

ORDINANCE No.29, 2022
Construction of Additions and Improvements to the Waterworks
(Bonds)

VALPARAISO CITY SERVICES
UTILITIES

PRESENTED TO THE VALPARAISO CITY COUNCIL
1ST READING
December 12, 2022

AGENDA

- **THE PROCESS**
- **PURPOSE OF ORDINANCE No. 29-2022**
- **BRIEF HISTORY**
- **PHASE II WATER PLAN**
- **CURRENT RATES**
- **FINANCING (BAKER TILLY)**
- **RECOMMENDATION & QUESTIONS**

Award winning utility that provides essential services 24/7 - All night, all day, every day

- Well Fields
- Water Treatment Plants
- Water Distribution System
- Towers & Reservoirs
- Sewage Collection System
- Storm Water Systems
- Wastewater Treatment Plant
- Salt Creek Watershed/Great Lakes Basin



THE PROCESS

*ENTER INTO AGREEMENTS WITH
ENGINEERING CONSULTANTS
DATE GATHERING, MEETINGS,
FINAL REPORT WITH OPINION OF
COSTS*

*BID PROJECTS &
PROCEED WITH CONSTRUCTION*

VALPARAISO CITY SERVICES
UTILITIES TEAM
STRATEGIC PLAN



ENGINEERING TEAM



BAKER TILLEY RATE CONSULTANTS



City of Valparaiso Projects
Recommendation

Bond Issue
Final Rates

INITIATE MASTER PLAN STUDIES BASED ON NEEDS

- ✓ OPERATIONAL
- ✓ REGULATORY
- ✓ ENVIRONMENTAL

*BAKER TILLEY PROVIDES FINANCING RECOMMENDATIONS RATE ANALYSIS
UTILIZE BOND COUNSEL INDIANAPOLIS*

STAKEHOLDER INVOLVEMENT



WASTEWATER DIGESTERS



AERATION PROJECT

- BLOWERS
- PIPING
- DIFFUSERS



30-55 YEARS OF AGE

AGING WELLS

- FLINT LAKE
- COUNTY CLUB



WATER FILTERS



WATER PROJECTS

1. New Wells
2. Filter Upgrades
3. Backwash Facilities
4. Water Main Replacement
5. Additional Water Sources

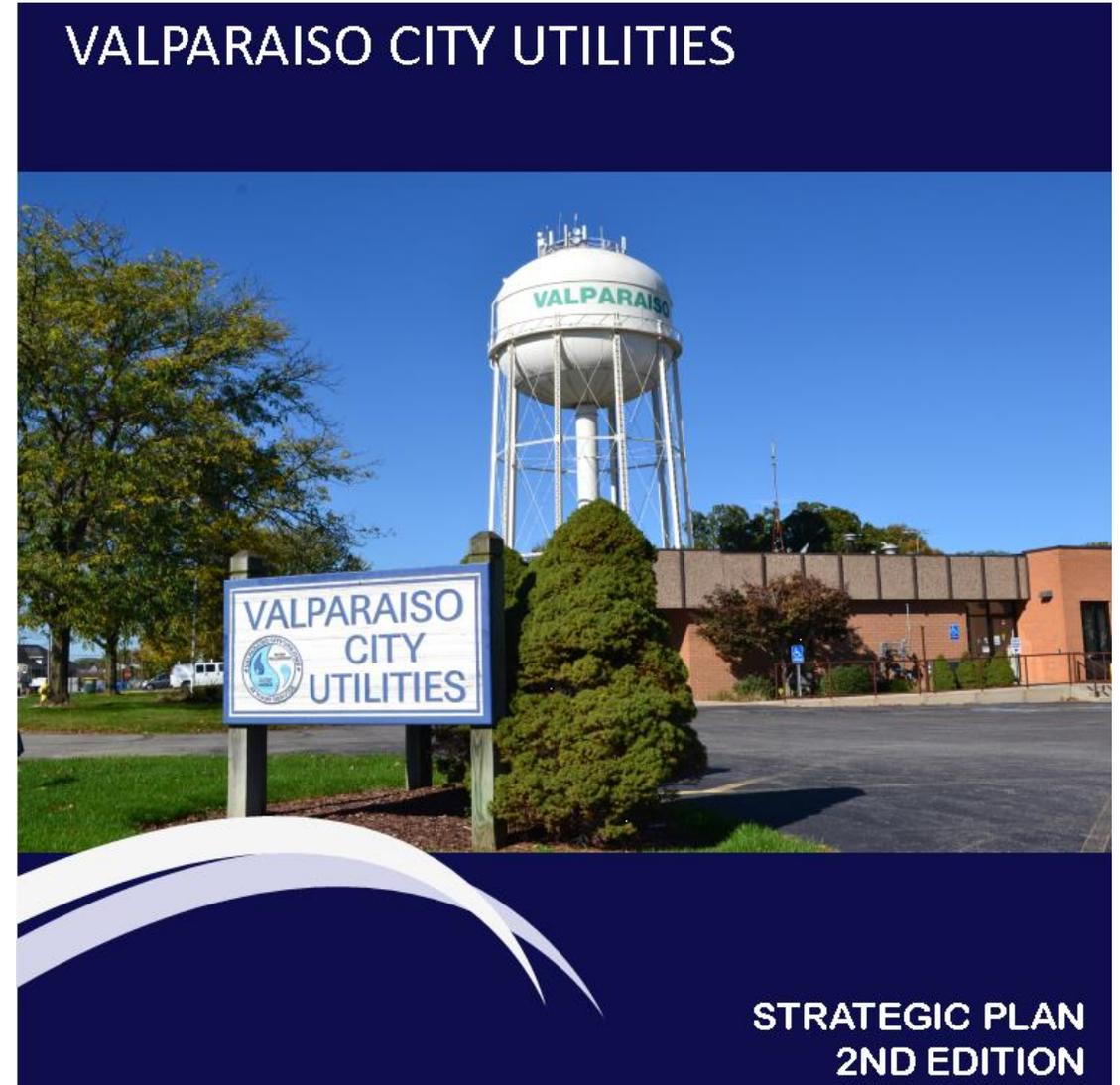
WASTEWATER PROJECTS

1. Tertiary Filters
2. Pipe Gallery Structural Repair
3. Aeration Project
4. SCADA Improvement
5. WAS Thickening
6. Digester Rehab
7. High Strength Waste Receiving Station
8. Regional Pump Station & Forcemain

PURPOSE OF ORDINANCE No. 29, 2022

- Engineering and construction of additions and improvements to the City's Waterworks.
- **\$23 Million financed through Bonds:**
 - Construction of up to 8 New Wells & Transmission Lines
 - ✓ Phase II – 4 Wells by 2023
 - ✓ Phase III
 - ✓ Additional Wells
 - ✓ Backwash Recycling System Flint Lake
 - ✓ 4 New Filters (Airport Plant)
 - ✓ Structural & Electrical Modification
- The ability to issues Bond Anticipation Notes (BANs) of not to exceed **\$6 Million**
 - Interim Financing for:
 - Engineering Phase II & III **\$2.3 Million**
 - Phase II Construction 4 Wells **\$5 Million**

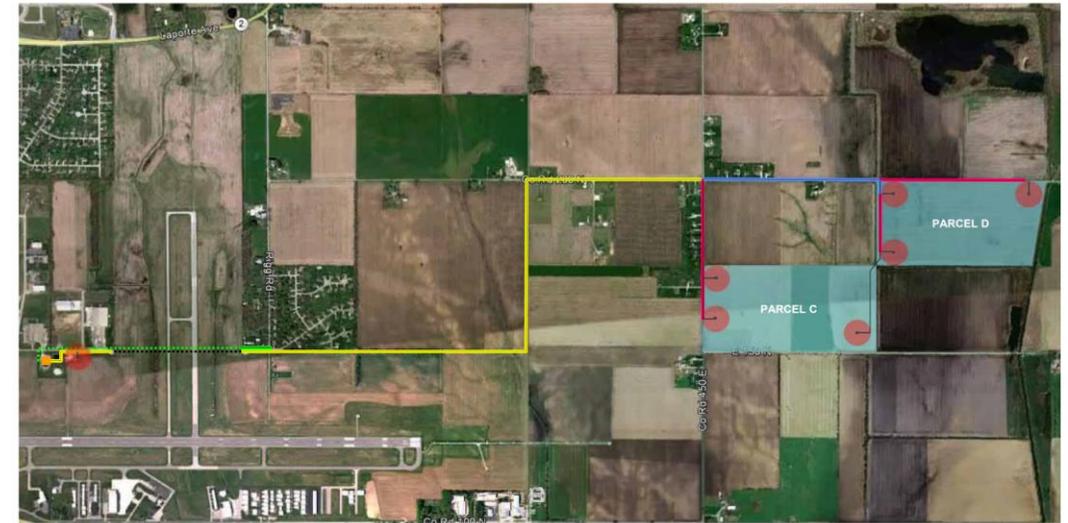
VALPARAISO CITY UTILITIES



STRATEGIC PLAN
2ND EDITION

PHASE I History

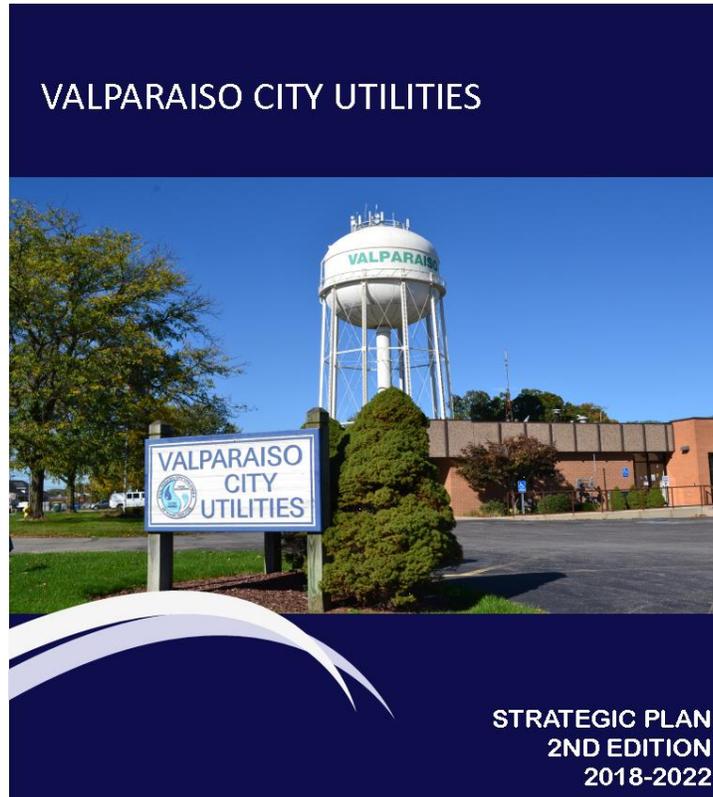
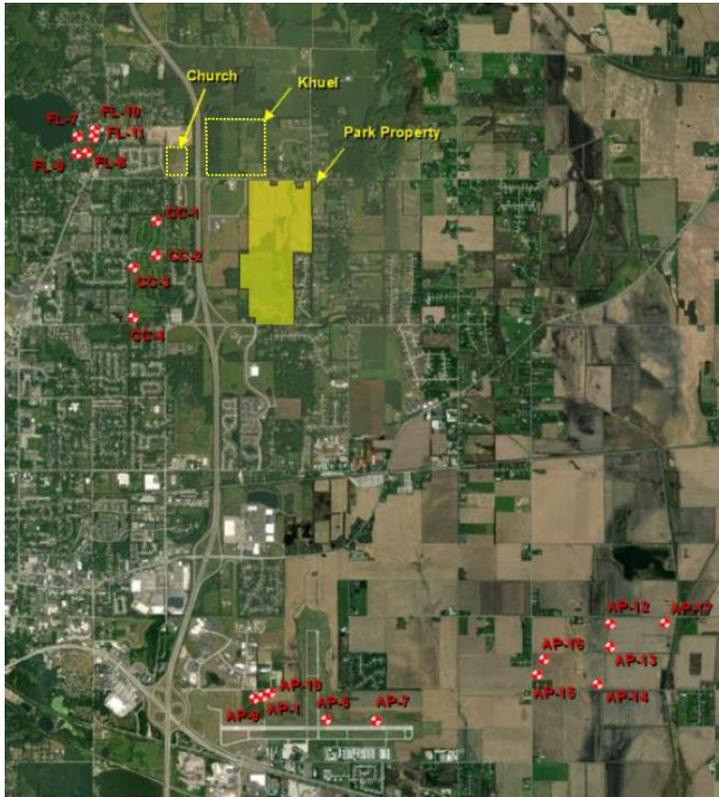
- **2013 Water Source Study**
- Groundwater (15-20 Year Solution)
- Phase I Construction
 - 8 New Wells - Replace Aging Airport Wells
 - 5 Miles of Transmission Line
 - Upgrades to Airport Plant (Filters, Controls, Piping, Electrical)
 - Additional Water Storage (2 Million Gallons)
 - \$18 Million Bond Issue



— 20" Raw Water Transmission Main



PHASE II Strategic Plan 2018-2022 Construct 4 Additional Wells



Purpose Phase II

- Provide additional source water for treatment plant to
- Replace old wells

Issues

- Half of the wells range from 30-40 years (AP 5: 43 years)
- Well productivity declines
- Pumping efficiency decreases

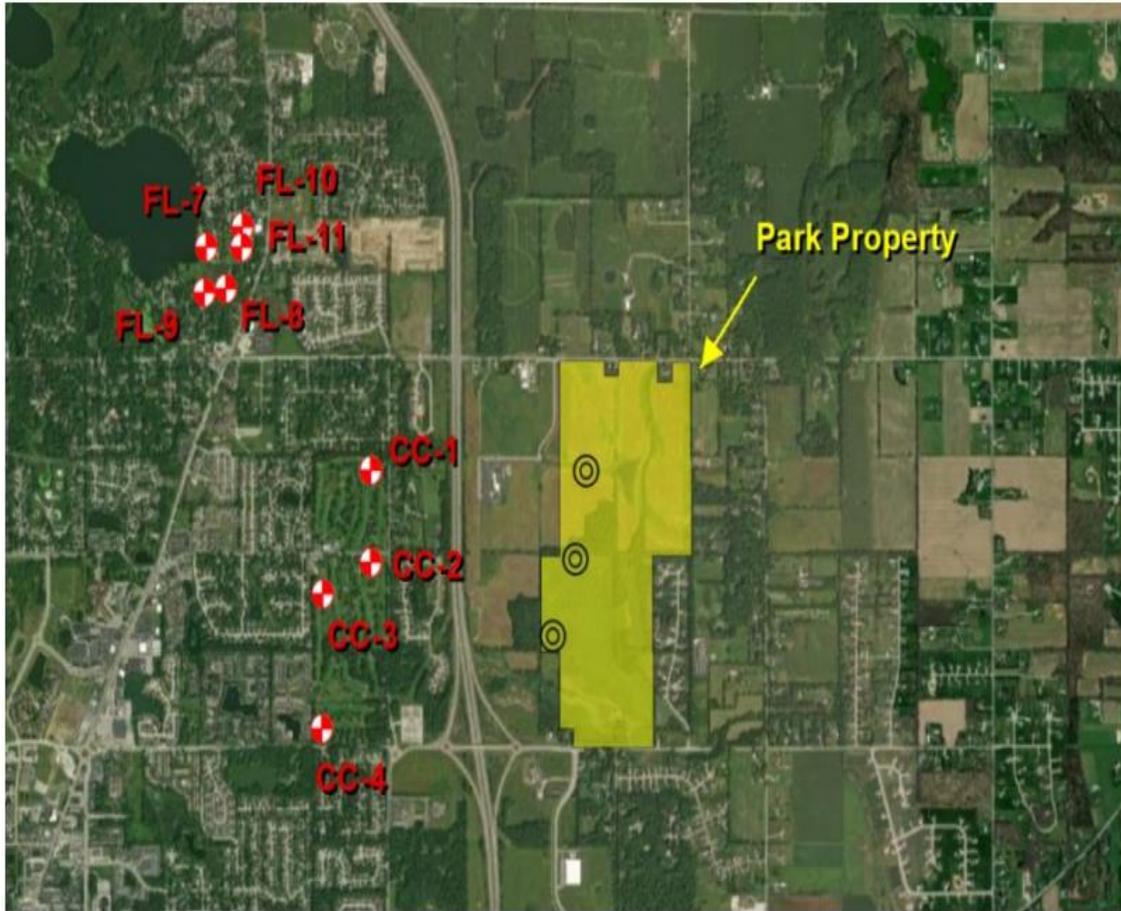
Solution

- Install new wells to replace old wells (Strategic Plan)

Benefits

- Replace lost water pumping capacity due to well aging
- Improve pumping efficiency and reduce energy consumption

POTENTIAL NORTHERN SITES FOR NEW WELLS



Park Property



Flint Lake Water Campus

Potential Southern Zone Well Site Options

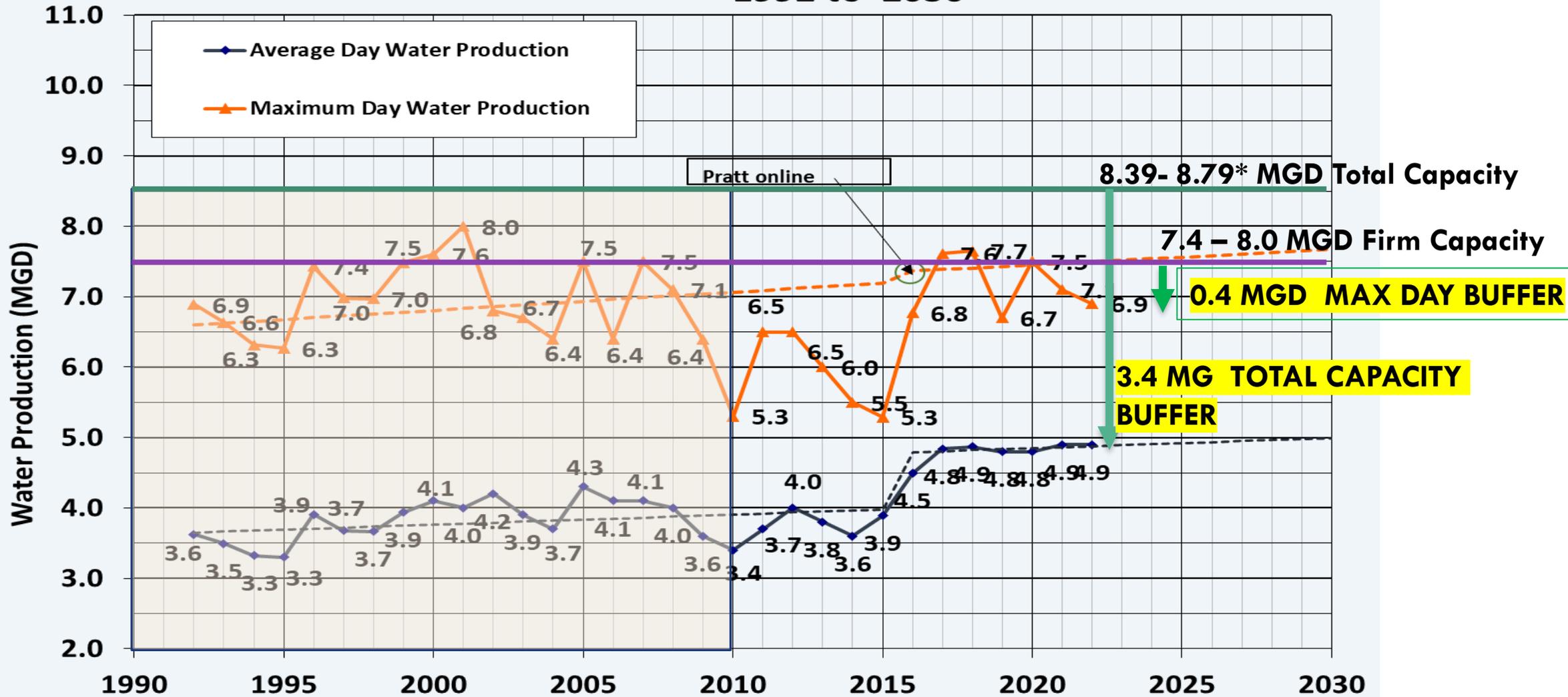


- Existing Production Wells
- Potential New Well Sites

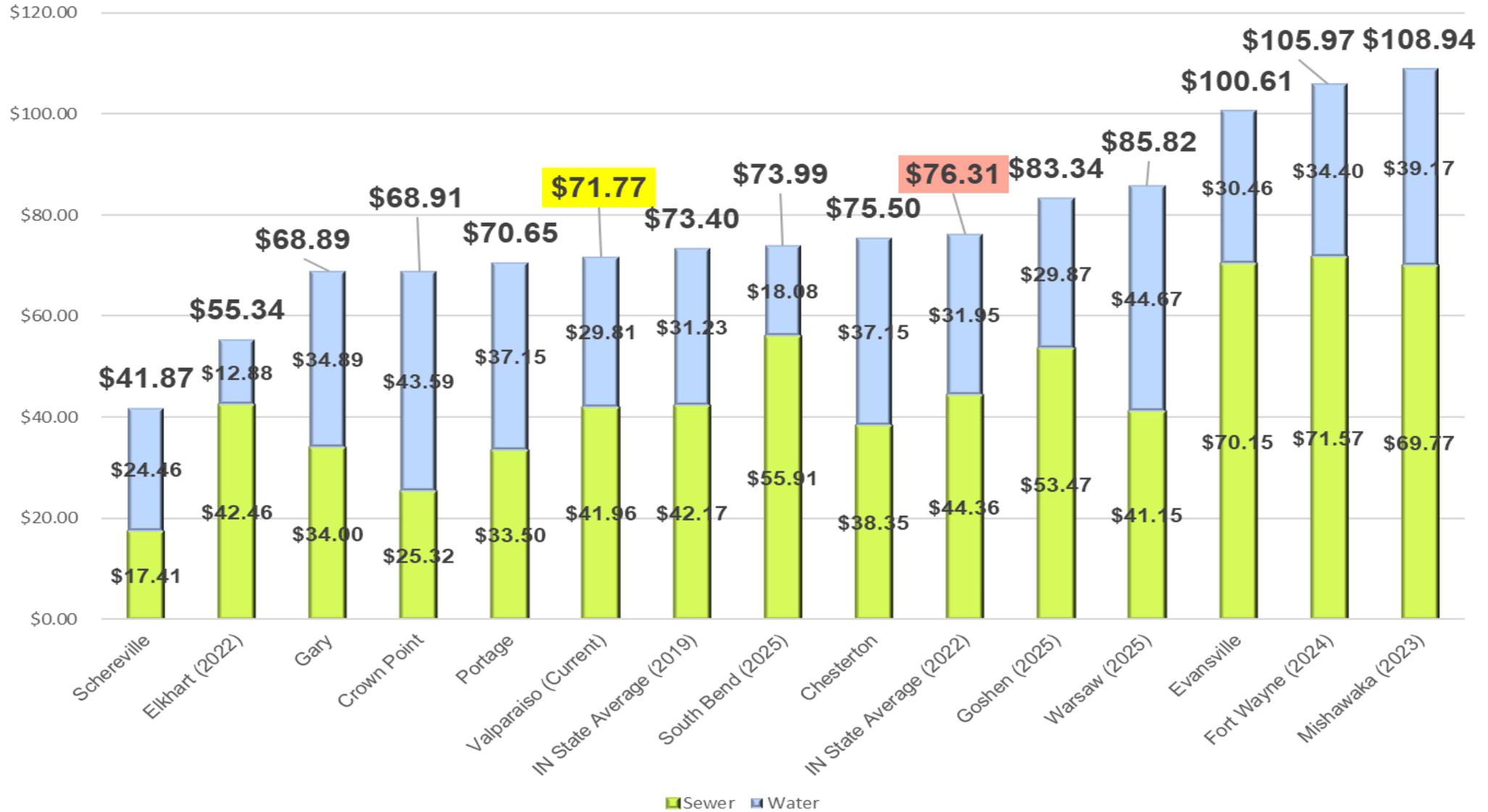
- Potential New Water Main
- Potential Sanitary Setback Area

Notes: * Generalized location selected to minimize Impacts to private residential wells

Water Production Records and Prediction AS OF TODAY 1992 to 2030



Average Monthly Residential Total Utility Bill (535 CF / 4,000 Gallons)



IN SUMMARY

1. **VCU HAS STUDIED CAPITAL NEEDS AND OPERATIONAL COSTS FOR BOTH WATER AND WASTEWATER - PRELIMINARY ENGINEERING STUDIES**
2. **IDENTIFIED AGING INFRASTRUCTURE**
3. **STRATEGIC PLAN 2018-2022**
4. **COST OF DOING BUSINESS – INFLATION/FUEL/CHEMICALS/SALARIES/BENEFITS**
5. **REVISITING WATER AND SEWER RATES (2013 – 3 PHASES 2014/2015/2016) – BAKER TILLY**
6. **ENGAGED INTO DESIGN CONTRACTS (DLZ;STANTEC;ARCADIS)**
7. **FUTURE BOND ISSUES TO SUPPORT THESE MAJOR CAPITAL PROJECTS**
8. **ADJUSTMENT OF UTILITY RATES TO SUPPORT OPERATIONAL NEEDS AND THESE CAPITAL UPGRADES FOR THE COMMUNITY AND QUALITY OF LIFE.**
9. **FINAL BOND ISSUES AND RATE INCREASES 12-15 MONTHS**
10. **ENGAGE STAKEHOLDERS AS PART OF THIS PROCESS**

FINANCING PLAN UTILIZING BOND ANTICIPATION NOTES

FINANCING PLAN (WATER RESERVE REQUIREMENTS)

VALPARAISO CITY UTILITIES - WATER DEPARTMENT					
COMPARISON OF ACCOUNT BALANCES WITH MINIMUM BALANCES REQUIRED					
<u>Account</u>			<u>Balance at 9/30/22</u>	<u>Reserves Required</u>	<u>Variance</u>
Operation and Maintenance Account (1)			\$ 1,490,759	\$ 999,933	\$ 490,826
Bond and Interest			\$ -	\$ -	\$ -
Debt Service Reserve			\$ 1,667,579	\$ 1,637,300	\$ 30,279
Improvement Account (2)			\$ 9,662,263	\$ 1,608,114	\$ 8,054,149
Customer Deposits Account			\$ 49,353	\$ 49,353	\$ -
Construction Account			\$ -	\$ -	\$ -
Tank Painting and Maintenance			\$ 317,998	\$ 317,998	\$ -
	Totals		<u>\$ 13,187,952</u>	<u>\$ 4,612,698</u>	<u>\$ 8,575,254</u>
(1) - (Reserve = 2 months operating expenses)					
(2) - (Reserve = one years dep exp)					

FINANCING PLAN

BOND ANTICIPATION NOTE (BAN)

- ✓ Short-term borrowing allowable up to 5 years.
- ✓ Can be negotiated with a local bank.
- ✓ Typically lower interest rate than bond since short-term.
- ✓ Can take proposals as a draw bond (similar to a line of credit) or lump sum.
- ✓ Can put in provisions for early repayment with no penalty.
- ✓ Often used for engineering or preliminary costs prior to a larger project to avoid having two bonds.
- ✓ The pledge to repay the BAN is a long-term bond to be issued in the future.
- ✓ Common tool utilized by many utilities.

VALPARAISO CITY UTILITIES SOURCE WATER CAPACITY STUDY							
Engineer's Opinion of Probable Construction Cost Four wells - Phase 2 Water System Improvements							
ITEM	QUANTITY		MATERIAL COST		INSTALLATION COST		EXTENDED SUBTOTAL
	AMNT	UNITS	UNIT PRICE	SUBTOTAL	UNIT PRICE	SUBTOTAL	
One well on Pierce parcel D							
Production wells	1	EA	\$ 500,000	\$ 500,000	\$ -	\$ -	\$ 500,000
10" raw water pipe	1,800	FT	\$ 120	\$ 216,000	\$ -	\$ -	\$ 216,000
Electrical @ 20% of production wells	1	LS	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ 100,000
I&C @ 10% of production wells	1	LS	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ 50,000
One well on RDC Property							
Production well	1	EA	\$ 500,000	\$ 500,000	\$ -	\$ -	\$ 500,000
10" raw water pipe	1,100	FT	\$ 120	\$ 132,000	\$ -	\$ -	\$ 132,000
Electrical @ 20% of production wells	1	LS	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ 100,000
I&C @ 10% of production wells	1	LS	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ 50,000
One well on VCU Property							
Production well	1	EA	\$ 500,000	\$ 500,000	\$ -	\$ -	\$ 500,000
10" raw water pipe	300	FT	\$ 120	\$ 36,000	\$ -	\$ -	\$ 36,000
14" raw water pipe	500	FT	\$ 170	\$ 85,000	\$ -	\$ -	\$ 85,000
Electrical @ 20% of production wells	1	LS	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ 100,000
I&C @ 10% of production wells	1	LS	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ 50,000
One well on Flint Lake WTP Property							
Production well	1	EA	\$ 500,000	\$ 500,000	\$ -	\$ -	\$ 500,000
10" raw water pipe	300	FT	\$ 250	\$ 75,000	\$ -	\$ -	\$ 75,000
Electrical @ 20% of production wells	1	LS	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ 100,000
I&C @ 10% of production wells	1	LS	\$ 50,000	\$ 50,000	\$ -	\$ -	\$ 50,000
SUBTOTAL MATERIAL & INSTALLATION COST							\$ 3,144,000
Contractor Bonds & Insurance							5% \$ 158,000
Contractor Overhead & Profit							15% \$ 472,000
Contractor Bidding Conditions							10% \$ 315,000
SUBTOTAL BURDENED MATERIAL & INSTALLATION COST							\$ 4,089,000
Project Contingency							40% \$ 1,636,000
ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST							\$ 5,725,000

FUNDING OF PHASE II

WATER CASH RESERVES	\$	10,000,000	
BOND ANTICIPATION NOTES	\$	6,000,000	(DRAW ONLY WHAT IS NEEDED TO MAINTAIN RESERVES)
	\$	16,000,000	
PHASE II PROJECT ESTIMATE	\$	(6,500,000)	
END OF 2023 RESERVE LEVEL	\$	9,500,000	

RECOMMENDATION

- ***PROCEED WITH BOND ORDINANCE TO BE APPROVED AT THE NEXT COUNCIL MEETING***
- ***BOND ANTICIPATION NOTES MAYBE UTILIZED AS A SHORT-TERM LOAN TO COVER***
 - ***ENGINEERING COSTS***
 - ***PHASE II WELL EXPLORATION***
 - ***FINAL CONSTRUCTION OF 4 WELLS BY 2023***

***ACTUAL PLEDGE OF REPAYMENT OF THE BAN IS THE FUTURE \$23 MILLION
WATER BOND ISSUE
(RATE INCREASE IS NOT NECESSARY AT THIS TIME)***

QUESTIONS?

- **STEVE POULOS – VCS DIRECTOR SPOULOS@VALPO.US**
- **ANDY MOUSER/ERIC WALSH – BAKER & TILLY/FINANCIAL CONSULTANTS**
- **DENNIS OTTEN – BOSE MCKINNEY & EVANS /BOND COUNSEL**