Wilson Arch Water & Sewer Special Service District
PO Box 97
La Sal, UT. 84530

May 20, 2025

Dear Ricardo.

Thank you for the updated proposal for developing Lots H & I. The following response is based on the WILSON ARCH WATER AND SEWER SPECIAL SERVICE DISTRICT (WASSD) CULINARY WATER SYSTEM MASTER PLAN of 2022, water source and capacity findings from the Rural Water Association of Utah (RWAU), the mission of Wilson Arch Water & Sewer Special Service District Policies and Procedures, the placement of Well 4, and the placement of Large Underground Wastewater Disposal (LUWD) systems.

1. Master Plan:

"This water system master plan is based on a five-point analysis of the Wilson Arch SSD culinary water system, which includes water right, source capacity, treatment, storage capacity, and distribution in accordance with the State of Utah Rules Governing Public Drinking Water Systems (Rules)." (P. 6, WILSON ARCH WATER AND SEWER SPECIAL SERVICE DISTRICT, CULINARY WATER SYSTEM MASTER PLAN 2022, Wilson Arch,La Sal, UT 94530, July 2022. PREPARED BY: Sunrise Engineering).

2. RWAU-Well Flow

On Saturday, May 17, 2025, RWAU conducted flow studies on the three wells. The findings are the current combined flow rate of wells 1-3 result are 44 gal /min. The Master Plan had calculated a total of 37.5 gpm. Plugging in 44 gpm into the Division of Drinking Water Capacity Calculation Excel sheet, along with the residential and commercial ERC's, gives a source capacity of 68.7%, or a deficit of 20 gpm (-22.3%). The storage capacity is at 103.7%.

The following factors were used in the calculation: 51 residential ERC's, 63 commercial ERC's, a 15,000 gallon pool, along with all the Utah State Division of Drinking water rules for calculations.

Appendix A of the Master Plan is what the WASSD uses to distribute ERC's.

East Side Lots	ERC In use	Allowed First Come	R=Residential C=Commercial
C1	1		R
C3		1	R
C4		1	R
C6	1		R
C7	1		R
C8	1		R
C10	1		R
C11	1		R
C12	1		R
C13		1	R
C14	1		R
C15		1	R
C16		1	R
C17		1	R
C18		1	R
C19		1	R
C20	1		R
C21		1	R
C23		1	R
C24		1	R
C25		1	R
C26	1		R
C28	1		R
B1	1		R
B2	1		R
D1		1	R
D2		1	R
D3		1	R
D4		1	R
D5	1	1	R
D6		1	R
ParcelD		9	C
Total Residential ERCs			**32**
Total Commercial ERCs			**9**

West Side Lots	ERC In use	Allowed First Come	R=Residential C=Commercial
1		1	R
2		1	R
3		1	R
4		1	R
5	1		R
6		1	R
7		1	R
8		1	R
9		1	R
10		1	R
11		1	R
12		1	R
13		1	R
14		1	R
15		1	R
16		1	R
17		1	R
18	1		R
19		1	R
E		11	C
F		7	C
G		9	C
H		9	C
I		9	C
J		7	C
K		2	C
L		2	C
Total Residential ERCs			**19**
Total Commercial ERCs			**56**

Lot H is allocated 9 ERC's and Lot I is allocated 9 ERC's for a combined total of 18 ERC's. The recent RWAU findings confirm that the current water system cannot handle more ERC's.

The Developer has the option of how the ERC's will be distributed based on the ERC calculation table provided below. Occupancy rate is not a consideration for these calculations.

ERC Calculation

Exhibit 1 - ERC calculation factors*

Customer Type	Units	ERCs per Unit
Permanent Residential		
Single Family	Residence	1.00
Multifamily, 2 Bedrooms or Larger or ADU > 700 ft2	Unit	1.00
Multifamily, 1 Bedroom or Smaller or ADU < 700 ft2	Unit	0.56
Overnight Accomodations		
Rental Unit with Kitchen, 2 Bedrooms or Larger	Unit	1.20
Rental Unit with Kitchen, 1 Bedroom or Smaller	Unit	1.00
Hotel/Motel (No Kitchen)	Unit	0.78
Other		
Auto Repair	1,000 ft2	0.16
Bakery	1,000 ft2	0.53
Bank	1,000 ft2	0.50
Beauty/Barber Shop	Chair	0.25
Campground/RV Park	Site	0.79
Car Wash - Auto	Each	10.00
Car Wash - Wand	Wand	5.00
Commercial	1,000 ft2	0.15
Dry Cleaner	1,000 ft2	0.59
Fast Food	1,000 ft2	2.86
Gas Station/Convenience Store	1,000 ft2	0.28
Grocery Store	1,000 ft2	0.32
Laundromat	Washer	0.71
Office	1,000 ft2	0.25
Restaurant	Seat	0.09
Retail	1,000 ft2	0.15
Schools	Students	0.07
Theater	Seat	0.01
Warehouse	1,000 ft2	0.11

*ERC determination is made by the GWSSA manager. For instances which are not specifically covered here, this list will be used as a guideline to determine ERCs.

3. Mission Statement as found in the WASSD Policies & Procedures:

Wilson Arch Water and Sewer Special Services District: to provide safe and clean drinking water services, fire protection and Sewer services that meet Utah State and San Juan County standards to the residents of the Wilson Arch Community. Effective as of January 1 2024.

In adhering to the Mission Statement, all properties have the right to their share of sustainable, clean water.

4. Well 4:

Note that in 2036, the Master Plan predicts the need of a fourth well for source water as there would be a 25.83 gpm deficit. The recent RWAU calculations showed a 20 gpm deficit.

CULINARY WATER SYSTEM MASTER PLAN 2022 (page 15)

4.3 PROJECTED REQUIRED SOURCE CAPACITY

The total projected number of ERCs of each category is used to calculate the required source capacity. As noted above, it will be assumed that the number of residential ERCs that use secondary water for irrigation purposes will remain at zero through the planning period.

The 20-year projected source capacity requirement is calculated as follows:

Projected Required Source Capacity - 20 Yrs

Residential Use:

Indoor

51 ERCs x (800 gpd / ERC) x (1 day / 24 hr) x (1 hr / 60 min.) = 28.33 gpm

Outdoor (Assume 0% of New Indoor)

0 ERCs x (1 acre / 3 ERCs) x (3.39 gpm / irr. acre) = 0.00 gpm

Commercial Use:

Indoor

63 ERCs x (800 gpd / ERC) x (1 day / 24 hr) x (1 hr / 60 min.) = 35.00 gpm

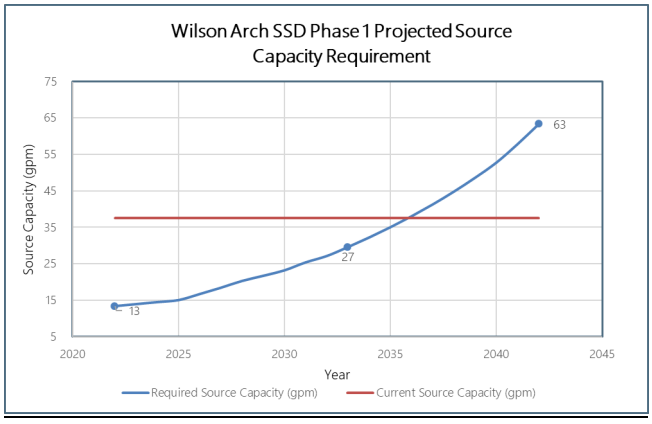
Outdoor (Assume 0% of ERCs)

0 ERCs x (1 acre / 3 ERCs) x (3.39 gpm / irr. acre) = 0.00 gpm

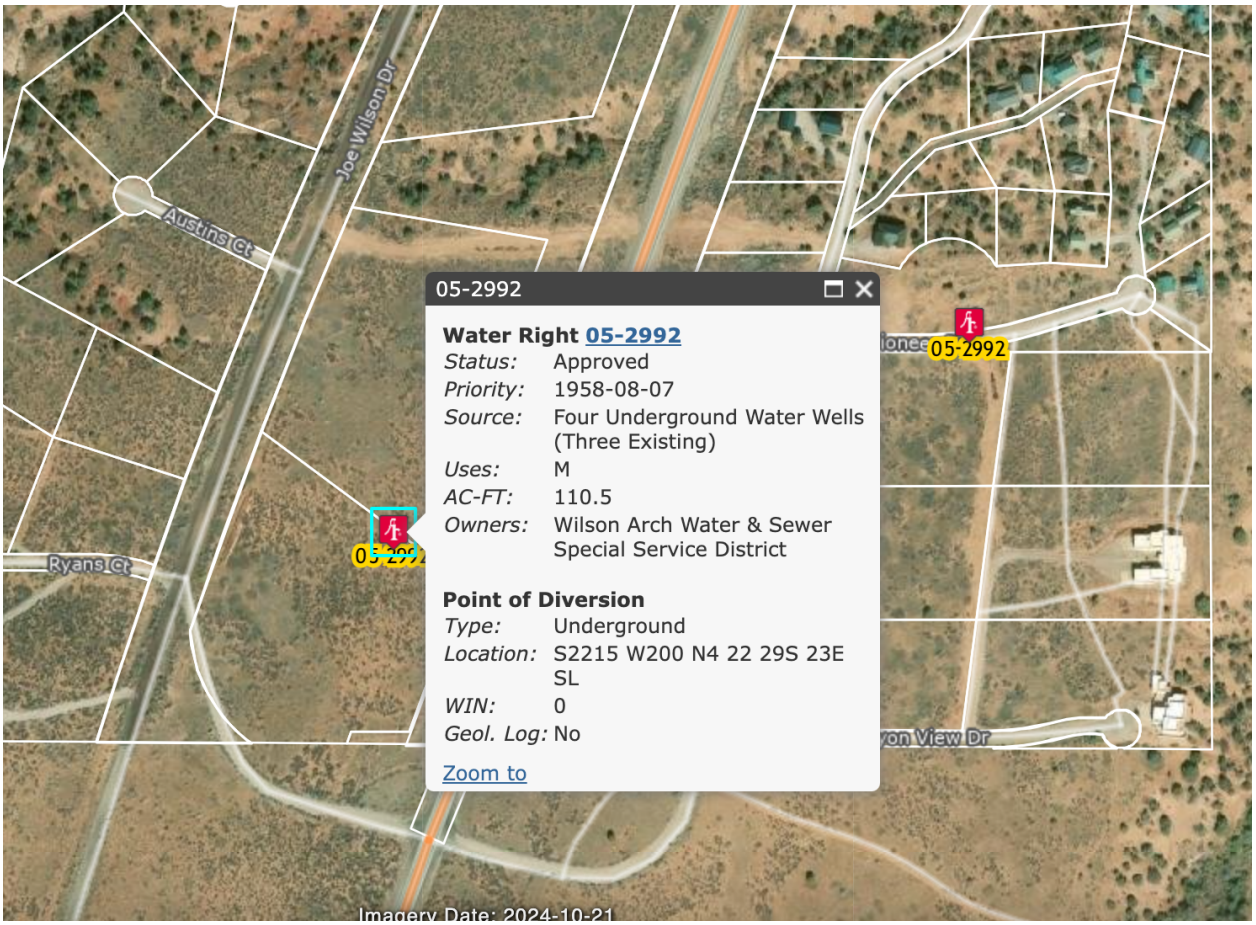
Total Projected Required Source Capacity =	**63.33 gpm**
Total Available Source Capacity =	**37.50 gpm**
Estimated Projected Source Capacity Deficit =	**(25.83) gpm**

The calculation above shows that Wilson Arch SSD has a 20-year projected source capacity d*eficit* of 25.83 gpm. Wilson Arch SSD's projected source capacity requirement over the 20-year planning period is shown below in Figure 4.3.1.

Figure 4.3.1: Projected Source Capacity Requirement



The WASSD has hired an engineering firm to look at possible site relocations. At present, the permit for well 4 is on Lot I. Developing Lot I would have to meet the source protection zones if the well 4 site remains active. This is a work in progress.
https://maps.waterrights.utah.gov/EsriMap/map.asp?layersToAdd=PodSearch&q=05-2992#



5. LUWD
The placement of the LUWD needs to be addressed from the San Juan County Health Department, the Utah Department of Environmental Quality, and the WASSD water manager. The Phase 1 plat shows the septic field on Lot J. At this time there is a house on Lot J.

Presently, there are some questions to work through. Please let us know how we can be of further assistance.

Eric Linscheid, Chair WASSD. Eric Linscheid