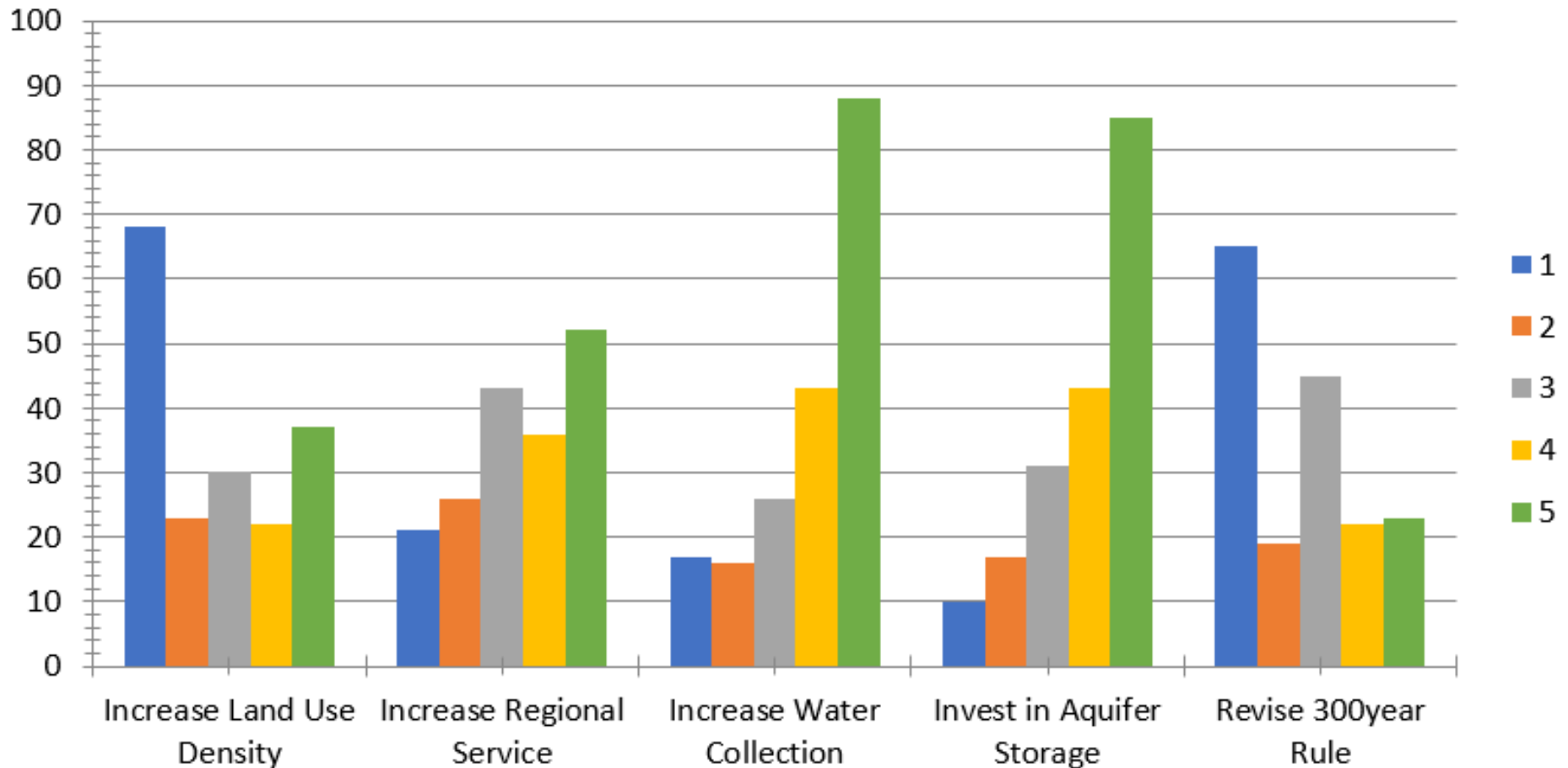
Public Feedback

Regionalization



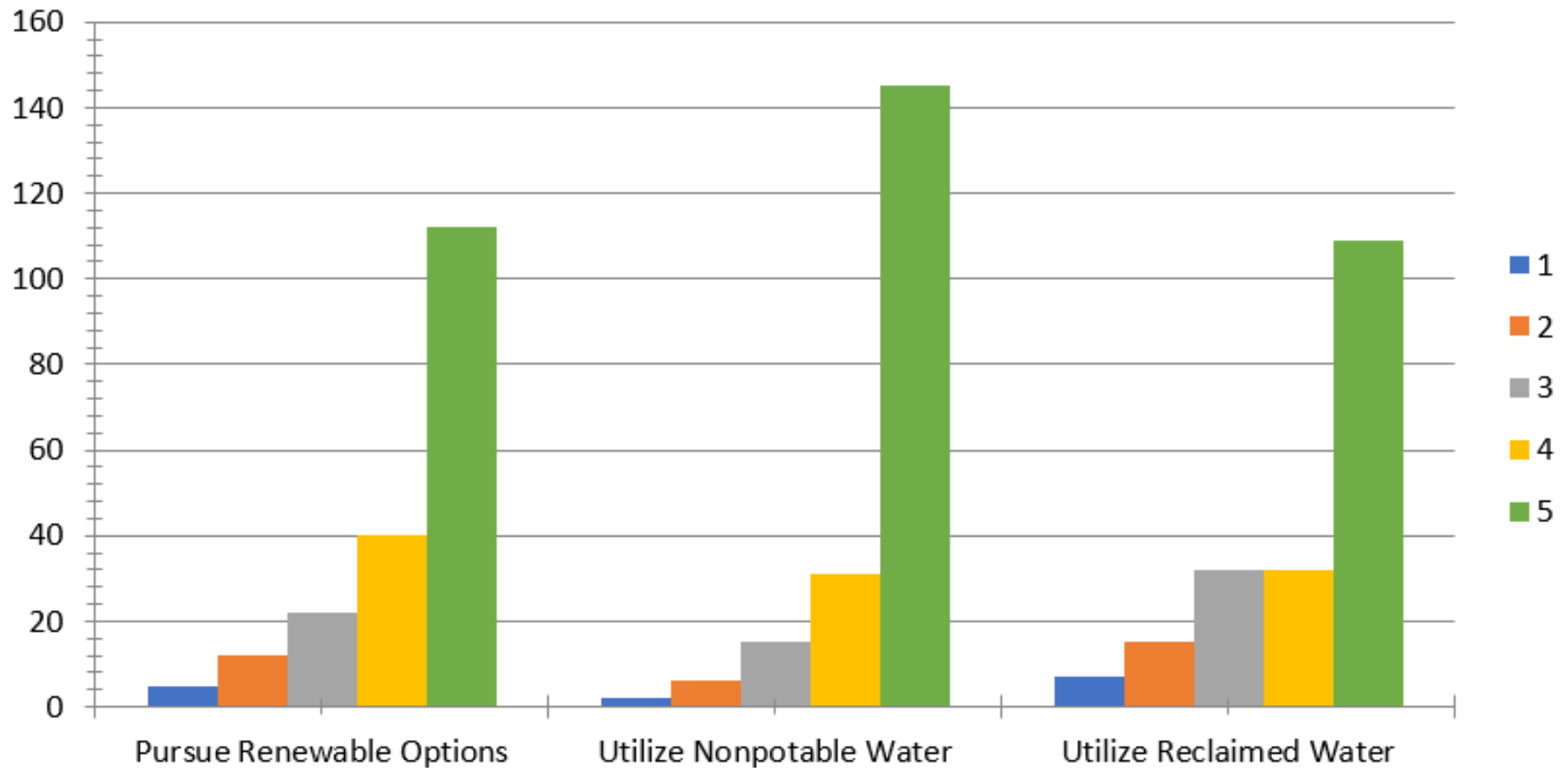
Public Feedback

Land Use Infrastructure



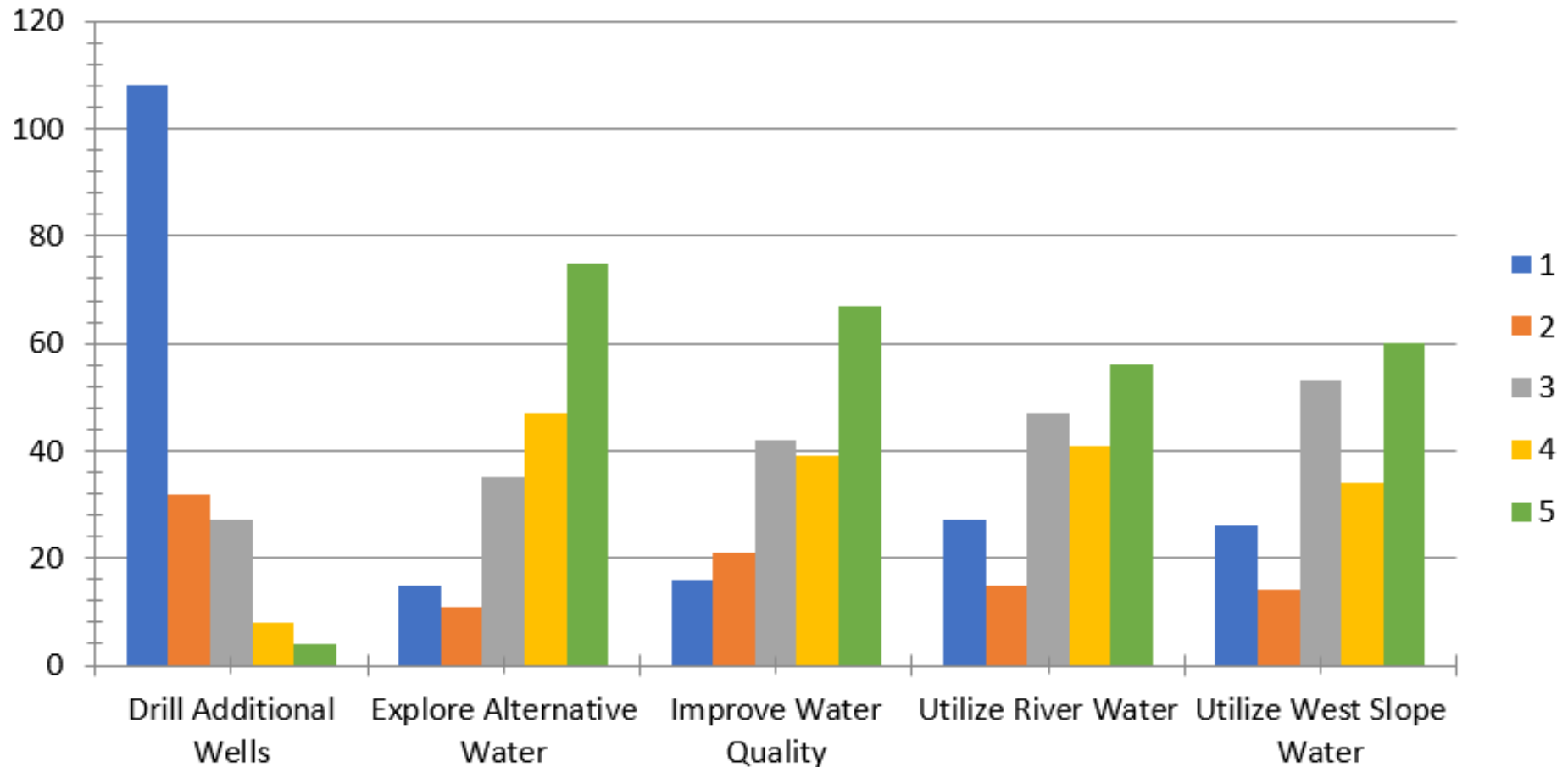
Public Feedback

Renewable Water



Public Feedback

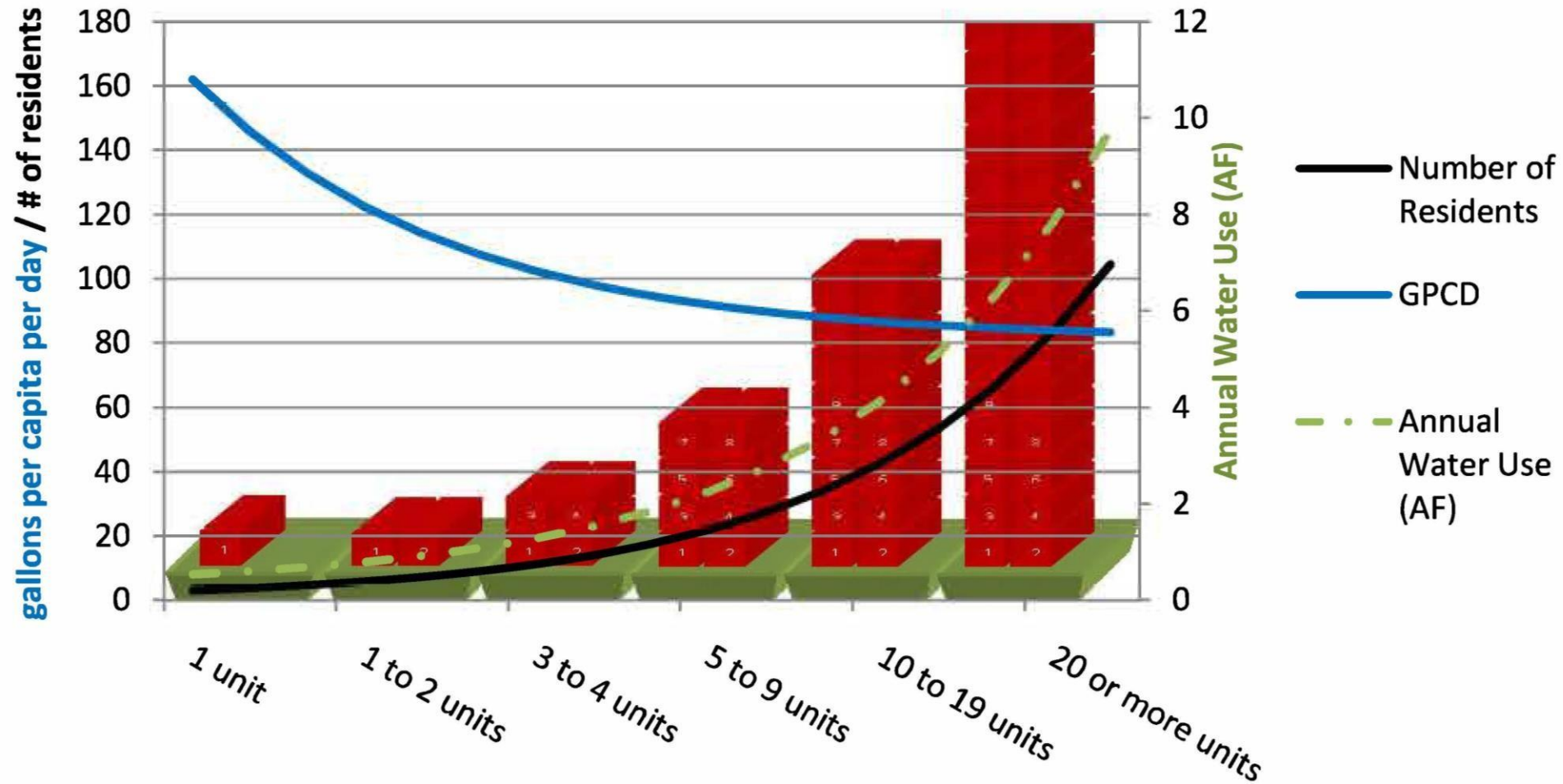
Water Sources Quality



OPEN HOUSE COMMENTS

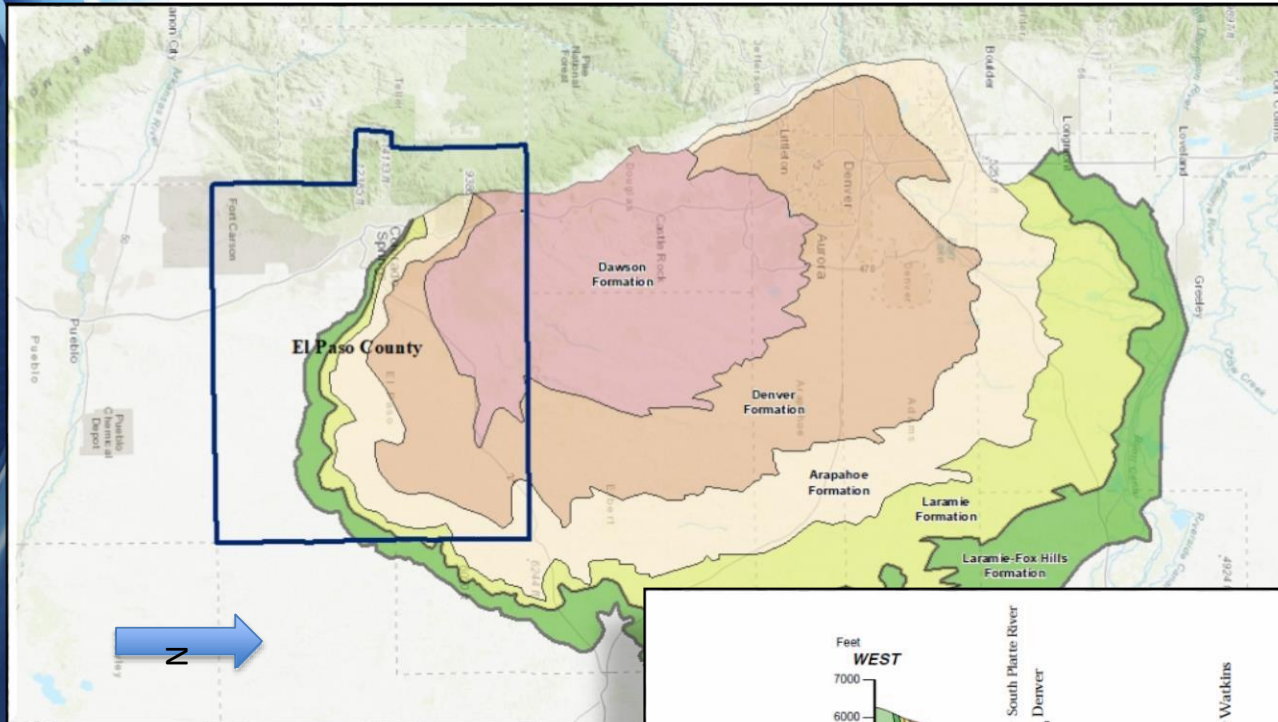
- Try to develop the availability of more surface water - reservoirs.
- "Protect our wells Private Well Owner"
- Would like to receive information and be involved as process moves forward.
- Need to drive towards an integrator system for water delivery... 40-50 (or more!) Providers acting independently is not efficient or effective for the greater good.
- Absolutely need to change the process to assess water adequacy at front-end of land use/ zoning decision process - before developer gets approval of requested rezone.
- Centralized water system for developments with lots smaller than 5 acres (Not Average)
- This is a positive step forward. Until the plan is put in place and water quantity is truly known and measured, there should be halt of development permits using groundwater.
- "You need to have someone unaffiliated with the HOA's checking their water usage & making sure they don't go over limit. It's like having the robber watch the bank: Example- Flying Horse North Development* Not happy with you Com. Glenn. You are not representing what your people want!!"
- Request the state actually check the levels in the aquifers each year instead of them assuming there's water when there isn't.
- "Protect our wells Private Well Owner"
- Request for charts and maps to be put on line
- Need tonight's charts on a website for public review
- We need well monitoring to know how the aquifers are acting. The State says there is water but reality shows there isn't as much as they say.
- A committed land use plan that disallows rampart urbanization approval needs to accompany water availability.

Per Capita Water Demand

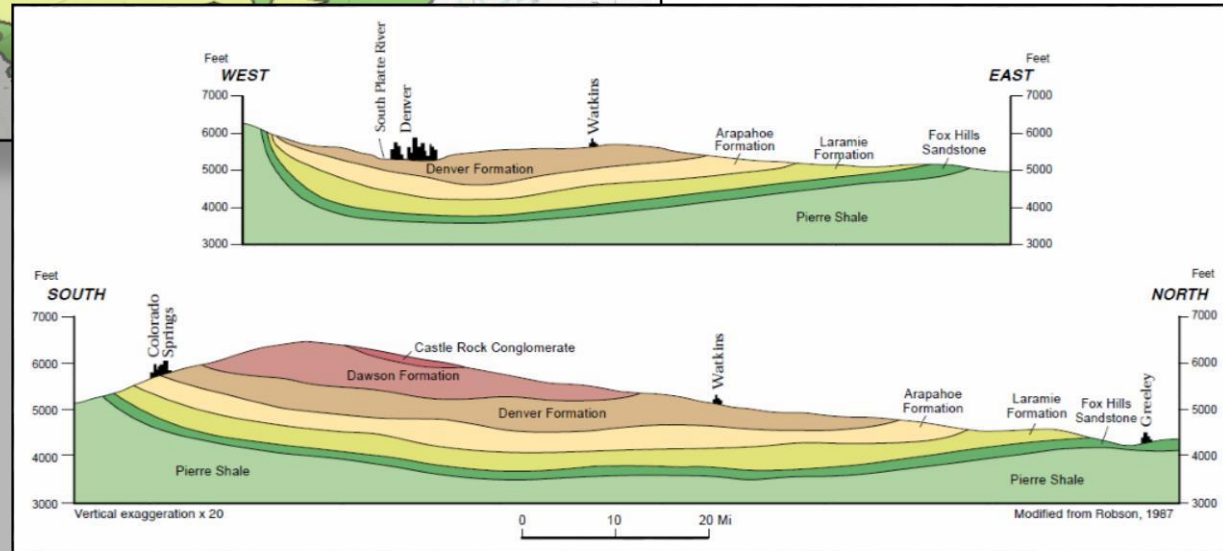


Colorado Water Conservation Board (CWCB), Tech Memo

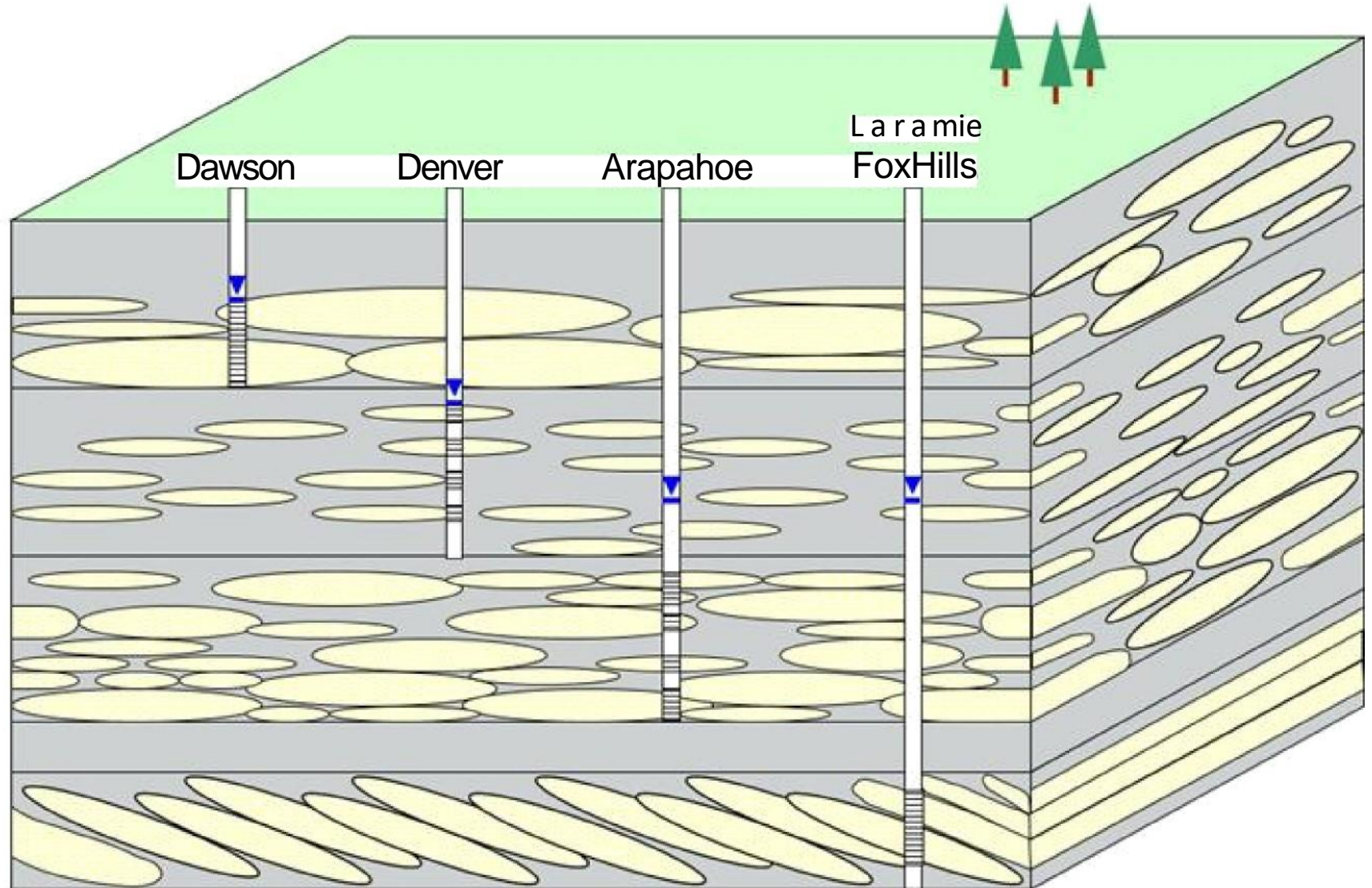
Water Supplies: Denver Basin



Denver Basin water:
Nonrenewable water mined from bedrock aquifers.

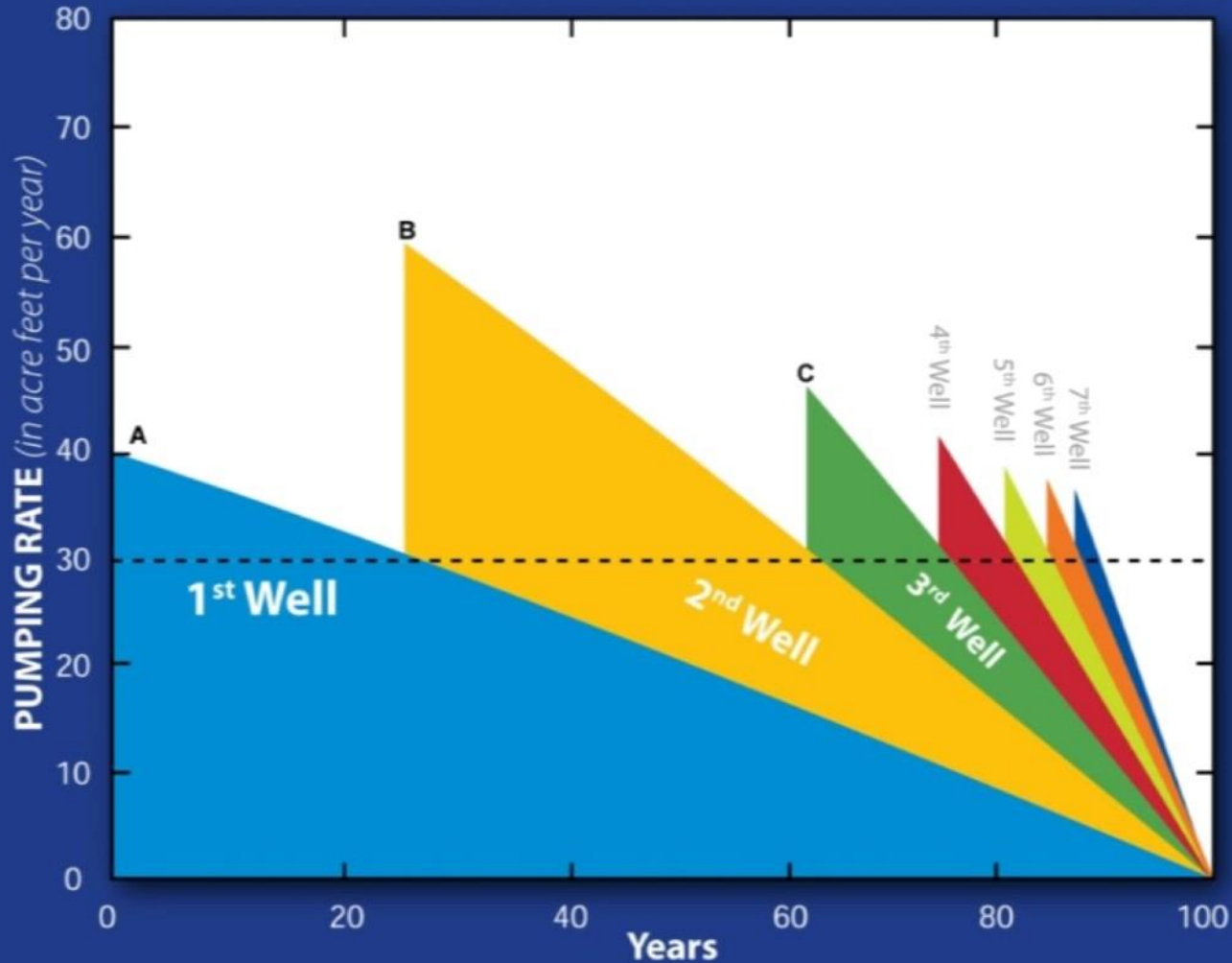


State 100-Year Rule

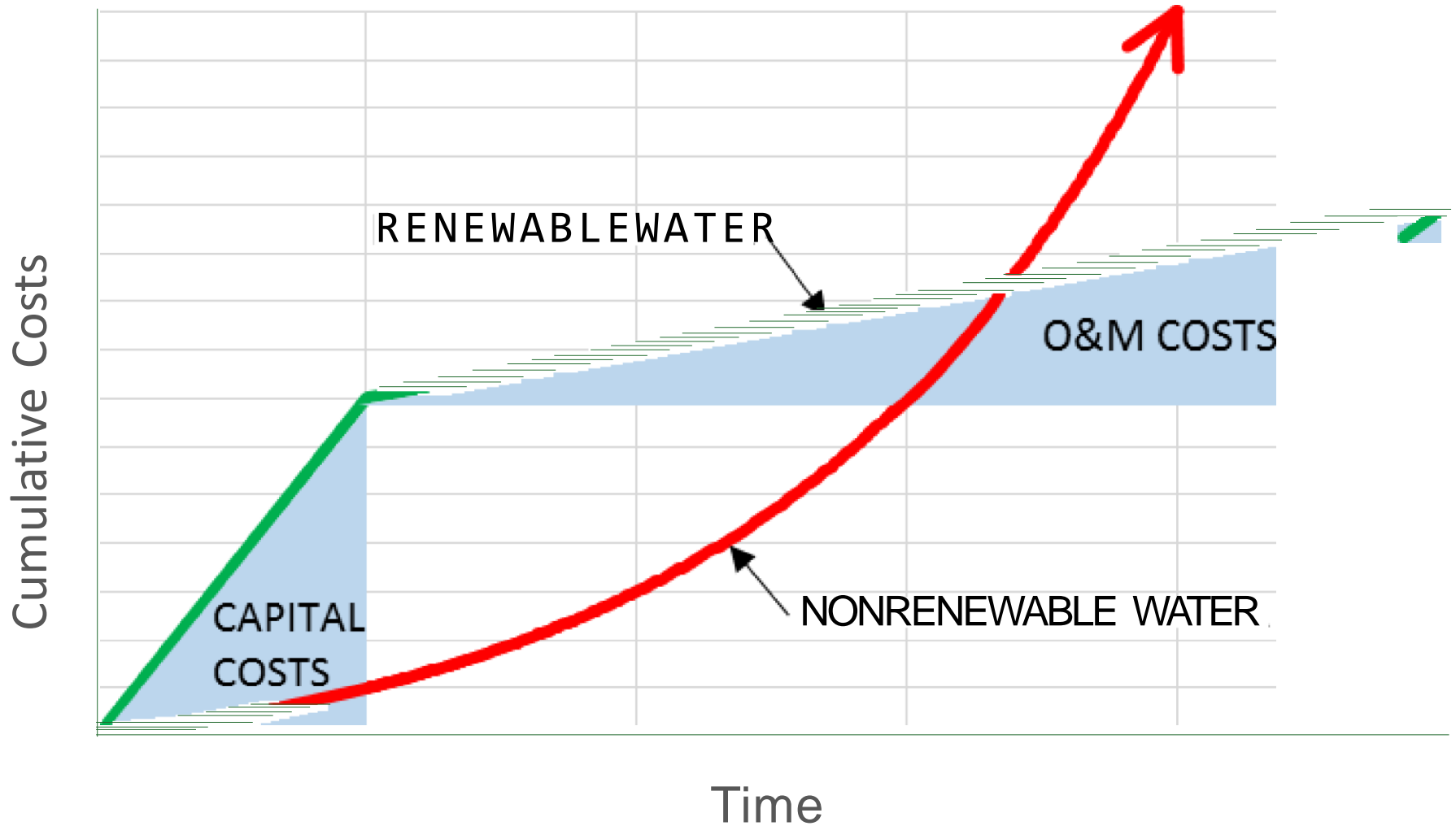


Denver Basin

CASCADING REDUCTION IN WELL YIELD



Denver Basin



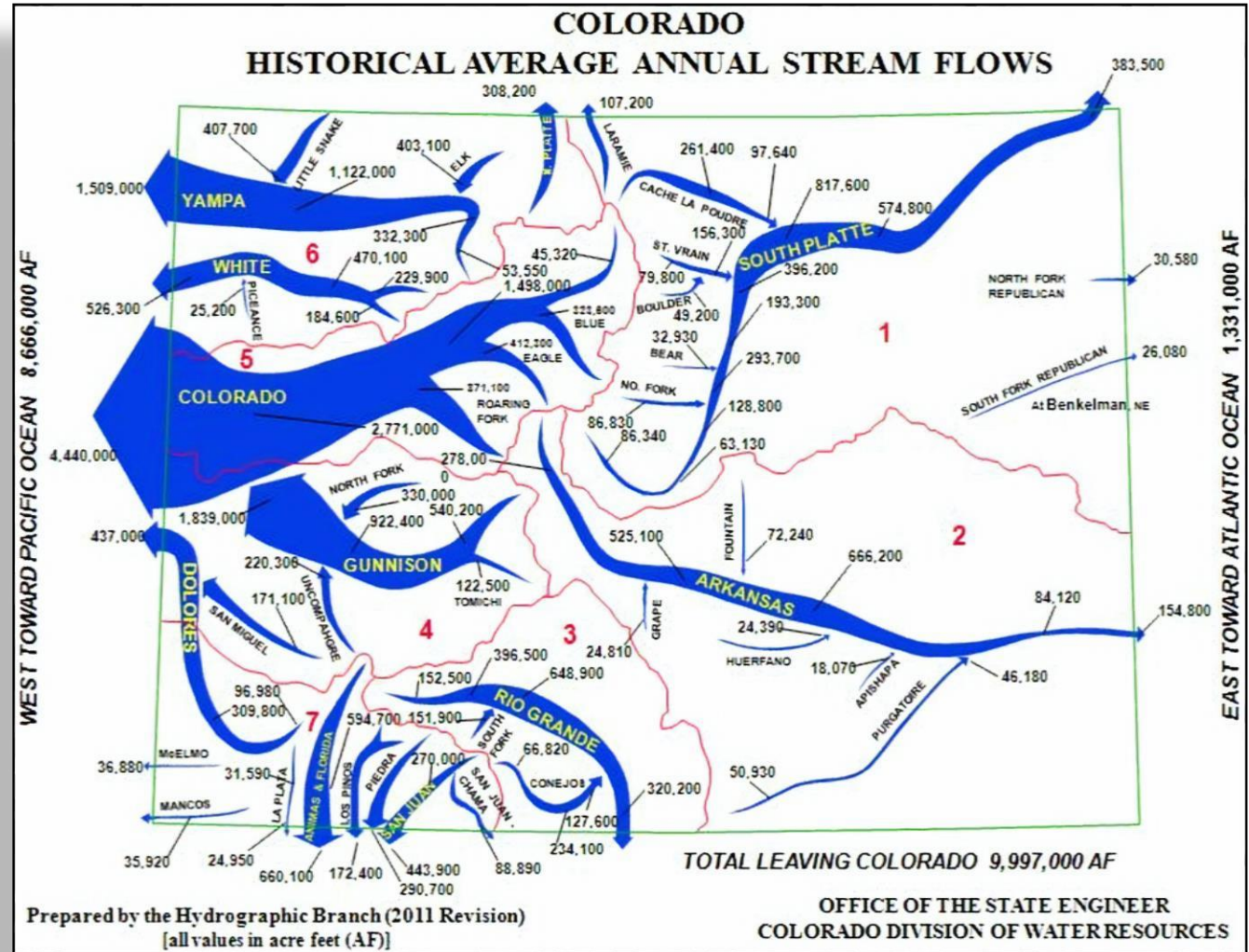
Water Supplies: Renewable Water

Renewable water:
Derived from annual
precipitation.

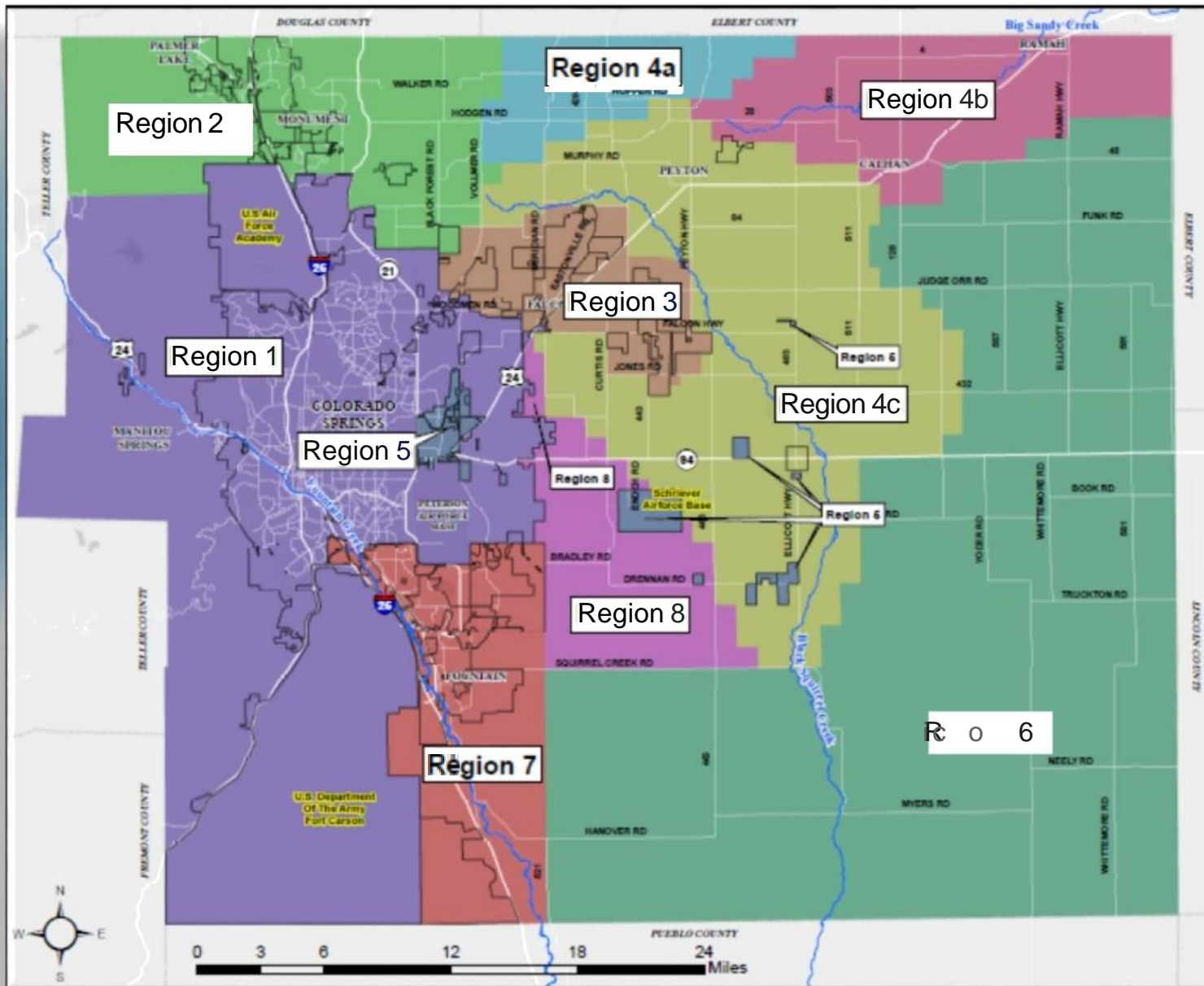
80% Water West
Slope

80% Population
East Slope

Transmountain
Diversions

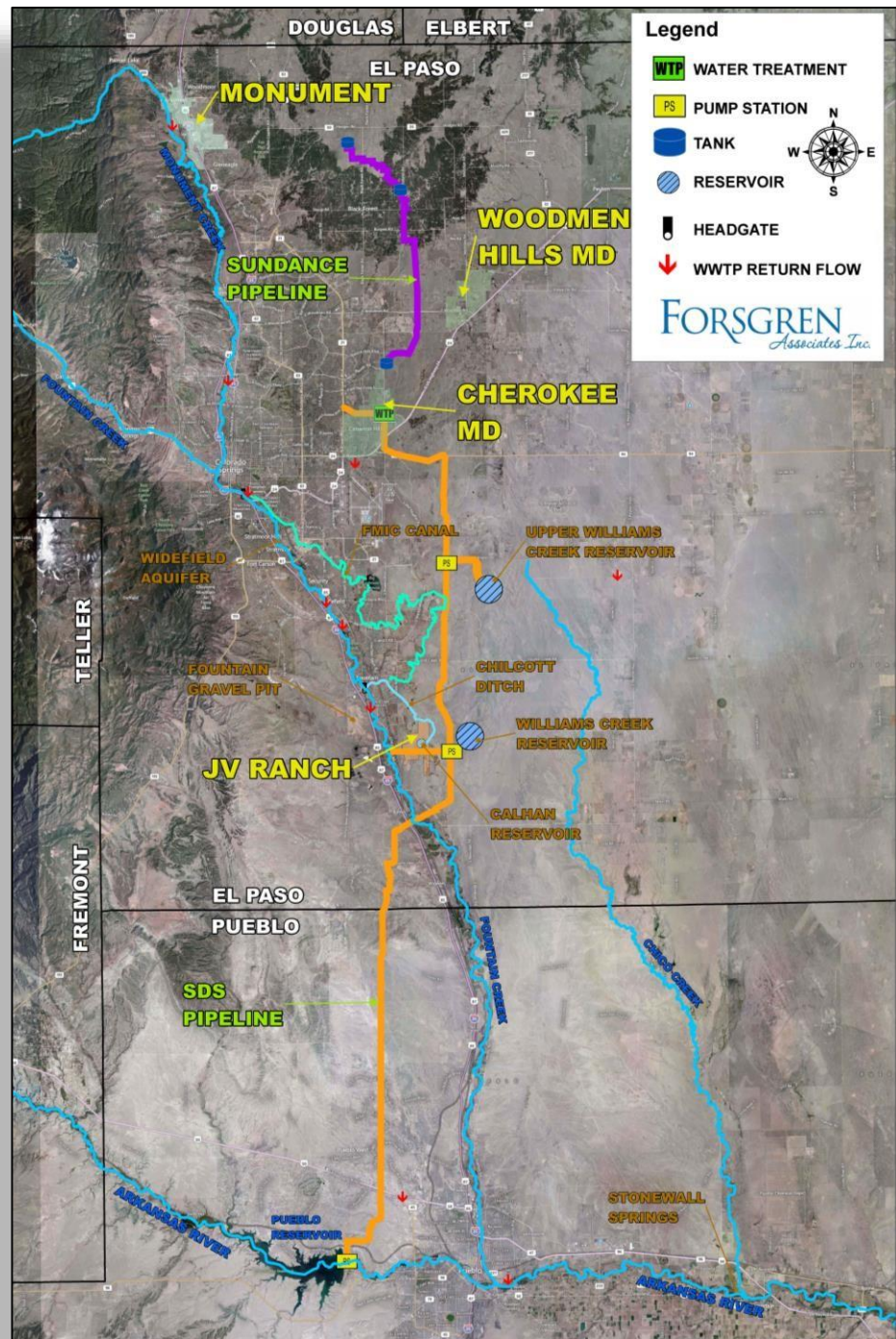


EPC Water Plan Regions



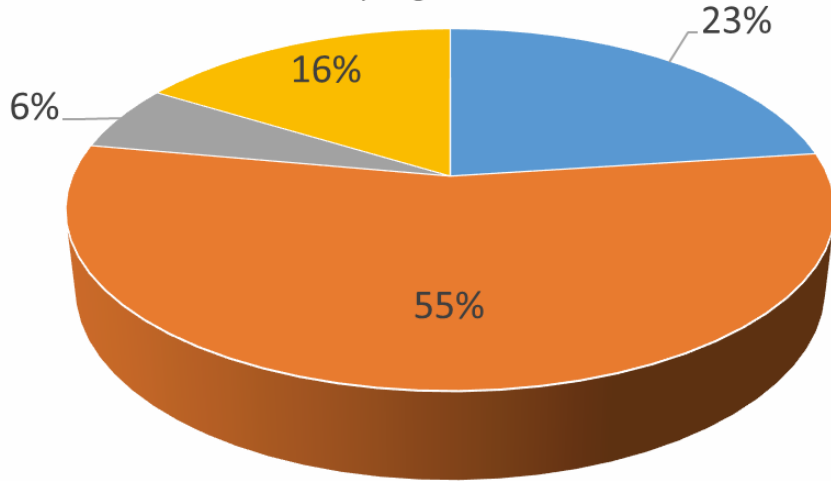
Regional Planning

PPRWA



Current Supplies

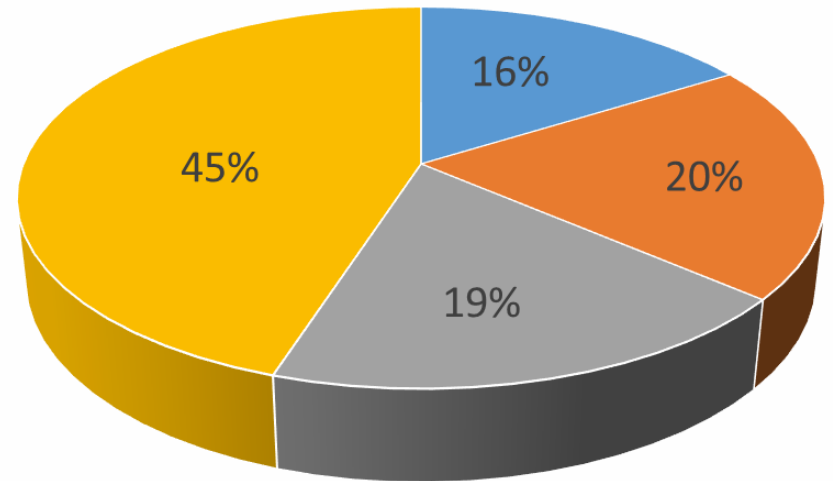
El Paso County Water Sources of Supply with Colorado Springs Utilities



- Native Renewable Water
- Imported Renewable Water
- Designated Basin Groundwater
- Denver Basin Groundwater

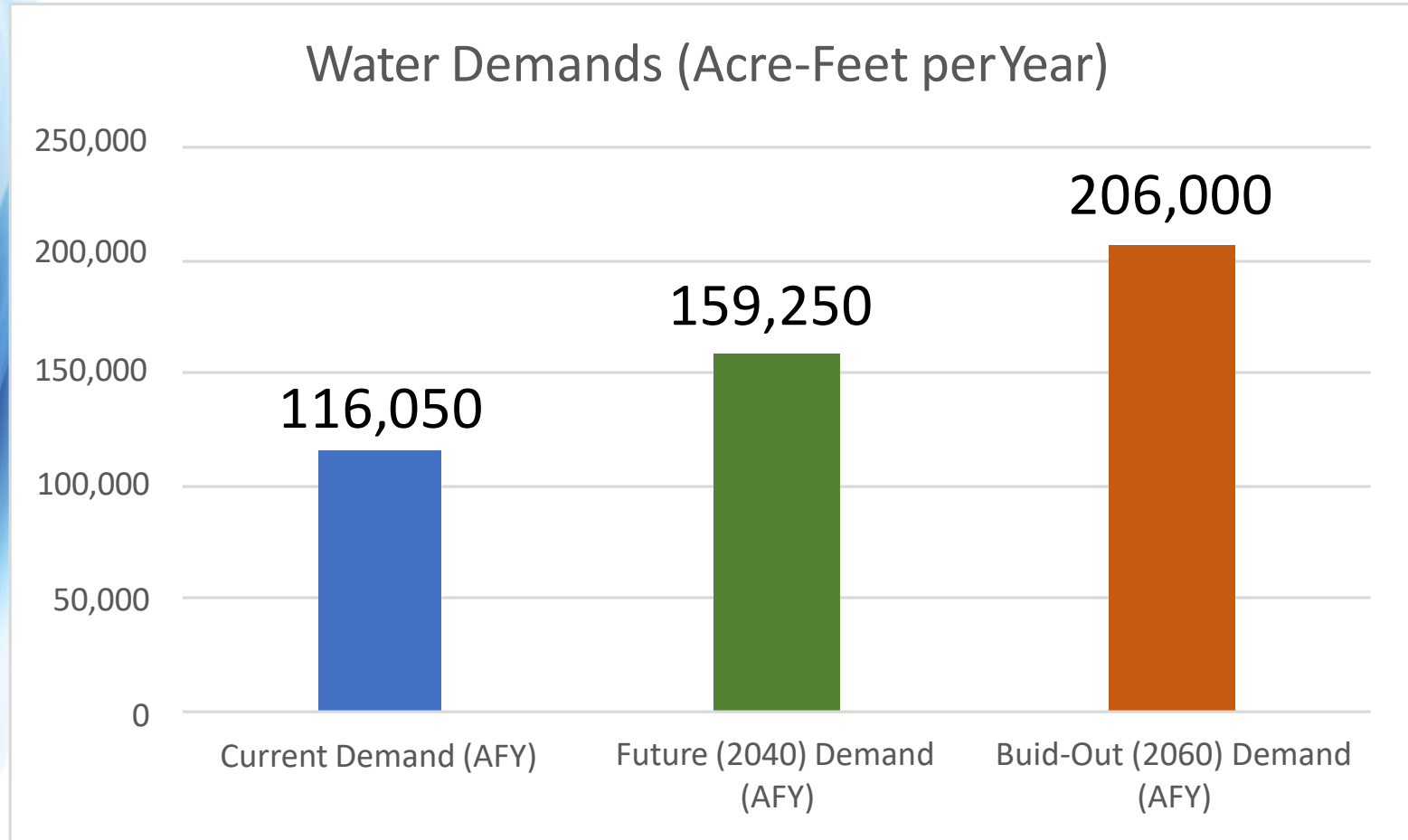
Domestic Wells –
Over **18,120** wells in the County,
outside of Water Service Areas

El Paso County Water Sources of Supply without Colorado Springs Utilities



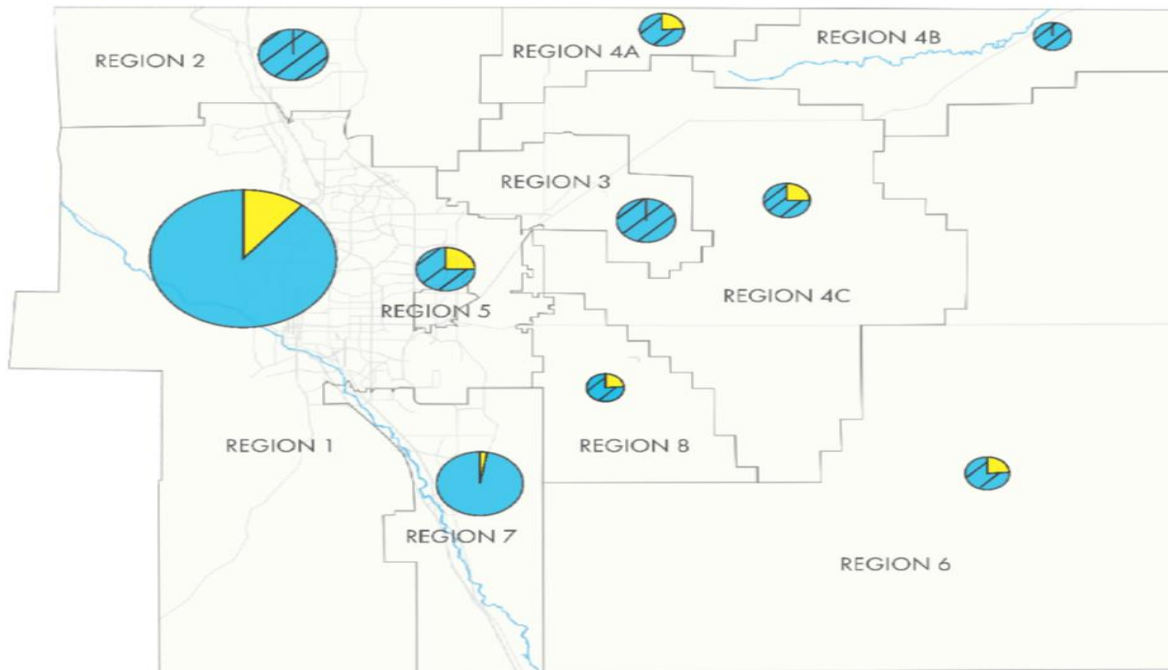
- Native Renewable Water
- Imported Renewable Water
- Designated Basin Groundwater
- Denver Basin Groundwater

Projected Water Demands

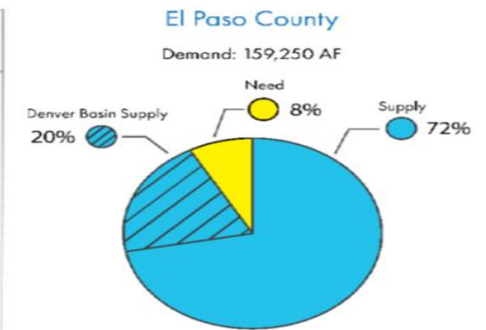


2040 NEEDS

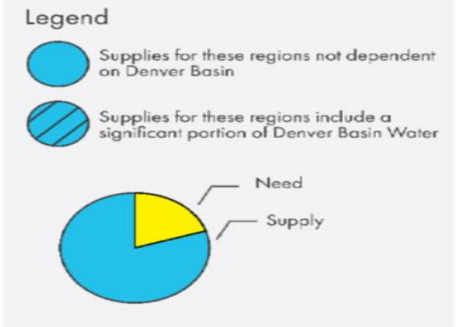
Figure 5.11 - El Paso County Needs Analysis By Region (Future 2040)



Pie chart size is relative to demand

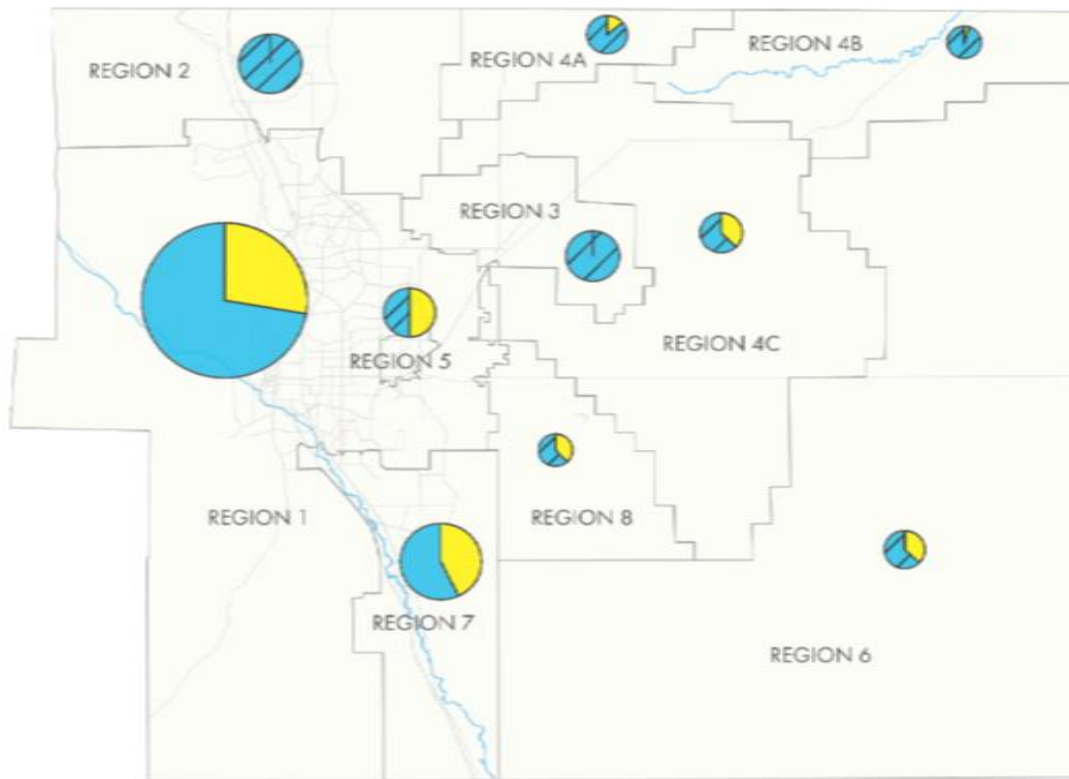


By 2040, the current supply of water is estimated to be sufficient to supply 72% of the projected population. Areas with a significant share of Denver Basin groundwater could serve another 20% of the population, but that share of production may not be economical.

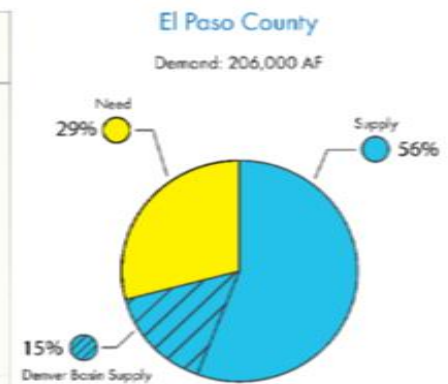


2060 NEEDS

Figure 5.12 - El Paso County Needs Analysis By Region (Build-out 2060)



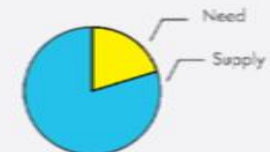

 Pie chart size is relative to demand



At build-out (~2060), the current supply of water is estimated to be sufficient to supply 56% of the projected population. Areas with a significant share of Denver Basin groundwater could serve another 15% of the population, but that share of production may not be economical.

Legend

-  Supplies for these regions not dependent on Denver Basin
-  Supplies for these regions include a significant portion of Denver Basin Water



Strategies: Reuse

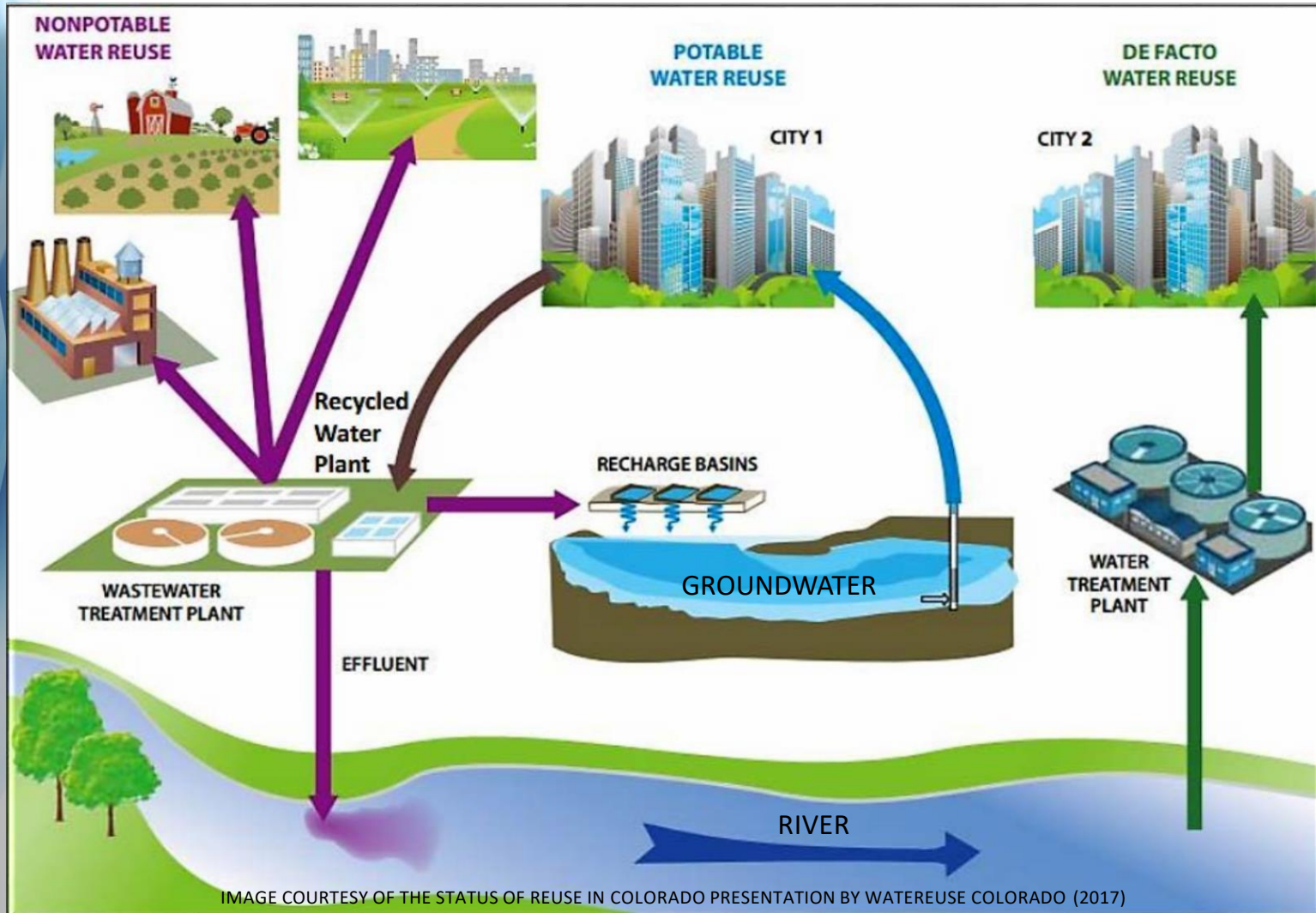
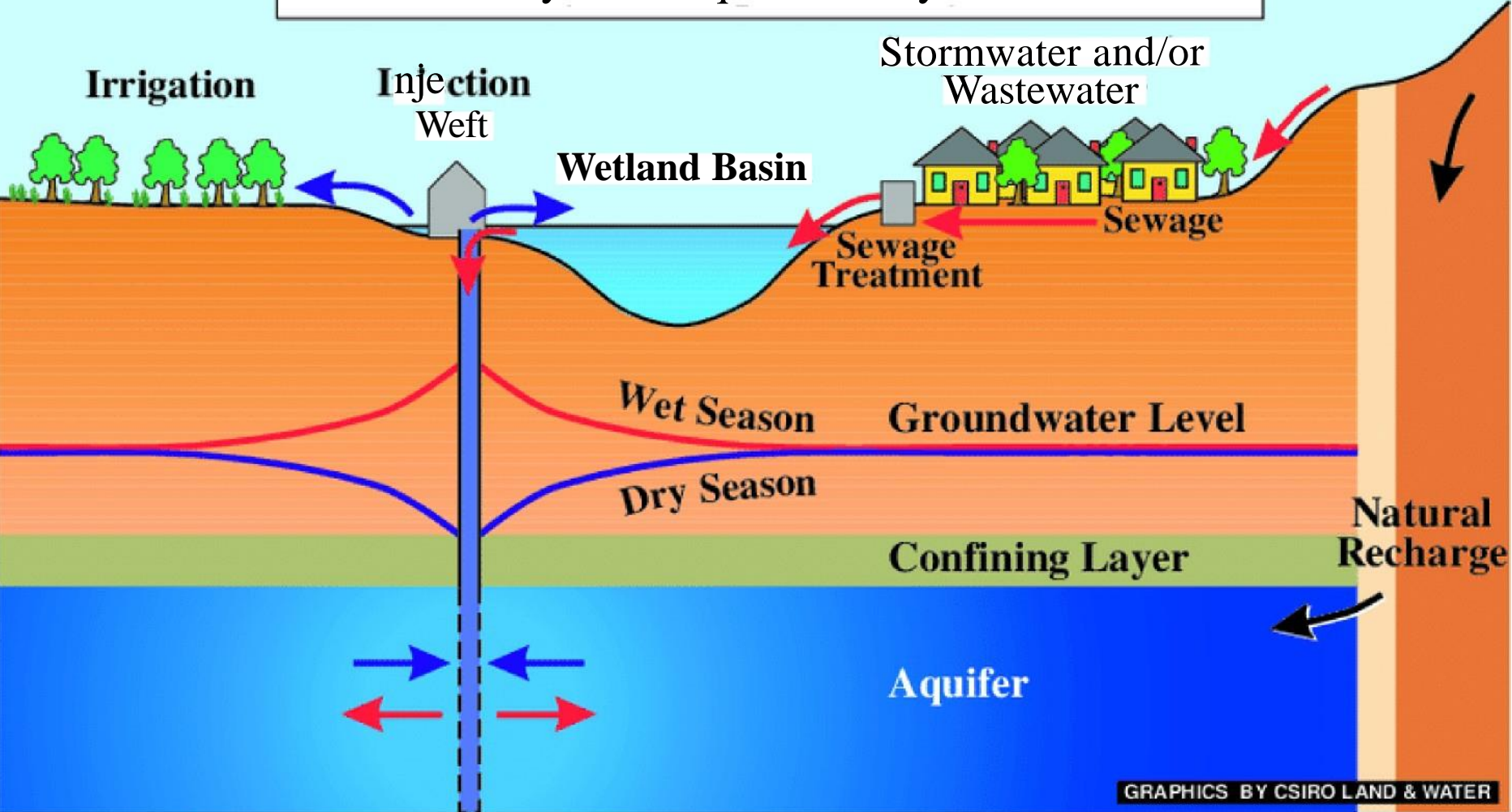


IMAGE COURTESY OF THE STATUS OF REUSE IN COLORADO PRESENTATION BY WATER REUSE COLORADO (2017)

Aquifer Storage and Recovery (ASR)

---● Storm/Waste-water to aquifer in wet season
---● Recovery from aquifer in dry season



Land Use ↔ Water Demands

- Early Discussion, Available Water Supply – Land Use Application
- Improve Water Efficiency and Promote Reuse
- Promote Water Conscious Landscaping – Landscaping Standards
- Extend the Use of Denver Basin Aquifers – Dry Year Supply

- Promote ***Diversified*** Water Portfolios –
 - a) Renewable Water
 - b) Regional Systems
 - c) 300-Year Rule Evaluation



EDARP



Development Application Review



Submit and review Development Applications online.

Planning and Community Development

[Main Website »](#)

Phone: (719) 520-6300

Email: plnweb@elpasoco.com

Location:

2880 International Circle, Suite 110
Colorado Springs, CO 80910

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File Prefix	<input type="text" value="MP: Master Plan"/>	
Year	<input type="text" value="2018"/>	Starting year (if End Year specified) or single year search (End Year left blank)
End Year	<input type="text" value="-Any-"/>	
File Number	<input type="text"/>	Lookup individual File Number (overrides File Prefix and Year)
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File Number MP181
Project Name Water Master Plan
Description County Water Master Plan
Location All of El Paso County
Applicant El Paso County
Mark Gebhart
(719) 520-6323
File Prefix MP - Master Plan
Year 2018
Project Manager Nina Ruiz
Status Active
Created 10/10/2018 2:52:55 PM

[View: Review Comments](#)

Additional Documents (23)

Link	Comment	Date
View	300 year water article	12/11/2018 3:03:38 PM
View	EPC WMP Planning Commission Dec 4 - 12-3-18	12/11/2018 3:03:39 PM
View	Groundwater Levels in Denver Basin Aquifers-USGS	12/11/2018 3:03:40 PM
View	Integrated Land and Water Planning in Colorado	12/11/2018 3:03:52 PM
View	Integrating Landscape Codes	12/11/2018 3:03:53 PM
View	Integrating Water Into Land Use Planning Webinar_Sept 13_2016	12/11/2018 3:03:55 PM
View	Integrating Water Into the Comprehensive Plan Webinar_Oct 4_2016	12/11/2018 3:03:56 PM
View	Integrating Water Into Zoning Webinar_Nov 1_2016	12/11/2018 3:03:57 PM
View	LDC Water Regulations	12/11/2018 3:03:59 PM

View	LDC Water Regulations	12/11/2018 3:03:59 PM
View	Redline Goals and Policies from 12-4-2018	12/11/2018 4:00:55 PM
View	Clean Goals and Policies	12/11/2018 4:00:56 PM
View	Gary Barber Comments	12/18/2018 1:09:09 PM
View	executive summary	12/27/2018 7:32:59 AM
View	Goals and Policies - redlines	12/27/2018 7:32:59 AM
View	Goals and Policies - revised version	12/27/2018 7:33:00 AM
View	MP-18-001 SR vs2 with attachments	12/27/2018 7:33:00 AM
View	open house comments	12/27/2018 7:33:01 AM
View	public comments	12/27/2018 7:33:01 AM
View	Resolution MP-18-001	12/27/2018 7:33:01 AM
View	To view a video about the water master plan you can go here: https://www.elpasoco.com/water-master-plan-presentation-commissioners/	1/7/2019 1:12:55 PM
View	Draft Planning Commission Minutes December 18	1/7/2019 1:14:36 PM
View	Falcon Herald Article January 2019	1/8/2019 9:42:06 AM
View	Newspaper Posting	1/8/2019 9:42:07 AM

Review Documents (3)

Link	Document	Date
View	Water Master Plan	11/6/2018 12:42:49 PM
View	Water Master Plan Open House Flyer	10/10/2018 2:56:55 PM
View	Water Master Plan RFP	10/10/2018 2:56:56 PM