

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 95-10454
Exam Date: 05/20/2021

1. Current Owner:
CDS STONERIDGE UTILITIES LLC 364 STONERIDGE RD BLANCHARD ID 83804-9542
2. Accompanied by: Steve Durbin
Phone No: 208-610-3683
Address: Same as above
Relationship to permit Holder: Water System Operator for Stoneridge Resort

3. **SOURCE:**
GROUND WATER

Method of Determination: Arcmap and DRG

B. OVERLAP REVIEW

1. Other water rights with the same place of use: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
95-9587	GROUNDWATER	MUNICIPAL	DECREED
95-9573	BLANCHARD CREEK	RECREATION STORAGE	DECREED
95-16411	BLANCHARD CREEK	Irrigation, Irrigation Storage, and Irrigation from Storage	DECREED

Comments: Decreed Rights 95-9573 & 95-16411 are both surface source rights owned by the same applicant and used in conjunction with Stoneridge Resort operations and are within the service area POU for the municipal provider; neither are a concern for overlap with this groundwater source. Decreed Right 95-9587 uses the same groundwater well source(s) as this permit, owned by the same applicant, and is for the same service area as this permit; condition X35 was incorporated during licensing review to mitigate any overlap concerns.

2. Other water rights with the same point-of-diversion: NO Overlap

Water Right No.	Source	Purpose of Use	Basis
95-9587	GROUNDWATER	MUNICIPAL	DECREED

Comments: Right 95-9587 & this permit use the same groundwater POD(s); condition F06 was added during licensing review to describe the shared well(s) between rights.

C. DIVERSION AND DELIVERY SYSTEM**1. LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER NW¼ SW¼, Sec. 20, Twp 54N, Rge 05W, B.M. BONNER County
GROUND WATER NW¼ SW¼, Sec. 20, Twp 54N, Rge 05W, B.M. BONNER County

Method of Determination: GPS; 2ea groundwater wells are located at -117°0.062, 48°0.825 (Well #1, old well no tag) & -117°0.1094, 48°0.8285 (Well #3, D0040131)

Method of Determination: Large area POU, beneficial use table included in report. Field exam and Arcmap aerial imagery.

3. Delivery System Diagram Attached (required). Indicate all major components and distances between components.
☒ Indicate weir size/pipe as applicable.
 Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be
☒ 1:24,000 or greater.
☒ Aerial Photo Attached (required for irrigation of 10+ acres).
☒ Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
WELL #1 (old well no tag)	U.S. ELECTRIC	120	UNKOWN	UNKOWN	
WELL #3 D0040131	FRANKLIN ELECTRIC	100	UNKOWN	A.Y. MCDONALD	
WELL #2 (CAPPED)	WELL NOT IN USE, WELDED CAP INSTALLED, NO PUMP IN WELL.				

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
WELL #1		MCCROMETER	MW 500-6-GAL			
WELL #3		MCCROMETER	MW 500-6-GAL			

2. Measurements: Applicant's water system uses two wells that have flowmeters installed to track instantaneous flow. After allowing each well to run for a stabilization period, each flowmeter was timed for 1 minute to derive a flow rate as follows: well #1 (old well) = 770 gpm & well #3 (D0040131) = 620 gpm. The total system diversion rate = (770 gpm + 620 gpm) / 448.83 gal/cfs = **3.10 cfs** considering department rounding standards.

E. FLOW CALCULATIONS

Measured Method: Flowmeters installed on water main lines from each well.

- Well #1 (old well no tag) = 120HP pump motor with diversion rate = 770 gpm
- Well #3 (D0040131) = 100HP pump motor with diversion rate = 620 gpm
- Total diversion rate = (770 gpm + 620 gpm) / 448.83 gal/cfs = 3.10 cfs considering department rounding standards.

F. VOLUME CALCULATIONS

- Volume Calculations for irrigation: N/A
- Volume Calculations for Other Uses: Municipal annual volume & maximum diversion volume =
 - 2016 report year data = 114,271,300 gal / 325,850 gal/af = **350.7 af**

G. NARRATIVE/REMARKS/COMMENTS

Field exam performed on 5/20/2021 with the applicant's water system operator, Steve Durbin, showed 2ea groundwater wells diverting water for municipal uses by CDS Stoneridge Utilities (Applicant). The permit approved development of 3ea PODs, but at time of exam groundwater well #2 was not in use, and a welded cap had been installed on the casing; one POD was removed from the permit during licensing review. At the PODs, well #1 (old well no tag) has a 120 HP pump installed & well #3 D0040131 has a 100 HP pump installed. Flowmeters are installed in the main water line from each well, and at time of field exam well #1 flow rate equaled 770 GPM & well #3 flow rate equaled 620 GPM. These flow measurements were captured with each well operating separate from the other. This Permit was applied for by the Applicant to increase diversion rate to allow both wells to operate at the same time; the combined diversion rate equals the sum of two wells pump capacity at time of exam = $(770 \text{ gpm} + 620 \text{ gpm}) / 448.83 \text{ gal/cfs} = 3.10 \text{ cfs}$ considering department rounding standards.

The Applicant has an existing decreed right 95-9587 that includes both wells from this permit and has a diversion rate = 1.89 cfs. When considering the maximum diversion rate for licensing this permit, the difference between observed diversion rate and existing water right diversion rate is recommended, which equals $3.10 \text{ cfs (at time of exam)} - 1.89 \text{ cfs (WR 95-9587)} = 1.21 \text{ cfs}$; 1.21 cfs equates to the increased diversion the Applicant applied for, despite the removal of one well from the water system diverting works.

During the field exam, the municipal POU was discussed with Mr. Durbin, and field maps illustrating the municipal service area assigned to the permit were used to verify currency in service area. Mr. Durbin asserts the POU is accurate, and during licensing review Arcmap aerial imagery was used to assign a large area POU shape in ADHOC for licensing purposes. Mr. Durbin provided pump data documents and water system schematics that illustrate major components to include a 315,000-gal storage tank used by the Applicant. Annual volume reports for 2016, 2017, & 2019 were provided & a service connection breakdown of lots by subdivision data sheet shows 579 total lots including a 150-unit timeshare. Active service connections equal 414, and there are 165 undeveloped lots identified within the service area.

WR 95-9587 maximum diversion volume equals 588.6 af; this volume was assessed during licensing review and found to be larger than the volume proved by the Applicant using year 2016 volume report = 350.7 af. Stub-ins were considered for added volume beyond the active service connection consumption but are not being recommended for licensing purposes. Mr. Durbin stated out of the 165 undeveloped lots, he has not been able to verify stub-ins to many of the subdivisions creating an issue with determining actual number to factor in for volume. If I assume 100% stub-ins, the volume will equal $165 \text{ lots} \times 1.2 \text{ af} = 198 \text{ af}$; adding to the recorded volume = $350.7 \text{ af} + 198 \text{ af} = 548.7 \text{ af}$, which is still less than the maximum diversion volume for WR 95-9587 making the stub-in volume a moot point due to 95-9587's volume being used in overlapping condition X35 limiting both rights to the maximum diversion volume of 588.6 af. As a result, **350.7 af** is being recommended as the maximum diversion volume for licensing purposes.

Condition 26A was removed from the permit during licensing review. Condition 128 was revised to accurately describe the municipal service area POU. Condition 180, F06, and X35 were added during licensing review; all other conditions on the permit shall be carried forward to the license. Overlap concerns: decreed Rights 95-9573 & 95-16411 are both surface source rights owned by the same applicant and used in conjunction with Stoneridge Resort operations & are within the service area POU for the municipal provider; neither are a concern for overlap with this groundwater source. Decreed Right 95-9587 uses the same groundwater well source(s) as this permit, owned by the same applicant, and is for the same service area as this permit; condition X35 was incorporated during licensing review to mitigate any overlap concerns. There are no additional overlap concerns for this water right.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS

1. Recommended Amounts

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
MUNICIPAL	01/01 to 12/31	1.21 CFS	350.7 AF
<u>Totals:</u>		1.21 CFS	350.7 AF

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

I. AUTHENTICATION Luke Bates - Water Resource Agent

Field Examiner's Name *F. QB* Date *9/28/2021*

Reviewer *Ad F* Date *11/17/2021*

Here is the breakdown of lots by Subdivision;

Happy Valley Ranchos units 2 and 3	Total lots: 103	Undeveloped: 23
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Happy Valley Ranchos Unit 1	Total lots: 44	Undeveloped: 8
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Stoneridge Addition	Total lots: 19	Undeveloped: 4
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Forest Subdivision	Total lots: 88	Undeveloped: 46
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Notes: Block 1,2 and 3 are not platted as of now, block 5 lots 1 and 2 are for multifamily units and have 4 hook up each, accounting for 8 of the undeveloped connections.

Lake Neighbor Hood	Total lots: 60	Undeveloped: 28
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Stoneridge road	Total lots: 50	Undeveloped: 21
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Fairway Meadows	Total lots: 30	Undeveloped: 0
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Stoneridge Resort timeshare	Total lots: 150 rooms plus pool/event center	Undeveloped: 0
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Vineyards	Total lots: 24	Undeveloped: 0
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Fairways	Total lots: 71	Undeveloped: 30
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Motor Coach	Total lots: 77	Undeveloped: 0
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Ironwoods	Total lots: 28	Undeveloped: 22
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Total number Stoneridge lots: 579 plus the timeshare	Undeveloped lots: 165
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Total lots with water service: 414

StoneRidge Water Summary

2016

Date	Source Wells					StoneRidge Booster					HVR Mid Booster					Golf Irr.				
	Starts		Hrs.	Chlor.	Gals.	Starts		Hrs.	Chlor.	Gals.	Starts		Hrs.	Gals.	11th Tee	Main Irr.	Total			
	1	2	1	2	Used	Tot.	1	2	1	2	Used	Tot.	1	2				1	2	Tot.
1	18	15	18.3	20.1	—	1702400	111	113	36.8	37.8	—	775590	26	37	10.1	22.7	104400	—	—	—
2	14	20	16	27.1	—	1680800	91	99	32.9	32.9	—	63970	27	34	16.6	20.9	97700	—	—	—
3	19	13	21.3	17.3	15	1698800	91	91	29.7	29.6	—	597220	27	40	16.4	24	108800	—	—	—
4	65	44	62.6	84.4	—	6377800	110	110	37.5	36.1	—	767730	52	37	38.1	33.6	155200	32000	2108400	240400
5	62	65	110.5	144.3	15	11151900	127	125	45.3	46	5	923090	46	45	33.2	31.3	168800	50400	5308100	5358500
6	69	68	201.4	245.1	—	19762900	188	190	79.7	81.7	—	1677210	68	62	54	51	279500	99100	9879600	9978700
7	78	53	228.2	350.5	15	25282800	203	204	87.7	87.3	—	1797270	92	72	80.7	63.3	385600	117400	11595900	11713300
8	70	57	227.2	394.7	15	29119600	223	220	98.5	99.6	—	2099560	90	81	79	73	403800	163900	13026300	14053900
9	67	68	119.5	177.8	—	12080200	144	146	52.4	51.2	—	987690	53	51	36.7	37.9	198200	39100	5390400	5429500
10	17	17	16.4	25.6	10	1723900	91	89	29.8	30.1	—	604050	40	46	26.2	30.5	150600	100	40900	41000
11	16	21	16.2	17.1	—	1500800	94	95	30.8	31.2	—	619990	28	39	17.9	25	11300	—	—	—
12	17	21	15.9	23.6	—	1589400	94	92	30.5	30.9	5	621470	33	36	20.7	22.7	114900	—	—	—

Totals

572
 462
 1054.5
 1527.6
 70
 114271300
 1574
 1575
 596.4
 591.6
 10
 1209284
 584
 580
 431.6
 435.9
 2280800
 502000
 47349600
 47851600

Notes:

StoneRidge Water Summary

2017

Date	Source Wells					StoneRidge Booster					HVR Mid Booster					Golf Irr.				
	Starts		Hrs.	Chlor.	Gals.	Starts		Hrs.	Chlor.	Gals.	Starts		Hrs.	Gals.	11th	Main	Total			
	1	2	1	2	Used	Tot.	1	2	1	2	Used	Tot.	1	2	1	2	Tot.	Tee	Irr.	
1	31	12	18	15.8	5	1430400	92	92	30.2			621440	36	23.4		126900				
2	21	12	17.2	14.9	—	1421300	87	85	30.1			586010	35	21.8		122600				
3	15	17	16.1	23.5	—	1672500	106	106	34.6			693050	42	25.9		129900				
4	14	15	16.1	19.5	10	1565800	96	97	32			654580	35	19.8	23	114900	3700	—		3700
5	43	33	71.6	63.5	—	7029900	127	126	43.9			883780	41	27.5		143000	48300	3437000		3465300
6	83	76	166.4	271.8	20	1562200	188	186	73.3			1498370	71	63		277400	119000	11309300		11425300
7	59	43	222	413	15	28098300	241	242	126			2617480	101	85	104	92	523600	163600	16172100	16335700
8	70	51	289.9	391.6	20	29373600	254	254	129.4			2678280	87	97.3		542200	189400	14376900		14566300
9	60	53	136.4	143.4	10	12236100	184	180	77			1569650	73	61.6		313400	51900	4565100		4617000
10	22	19	25	22.7	10	2048200	110	107	37.2			749410	55	36.5		176400	10400	—		10400
11	18	16	22.1	21.1	—	1906000	104	107	36.1			726600	47	30.6		157000		—		—
12	19	10	22.9	24.2	—	2067800	115	116	40.8			855840	50	32.4		201600		—		—

Totals	453	365	1005.7	1445	90	108415300	1706	1706	689.3	10	14134290	671	665	534.2	525.4	2828900	586300	49860400	50446700
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Notes:

StoneRidge Water Summary 2019

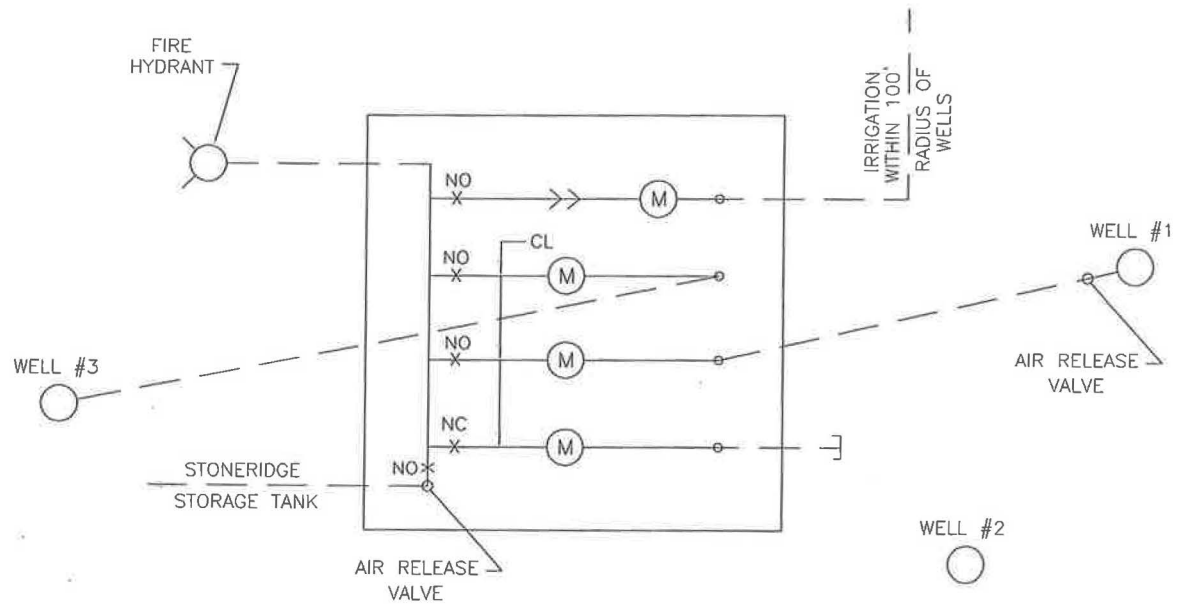
Date	Source Wells						StoneRidge Booster x10				HVR Mid Booster				Golf Irr.					
	Starts		Hrs.		Chlor.	Gals.	Starts		Hrs.		Chlor.	Gals.	Starts		Hrs.		Gals.	11th	Main	Total
	1	2	1	2	Used	Tot.	1	2	1	2	Used	Tot.	1	2	1	2	Tot.	Tee	Irr.	
1	13	15	14.1	17.9	24	1366600	118	118	28.7	29.5	2	568450	30	34	19	21.7	106300	0	0	0
2	17	9	20.7	11.9	24	1421000	122	123	30.5	31	6	605630	33	36	20.6	22.5	114300	0	0	0
3	18	56	17.7	18.3	27	1543800	142	143	35	34.9	10	680490	41	36	25.1	22.3	127500	0	0	0
4	15	15	16.7	18.6	23	1726900	106	106	25.9	26	4	533160	32	27	19.9	16.6	113800	0	0	
5	70	62	144.9	154.9	111	13063800	224	222	56.7	57.9	8	735880	58	54	46.1	42	111500	100	0	100
6	54	64	146.3	272.4	110	31315700	271	272	80.6	85	20	655420	63	69	44.1	56.1	265000			
7	66	42	237.8	390.1	322	2747500	360	360	119.3	120.2	35	520098	86	89	90.2	75.6	441000			
8	62	52	161.5	330.1	262	21959200	282	285	92.1	91.3	8	194071	73	77	71.9	76.2	409000			
9	52	40	45.3	79.1	77	7794600	199	199	52.8	53.6	11	105200	67	49	52.3	37.2	238000			
10	17	27	14.8	28.8	14	1956700	135	134	37.1	36.4	4	72597	42	50	27.3	32.9	158000			
11	14	15	16.3	17.9	9.5	1398500	112	99	37.6	27.1	8	64432	44	31	23.5	17.1	108000			
12	19	19	21	25.3	27.5	1976400	120	120	36.3	37.3	10	73163	40	45	25.1	24.3	132000			

Totals	417 TS	416 TS	857.1 TH	1365.3 TH	1031 THY	0	112998200	2191 TS	2181 TS	632.6 TH	630.2 TH	0	12679Y	0	48085,910	609 TS	597 TS	465.1 TH	444.1 TH	0	8224400	0	NO DATA	0	0	0
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Notes:

CDS STONERIDGE UTILITIES LLC
HAPPY VALLEY RANCHOS WATER SYSTEM
OPERATION AND MAINTENANCE MANUAL

METER BUILDING



D. List of major components & mechanical equipment

i Source Wells

(a) Well #1 Pump

- | | |
|----------------------------|-------------------------------|
| (i) Primary Equipment- | .Line Shaft Turbine pump |
| (ii) Manufacture- | . |
| (i) Motor | .U.S. Electric 120 hp |
| (ii) Pump | .unknown |
| (iii) Model # - | .unknown |
| (iv) Quantity - | .1 ea |
| (v) Performance Criteria - | . 800 gpm @ 420' TDH |
| (vi) Control System - | .Part of system wide controls |
| Alarms - | .Over current & under voltage |

(b) Well #2 Pump

- | | |
|----------------------------|------------------------|
| (i) Primary Equipment- | .Not used at this time |
| (ii) Manufacture- | . |
| (iii) Model # - | . |
| (iv) Quantity - | . |
| (v) Performance Criteria - | . |
| (vi) Control System - | . |
| Alarms - | . |

(c) Well #3 Pump

- | | |
|----------------------------|---------------------------------|
| (i) Primary Equipment- | .Submersible Pump |
| (ii) Manufacture- | . |
| (i) Pump | A. Y. McDonald 5 stage |
| (ii) Motor | Franklin elect 100 HP |
| | Soft start |
| (iii) Model # - | .600G075HP88 |
| (iv) Quantity - | .1 ea |
| (v) Performance Criteria - | .600 gpm @ 420' TDH |
| (vi) Control System - | .Part of system wide controls |
| | 3/8" depth tube to intake |
| Alarms - | Current, Voltage, Starter |
| Pit less Adapter # | 5PS1012WBWE06T6E |

(d) Flow Meters

- | | |
|----------------------------|------------------------------|
| (i) Primary Equipment- | .Source Meters |
| (ii) Manufacture- | .McCrometer |
| (iii) Model # - | .MW 500 - 6 - gal |
| (iv) Quantity - | .2 ea with provision for 3rd |
| (v) Performance Criteria - | .90-1200 gpm +- 2% |

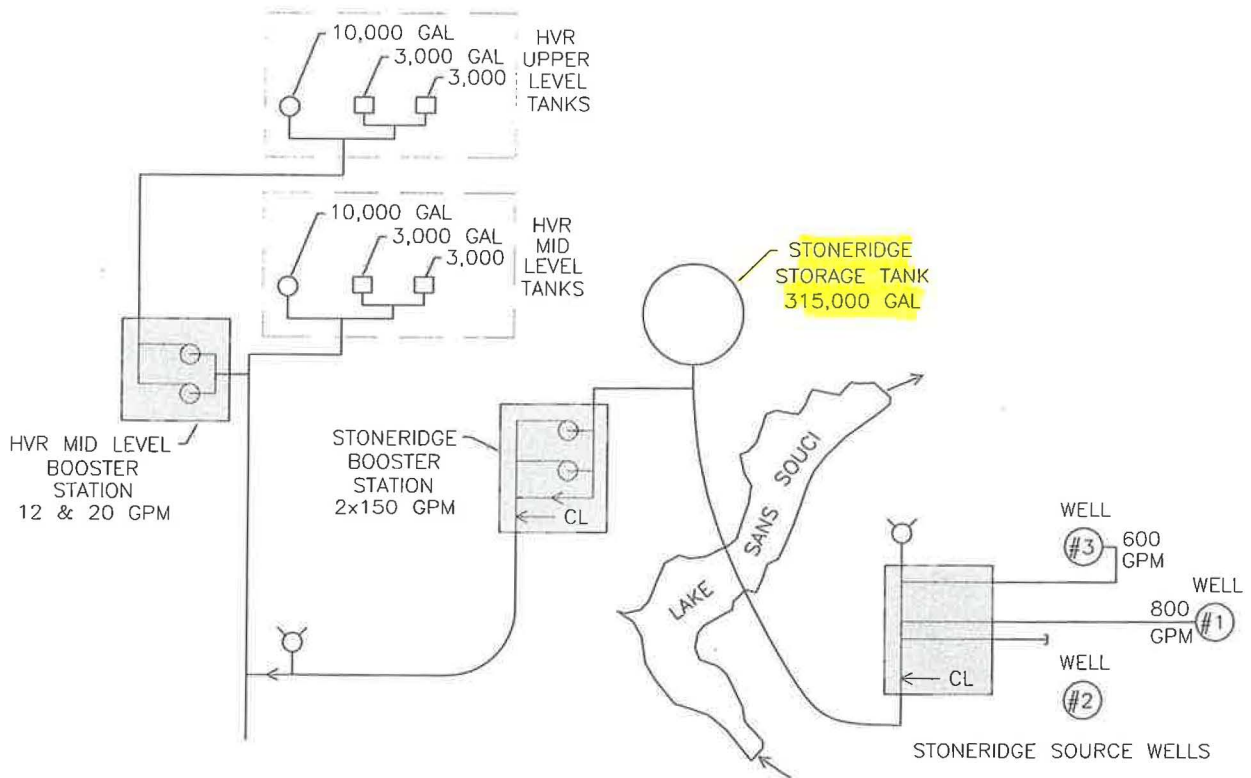
(e) Flow Switches

- | | |
|----------------------------|--|
| (i) Primary Equipment- | .Flow detection for CL pump |
| (ii) Manufacture- | . Square D |
| (iii) Model # - | . |
| (iv) Quantity - | .2 EA With Provision for 3rd |
| (v) Performance Criteria - | .2 fps (80 gpm) on; 1 fps (40 gpm) off |
| | . 10 fps (900 gpm) Max |
| (vi) Control System - | .Chlorine injection pump |

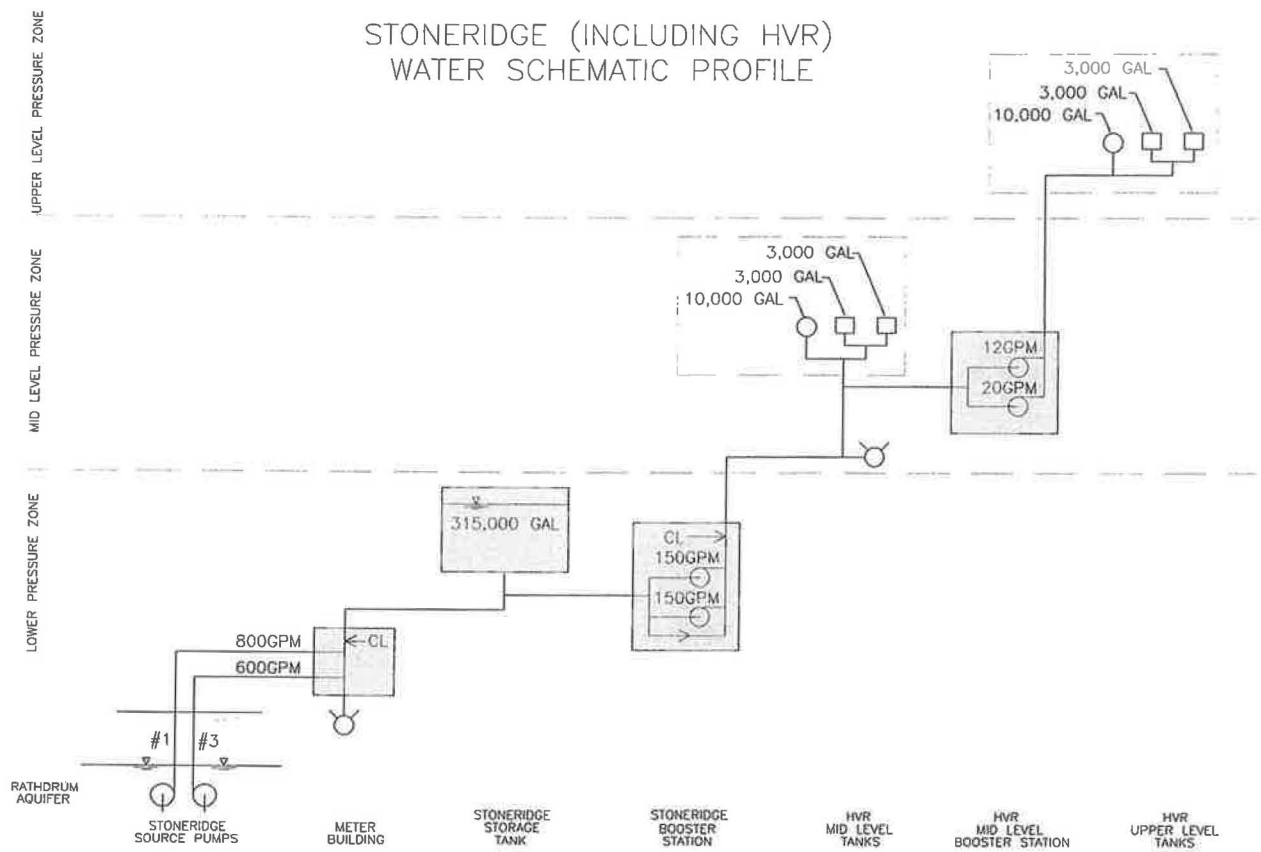
SCHEMATIC SKETCHES

1. System Site Plan
2. System Profile
3. Source Wells - Profile
4. Meter Building - Plan
5. Stoneridge Storage Tank _ Profile
6. Stoneridge Booster Station - Plan
7. Fire Hydrant and Check Valve Pit - Plan
8. HVR Mid Level Tanks – Plan and Profile
9. HVR Mid Level Booster Station - Plan
10. HVR Upper Level Tanks – Plan and Profile

STONERIDGE (INCLUDING HVR) WATER SCHEMATIC SITE PLAN

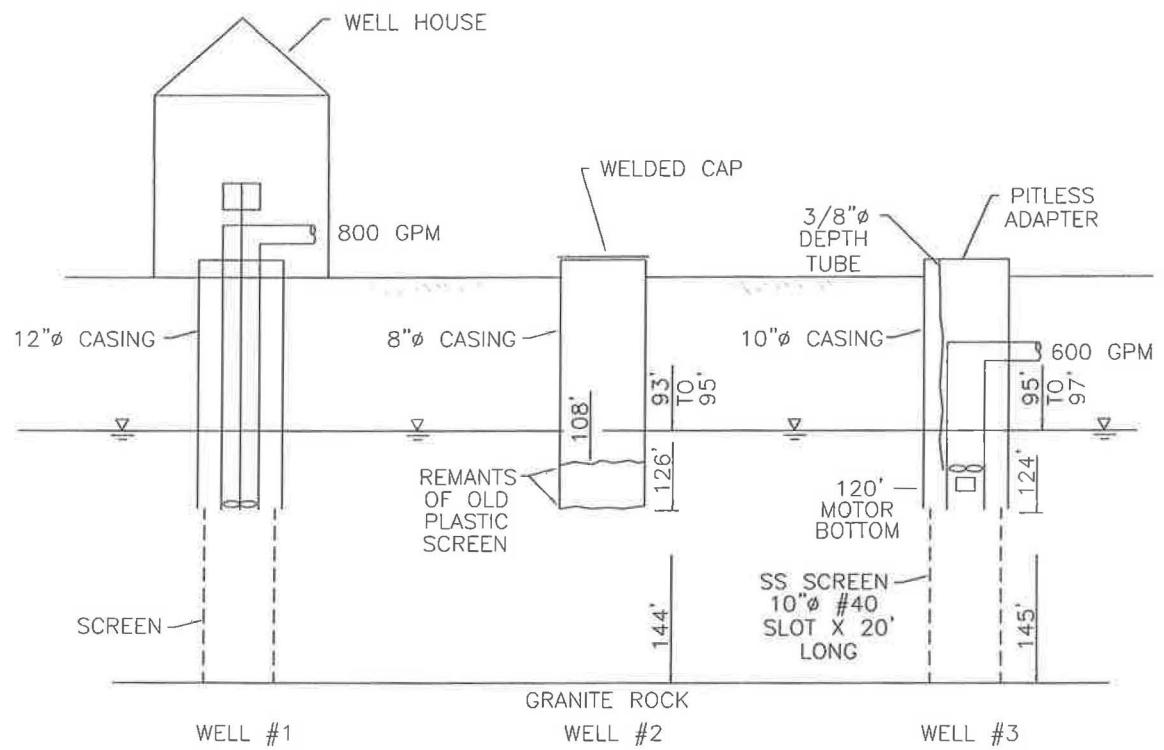


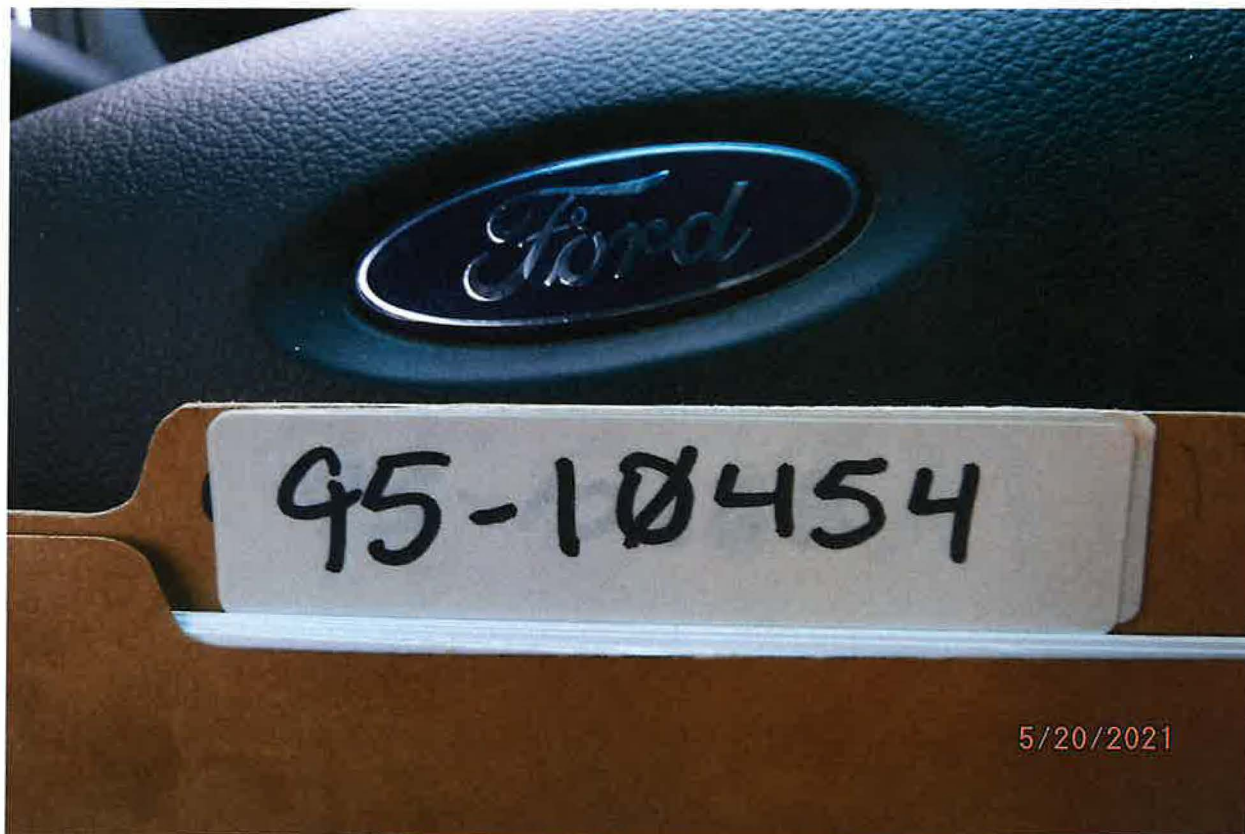
CDS STONERIDGE UTILITIES LLC
 HAPPY VALLEY RANCHOS WATER SYSTEM
 OPERATION AND MAINTENANCE MANUAL



CDS STONERIDGE UTILITIES LLC
 HAPPY VALLEY RANCHOS WATER SYSTEM
 OPERATION AND MAINTENANCE MANUAL

SOURCE WELLS





FIELD EXAM DATE 5/20/2021



POD – GROUND WATER WELL #1



WELL # 1 - 125 HP PUMP INSTALLED



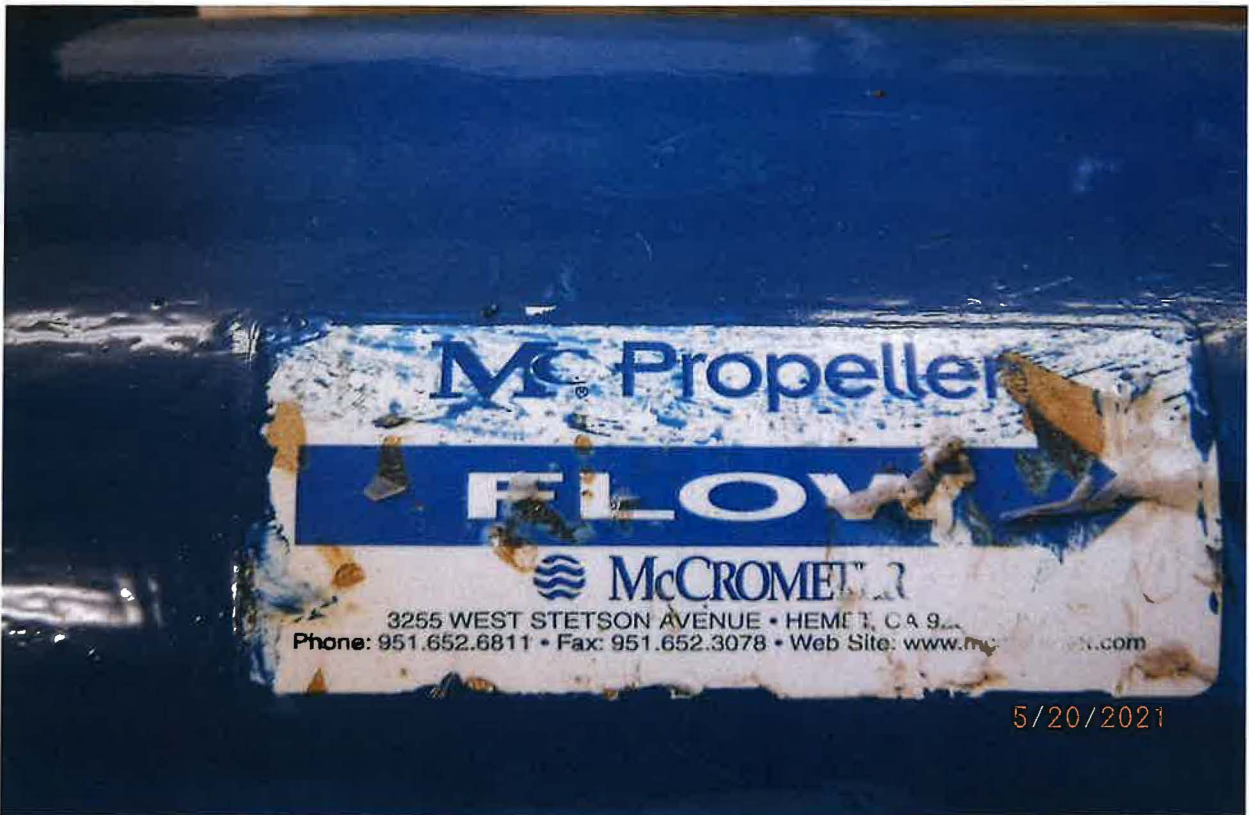
POD – GROUNDWATER WELL # 3; D0040131 (100 HP PUMP INSTALLED), PUMP STATION IN BACKGROUND



INTERIOR PUMP STATION – MIDDLE TWO WATER MAINS ARE #1 & #3 WELL(S)



PUMP CONTROL PANELS IN BACKGROUND



2EA McCrometer Flow Meters installed measures Well #1 & Well #2 instantaneous flow rates & annual volume values



Capped Well #2, no pump installed at time of field exam



WELL #1 FLOW METER MEASURED 770 GPM



WELL #3 FLOW METER MEASURED 620 GPM