WHAT IS THE NEXUS BETWEEN AFFORDABLE HOUSING AND THE PRICE OF WATER FROM THE POUDRE?

2019 POUDRE RIVER FORUM

FEBRUARY 1, 2019
“WATER WILL FLOW UPHILL TO MONEY”

- UNKNOWN WHO ORIGINATED THE QUOTE
TOPICS DISCUSSED TODAY

- WATER AS A FUNCTION OF THE COST OF A HOME
- WATER AS A FUNCTION OF THE COST OF A PROJECT
- LARGER MACRO ISSUES AFFECTING AFFORDABILITY
NOTES:

- Different cities and potable water service providers have different policies and dedication rates.
- Examples today assume a developer bringing 100% of the "wet" water to serve a project.
- Most municipal water valuations / cash-in-lieu rates track very similar to the price of Colorado Big Thompson Project (CBT) shares. However, these adjustments can lag a couple years.
- Policy changes regarding water dedication have a significant impact on homebuilding.
HISTORIC CBT PRICING

CBT Price Trend

Unit Price ($/AF)

$0

$10,000

$20,000

$30,000

$40,000

$50,000

$60,000

ASSUMPTIONS FOR TODAY’S DISCUSSION

- **PRICE OF CBT SHARE $38,500**
  - This equals a per Acre-Foot value of $55,000 ($38,500 per Share / 0.7 AF Yield)

- **AVERAGE SINGLE FAMILY HOME NEEDS TO DEDICATE .5 AF**
  - This is an average across and can change based on product type
  - Dedication policies are different across all municipalities and can change this

- **LOT SIZE IN THIS EXAMPLE IS 40’ X 90’ OR 3,600 SQUARE FEET**

- **HOME SIZE IN THIS EXAMPLE IS 1,600 SQUARE FEET**

- **3 BEDROOM, 2.5 BATHS, 2-CAR ATTACHED GARAGE, 9’ BASEMENT**
HOUSE EXAMPLE:
## Water Cost as a Function of House Price

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land (Paper Lot)</td>
<td>$25,000</td>
</tr>
<tr>
<td>Land (Lot Construction)</td>
<td>$ 55,000</td>
</tr>
<tr>
<td><strong>Raw Water</strong></td>
<td><strong>$ 27,500</strong></td>
</tr>
<tr>
<td>Permits &amp; Fees</td>
<td>$ 45,057</td>
</tr>
<tr>
<td>Hard Construction Costs – Materials and Labor</td>
<td>$ 199,724</td>
</tr>
<tr>
<td>Real Estate Commissions (6%)</td>
<td>$ 25,675</td>
</tr>
<tr>
<td>Closing Costs (1%)</td>
<td>$  4,279</td>
</tr>
<tr>
<td>Interest</td>
<td>$  7,489</td>
</tr>
<tr>
<td>Loan Fees</td>
<td>$  1,852</td>
</tr>
<tr>
<td>Soft Costs</td>
<td>$ 14,949</td>
</tr>
<tr>
<td>Builder Profit</td>
<td>$ 21,396</td>
</tr>
<tr>
<td><strong>Sales Price</strong></td>
<td><strong>$ 427,921</strong></td>
</tr>
</tbody>
</table>
WATER COST AS A FUNCTION OF PROJECT

Mosaic Community (SEC of Timberline and Vine - FC)

870 Total Units on 148 Acres
- Townhomes / Traditional Single Family / Apartments / Small Detached Single Family Homes

Water Needs
870 Total Units at .5 AF/Unit = 435 AF Needed for Project

435 AF = 621 CBT Units (0.7 AF / Unit)

Acquisition Price of CBT = $23,908,500

$161,543 / Ac for Water vs. $40,000/Ac for Real Estate

Water is 4X the price of the Real Estate!!!
LARGER MACRO ISSUES

COLORADO’S POPULATION IS EXPECTED TO EXCEED 8,000,000 BY 2050. AN ADDITIONAL 2,500,000 IN THE NEXT 30 YEARS.

7 OF THE 10 FASTEST GROWING COMMUNITIES IN COLORADO ARE IN NORTHERN WATER’S SERVICE AREA.

COMPETITION IS STIFF. WE HAVE SEEN THE MARKET CHANGE DRAMATICALLY OVER THE LAST YEAR. BUILDERS ARE COMPETING WITH LOCAL MUNICIPALITIES, SOUTH WELD COUNTY BUILDERS AND MUNICIPALITIES, AND METRO AREA MUNICIPALITIES FOR THE SAME POUDRE RIVER RIGHTS.

THE END OF CBT? THERE ARE 310,000 SHARES IN THE SYSTEM. IN 2019, 30% OF THOSE SHARES ARE IN AGRICULTURAL USE AND 70% ARE IN MUNICIPAL AND INDUSTRIAL USE. NORTHERN WATER ESTIMATES THAT 20% OF IT’S SHARES WILL ALWAYS BE IN AGRICULTURAL USE. THAT LEAVES 31,000 SHARES LEFT TO SATISFY GROWTH.

WE CAN ALWAYS RE-CREATE NEW LOTS, WE CANNOT RECREATE NEW WATER.
DISTRICTS REQUIRING “WET” WATER DEDICATION
THANK YOU!