Ashley Valley Sewer Management Board

Ashley Valley Water Reclamation Facility

Start -up date of April 21, 2001.

Designed to treat up to 4.7 million gallons a day (mgd) of Domestic Wastewater with an hourly peak rate of 9.4 mgd.

Start-up flows in 2001 were at 1.9 mgd with approximately 6700 Residential and Commercial connections.

Current flows are at 3.0 mgd (+58%)with approximately 9350 total connections (+39%) increase since start-up.

Low peak flowrate at night in 2001 was .8 mgd and now currently at 2.0 mgd (+150%), should be at 1.3 mgd.

We are currently treating an extra 300,000 to 700,000 gallons of ground water (infiltration) a day depending on season.

When large rain events hit the area we may treat as much as 3,500,000 extra water daily.

We need to reduce this extra groundwater and storm runoff water significantly.

Reduction will save power costs on pumping, recirculation, and disinfection.

Will allow us to meet the new Total Phosphorus effluent limits with lower chemical dosage.

ASHLEY VALLEY SEWER MANAGEMENT ARD
WASTEWATER TREATMENT FACILITY

August 2014

DATE	DAY OF WEEK	INFLUENT									
		FLOWS									
		INFLUENT	HIGH INFLUENT	LOW INFLUENT	RAS	WAS	SCREENINGS	GRIT	pH	TDS	ORP
		MGD	MGD	MGD	MGD	1,000 GAL	CF	CF	u	mg/l	mv
1	F	2.6	4.5	0.0	1.0	32.4			7.41	532	
2	SA	2.5	4.4	0.0	1.0	30.1			7.33	560	
3	SU	2.5	4.5	0.0	1.0	30.4			7.39	548	
4	M	2.6	4.3	0.0	1.0	32.2			7.27	560	
5	TU	2.6	4.5	0.0	1.0	35.0			7.43	506	
6	W	2.6	4.2	0.0	1.0	32.5			7.44	518	
7	TH	2.5	4.5	0.0	1.0	32.2			7.45	480	
8	F	2.5	4.4	0.0	0.9	31.9			7.44	479	
9	SA	2.4	4.2	0.0	0.9	33.9			7.45	469	
10	SU	2.4	4.2	0.0	0.9	31.9			7.45	449	
11	M	2.5	4.5	0.0	1.0	31.1			7.56	364	
12	TU	2.5	4.5	0.0	0.9	28.2			7.35	393	
13	W	2.5	4.5	0.0	1.0	29.9			7.29	467	
14	TH	2.6	4.6	0.0	1.0	30.6			7.28	438	
15	F	2.5	4.2	0.0	1.0	29.5			7.29	450	
16	SA	2.6	4.2	0.0	1.0	31.6			7.36	436	
17	SU	2.6	4.8	0.0	1.0	32.2			7.35	493	
18	M	2.6	4.4	0.0	1.0	34.8			7.34	492	
19	TU	3.0	6.3	0.0	1.1	31.3			7.41	493	
20	W	3.1	6.8	0.0	1.2	29.9			7.35	312	
21	TH	2.8	4.8	0.0	1.1	30.5			7.42	348	
22	F	2.8	4.6	0.0	1.1	27.7			7.47	409	
23	SA	4.1	6.9	0.0	1.6	31.7			7.31	342	
24	SU	3.2	4.9	0.0	1.2	28.6			7.49	408	
25	M	3.7	4.8	0.0	1.4	28.6			7.29	403	
26	TU	3.5	5.6	0.0	1.3	35.5			7.33	419	
27	W	3.9	7.1	0.0	1.5	35.5			7.35	436	
28	TH	4.4	6.4	0.0	2.2	60.0			7.19	216	
29	F	3.9	5.8	0.0	2.0	38.0			7.22	357	
30	SA	3.7	5.2	0.0	1.8	38.0			7.30	442	
31	SU	3.5	4.7	0.0	1.8	46.0			7.29	242	
Avg.		2.9	4.9	0.0	1.2	33.3	####	####	7.36	434	#####
Total		91.2	x	x	x	x	0.0	0.0	x	x	x
Max		4.4	7.1	x	2.2	60.0	0.0	0.0	7.56	560	0
Min.		2.4	x	0.0	0.9	27.7	0.0	0.00	7.19	216	0

ASHLEY VALLEY SEWER MANAGEMENT B RD
WASTEWATER TREATMENT FACILITY

Sept. 2014

DATE	DAY OF WEEK	INFLUENT									
		FLOWS									
		INFLUENT	HIGH INFLUENT	LOW INFLUENT	RAS	WAS	SCREENINGS	GRIT	pH	TDS	ORP
		MGD	MGD	MGD	MGD	1,000 GAL	CF	CF	u	mg/l	mv
1	M	3.6	5.1	0.0	1.8	39.0	0	1	7.33	232	-63
2	TU	3.5	4.6	0.0	1.8	44.2	0	1	7.44	240	-123
3	W	3.4	5.1	0.0	1.7	42.6	0	2	7.44	241	-197
4	TH	3.3	4.7	0.0	1.7	44.4	1	1	7.33	229	-123
5	F	3.2	4.6	0.0	1.6	46.0	1	1	7.41	223	-256
6	SA	3.2	4.8	0.0	1.6	44.9	0	1	7.45	226	-310
7	SU	3.2	5.0	0.0	1.6	43.4	1	1	7.45	229	-287
8	M	3.3	4.7	0.0	1.6	39.3	2	2	7.24	228	-121
9	TU	3.6	6.0	0.0	2.4	39.6	2	2	7.29	222	-92
10	W	3.5	4.9	0.0	2.1	38.3	1	2	7.43	218	-47
11	TH	3.3	4.8	0.0	1.7	40.1	1	2	7.46	217	-451
12	F	3.1	4.6	0.0	1.6	40.4	2	2	7.54	215	-452
13	SA	3.0	4.5	0.0	1.5	43.5	2	2	7.44	214	-144
14	SU	3.0	4.5	0.0	1.5	46.1	1	2	7.50	506	-448
15	M	3.1	4.5	0.0	1.5	43.9	2	2	7.45	594	-181
16	TU	3.0	4.9	0.0	1.5	45.4	2	3	7.43	542	-79
17	W	3.0	4.6	0.0	1.5	43.5	1	2	7.45	557	-237
18	TH	2.9	5.0	0.0	1.5	42.6	1	3	7.24	567	-215
19	F	2.9	4.7	0.0	1.4	38.6	1	2	7.43	594	-163
20	SA	2.8	4.4	0.0	1.4	39.8	0	2	7.43	524	-368
21	SU	3.0	5.7	0.0	1.5	40.9	1	2	7.40	477	-458
22	M	3.1	4.8	0.0	1.5	40.9	2	2	7.60	413	-87
23	TU	3.0	5.0	0.0	1.5	41.1	1	2	7.50	475	-113
24	W	2.9	4.7	0.0	1.5	39.8	2	2	7.38	487	-117
25	TH	2.9	5.1	0.0	1.5	40.2	2	1	7.41	525	-367
26	F	2.8	4.9	0.0	1.5	46.1	2	2	7.37	479	-263
27	SA	3.1	6.9	0.0	1.4	42.6	2	1	7.44	478	-452
28	SU	4.6		1.7	2.2	49.9	2	2	6.98	328	-42
29	M	4.0	5.1	0.0	2.2	46.4	3	4	7.51	387	-52
30	TU	3.7	4.9	0.0	2.1	51.4	2	2	7.53	489	-2
31	–	–	–	–	–	–	–	–	–	–	–
Avg.		3.2	4.9	0.1	1.7	42.8	1.3	1.9	7.41	379	-210
Total		97.0	x	x	x	x	40.0	56.0	x	x	x
Max		4.6	6.9	x	2.4	51.4	3.0	4.0	7.60	594	-2
Min.		2.8	x	0.0	1.4	38.3	0.0	1.00	6.98	214	-458

ASHLEY VALLEY SEWER MANAGEMENT BOARD
WASTEWATER TREATMENT FA(TY

Feb. 2016

DATE	DAY OF WEEK	FLOWS					INFLUEN			
		INFLUENT	HIGH INFLUENT	LOW INFLUENT	RAS	WAS	SCREENINGS	GRIT	pH	
		MGD	MGD	MGD	MGD	1,000 GAL	CF	CF	u	
1	M	2.6	4.6	0.0	1.3	35.2	2	2	7.57	
2	TU	2.7	4.6	0.0	1.3	41.9	2	2	7.75	
3	W	2.7	4.6	0.0	1.3	39.6	2	2	7.83	
4	TH	2.6	4.8	0.0	1.3	44.7	3	3	7.81	
5	F	2.6	4.5	0.0	1.2	42.6	2	2	7.80	
6	SA	2.6	4.4	0.0	1.3	47.3	2	3	7.77	
7	SU	2.6	4.5	0.0	1.2	43.7	2	2	7.76	
8	M	2.7	4.5	0.0	1.3	42.8	2	2	7.71	
9	TU	2.6	4.6	0.0	1.3	43.9	2	2	7.51	
10	W	2.6	4.6	0.0	1.3	43.9	2	2	7.54	
11	TH	2.6	4.5	0.0	1.2	40.8	2	2	7.55	
12	F	2.6	4.4	0.0	1.2	44.9	2	2	7.50	
13	SA	2.6	4.4	0.0	1.2	44.6	2	2	7.55	
14	SU	2.5	4.4	0.0	1.2	45.3	2	2	7.50	40°
15	M	2.8	4.5	0.0	1.3	44.0	3	3	7.55	
16	TU	2.8	4.9	0.0	1.3	41.3	2	2	7.60	
17	W	2.8	4.7	0.0	1.4	39.0	2	2	7.52	
18	TH	3.0	4.8	0.0	1.4	39.3	2	1	7.62	50° Spring Thaw
19	F	3.0	4.6	0.0	1.5	39.9	2	2	7.66	
20	SA	3.0	4.5	0.0	1.4	39.4	2	2	7.63	
21	SU	3.0	4.5	0.0	1.4	39.9	2	2	7.65	
22	M	3.0	4.6	0.0	1.4	40.1	2	2	7.67	
23	TU	2.9	4.5	0.0	1.4	44.6	3	2	7.33	
24	W	2.9	4.6	0.0	1.4	41.8	2	2	7.76	
25	TH	2.9	4.5	0.0	1.4	49.0	2	2	7.00	
26	F	2.9	4.6	0.0	1.0	48.7	2	2	7.30	
27	SA	2.9	4.4	0.0	1.3	35.0	2	2	7.40	
28	SU	2.8	4.6	0.0	1.3	42.9	2	3	7.10	
29	M	2.9	4.6	0.0	1.3	39.0	3	2	7.80	
30	—	—	—	—	—	—	—	—	—	
31	—	—	—	—	—	—	—	—	—	
Total		2.8	4.6	0.0	1.3	42.2	2.1	2.1	7.58	
Total		80.2	x	x	37.8	x	62.0	61.0	x	
Max		3.0	4.9	x	1.5	49.0	3.0	3.0	7.83	
Min.		2.5	x	0.0	1.0	35.0	2.0	1.00	7.00	

ASHLEY VALLEY
WATER RECLAMATION FACILITY

May 2016

DATE	DAY OF WEEK	PLANT FLOWS								
		INFLUENT	INFLUENT Temp.	HIGH INFLUENT	LOW INFLUENT	RAS	WAS	EFFLUENT	EFFLUENT TEMP.	TOTAL W-3
		MGD	MGD	MGD	MGD	MGD	1,000 GAL	MGD	C'	1,000 GAL
1	SU	2.8	11.5	4.4	0.0	1.1	33.7	2.4	12.1	137.6
2	M	2.7	11.5	4.5	0.0	1.1	35.1	2.5	12.5	163.9
3	TU	2.7	11.5	4.6	0.0	1.1	38.7	2.4	12.5	145.5
4	W	2.7	11.6	4.6	0.0	1.1	36.3	2.3	12.9	86.9
5	TH	2.7	11.7	4.6	0.0	1.1	37.1	2.4	13.1	110.3
6	F	2.7	11.8	4.6	0.0	1.1	41.6	2.4	13.4	104.2
7	SA	2.7	11.8	—	0.0	—	—	—	13.2	—
8	SU	3.5	11.6	6.7	0.0	1.3	38.8	3.2	12.7	100.9
9	M	3.8	11.6	5.0	0.0	1.5	36.7	3.6	12.7	123.3
10	TU	3.3	11.7	5.1	0.0	1.3	36.2	3.0	13.0	123.9
11	W	3.2	11.8	4.7	0.0	1.2	37.1	2.8	12.8	100.1
12	TH	3.2	11.8	4.8	0.0	1.2	36.9	2.9	12.8	125.0
13	F	3.1	12.0	4.8	0.0	1.2	35.8	2.7	13.0	100.1
14	SA	3.1	12.0	4.8	0.0	1.2	31.1	2.7	13.2	98.2
15	SU	3.3	12.0	5.1	0.0	1.3	32.4	3.0	13.4	97.5
16	M	4.0	12.1	6.9	0.0	1.5	33.3	3.9	13.3	122.4
17	TU	4.2	12.1	5.8	0.0	1.6	36.4	4.1	13.2	114.3
18	W	3.7	12.2	5.7	0.0	1.4	34.4	4.1	13.3	108.6
19	TH	3.6	12.3	4.9	0.0	1.4	35.2	3.2	13.6	87.8
20	F	3.4	12.3	4.8	0.0	1.3	31.7	3.2	13.8	118.1
21	SA	3.3	12.4	4.8	0.0	1.3	34.9	2.9	13.8	99.2
22	SU	3.3	12.5	4.8	0.0	1.3	34.2	2.9	13.6	97.4
23	M	3.3	12.5	4.8	0.0	1.3	32.1	3.0	13.5	109.7
24	TU	3.3	12.6	4.8	0.0	1.3	37.4	3.0	13.8	122.5
25	W	3.2	12.7	4.8	0.0	1.2	38.8	2.9	13.9	121.0
26	TH	3.2	12.8	5.1	0.0	1.2	41.1	2.9	14.0	127.8
27	F	3.3	12.9	4.6	0.0	1.3	39.0	2.9	13.9	122.8
28	SA	3.2	12.9	4.6	0.0	1.2	35.5	2.8	14.0	101.6
29	SU	3.1	12.9	4.7	0.0	1.2	38.9	2.7	14.2	100.2
30	M	3.2	13.0	4.7	0.0	1.2	32.9	2.8	14.3	99.8
31	TU	3.2	13.2	4.6	0.0	1.0	31.2	2.9	14.5	133.4
Avg.		3.2	12.2	5.0	0.0	1.3	35.8	3.0	13.4	113.5
Total		100.0	x	x	x	37.5	x	88.5	x	3404.0
Max		4.2	13.2	6.9	0.0	1.6	41.6	4.1	14.5	163.9
Min.		2.7	11.5	4.4	0.0	1.0	31.1	2.3	12.1	86.9

0.80" of Rain

0.83" of Rain

PREPARED BY: Dean Gibbs

September 2016

ASHLEY VALLEY
WATER RECLAMATION FACILITY

INFLUENT & EFFLUENT F

DATE	DAY OF WEEK	PLANT FLOWS									INFLUENT											
														DMR PARAMETERS								
		INFLUENT	INFLUENT Temp.	HIGH INFLUENT	LOW INFLUENT	RAS	WAS	EFFLUENT	EFFLUENT Temp.	TOTAL W-3	NH3	COD	TOTAL P (AVSMB)	pH	BOD	TSS	TKN	TOTAL P	SELENIUM	NH3	NO3
		MGD	C'	MGD	MGD	MGD	1,000 GAL	MGD	C'	1,000 GAL	mg/l	mg/l	mg/l	U	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	m
1	TH	2.9	18.5	4.8	0	0.9	26.1	2.7	19.3	29.2											
2	F	2.8	18.4	4.7	0	0.9	27.3	2.6	19.3	27.1											
3	SA	3.0	18.4	5.0	0	1.0	27.7	2.8	19.4	27.3	0.76" of Rain										
4	SU	3.2	18.5	4.9	0	1.0	29.1	3.0	19.4	27.0											
5	M	3.2	18.3	5.1	0	1.0	30.4	2.9	19.3	27.3											
6	TU	3.1	18.4	4.9	0	1.0	29.8	2.9	19.0	30.3											
7	W	3.0	18.4	4.9	0	1.0	29.7	2.8	19.1	30.9											
8	TH	2.9	18.5	4.8	0	0.9	28.1	2.6	19.0	27.3											
9	F	2.8	18.4	4.8	0	0.9	27.0	2.6	18.9	29.0											
10	SA	2.8	18.3	4.7	0	0.9	27.0	2.6	18.7	28.9											
11	SU	2.9	18.3	4.6	0	0.9	27.0	2.6	18.6	25.9											
12	M	2.9	18.3	4.8	0	0.9	26.7	2.8	18.8	28.0											
13	TU	2.9	18.3	4.8	0	0.9	30.3	2.7	19.0	26.1											
14	W	3.5	18.2	5.3	0	1.1	25.0	3.4	19.0	27.8	0.63" of Rain										
15	TH	3.3	18.1	5.0	0	1.0	25.0	3.0	18.6	24.9											
16	F	3.2	18.0	4.8	0	1.0	25.3	3.0	18.6	26.5											
17	SA	3.1	18.1	4.7	0	1.0	25.3	2.9	18.6	25.6											
18	SU	3.0	18.1	4.7	0	1.0	25.3	2.8	18.6	260.8											
19	M	3.0	18.1	4.8	0	1.0	25.8	2.8	18.7	282.7											
20	TU	2.9	18.0	4.8	0	0.9	26.4	2.6	18.7	263.3											
21	W	2.9	18.0	5.0	0	0.9	29.9	2.7	18.7	284.4											
22	TH	6.8	18.1	13.1	0	1.1	31.6	6.6	18.9	255.8		2.43" of Rain									
23	F	4.6	17.6	6.1	3.7	1.3	29.8	4.7	17.8	282.4		0.03"									
24	SA	4.1	17.8	5.3	0	1.1	29.8	3.9	17.9	246.1		0.09"									
25	SU	3.8	17.8	4.9	0	1.1	29.8	3.6	17.9	267.6											
26	M	3.7	17.8	4.9	0	1.1	28.3	3.7	17.9	268.1											
27	TU	3.6	17.6	4.7	0	1.1	26.3	3.4	18.1	263.3											
28	W	3.5	17.6	4.9	0	1.0	27.7	3.4	18.2	29.9											
29	TH	3.5	17.6	4.8	0	1.0	25.8	3.3	18.3	26.5											
30	F	3.4	17.6	4.7	0	1.0	26.0	3.3	18.3	28.4											
31	0																				

October 2016

ASHLEY VALLEY
WATER RECLAMATION FACILITY

INFLUENT & EFFLUENT

DATE	DAY OF WEEK	PLANT FLOWS									INFLUENT									
														DMR PARAMETERS						
		INFLUENT	INFLUENT Temp.	HIGH INFLUENT	LOW INFLUENT	RAS	WAS	EFFLUENT	EFFLUENT Temp.	TOTAL W-3	NH3	COD	TOTAL P (AVSMB)	pH	BOD	TSS	TKN	TOTAL P	SELENIUM	NH3
		MGD	C'	MGD	MGD	MGD	1,000 GAL	MGD	C'	1,000 GAL	mg/l	mg/l	mg/l	U	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
1	SA	3.4	17.6	4.7	0	0.9	27.4	3.1	18.2	26.4										
2	SU	3.3	17.4	4.7	0	0.9	27.4	3.1	18.1	26.2										
3	M	3.4	17.4	4.9	0	0.9	34.8	3.1	18.0	28.2										
4	TU	3.3	17.3	4.8	0	0.9	36.0	3.0	17.4	26.1										
5	W	3.2	17.2	4.8	0	0.9	33.8	3.0	17.3	46.1										
6	TH	3.1	17.2	4.8	0	0.9	19.3	2.7	17.2	60.4										
7	F	3.0	17.1	4.7	0	0.9	13.8	2.4	17.2	60.6										
8	SA	3.0	17.0	4.5	0	0.8	13.8	2.3	17.2	60.0										
9	SU	3.0	17.0	4.7	0	0.8	13.8	2.6	17.2	40.6										
10	M	3.0	16.9	4.8	0	0.9	13.9	2.6	17.2	49.9										
11	TU	3.1	16.9	4.8	0	0.9	13.2	2.6	17.3	44.4										
12	W	3.0	16.9	4.8	0	0.8	13.3	2.7	17.3	28.6										
13	TH	3.0	16.8	4.7	0	0.8	12.8	2.8	17.1	29.1										
14	F	2.9	16.8	4.6	0	0.9	25.9	2.6	17.1	26.0										
15	SA	2.9	16.6	4.6	0	0.9	25.9	2.6	17.0	26.8										
16	SU	2.9	16.7	4.6	0	0.9	25.9	2.6	17.1	25.8										
17	M		16.6						17.0											
18	TU																			
19	W																			
20	TH																			
21	F																			
22	SA																			
23	SU																			
24	M																			
25	TU																			
26	W																			
27	TH																			
28	F																			
29	SA																			
30	SU																			
31	M																			

Section 8.

Whenever possible, the building sewer shall be brought to the building at an elevation below the basement floor or other lowest building drain. In all buildings in which any building drain is too low to permit gravity flow to a public sewer, sanitary sewage carried by such building drain shall be lifted by an approved means and discharged to the building sewer.

Section 9.

No person(s) shall make connection of roof down-spouts, foundation drains, areaway drains, or other sources of surface runoff or groundwater to a building sewer or building drain which in turn is connected directly or indirectly to a public sanitary sewer.

Section 10.

The connection of the building sewer into the public sewer shall conform to the requirements of the Utah Administrative Code Title R317, any city or county building and plumbing codes or other applicable rules and regulations of the Public Entity or Sewer Management Board, including the Construction Standards of the State of Utah. All such connections shall be made gastight and watertight and verified by proper testing. Any deviation from the prescribed procedures and materials must be approved by the Public Entity where the building resides before installation.

Section 11.

The applicant for the building sewer permit shall notify the Public Entity or Sewer Management Board when the building sewer is ready for inspection and connection to the public sewer. The

connection and testing shall be made under the supervision of the Public Entity or their representative, provided that no building sewer shall be connected to the public sanitary sewer until the applicant has first paid the sewer impact fee required by the governing entity.

Section 12.

All excavations for building sewer installation shall be adequately guarded with barricades and lights so as to protect the public from hazard. Streets, sidewalks, parkways, and other public property disturbed in the course of the work shall be restored in a manner satisfactory to the Entity.

ARTICLE V

Prohibited Discharge; Pretreatment

Section 1.

No person(s) shall discharge or cause to be discharged any unpolluted waters such as storm water, surface water, groundwater, roof runoff, subsurface drainage, or cooling water to any sewer.

Section 2.

Storm water shall be discharged to such sewers as are specifically designated as storm sewers, or to a natural outlet approved by the State of Utah Department of Environmental Quality and/or other regulatory agencies. Discharge of storm water into sanitary sewer system is prohibited.