CITY OF GEARHART

Staff Report

For City Council Meeting - 9/6/2023

Subject - Visitors - Donovan Enterprises Inc - Steve Donovan - Water Conservation Pricing

Synopsis: Steven Donovan of Donovan Enterprises conducted a Water Rate Study for the City. The data was used to develop and pass the recent water increase at the August City Council meeting. It was decided that Council would look at rates yearly and decide whether increases should occur. Based on the City's Water Conservation Plan, Steve next took a look at City goals and current rates to present pricing options that keep water conservation goals in mind. He is in attendance tonight to go over the attached presentation.

Recommendation: None at this time.

Legal Analysis: Council will need to decide early 2024 whether or not to implement pricing suggestions during the re-evaluation of water rates due yearly per resolution.

Financial Analysis: Included within the presentation.

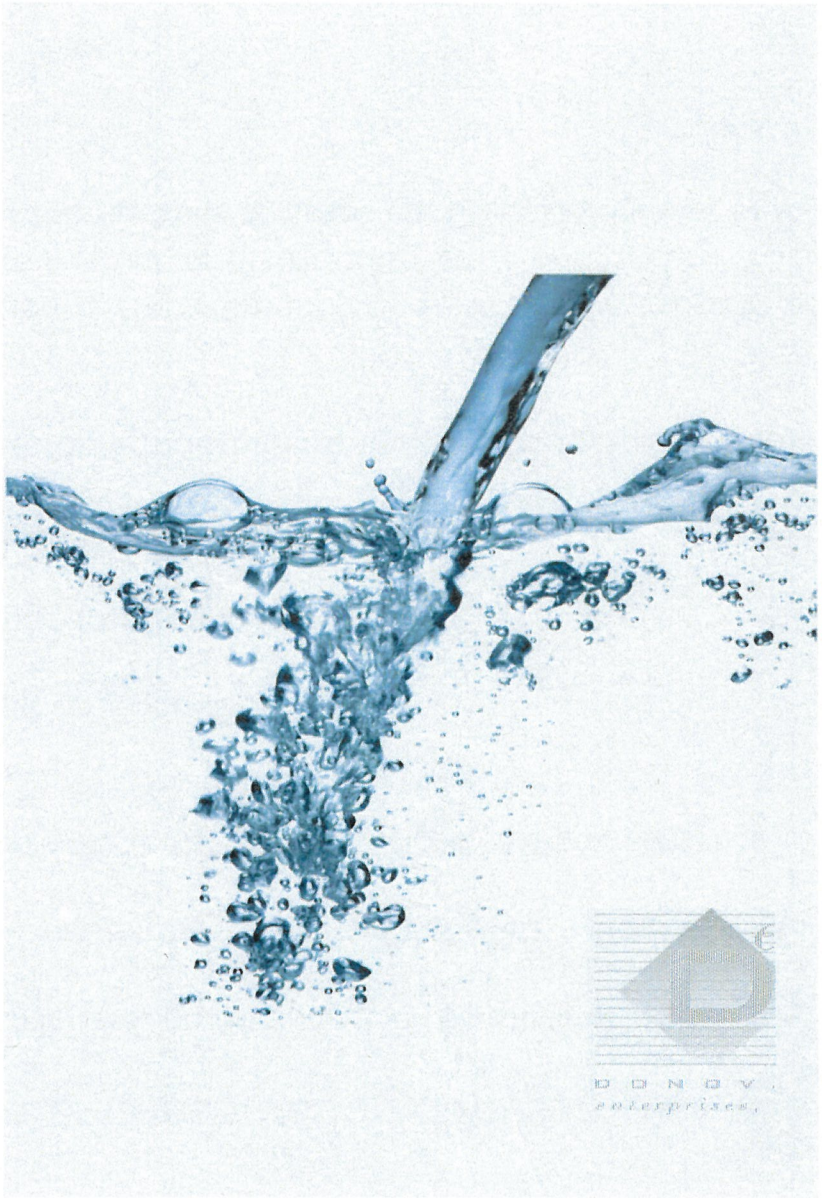
Respectfully Submitted,

Chad

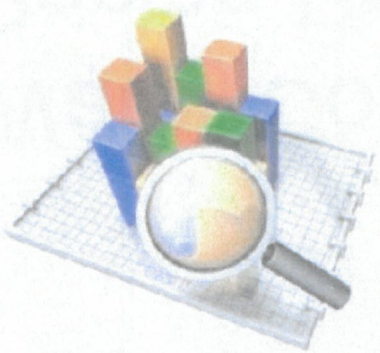
CITY OF GEARHART

Water Conservation Pricing Presentation

September 6, 2023

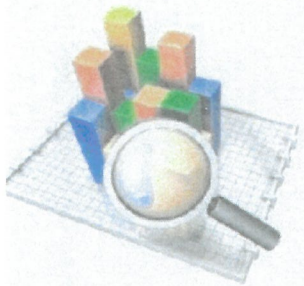


HISTORICAL CONSUMPTION TRENDS

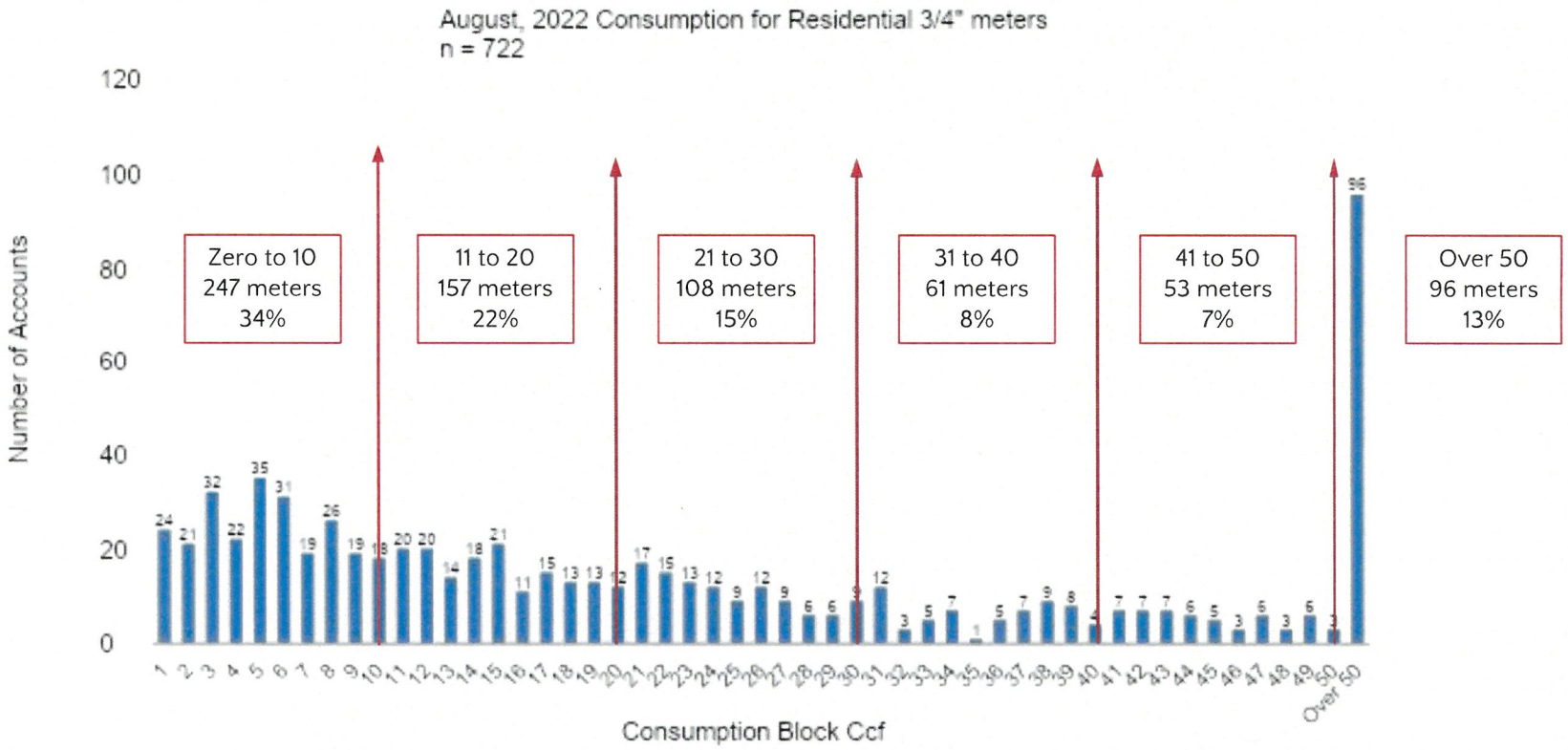


- Definition of Gearhart water conservation data sample:
  - 722 individual observations (meters) are included in this sample
  - This sample represents all ¾" residential water meters read in August 2022
  - This sample represents water sold in the "hottest" time of the summer of 2022
  - Most of the meters were read on August 20, 2022
  - Effectively this represents consumption in July and August
  - The City reads meters on a bimonthly basis
  - Commercial and master metered condominium meters are excluded from this analysis
  - What is a frequency distribution? The frequency of a value is the number of times it occurs in a dataset. A frequency distribution is the pattern of frequencies of a variable. It's the number of times each possible value of a variable occurs in a dataset.

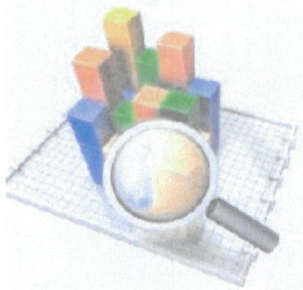
HISTORICAL CONSUMPTION TRENDS



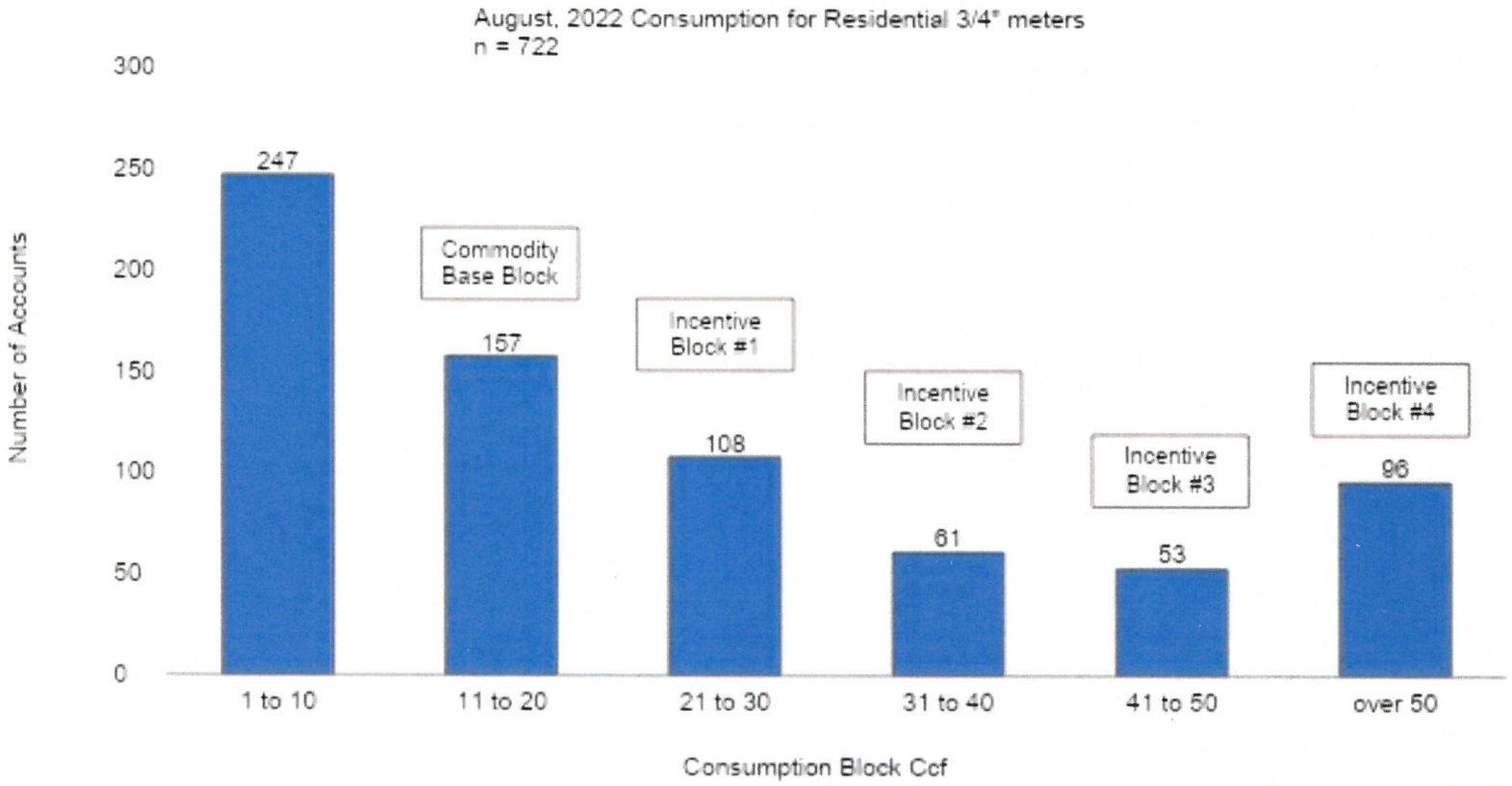
- Frequency distribution of raw data



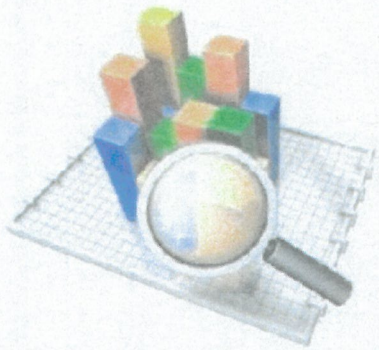
HISTORICAL CONSUMPTION TRENDS



- Reconstituted Frequency Distribution in 10 Ccf Unit Blocks



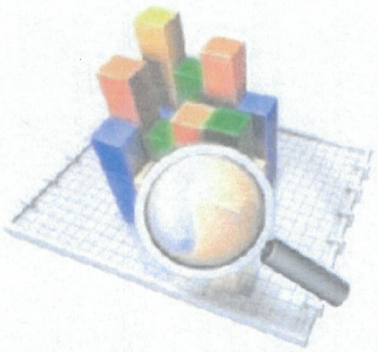
INVERTED BLOCK PRICING BASED ON HISTORICAL CONSUMPTION PATTERS

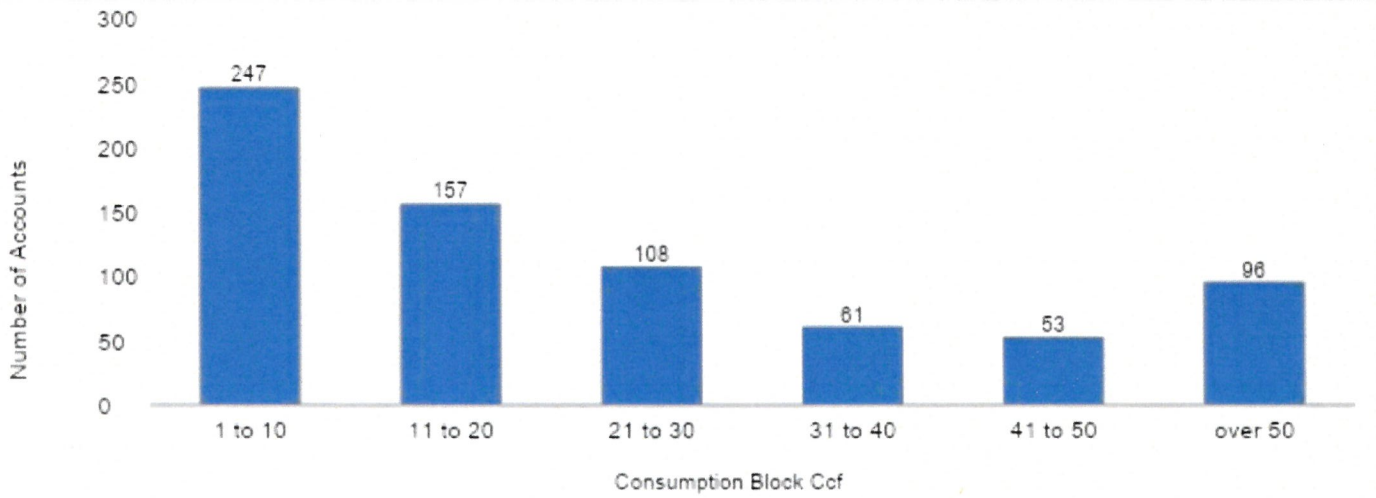


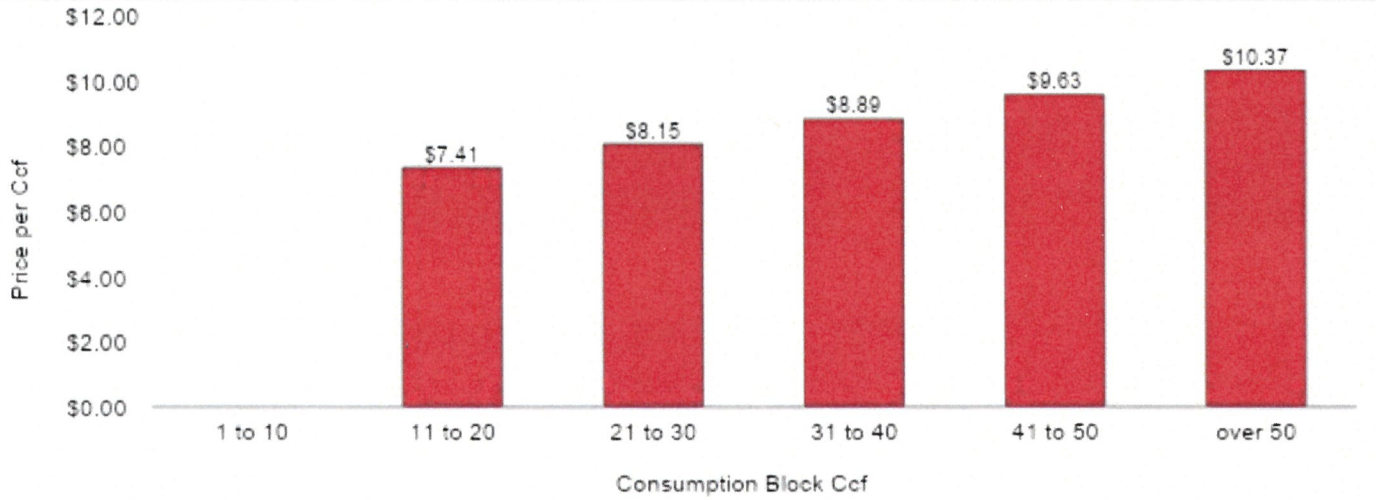
- Example of how an "inverted block" water pricing structure could work in Gearhart
- One "base block" and four (4) "incentive" blocks

Consumption Block	Observations n	Current Price $/Ccf	Block Pricing Multiplier	Block Price $/Ccf
1 to 10	247	$0.00	-	$0.00
11 to 20	157	$7.41	1.00	$7.41
21 to 30	108	$7.41	1.10	$8.15
31 to 40	61	$7.41	1.20	$8.89
41 to 50	53	$7.41	1.30	$9.63
over 50	96	$7.41	1.40	$10.37
Total	722			

INVERTED BLOCK PRICING BASED ON HISTORICAL CONSUMPTION PATTERS







SAMPLE WATER CONSERVATION RATES IN OTHER SMALL OREGON COMMUNITIES

Jurisdiction	Billing Frequency	Billing Units	Consumption Block Converted to kgal		Consumption Block Number	Price per Unit of Consumption	Block Pricing Premium
		ccf	Low	High			
Aurora	bimonthly	ccf	0	9	1	$ 0.70	base block
			10	13	2	$ 0.75	7%
			14	>	3	$ 0.80	14%
Canby Utility	monthly	ccf	0	5	1	$ 1.82	base block
			6	9	2	$ 2.28	25%
			10	>	3	$ 3.18	75%
Carlton	Monthly	ccf	0	4	1	$ 3.41	base block
			4	>	2	$ 4.94	45%
Hubbard	bimonthly	ccf*	0	8	1	$ -	
			9	33	2	$ 3.15	base block
			35	>	3	$ 4.68	48%
Wilsonville	monthly	ccf	0	1	1	$ -	
			2	6	2	$ 4.23	base block
			7	>	3	$ 6.13	45%
Woodburn	monthly	ccf	0	7	1	$ 1.95	base block
			8	18	2	$ 2.52	29%
			18	>	3	$ 3.44	76%

* - Hubbard bills in kgals; for this analysis these values have been converted to ccf.

DISCUSSION