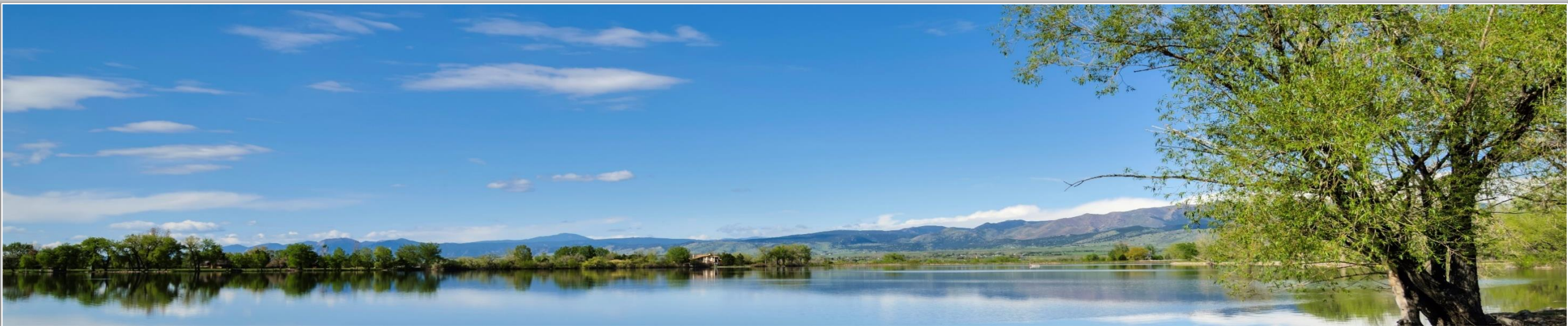


# Water Bank Update



**Nathan Alburn, Water Resources Engineer**

**January 15, 2020**

# Water Rights Requirement

## 🌀 Terms and Definitions

### 🌀 Acre-foot (AF):

- 🌀 1 AF = About enough water for
  - 🌀 2 single family homes
  - 🌀 3 – 5 apartment/condo units (depending on irrigation)

### 🌀 Cash-in-Lieu (CIL)

- 🌀 In Loveland: Based on CBT. Paying cash vs. other methods of bringing water

### 🌀 Types of Water (and Storage)

- 🌀 Colorado-Big Thompson Units (CBT)
- 🌀 Windy Gap Units & Chimney Hollow
- 🌀 Native Ditch Shares (or “inches”)
- 🌀 Storage in general

### 🌀 Balanced Portfolio

- 🌀 Adequate portions of different types of water, storage, and CIL

# Water Rights Requirement

## Residential



## Irrigation



## Commercial (Nonresidential)



# Water Rights Requirement

## Residential

Recent change (Ord. 6324)(Sept 17, 2019)

RESIDENTIAL DWELLING TYPE		Home Size	Water Meter	Indoor Water Rights	Outdoor Water Rights <sup>1</sup>	
				Acre feet (AF) per dwelling unit required x No. of dwelling units	Acre feet (AF) per acre required x net lot acreage	Acre feet (AF) per acre required x net lot acres in excess of 15,000 square feet per lot
Detached Units	Single Family Detached	> 800 sf	Separate water meter to each dwelling unit <sup>3</sup>	0.22 AF	1.4 AF	1.6 AF
	Cottage Homes or Micro Homes <sup>2</sup>	≤ 800 sf		0.16 AF	1.3 AF	1.7 AF
	Single Family Attached or Cluster Duplexes	N/A	Separate water meter to each dwelling unit <sup>3</sup>	0.16 AF	1.3 AF	1.7 AF
			Water meter serves			

## Irrigation

Based on irrigable acres

Standard

3.0 AF/acre

Hydrozone

3.0 AF/acre (High)

1.8 AF/acre (Mod)

0.6 AF/acre (Low)

## Commercial (Nonresidential)

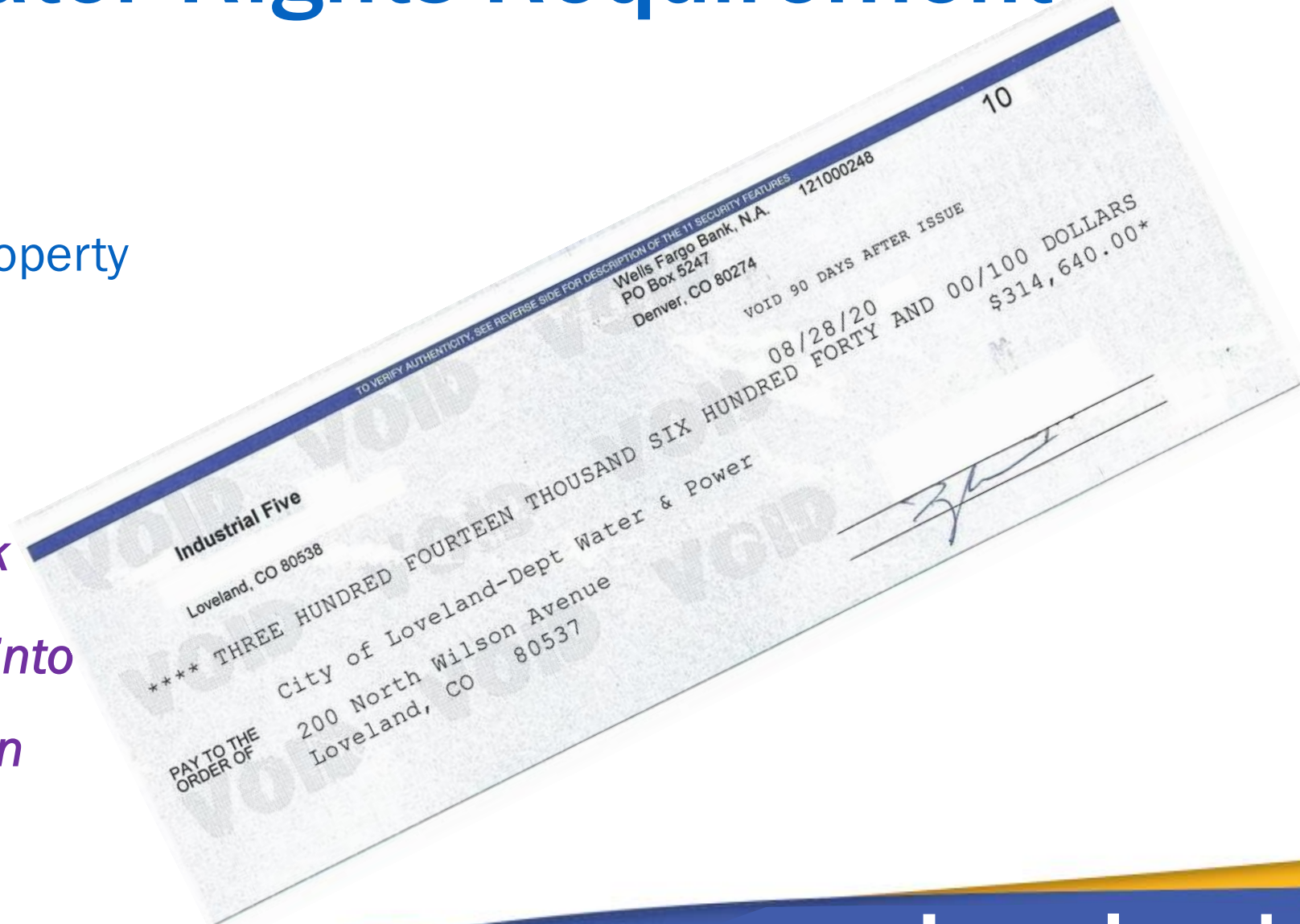
Based on meter size

Water Meter Size	Acre-feet Required
3/4"	1
1"	4
1 1/2"	8
2"	13
...	...
6"	80

# Fulfilling Water Rights Requirements

## Four Methods

- Existing Credit on the Property
- Pay Cash-in-Lieu (CIL) =  
\$47,640/AF
- Credit in the Water Bank*
- Depositing water rights into  
the Water Bank and then  
using those*



# Water Bank

Since 1979

Municipal Code

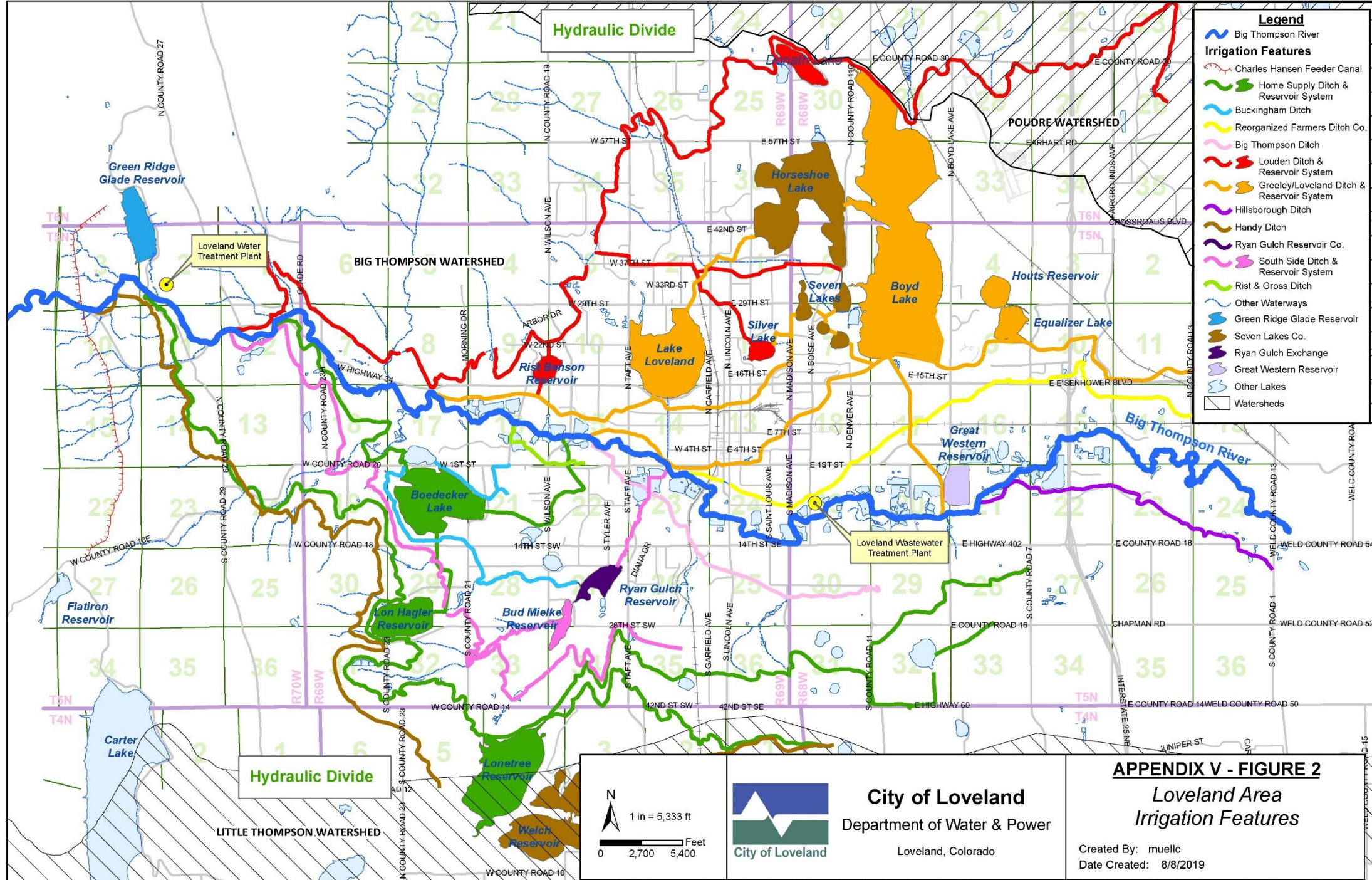
19.04.015 - 018

Main Types


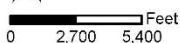
Native Ditch Credit

Cash Credit/CBT

Irrigation Company or Other Water Source	Units	Current Balance, sh = share, inch, unit	Current Credit Values (AF/sh)	Total Credit in Water Bank using
		sh	AF/sh	AF
Barnes	Inches	100.74	3.32	334
BTDM	Shares	4.85	186.57	905
Buckingham	Shares	16.65	6.36	106
Chubbuck	Inches	205.52	2.94	604
Louden	Shares	37.07	12.17	451
South Side	Shares	37.24	4.55	169
Rist and Goss	AF	227.90	1.00	228
Other	AF	89.10	1.00	89
Cash Credits	AF	1,278.54	1.00	1,279
CBT	Units	329.66	1.00	330
<b>Grand Total in Water Bank</b>				<b>4,496</b>



- Legend**
- Big Thompson River
  - Irrigation Features**
    - Charles Hansen Feeder Canal
    - Home Supply Ditch & Reservoir System
    - Buckingham Ditch
    - Reorganized Farmers Ditch Co.
    - Big Thompson Ditch
    - Louden Ditch & Reservoir System
    - Greeley/Loveland Ditch & Reservoir System
    - Hillsborough Ditch
    - Handy Ditch
    - Ryan Gulch Reservoir Co.
    - South Side Ditch & Reservoir System
    - Rist & Gross Ditch
    - Other Waterways
    - Green Ridge Glade Reservoir
    - Seven Lakes Co.
    - Ryan Gulch Exchange
    - Great Western Reservoir
    - Other Lakes
    - Watersheds


  
 1 in = 5,333 ft
   

  
 0 2,700 5,400 Feet



**City of Loveland**  
 Department of Water & Power  
 Loveland, Colorado

**APPENDIX V - FIGURE 2**  
**Loveland Area**  
**Irrigation Features**

Created By: muellc  
 Date Created: 8/8/2019



# Water Bank

## ☼ Main Types

### ☼ Native Ditches

- ☼ Barnes\*
- ☼ Big Thompson Ditch & Manufacturing
- ☼ Buckingham
- ☼ Chubbuck\*
- ☼ Louden
- ☼ South Side
- ☼ Rist and Goss\*\*



☼ \*Not able to accept

☼ \*\*City owned

### ☼ Native Ditches (not in Water Bank)

☼ Farmers

☼ GLIC

☼ Handy

☼ Hillsborough

☼ Home Supply



# Water Bank

## Main Types (cont.)

### Cash Credits

AF

Jan 1, 2006

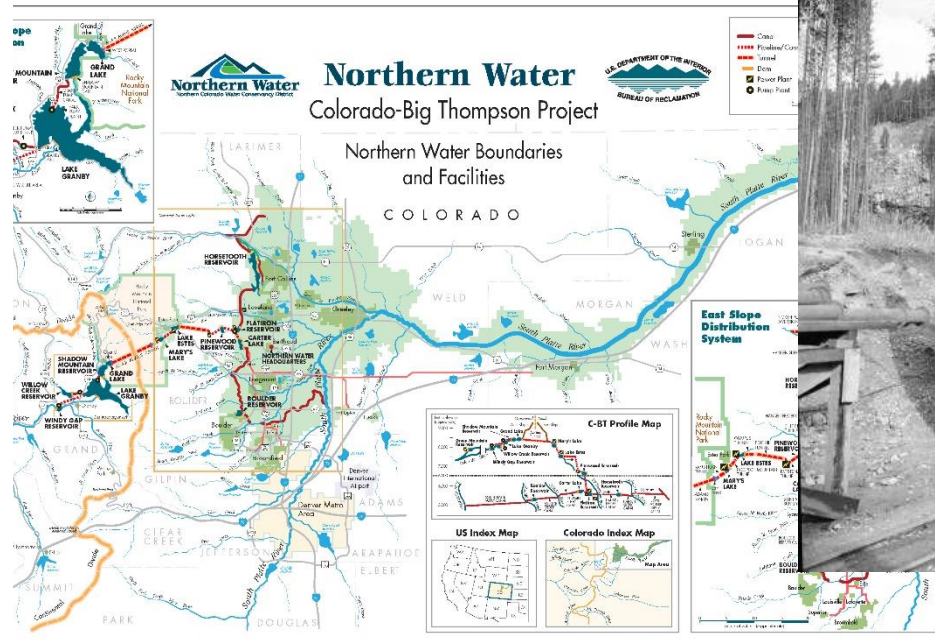
### CBT

Units

CBT value:

Currently 1 unit = 1.00 AF

Proposed 1 unit = 0.90 AF



# Water Bank

## Benefits

- Allows developers to bring ditch water early in the process
  - Encourages a more balanced portfolio
- Transactions part of paperwork trail
- Credits are sold at discount (compared with CIL)
  - May be purchased prior to invoice (before CIL increases)
- Loveland Housing Authority – Affordable Housing



# Water Bank

## Other Terms

### Native Raw Water Storage Fee

- All Native Water after July 21, 1995
- “Firms” water year around
- Optional

### Interested Seller’s List

### Water Bank Agreement

- Or Assumption of Obligations

### Holding Receipt

### Lost Document Bond

### 50% Rule (19.04.040)

- $\leq 50\%$  Native
- 0 – 100% Cash Credit/CBT or CIL
- Encourages balanced portfolio

# Water Bank

## By the numbers in 2019

- 4,588 AF (Jan) = \$136,322,282: CIL Jan 2019 (\$29,710/AF)
- 4,496 AF (Dec) = \$214,166,377: current CIL equivalent (\$47,640/AF)
- 119 AF dedicated = \$4,533,615: CIL equivalent at time of payment
  - 38 AF from Cash Credit or CBT
  - 81 AF from Ditch Credits
- 26 AF: Water deposited
- 68 transactions
- 160 accounts (over 460 over its history)
- 101 AF in CIL (\$3,794,880 at time of payment)

# QUESTIONS?