

# RAW WATER SUPPLY OPTIONS FOR CITY OF LOVELAND

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# TODAY'S QUESTION IS:

Should the City apply a Dollar Cost Averaging Concept to purchases of CBT units?

# WINDY GAP OPTION

Water Right	Firm Yield	Price \$	Price per Firm AF	Window of Opportunity
Windy Gap (40 Units) w/o storage	0 AF	\$8,600,000 \$2,158/AF	Unfirmed	WG units may be available to buy or sell over time.

Pros	Cons
<ul style="list-style-type: none"><li>•No change needed in Water Court.</li><li>•Reuse anywhere after Loveland's 1st use.</li></ul>	<ul style="list-style-type: none"><li>•Highest initial annual operating cost.</li><li>•Zero firm yield without storage.</li><li>•Potential CBT delivery system failure.</li><li>•Potential Colorado River call.</li></ul>

# WINDY GAP FIRMING OPTION

Water Right	Firm Yield	Price \$	Price per Firm AF	Window of Opportunity
Windy Gap Firming Project (WGFP) @ current 7000 AF Level	3000 AF	\$22,000,000	\$7,333	City is currently subscribed for 7000 AF
Additional 1,400 AF of WGFP storage	373 AF	\$4,410,000	\$11,800	WGFP storage is a one time decision and it is fast approaching the deadline

Pros	Cons
<ul style="list-style-type: none"> <li>Provides firm yield for WG units already owned or acquired later.</li> <li>Near completion of anticipated permitting.</li> <li>Likely the lowest cost storage space available for WG water or native rights.</li> </ul>	<ul style="list-style-type: none"> <li>Permitting is never over until it's over.</li> <li>Permitting, mitigation &amp; construction costs are escalating.</li> </ul>

# NATIVE WATER IN WGFP

Water Right	Firm Yield	Price \$	Price per Firm AF	Window of Opportunity
Native Water in WGFP	2.5 AF : 1 AF Storage Ratio			Native rights need storage—could that be in the WGFP?

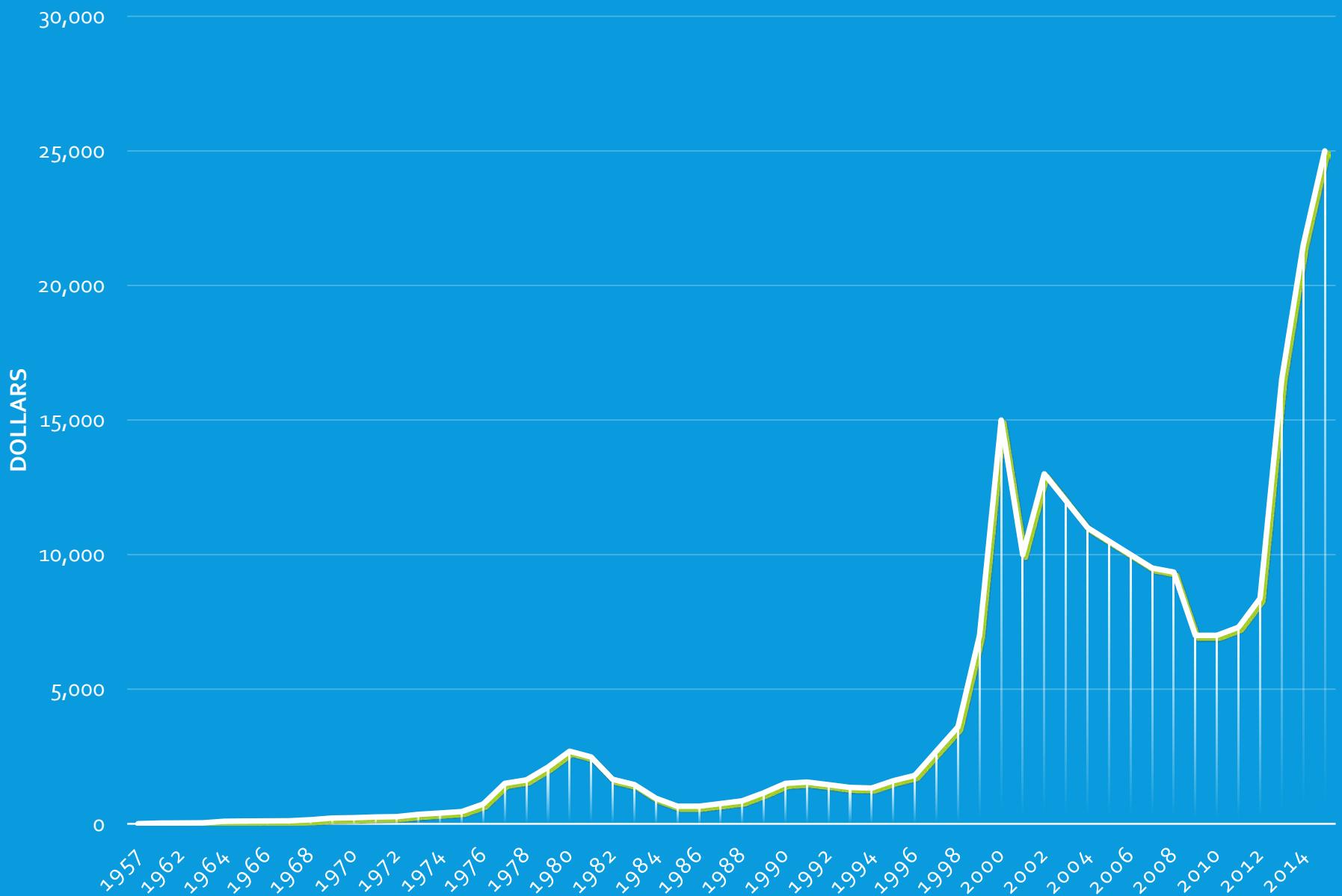
Pros	Cons
<ul style="list-style-type: none"><li>•Provide firm yield from future native shares.</li><li>•Likely the least cost storage alternative.</li></ul>	<ul style="list-style-type: none"><li>•NEPA process required.</li><li>•Carriage contract required.</li><li>•Subject to available carriage capacity.</li></ul>

# DOWNSTREAM STORAGE OPTION

Water Right	Firm Yield	Price \$	Price per Firm AF	Window of Opportunity
Downstream Storage	0.75 AF : 1 AF 2,000 AF	\$4,000,000	2,000	Depends of the location of available storage

Pros	Cons
<ul style="list-style-type: none"><li>Upstream exchange capability enhanced.</li><li>Potential 'Purple Pipe' or raw water irrigation water source.</li><li>Sale or trade to downstream entity possible.</li><li>Gravel pits are currently developing storage vessels in the appropriate area.</li></ul>	<ul style="list-style-type: none"><li>Limited opportunity to exchange upstream.</li><li>Upstream exchange reduces river flows through town.</li></ul>

# CBT UNITS MARKET PRICE HISTORICAL TRENDS



# CBT UNITS OPTION

Water Right	Firm Yield	Price \$	Price per Firm AF	Window of Opportunity
Colorado Big Thompson Units	1 AF/unit	\$26,250	\$26,250	Currently available at historic prices. Supply is steadily decreasing.

Pros	Cons
<ul style="list-style-type: none"><li>•City is well below its CBT ownership cap.</li><li>•No change needed in Water Court.</li><li>•Can use anywhere in Northern's District.</li><li>•Already stored and available on demand.</li></ul>	<ul style="list-style-type: none"><li>•Limited supply available.</li><li>•Cannot be used for augmentation plans.</li><li>•Single use only--not reusable.</li><li>•Potential Colorado River call.</li><li>•Potential delivery system failure.</li><li>•Current prices are at historic highs.</li></ul>

# NATIVE RIGHT W/ STORAGE OPTION

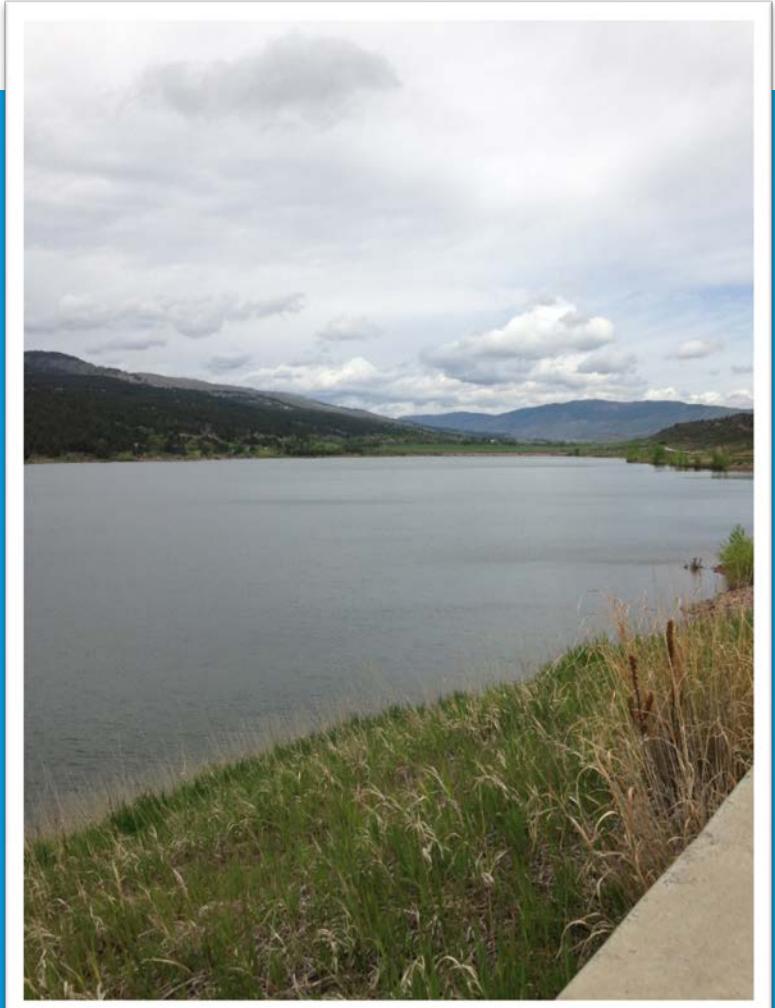
Firm Yield	Price \$	Price per Firm AF	Window of Opportunity
12 AF/sh	\$243,996	\$20,333	Limited feasibility storage options identified through extensive studies

## Pros

- Keeps City portfolio diversified.
- Desirable for developers owning shares.

## Cons

- Water Court action required to add to decrees.
- CBT Conveyance Contract likely to be needed for storage.
- NEPA process required to use CBT conveyance.
- Ever-tightening state administrative regulation.



# NATIVE RIGHTS W/O STORAGE OPTION

Firm Yield	Price \$	Price per Firm AF	Window of Opportunity
2.5 AF/sh	\$40,000	\$16,000	Some benefit as a direct flow right or with existing storage

## Pros

- Provides lower cost option for Developers
- Keeps City portfolio diversified.

## Cons

- Most likely developers will pay storage fee to realize the significantly higher yields.
- Ever-tightening state administrative regulation.



# CONCLUSION

Should the City apply a Dollar Cost Averaging Concept to purchases of CBT units?

