The background of the slide is a photograph of a large dam with multiple spillways, silhouetted against a vibrant sunset sky with shades of orange, pink, and purple. The dam's structure is visible in the lower half of the frame, with water cascading over the spillways. Two tall, thin towers are visible on either side of the dam's crest.

Arkansas Basin Roundtable Meeting

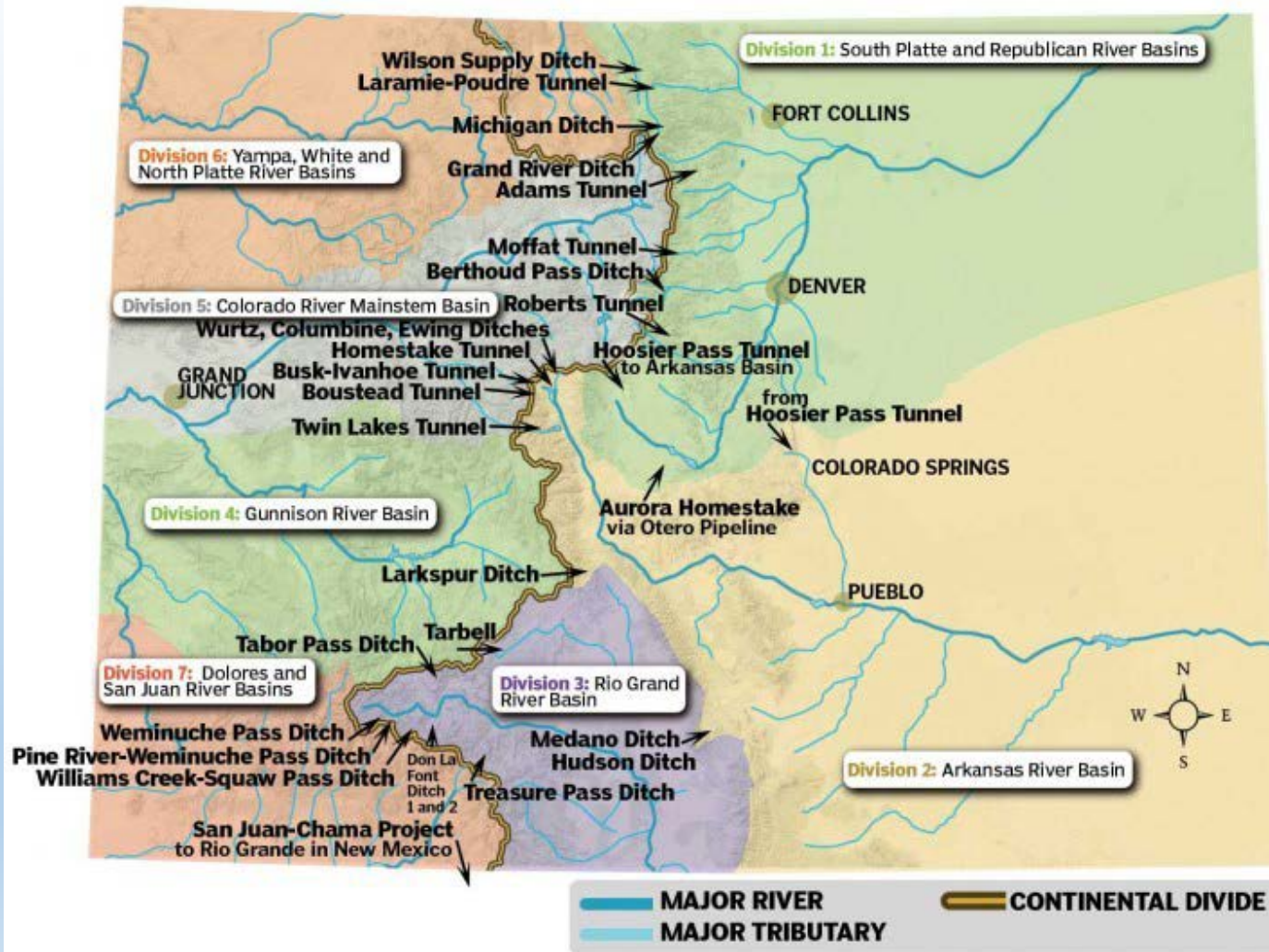
April 14, 2021

Bill Tyner,
Division Engineer



Presentation Topics

- Importance of Supplemental Water to Agricultural Interests in the Arkansas Basin
 - Value of additional water supply to mainstem ditches below Pueblo Reservoir
 - Examples of Cooperative FryArk/Municipal/Agricultural Successes in the Arkansas Basin with Well Associations



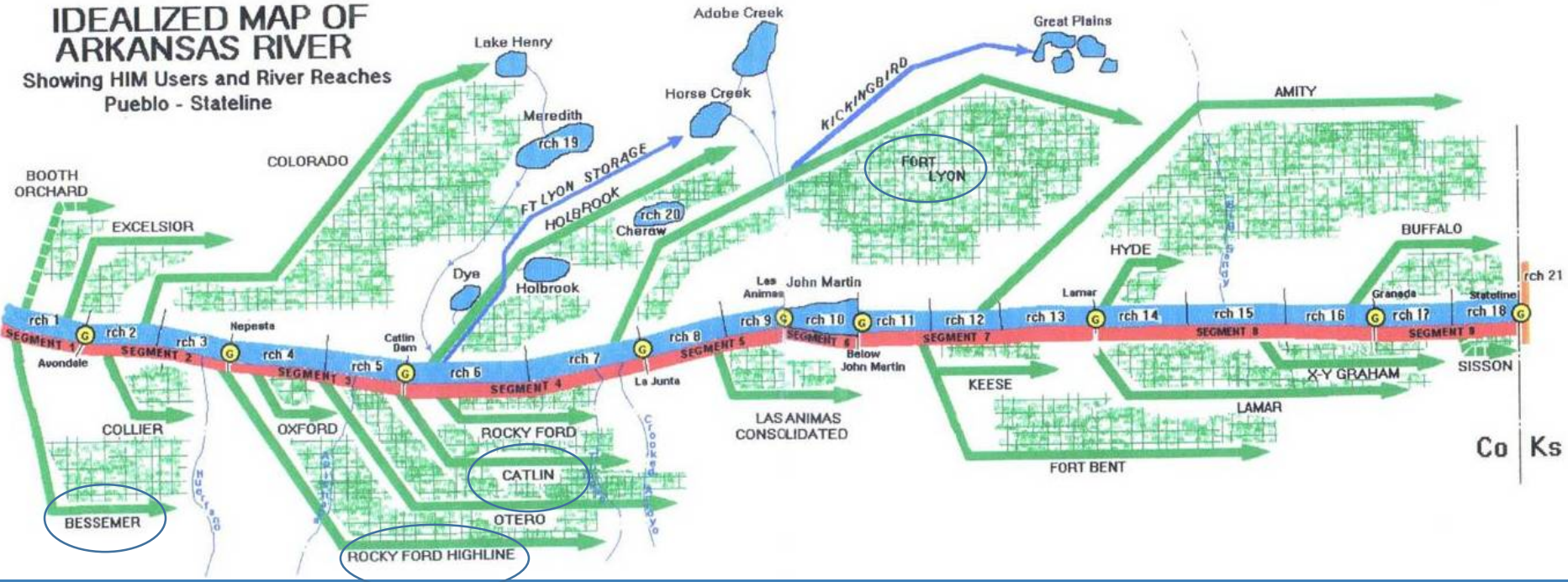


Value of additional water supply to mainstem ditches below Pueblo Reservoir

- Examples of Supplemental Surface Water Supplies and the Potential Value
 - Bessemer Ditch
 - Catlin Canal
 - Rocky Ford Highline Canal
 - Fort Lyon Canal

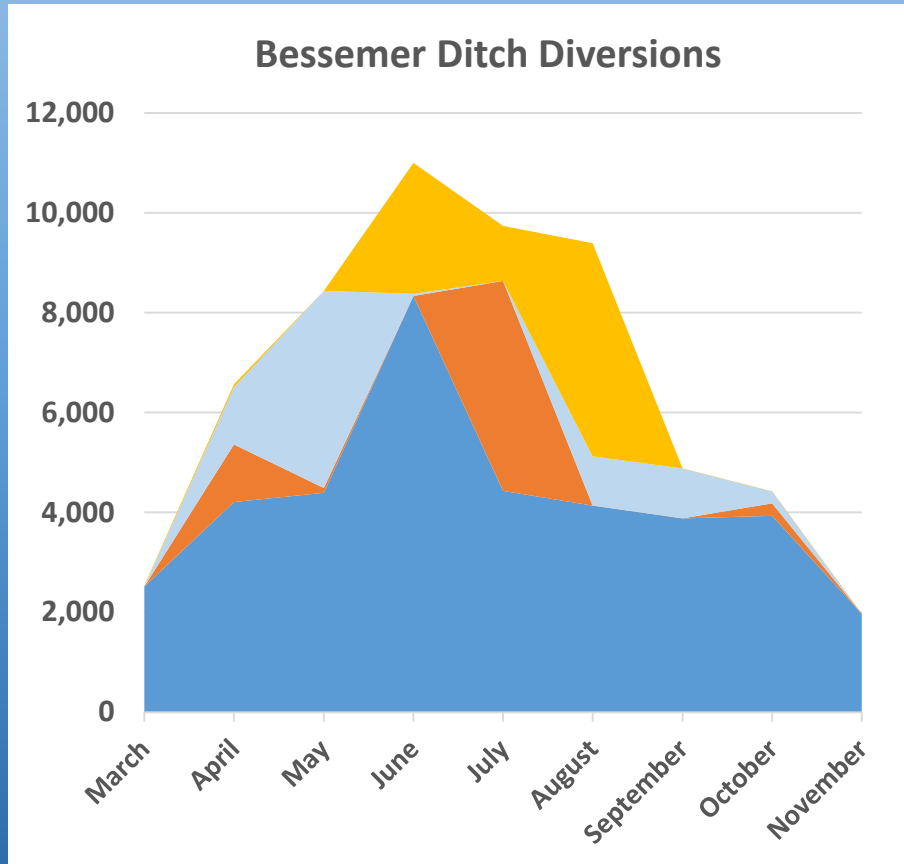
IDEALIZED MAP OF ARKANSAS RIVER

Showing HIM Users and River Reaches
Pueblo - Stateline



Co Ks

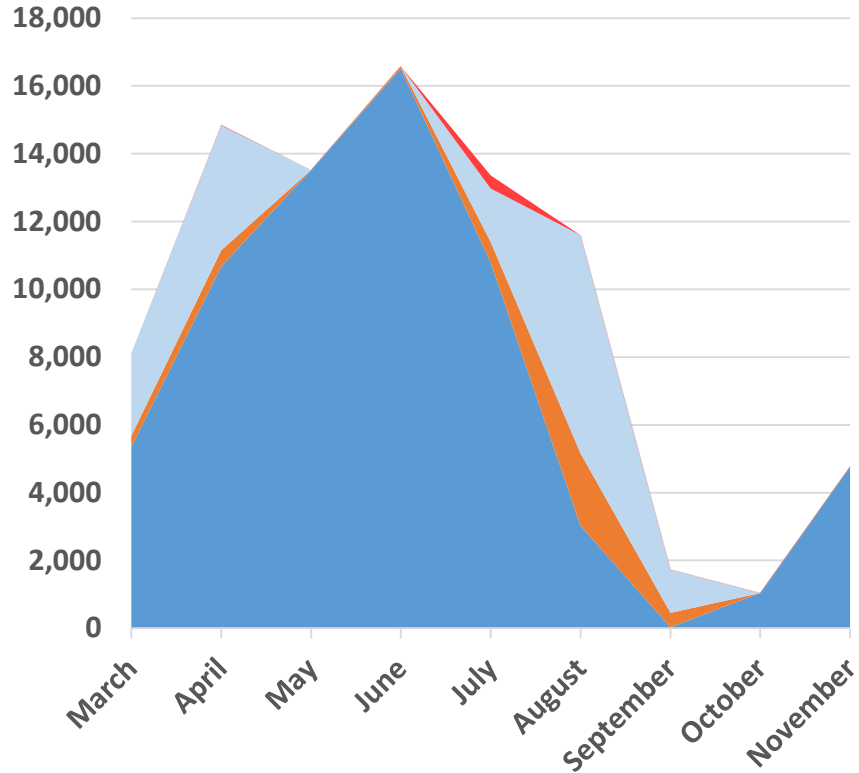
Importance of Supplemental Water 2020



Month	Native	Project Water	Winter Water	Pueblo Leased Water	Total
March	2,515	0	0	20	2,535
April	4,208	1,155	1,142	58	6,564
May	4,392	96	3,949	0	8,436
June	8,336	0	43	2,624	11,003
July	4,431	4,206	0	1,103	9,740
August	4,134	0	987	4,273	9,394
September	3,878	0	1,004	0	4,882
October	3,934	248	239	0	4,421
November	1,974	0	0	0	1,974
Subtotal	37,803	5,704	7,363	8,078	58,948
Percent of Total	64%	10%	12%	14%	

Importance of Supplemental Water 2020

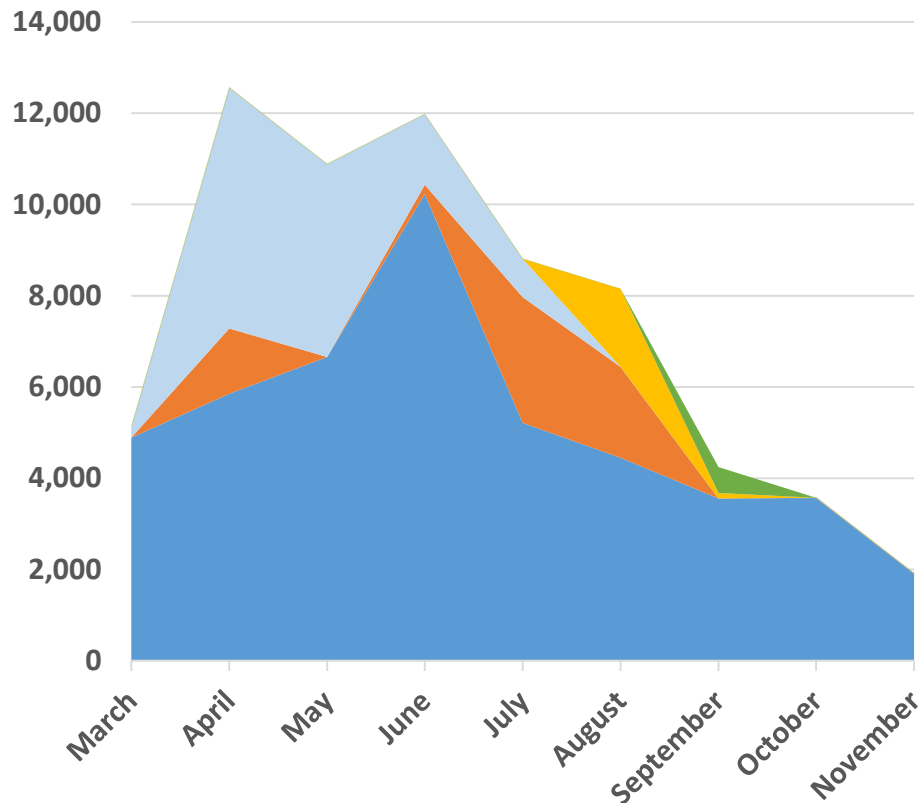
Catlin Canal Diversions 2020



Month	Native	Project Water	Winter Water	Pisgah Reservoir Water
March	5,344	331	2,431	0
April	10,666	487	3,683	11
May	13,524	0	0	0
June	16,518	59	0	0
July	10,792	603	1,575	394
August	3,020	2,134	6,445	0
September	29	427	1,278	0
October	1,041	0	0	0
November	4,774	0	0	0
Subtotal	65,709	4,041	15,412	404
Percent of Total	77%	5%	18%	0%

Importance of Supplemental Water 2020

Rocky Ford Highline Diversions 2020

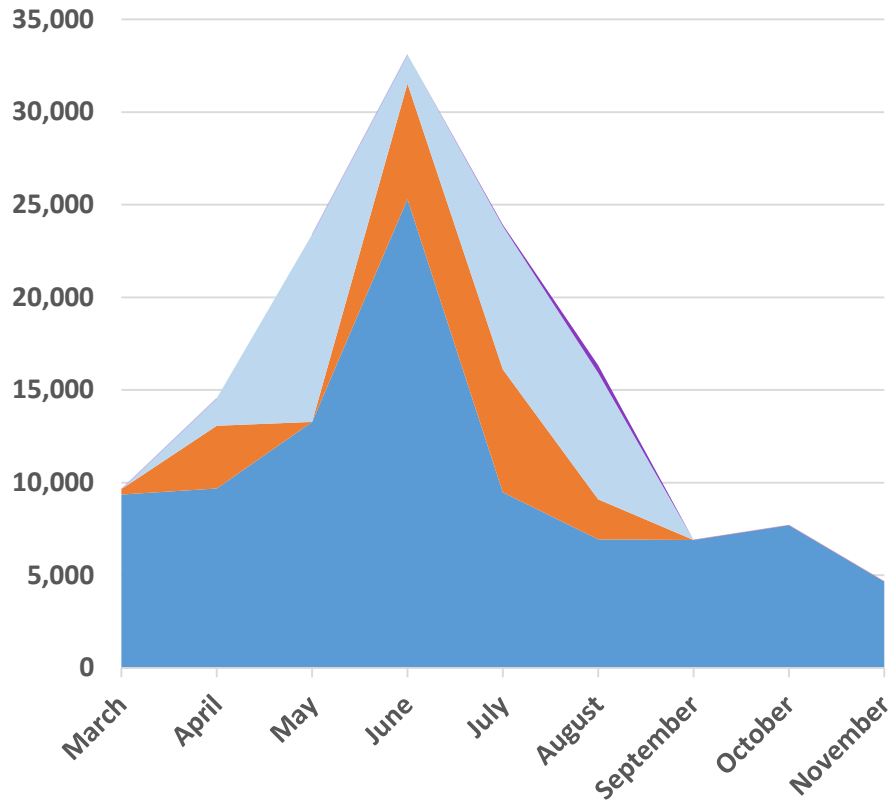


Month	Native	Project Water	Winter Water	Pueblo Leased Water	Aurora Leased Water
March	4,893	0	235	0	0
April	5,849	1,435	5,282	0	0
May	6,659	0	4,226	0	0
June	10,229	201	1,553	0	0
July	5,211	2,760	837	0	0
August	4,447	1,995	0	1,713	0
September	3,560	0	0	119	568
October	3,574	0	0	0	0
November	1,910	0	0	0	0
Subtotal	46,331	6,391	12,133	1,832	568
Percent of Total	69%	10%	18%	3%	1%



Importance of Supplemental Water 2020

Fort Lyon Canal Diversions 2020



Month	Native	Project Water	Winter Water	Colorado Springs Leased Water
March	9,357	289	0	0
April	9,691	3,390	1,469	0
May	13,285	0	10,114	0
June	25,305	6,225	1,570	0
July	9,477	6,640	7,735	62
August	6,944	2,150	6,820	430
September	6,909	0	0	0
October	7,697	0	0	0
November	4,658	0	0	0
Subtotal	93,324	18,694	27,709	492
Percent of Total	67%	13%	20%	0%



Economic Aspect of Supplemental Supplies

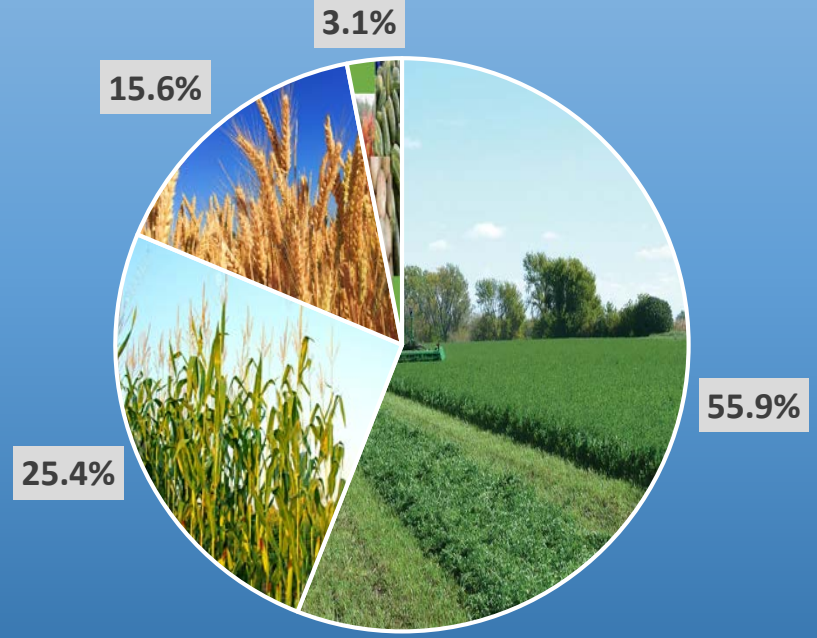
- Estimating Gross Revenue Per Acre for Four Project Area Ditches (Bessemer, Catlin, Highline and Fort Lyon)
- Estimating Acreage Value of Water Supply Components
- Estimating Revenue Enhancement from Supplemental Supplies

Estimating Crops by Ditch (H-I Model Data)

- Bessemer Canal



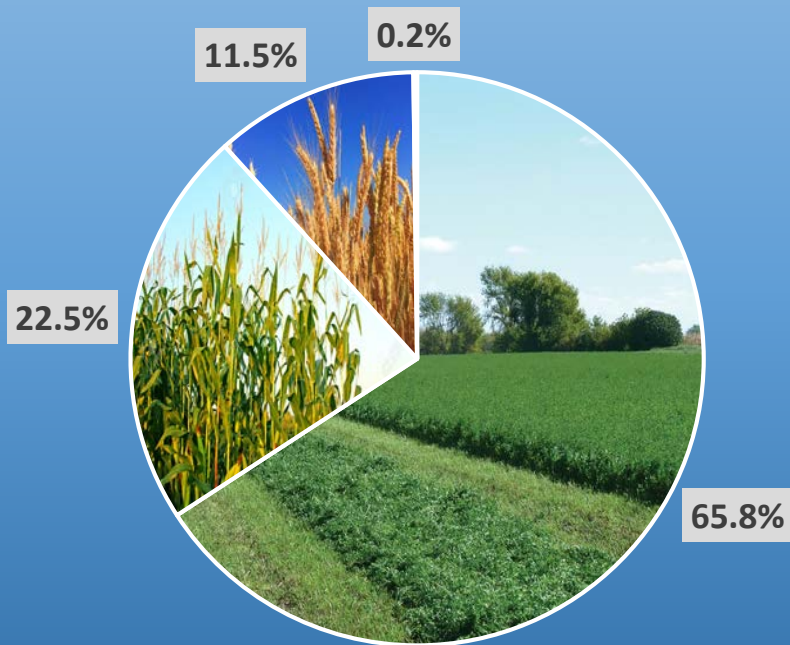
- Catlin Canal



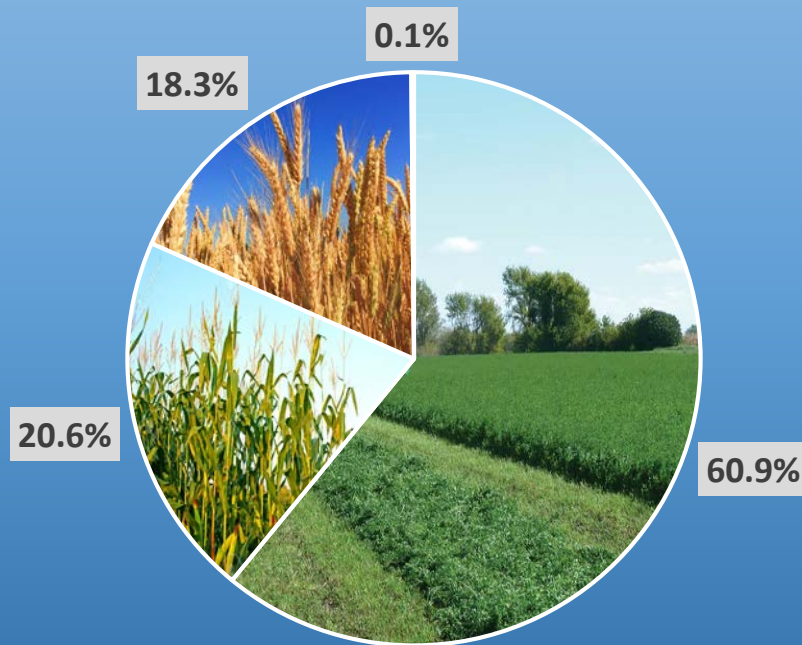


Estimating Crops by Ditch (H-I Model Data)

- Highline Canal



- Fort Lyon Canal



 Alfalfa/Hay  Corn  Grain  Vegetables

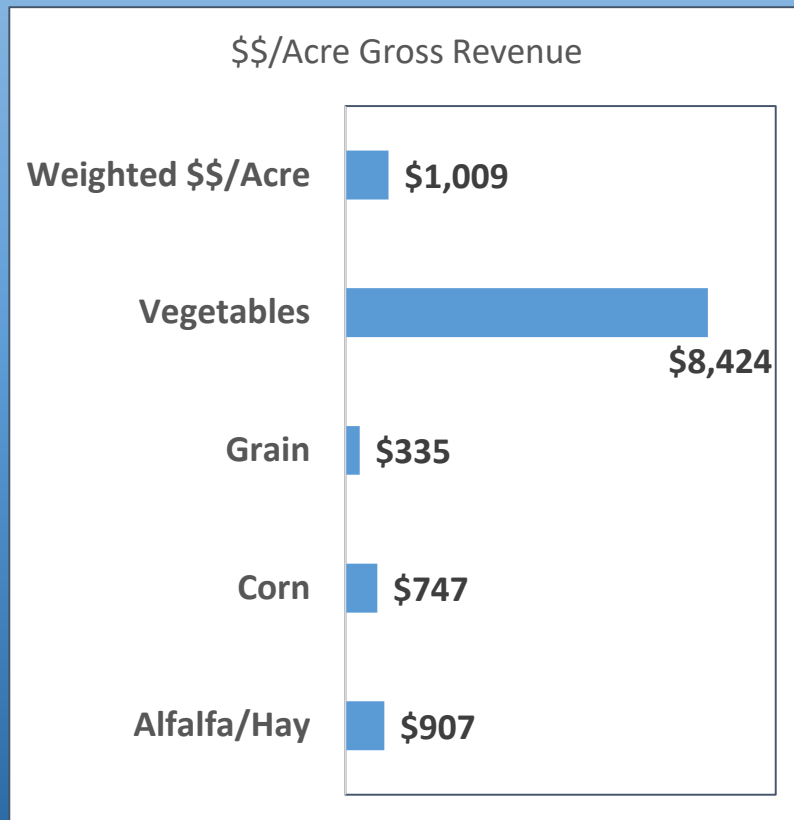
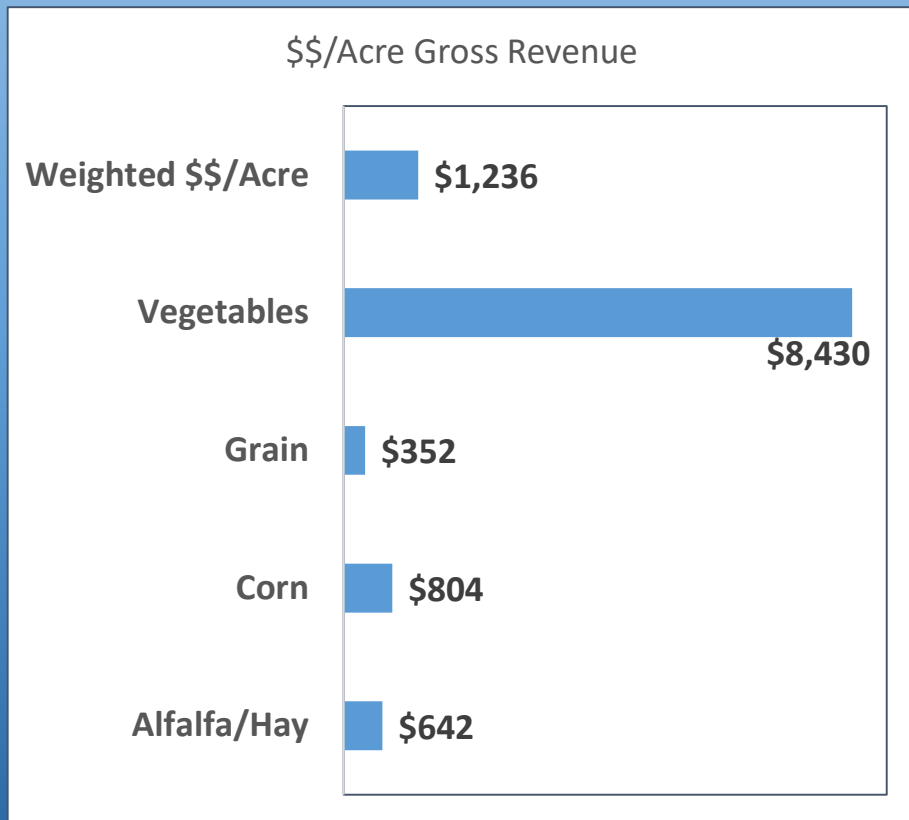
 Alfalfa/Hay  Corn  Grain  Vegetables



Estimating Crop Yield-Crop Prices per Acre

- Bessemer Canal

- Catlin Canal



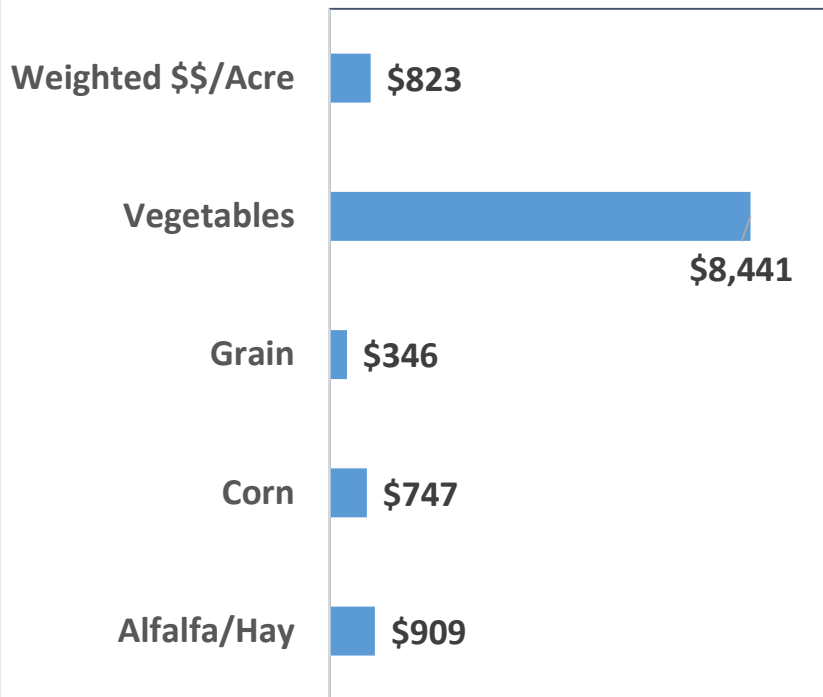


Estimating Crop Yield-Crop Prices per Acre

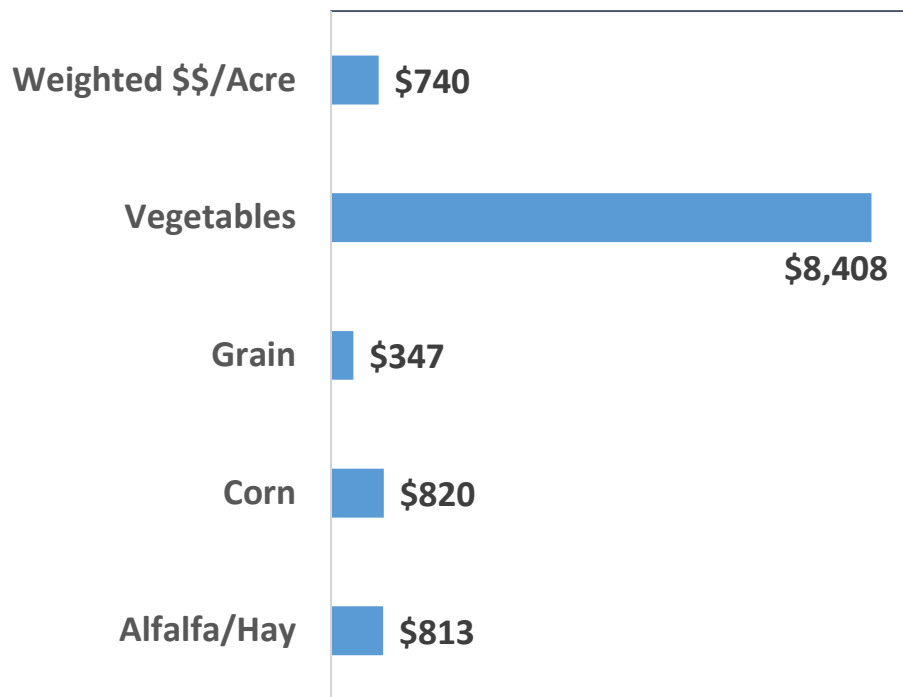
- Highline Canal

- Fort Lyon Canal

\$\$/Acre Gross Revenue



\$\$/Acre Gross Revenue





Estimates Acres Irrigated/Revenue by Source

Bessemer Canal Acres Pro-rata By Source of Water

Acres Irrigated with Surface Water	
13,119	Total Irrigated 2020
8,413	Acres Direct Flow
1,269	Acres Project Water
1,639	Acres Winter Water
1,798	Acres Pueblo Leased Water

Bessemer Canal Gross Revue by Water Source

Value for Gross Yield Price	
\$10,396,185	Direct Flow
\$1,568,140	Project Water
\$2,025,359	Winter Water
\$2,221,840	Pueblo Leased Water
\$16,211,524	



Estimates Acres Irrigated/Revenue by Source

Catlin Canal Acres Pro-rata By Source of Water

Acres Irrigated with Surface Water	
14,021	Total Irrigated 2020
10,767	Acres Direct Flow
662	Acres Project Water
2,525	Acres Winter Water
66	Acres Mt Pisgah Water

Catlin Canal Gross Revue by Water Source

Value for Gross Yield Price	
\$10,863,131	Direct Flow
\$667,911	Project Water
\$2,547,544	Winter Water
\$66,589	Mt Pisgah Water
\$14,145,175	



Estimates Acres Irrigated/Revenue by Source

Highline Canal Acres Pro-rata By Source of Water

Acres Irrigated with Surface Water	
16,372	
11,278	Acres Direct Flow
1,556	Acres Project Water
2,954	Acres Winter Water
446	Acres Pueblo Leased Water
138	Acres Aurora Leased Water

Highline Canal Gross Revue by Water Source

Value for Gross Yield Price	
\$9,286,031	Direct Flow
\$1,281,173	Project Water
\$2,432,252	Winter Water
\$367,226	Pueblo Leased Water
\$113,626	Aurora Leased Water
\$13,366,682	



Estimates Acres Irrigated/Revenue by Source

Fort Lyon Canal Acres Pro-rata By Source of Water

Acres Irrigated with Surface Water	
64,709	
43,068	Acres Direct Flow
8,627	Acres Project Water
12,787	Acres Winter Water
227	Acres CS-U Water

Fort Lyon Canal Gross Revue by Water Source

Value for Gross Yield Price	
\$31,894,376	Direct Flow
\$6,388,799	Project Water
\$9,469,522	Winter Water
\$168,107	Colorado Springs Utilities Leased Water
\$47,920,804	



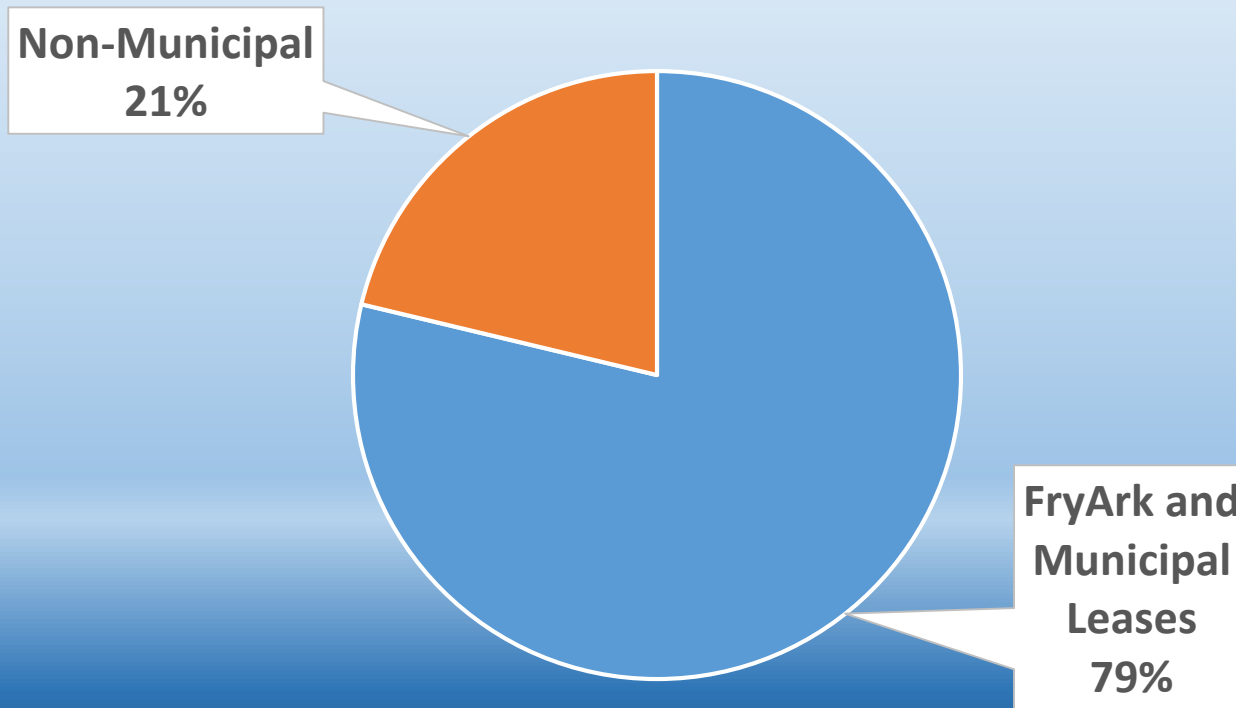
Examples of Cooperative Fryingpan Arkansas/Municipal/Agricultural Successes in the Arkansas Basin

- Arkansas Groundwater Users' Association –
FryArk/Municipal Contributions for Replacement Water
- Colorado Water Protective & Development Association –
FryArk/Municipal Contributions
- Lower Arkansas Water Management Association –
FryArk/Municipal Contributions



Fryingpan-Arkansas and Municipal Water to AGUA 2018-2020

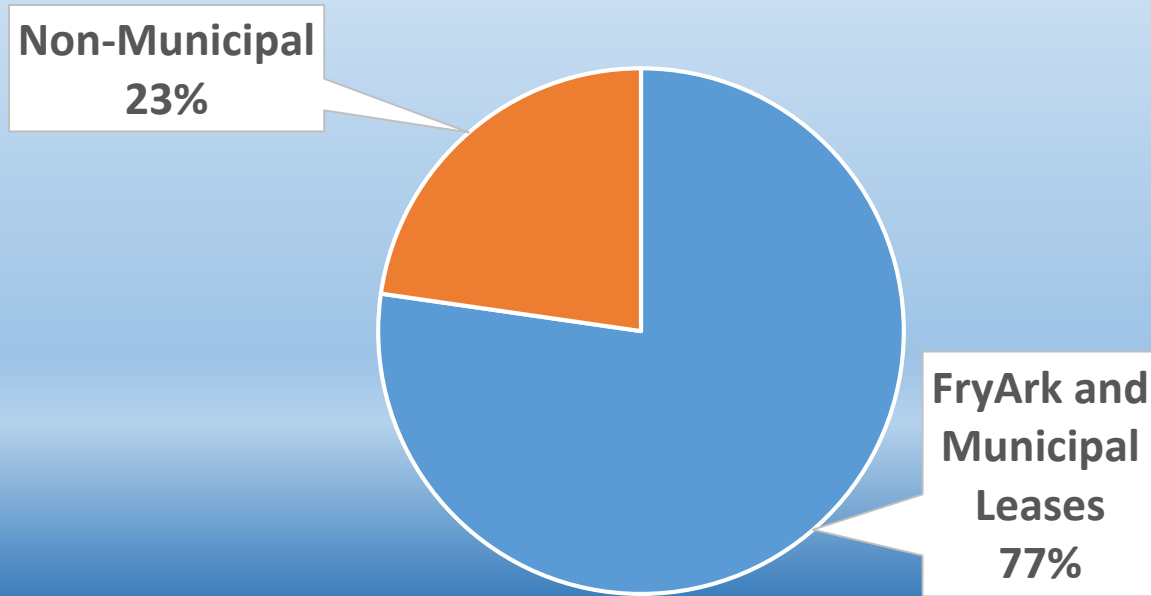
Arkansas Groundwater Users' Association





Fryingpan-Arkansas and Municipal Water to CWPDA 2018-2020 (non-Offset Account)

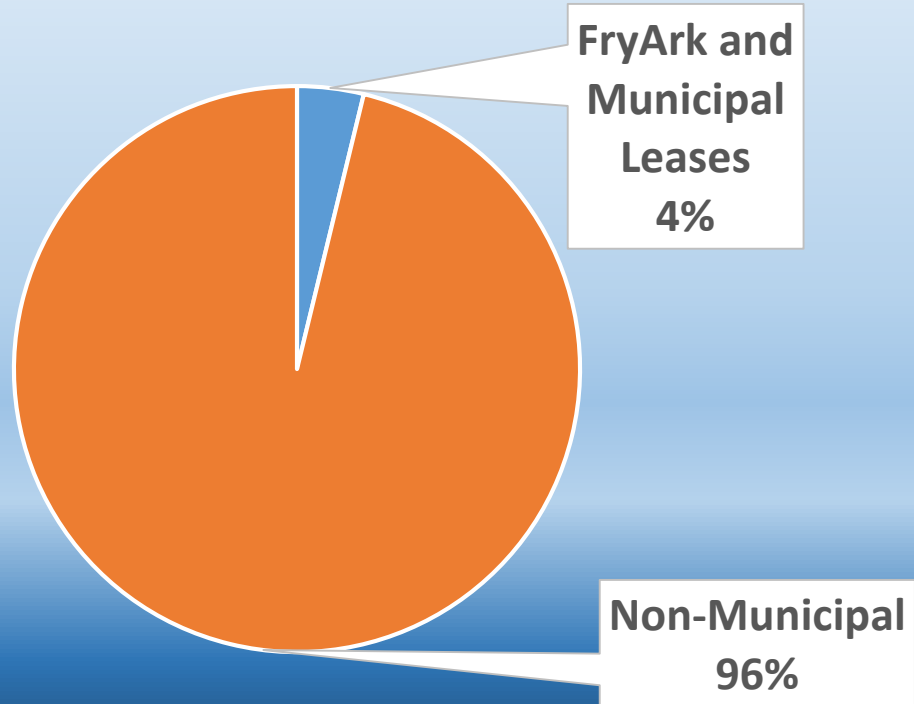
Colorado Water Protective & Development Association





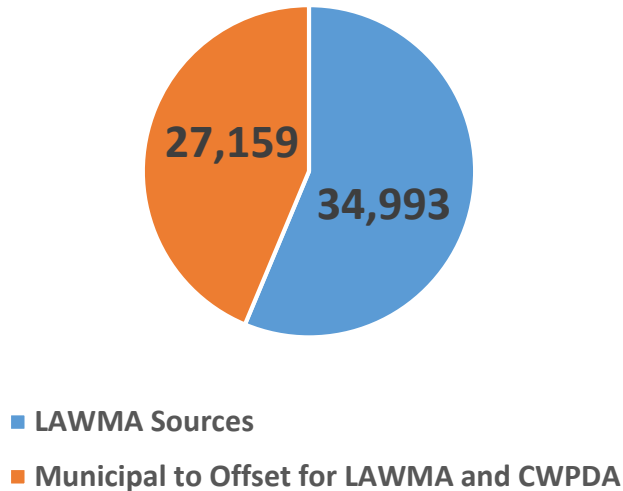
Fryingpan-Arkansas and Municipal Water to LAWMA 2018-2020 (non-Offset Account)

Lower Arkansas Water Management Association



Municipal Contributions to John Martin Offset Account for Compact Compliance

Municipal Sources to the Offset Account
in John Martin Reservoir
2012 to 2020



- Colorado Springs Utilities, Pueblo Water, Aurora and other municipalities leased water to the Lower Arkansas Water Management Association and the Colorado Water Protective & Development Association for replacement of well depletions in John Martin Reservoir and the Stateline.
- Supplies came primarily from Colorado Springs Utilities, Pueblo Water and Aurora, but also from other municipalities willing to lease water in better years.
- This water represents about **44%** of the total supply to the Offset Account over this period.

QUESTIONS?