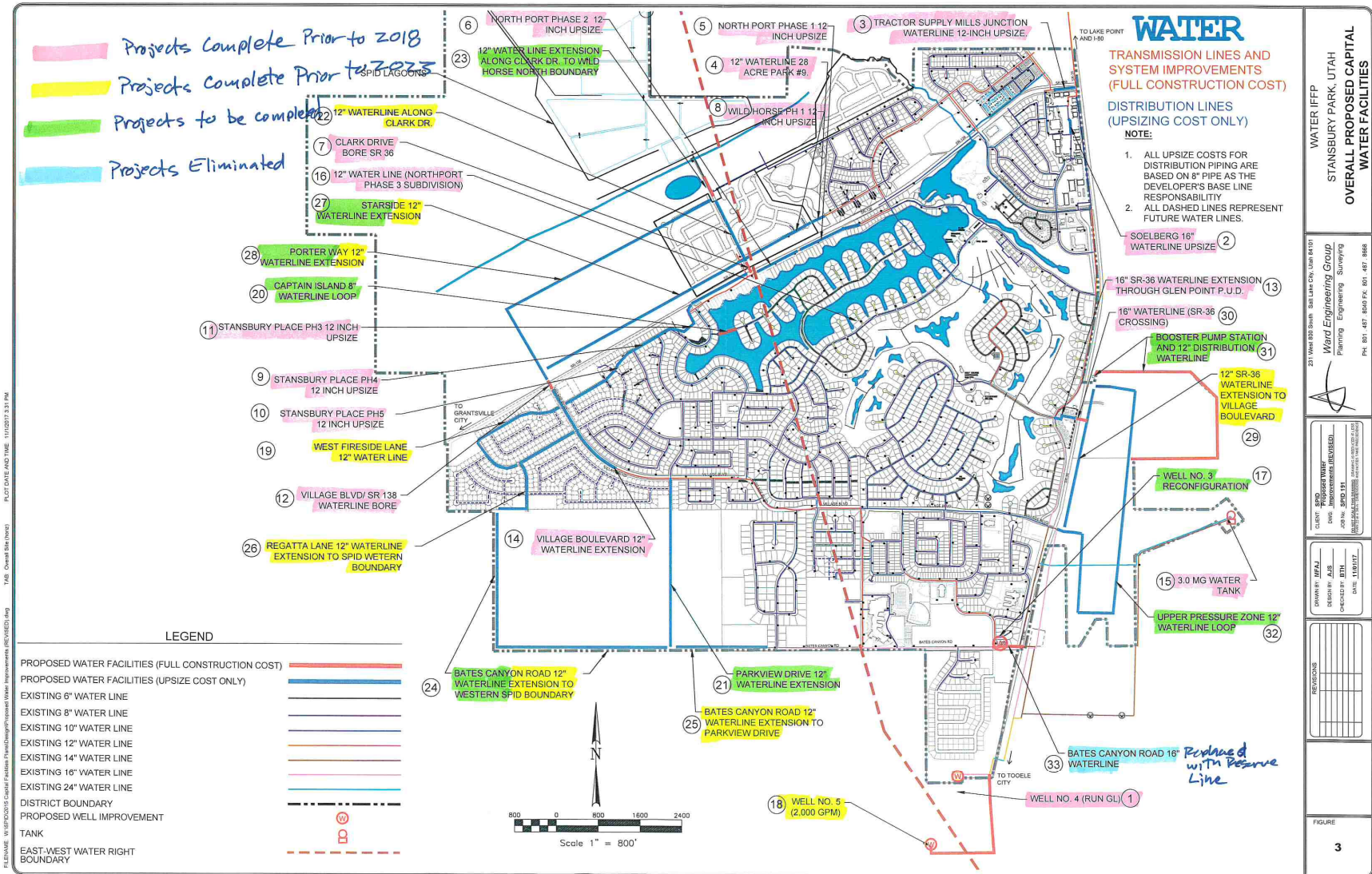




# SPID'S CAPITAL WATER PROJECTS



## COMPARISON OF CAPITAL WATER PROJECTS

<b>Recent Projects Summary Overview (2018-2023)</b>			
Note: Ward Engineering only has costs for the Well #5 Projects, it is assumed that the estimate for the other projects was paid in full but did not exceed the estimate. This was assumed but not expected, Ward therefore expects the overage cost to be marginally higher than what is reported below.			
Project	Budget	Actual	Reasons
Well #5 Drilling, Development, and Pump Station Construction	\$ 1,924,000.00	\$ 3,365,000	Inflation from Covid, The well development was slow and had to work through sand intrusion, Material prices increased, construction of the pump station was delayed by added time for development
Well #5, 16" Transmission Line	\$ 314,000.00	\$ 1,105,000	Material cost increases, 1,623 feet of pipe were added to the project, minor costs were estimated as a percentage of the total before inflation from Covid affected prices
West Fireside Lane 12" Water Line	\$ 47,600.00	\$ -	
Water Line Along Clark Dr	\$ 53,100.00	\$ -	
Parkview Drive 12" Water Line Extension	\$ 59,000.00	\$ -	
Regatta Lane 12" Water Line Extension to Spid Boundary	\$ 50,700.00	\$ -	
Starside 12" Water Line Extension	\$ 117,000.00	\$ -	
Porter Way 12" Water Line Extension	\$ 113,000.00	\$ -	
SR-36 12" Water Line Extension to Village Blvd	\$ 49,500.00	\$ -	
SR-36 Crossing and 16" Water Line Extension	\$ 106,000.00	\$ -	
<b>Total</b>	<b>\$ 2,834,000.00</b>	<b>\$ 5,066,000</b>	
	<b>Total overage cost</b>	<b>\$ 2,232,000</b>	

# COMPARISON OF CAPITAL WATER PROJECTS

Summary of Costs				
	IFFP Collection Projections	Estimate (2018)	Actual Cost Incurred for Completed Projecs(2023)	Estimate (2023)
1	WELL NO. 4	\$ 524,945	\$ 524,945	-
2	WOODBURY/SOELBERG 16" WATERLINE UPSIZE	\$ 10,661	\$ 10,661	-
3	TRACTOR SUPPLY - MILLS JUNCTION UPSIZE 12-INCH WATERLINE	\$ 41,624	\$ 41,624	-
4	28 ACRE PARK #9 - 12" WATER LINE	\$ 35,831	\$ 35,831	-
5	NORTHPORT PHASE 1 - 12 INCH WATERLINE UPSIZE	\$ 10,278	\$ 10,278	-
6	NORTHPORT PHASE 2 - 12 INCH WATER LINE UPSIZE	\$ 12,312	\$ 12,312	-
7	CLARK DRIVE 24" BORE ACROSS SR-138 - 12-INCH WATERLINE	\$ 76,156	\$ 76,156	-
8	WILD HORSE PHASE 1 - 12 INCH WATERLINE UPSIZE	\$ 24,637	\$ 24,637	-
9	STANSBURY PLACE PHASE 4, 12-INCH WATERLINE UPSIZE	\$ 10,000	\$ 10,000	-
10	STANSBURY PLACE PHASE 5 - 12-INCH WATER LINE UPSIZE	\$ 27,025	\$ 27,025	-
11	STANSBURY PLACE PHASE 3 - 12-INCH WATER LINE UPSIZE	\$ 27,366	\$ 27,366	-
12	VILLAGE BLVD/SR 138 WATERLINE BORE (2016 combines 12 & 14)	\$ 43,346	\$ 43,346	-
13	16" SR-36 WATERLINE EXTENSION THROUGH GLEN POINT P.U.D	\$ 26,184	\$ 26,184	-
14	VILLAGE BOULEVARD 12" WATERLINE EXTENSION	\$ 47,333	\$ 47,333	-
15	3.0 MG WATER TANK	\$ 2,131,583	\$ 2,131,583	-
16	12" WATER LINE (NORTHPORT PHASE 3 SUBDIVISION)	\$ 20,900	\$ 20,900	-
17	WELL NO. 3 RECONFIGURATION	\$ 460,789	Not Completed	\$ 562,626
18A	WELL NO. 5 (2,000 GPM) (2016 & 2017 HAVE COMBINED 18A & 18B)	\$ 1,923,609	\$ 3,364,401	\$ 3,364,401
18B	WELL NO. 5 CONNECTIVE PIPING	\$ 313,390	Not Completed	\$ 1,104,850
19	WEST FIRESIDE LANE 12" WATER LINE	\$ 47,580	\$ 47,580	\$ 47,580
20	CAPTAIN ISLAND 8" WATERLINE LOOP	\$ 237,067	Not Completed	\$ 721,806
21	BATES CANYON ROAD 12" WATERLINE EXTENSION TO PARKVIEW DRIVE	\$ 89,913	Not Completed	\$ 697,322
22	12" WATERLINE ALONG CLARK DR.	\$ 2,940	\$ 2,940	\$ 2,940
23	12" WATER LINE EXTENSION ALONG CLARK DR. TO WILD HORSE NORTH BOUNDARY	\$ 36,176	Not Completed	\$ 36,176
24	BATES CANYON ROAD 12" WATERLINE EXTENSION TO WESTERN SPID BOUNDARY	\$ 104,500	Not Completed	\$ 104,500
25	PARKVIEW DRIVE 12" WATERLINE EXTENSION	\$ 59,013	\$ 59,013	\$ 59,013
26	REGATTA LANE 12" WATERLINE EXTENSION TO SPID WETERN BOUNDARY	\$ 50,628	\$ 50,628	\$ 50,628
27	STARSLIDE 12" WATERLINE EXTENSION	\$ 116,438	\$ 38,813	\$ 948,811
28	PORTER WAY 12" WATERLINE EXTENSION	\$ 112,875	\$ 37,625	\$ 1,005,056
29	12" SR-36 WATERLINE EXTENSION TO VILLAGE BOULEVARD	\$ 49,438	\$ 49,438	\$ 49,438
30	16" WATERLINE (SR-36 CROSSING)	\$ 105,688	\$ 105,688	\$ 105,688
31-A	BOOSTER PUMP STATION FOR PIT PROPERTY PZ-1 CONNECTION	\$ 1,377,644	Not Completed	\$ 2,615,628
31-B	12" DISTRIBUTION WATERLINE FOR PIT PROPERTY PZ-1	See #31A*	Not Completed	\$ 927,512
32	UPPER PRESSURE ZONE 12" WATERLINE LOOP	\$ 39,625	Not Completed	\$ 1,115,403
33	RESERVE DEVELOPMENT LOOP (PREVIOUSLY BATES CANYON RD 16" WATERLINE)	\$ 81,298	Not Completed	\$ 378,978
34	NEW SOURCE WELL 2200 GPM	NPP*	Not Completed	\$ 3,522,062
35	UPSIZING 12" MAIN THROUGH THE PIT PROPERTY	NPP*	Not Completed	\$ 578,736
36	NEW 1.86 MG TANK	NPP*	Not Completed	\$ 2,126,302
	Actual Funds Collected as of 2023 (Calculated from ERCs added to the system)	Total costs as estimated in 2018 (10 Year Timeframe)	Total spent on projects 2023	Total costs as estimated in 2023
	\$ 2,060,000	\$ 6,396,000	\$ 6,827,000	\$ 9,819,000

# OQUIRRH POINT TEMPORARY WATER AND SEWER CONNECTIONS

Existing Water Source Capacity	
Storage is not the limiting factor. Equivalent ERCs for storage and source will be made available	
Source	Existing Capacity (ERCs)
Well #1	1,844
Well #2	1,475
Well #3 (Clegg Well)	590
Well #4	1,107
Well #5	1,475
*Total =	6,491
*Source: Approved State Demand Letter	
Percent Used	ERCs Used
77.3%	5,021
Percent Remaining	ERCs Remaining
22.6%	1,470
The System at 85% Use	
Year	ERCs Used in System
2028 (2nd Quarter)	5,517
ERCs Available for Borrowing from 2023-2028	
<b>5517 - 5021 = 496</b>	
Existing storage capacity not applicable, no storage will be borrowed.	
The ability to deliver ERCs is modeled and acceptable at the value above. However, reliability is not addressed by this modeling	

Existing Wastewater Capacity	
Basin 7, at the southwest corner of The Sagewood development, is where the proposed connection will be made. The Limiting pipe for basin 7 is a 15" pipe along Montauk Ln and all used/ total capacities will be measured at that point.	
Existing Pipe Capacity	
Measurement	ERUs
Total Capacity of Basin 7 (Based on limiting 15" pipe stretch)	1,433
Used Capacity (2023)	405
Used Capacity at Buildout	1,237
85% Buildout of Total Capacity (2034, 4th Quarter)	1,218
Approximatly half of buildout is assumed to manifest in 10 yrs (by 2033). Therefore, the following equation is how many Erus may be borrowed in the next 10 yrs, while remaining under 85% used capacity in Basin 7.	
ERUs Available for Borrowing from 2023-2034	
<b>Up to 600</b>	
Existing Treatment Capacity	
Measurement	ERUs
Treatment Capacity Total	5,350
Treatment Capacity Used (2023 Calculated, not Measured)	5,000
Treatment Capacity remaining	350

# OQUIRRH POINT TEMPORARY WATER AND SEWER CONNECTIONS

## August 16, 2022 SPID Sewer Treatment Status

Treatment Process	Existing Capacity	Used Capacity (as of 2021)	Percent Used Capacity (%)	Expansion of Capacity
Biologic Treatment (BOD)	<sup>(1)</sup> 4,853 ERU	<sup>(9)</sup> 4,756 ERU	98.0%	<sup>(5)</sup> 8,494 ERU
Hydraulic System (Headworks)	<sup>(2)</sup> 1.5 MGD 5,350 ERU	<sup>(9)</sup> 4,756 ERU	88.9%	<sup>(6)</sup> Not Evaluated
Disinfection (Chlorination)	<sup>(3)</sup> 1.5 MGD 5,350 ERU	<sup>(9)</sup> 4,756 ERU	88.9%	<sup>(7)</sup> 1.8 MGD 6,421 ERU
Total Suspended Solids (TSS)	<sup>(4)</sup> 2.72 MGD 8,494 ERU 6,795 lbs/day	<sup>(9)</sup> 4,756 ERU	56.1%	<sup>(8)</sup> Not Evaluated

### Notes

(1) BOD Loading = 0.17 lbs/day/cap per UAC R317 Treatment system designed 3,300 lbs per day per Biolac Design Study Report Allowed ERUs = 4,853 based on 4 cap per ERU from Aqua 2014 Master Plan which is 75 gpd/capita
(2) Based on existing headworks pump capacity of 1,040 gpm, derived from Aqua design (average day flow)
(3) From Aqua design
(4) Based on 2.72 MGD per WARD's 2009 design study report Based on 0.25 lbs/cap/day per UAC R317
(5) Not considered in Aqua 2014 Master Plan Not in 2018 IFFP and not funded within 10-year planning period
(6) Not considered in Aqua 2014 Master Plan Not in 2018 IFFP and not funded within 10-year planning period <ul style="list-style-type: none"> <li>- Physical headworks allows for upsizing of pump only</li> <li>- No room to expand wet or dry well (i.e., no additional pump expansion)</li> <li>- Discharge line from headworks to cell 1 is only sized for 1.5 MGD and will need to be replaced</li> </ul>
(7) Project #16 in the 2018 IFFP (funded by impact fees and scheduled for construction in 2025)
(8) Not considered in Aqua 2014 Master Plan Not in 2018 IFFP and not funded within 10-year planning period
(9) Based on 2021 (year ending) residential connection count and the 2018 commercial, industrial, institutional derivations plus a 5% inflated adjustment.

