COLORADO DROUGHT TOURNAMENT

HOSTED: SEPTEMBER 2012

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

NIDIS

amec

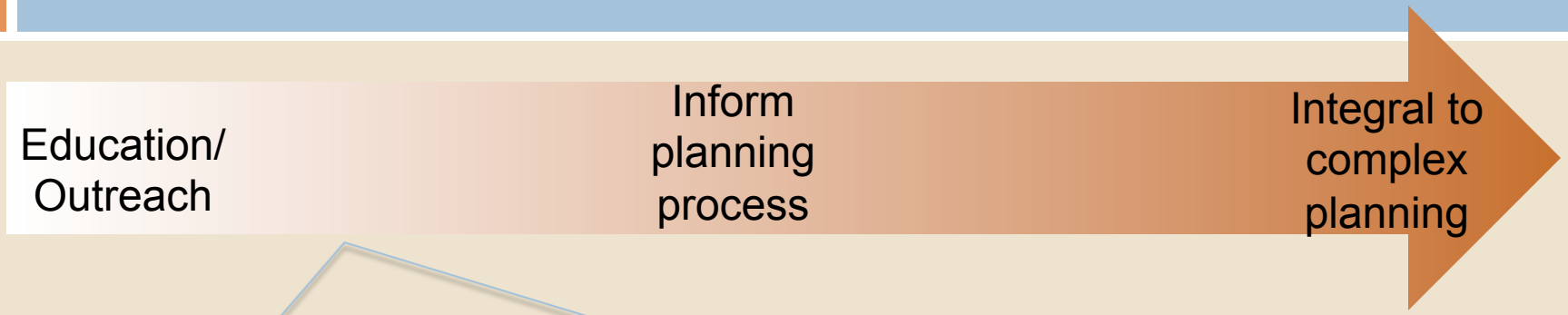
Agriculture and Agri-Food Canada
Agriculture et Agroalimentaire Canada

National Drought Mitigation Center

Background

- Series of tournaments held in Canada starting in 2011
  - Agriculture and Agri-Food Canada
- NIDIS/NDMC Chicago Conference in June 2011
- Colorado Drought Tournament – Sept 2012
- Oklahoma Water Supply Reliability & Management Challenge –Oct 2014
- San Antonio, TX – Nov 2015
- Des Moines, Idaho – Jan 2016

Objectives



- Educate participants on the multidisciplinary and multi-sector implications of drought
- Encourage collaboration among those with various backgrounds & build relationships
- Introduce the concept of the "gaming forum" as a tool
- Create environment that is engaging, competitive and FUN!!!!!

Participants

- Game organizers
- Teams – five players
- Referees
- Fans

Getting Started

CHANCE TIMES

Your biannual dose of local watershed news

November 2020

southern plains. The southern plains are not forested and prior to irrigat desert. Closer to the mountains, forests become more prominent and va significantly more rugged, resulting in a broad diversity of eco-regions.

History of Water Development

Chance Basin is subject to Colorado's prior appropriation doctrine and water rights developed in the Basin were 1842 claims for gold mining in mass migration of ambitious miners to the area. However, while the i did not prove to be profitable and as quickly as the gold frenzy starte abandoned and the first settlers did not arrive until 1852.

Source of Picture: A History of Water Law, Water rights & Water Development in Wyoming

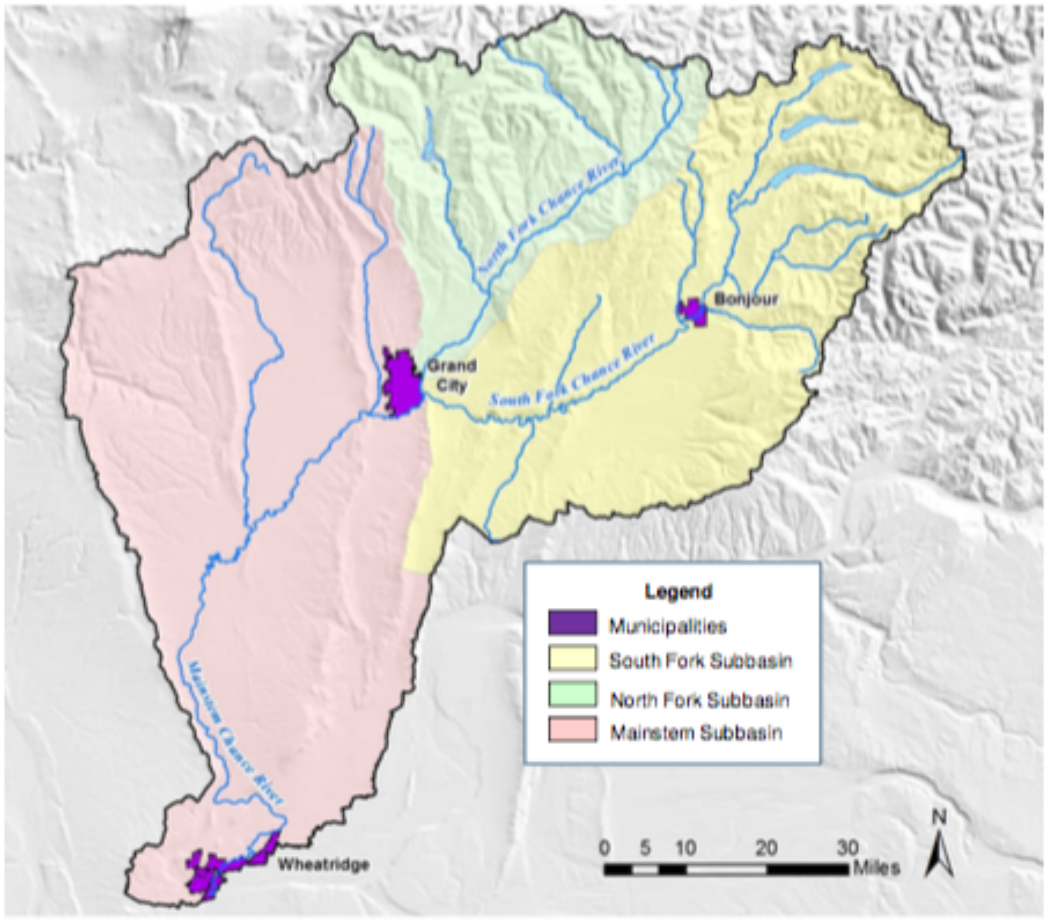
Chance Basin is unique a development did not oc was developed in 184 agreement between the downstream territory. interstate compact in 19 other interstate compact

The first settlers were fa southern plains and form Senior Ditch Company. abundant supply of wate increase and cities began reservoirs were needed.

Furthermore, Next Door Basin, just north of Chance Basin, had develop Basin. In 1850, Next Door Basin staked a claim to 53,800 acre-feet (AF) In 1910, Next Door Basin completed the construction of Sharing Reserv Chance Mountain Range for the transbasin diversion. In 1950, Senior I Farm Reservoir and five years later, Grand City entered an agreement v Reservoir. The 1950s were also a period of alluvial groundwater de developed along the Mainstem of Chance River and in the South Fork constructed by Junior Irrigation Company in 1960.

Chance Basin "Water Budget"

In a normal hydrologic year, Chance Basin naturally receives 2.8 million A the interstate compact, one-third of the Basin's annual water supply m states. Average streamflow measurements on the Mainstem of Chance downstream of Wheatridge on a daily basis. The total monthly flow p one-third of Chance River's monthly natural (virgin) discharge assuming no development.

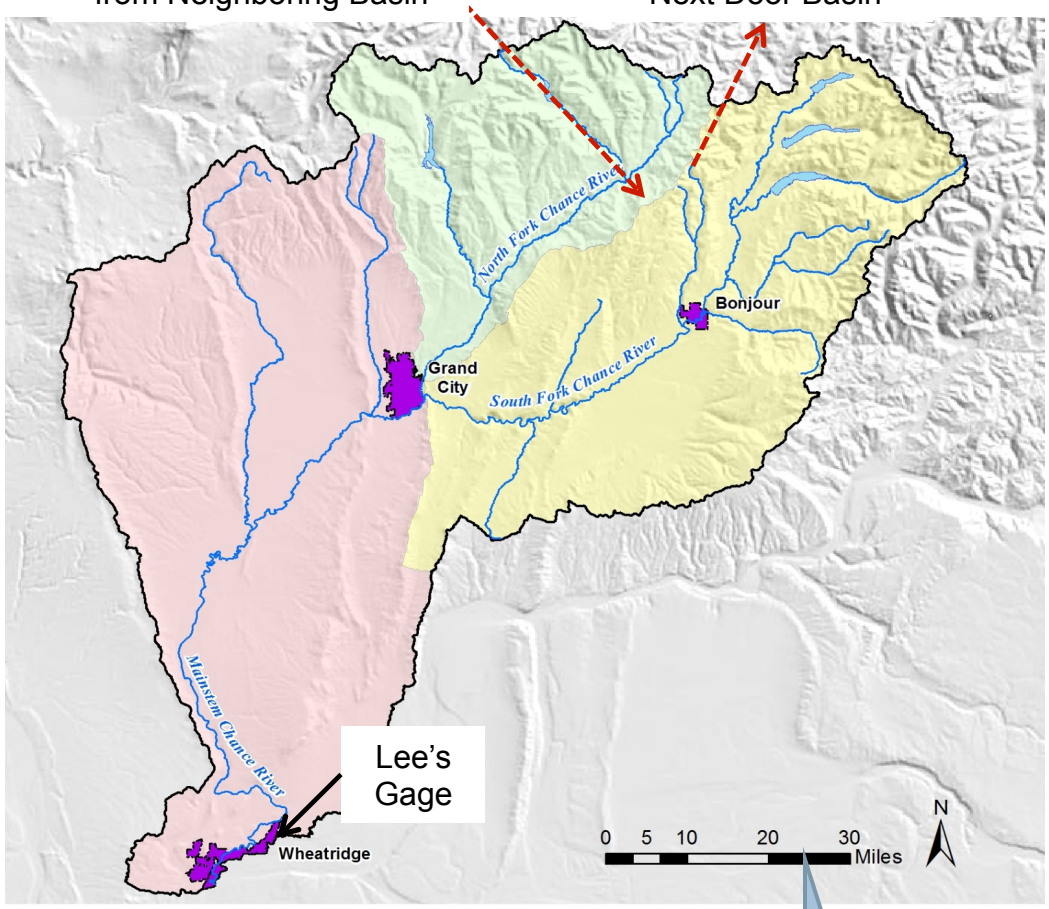


Chance Basin Normal Year "Stats"

Note: All amounts are in acre-feet

Well Replacement Import from Neighboring Basin

Transbasin Export to Next Door Basin



Normal Year Natural Flows
(2.8 M AF)

minus

Interstate Compact
(939,000 AF)

minus

Transbasin Export
(53,800 AF)

equals

Remaining Supply Available for In-Basin Use
(1.8 M AF)

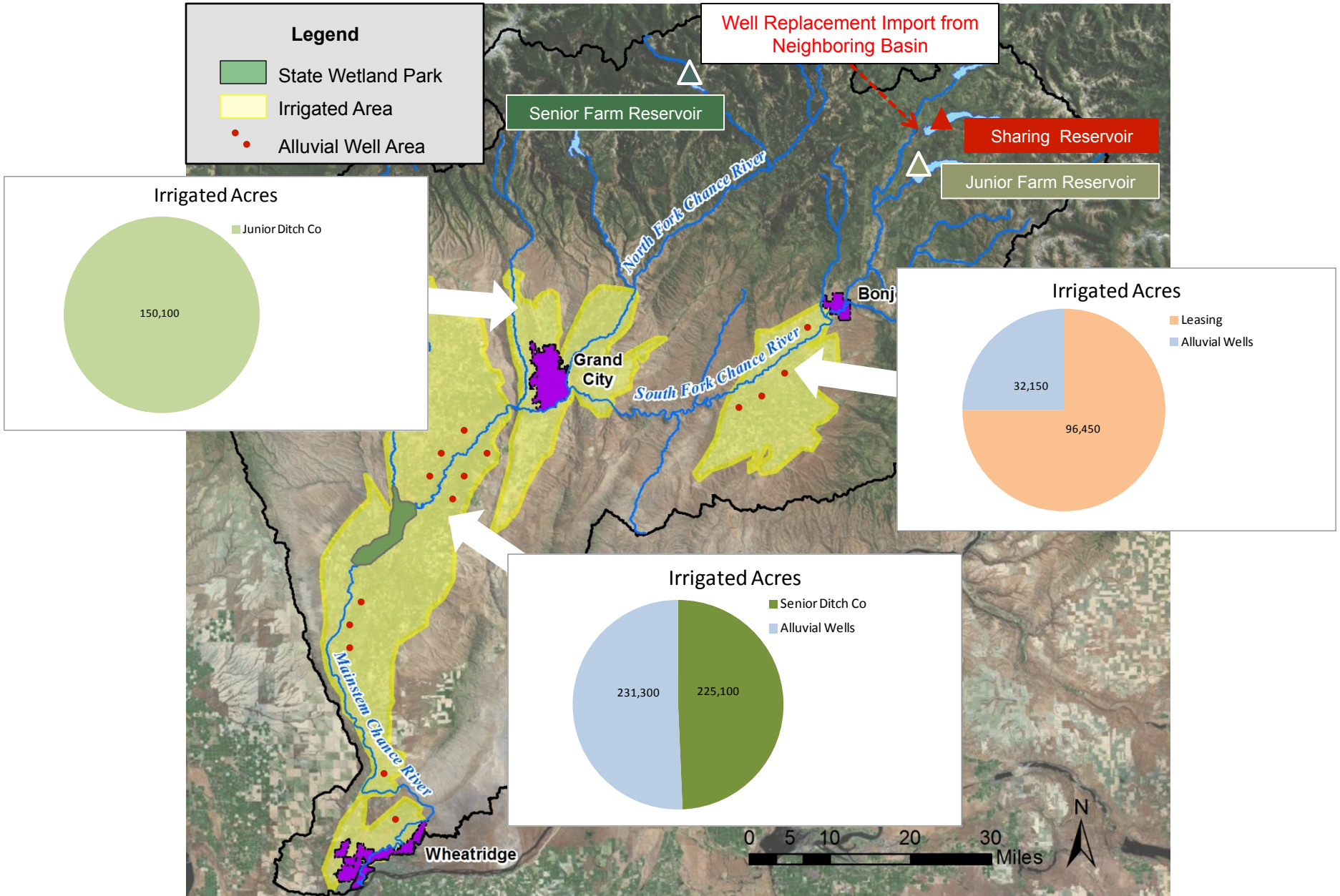
equals

Transbasin Import for Well Replacement
(700,000 AF)

plus

Supply Available for In-Basin Use Including Well Replacement
(2.5 M AF)

Irrigated Agriculture



Playing the Tournament

Starting budget of $20M

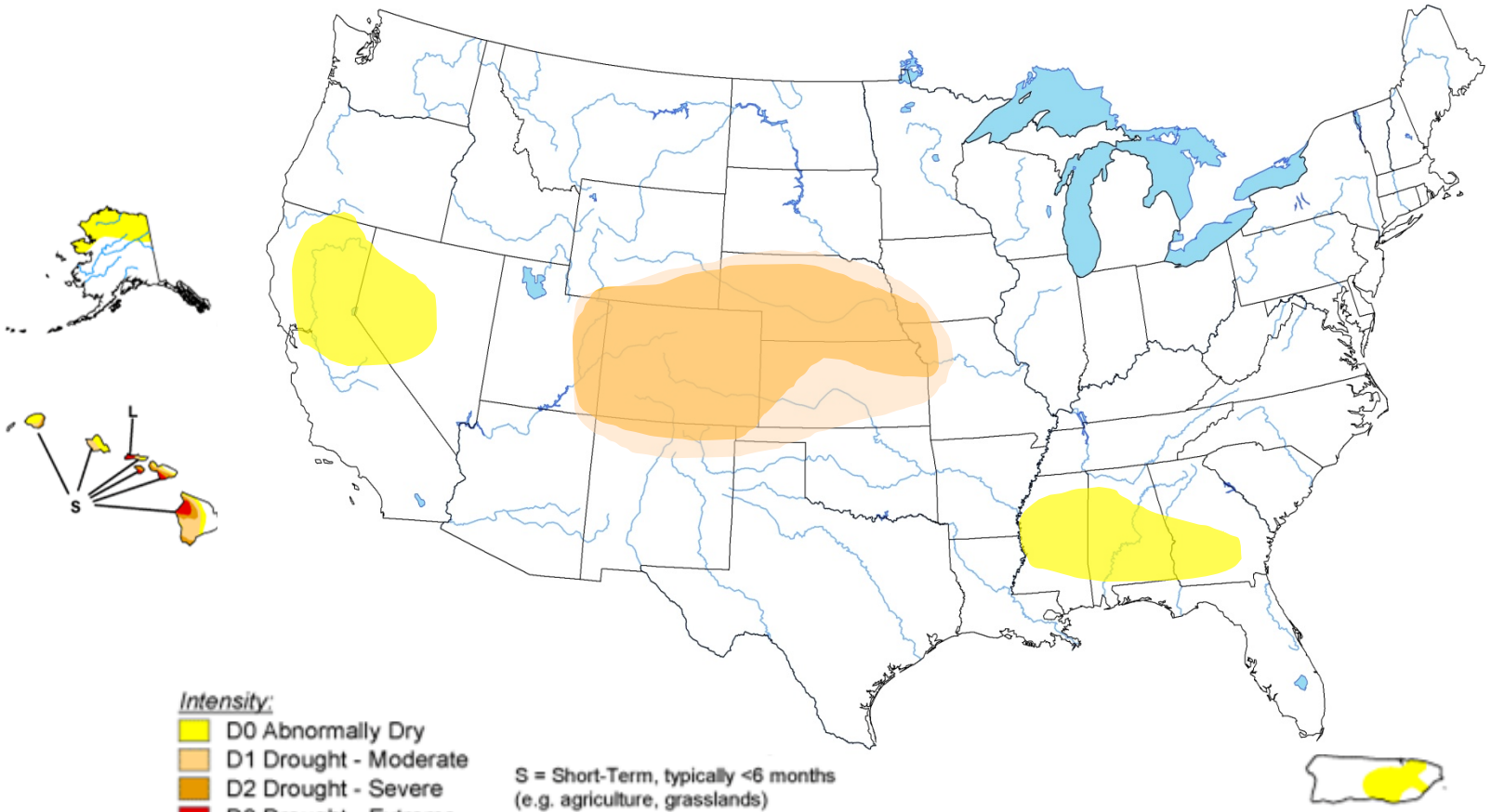
Mitigation Round	Response Round 1	Response Round 2	Response Round 3
Pre-Drought Select mitigation strategies	Year 1 Example round	Year 2 Develop & present response plan Track budget	Year 3 Develop & present response plan Track budget

The Faux

Round 1

U.S. Drought Monitor

April 30, 2021
Valid 8 a.m. EDT



Intensity:
- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

S = Short-Term, typically <6 months (e.g. agriculture, grasslands)

L = Long-Term, typically >6 months (e.g. hydrology, ecology)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

http://droughtmonitor.unl.edu/

USDA

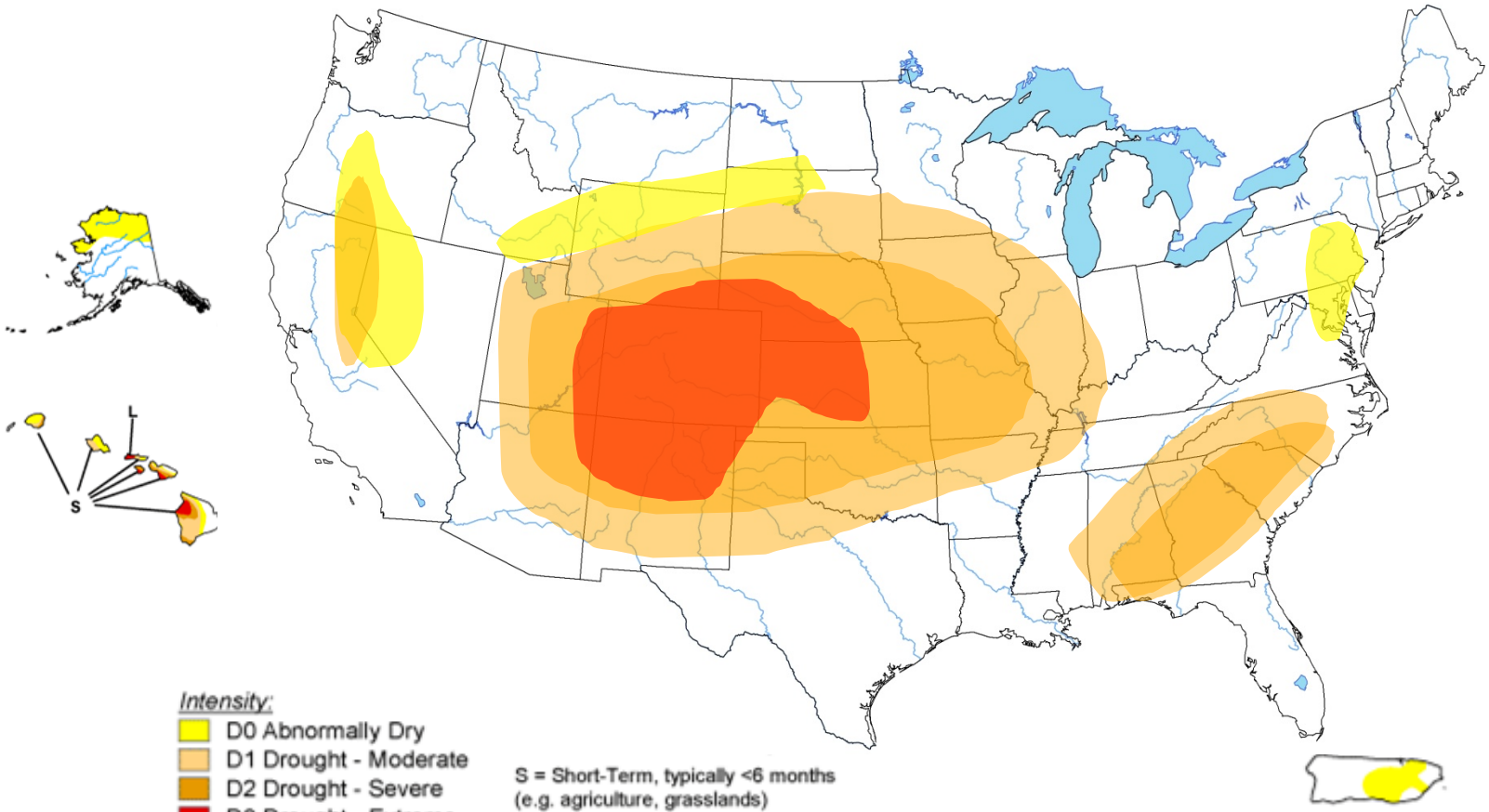
Released: April 30, 2020

The Faux

Round 2

U.S. Drought Monitor

April 30, 2022
Valid 8 a.m. EDT



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USDA

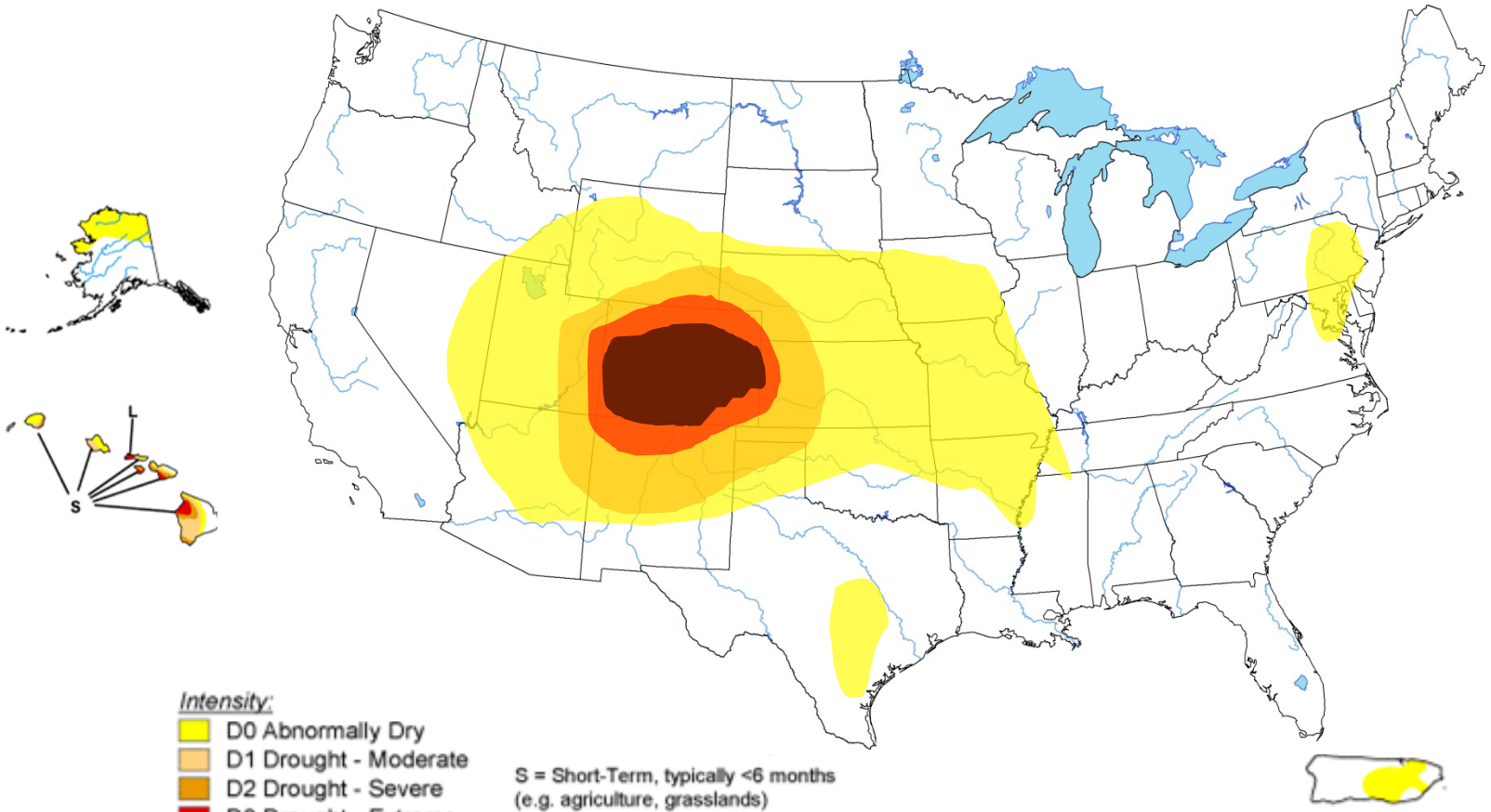
Released: April 30, 2022

The Faux

Round 3

U.S. Drought Monitor

April 30, 2023
Valid 8 a.m. EDT



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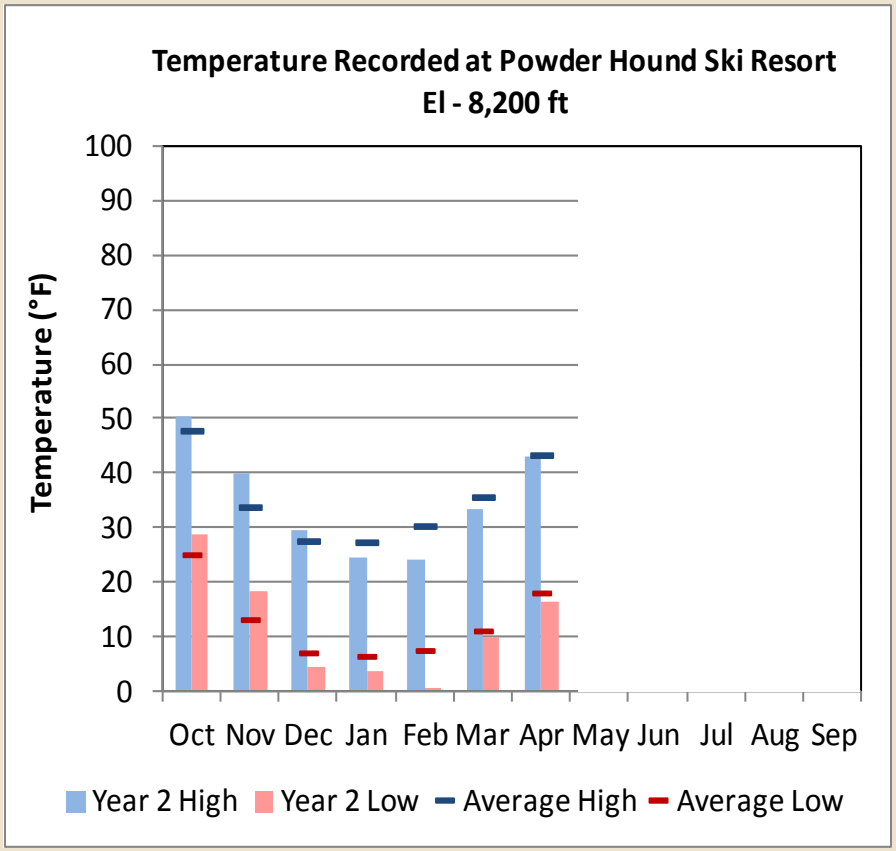
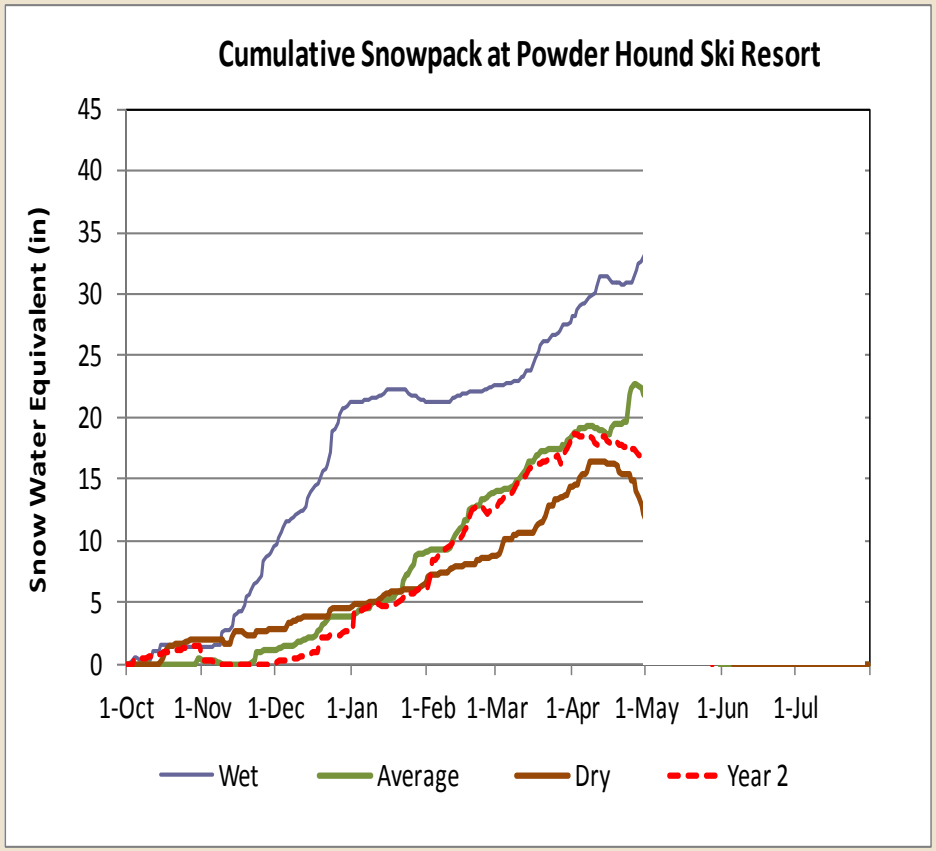
USDA

Released: April 30, 2020

End April - Temperature and Snowpack





Team Breakout Sessions – Response Plans

Colorado Drought Conference
Tournament Materials

Drought Tournament
Response Round 2
September 18, 2012

Team Name _____

Starting Budget $ _____
Note: Enter dollars in thousands

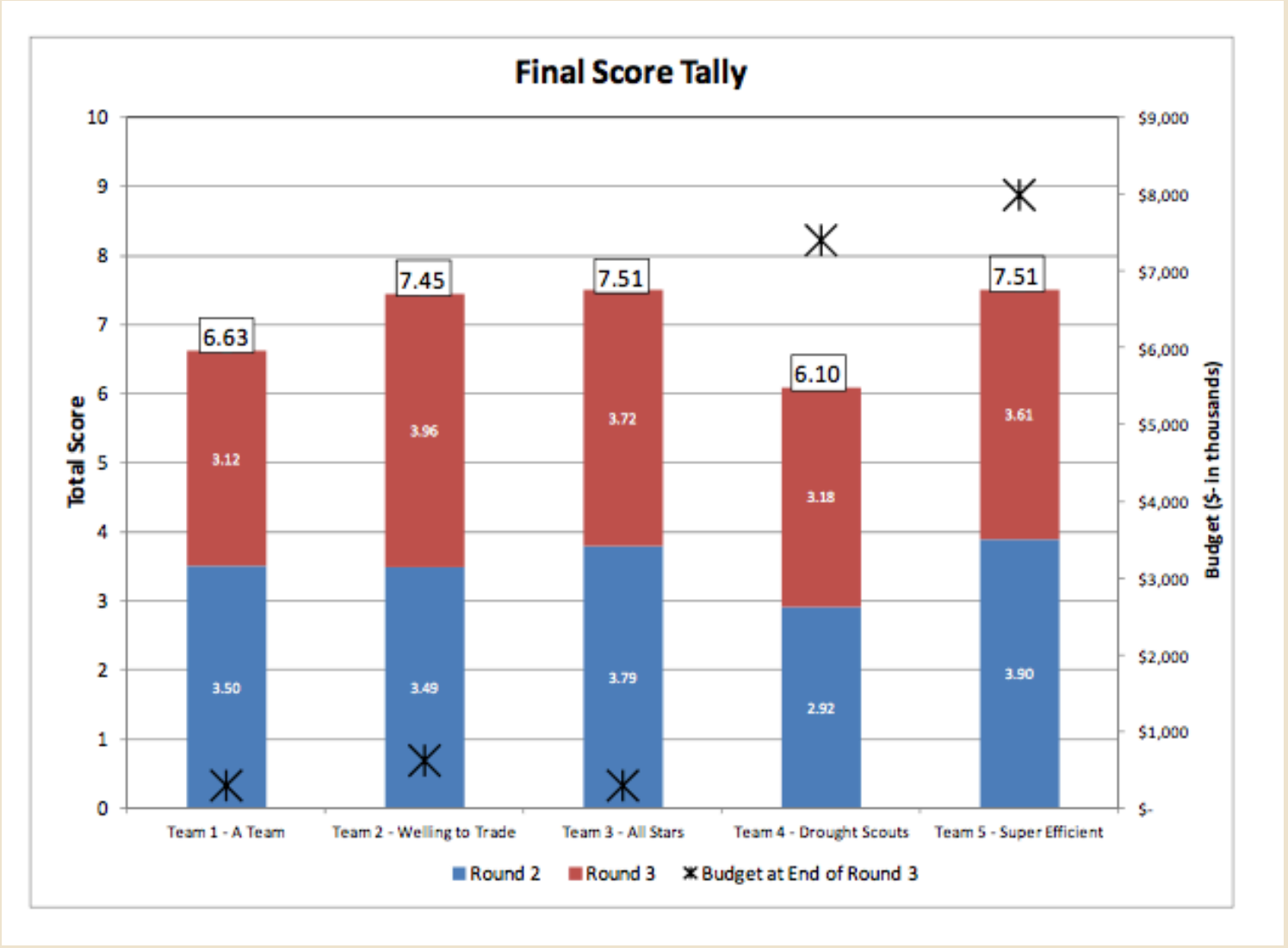
Mitigation Strategies Implemented
1) _____
2) _____
3) _____

Drought Reserve Fund Mitigation Strategy $ _____
Note: Enter $6,000 if you are using this strategy.
If this strategy is not being used, enter $0.

Drought Response Plan

M&I	Agriculture	Energy	Rec/Tourism	Environment	Social	Entity/Feature	Vulnerability (high, medium, low)	Potential Impact(s)	Drought Response(es)	Cost to Implement Strategy ($ - in thousands)
	x				x	Senior Ditch Co				
x					x	Grand City				
		x			x	Natural Gas and Oil Corp				
x					x	Wheatridge				
x					x	Bonjour				
	x				x	Junior Ditch Co				

Score Panel


Final Score Tally
Total Score
Budget ($- in thousands)
10
9
8
7
6
5
4
3
2
1
0
$9,000
$8,000
$7,000
$6,000
$5,000
$4,000
$3,000
$2,000
$1,000
$-
6.63
7.45
7.51
6.10
7.51
3.12
3.96
3.72
3.18
3.61
3.50
3.49
3.79
2.92
3.90
Team 1 - A Team
Team 2 - Welling to Trade
Team 3 - All Stars
Team 4 - Drought Scouts
Team 5 - Super Efficient
Round 2
Round 3
Budget at End of Round 3

Role of Climate Change/Drought in Long Term Water Planning

- **Statewide** Water Supply Initiative & Colorado's Water Plan

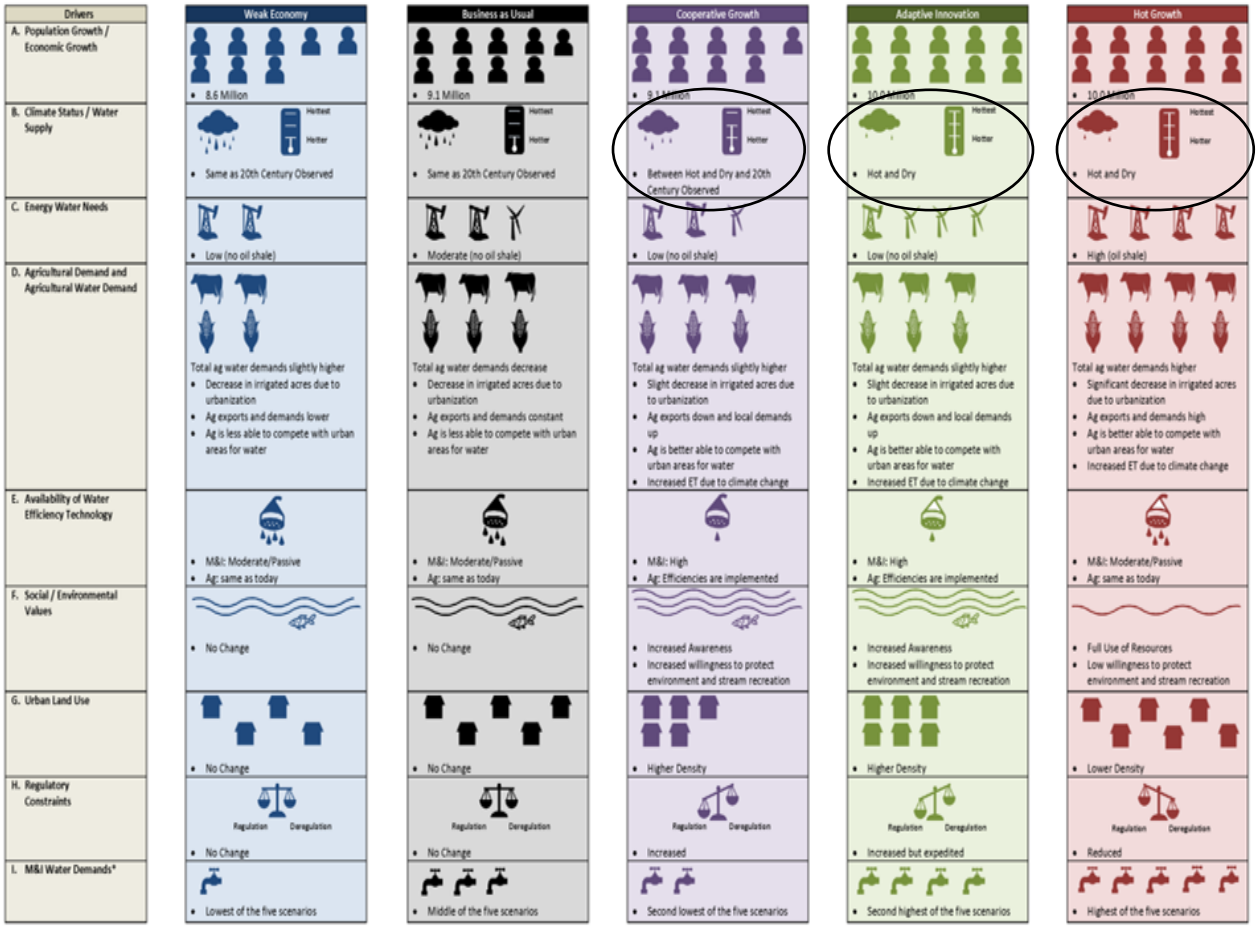


Figure 1. State of Colorado Future Water Supply Scenarios