

Expanded Effluent Data  
**GILBERT BAY GREAT SALT LAKE OUTFALL**  
 Southwest Jordan Valley Groundwater Project  
 Jordan Valley Water Conservancy District

Parameter	Utah Freshwater Aquatic Wildlife Standard	Utah Primary Drinking Water Standard	Gilbert Bay Great Salt Lake Typical	Utah Lake/Utah and Salt Lake Canal Typical	Maximum Daily Concentration @ 1.0 MGD (d,f)				Average Daily Concentration @ 3.0 MGD (f)					
					Concentration	Units	Load (e)	Mass/Day	Concentration	Units	Mass	Units		
Temperature	4	NA			16	oC	(a)			16	oC	(a)		
pH	6.5-9.0			7.6-8.4	7	pH	(a)			7	pH	(a)		
Alkalinity				240	2,985	mg/L as CaCO3	(a)	11,291	kg	1,992	mg/L as CaCO3	(a)	22,608	kg
Total Hardness				430	6,471	mg/L as CaCO3	(a)	24,479	kg	4,246	mg/L as CaCO3	(a)	48,182	kg
Calcium Hardness					3,881	mg/L as CaCO3	(a)	14,678	kg	2,540	mg/L as CaCO3	(a)	28,818	kg
Total Dissolved Solids	1,200	2,000	80,000-100,000	800-1100	10,746	mg/L	(a)	40,648	kg	7,210	mg/L	(a)	81,819	kg
Total Suspended Solids				100	18	mg/l	(a)	68	kg	<20	mg/l	(a)	203	kg
Total Organic Carbon					6.0	mg/L	(a)	23	kg	6.0	mg/L	(a)	68	kg
Aluminum	87	50-200 (g)			299	ug/l	(a)	1,129	g	249	ug/l	(a)	2,829	g
Antimony					1.5	ug/l	(a)	6	g	1.5	ug/l	(a)	17	g
Arsenic	150	10	140		36	ug/l	(b)	135	g	34	ug/l	(b)	384	g
Barium		2000			418	ug/l	(a)	1,581	g	218	ug/l	(a)	2,471	g
Beryllium					2.99	ug/l	(b)	11	g	2.99	ug/l	(b)	34	g
Bicarbonate					3,636	mg/L	(a)	13,752	kg	2,427	mg/L	(a)	27,540	kg
Cadmium	0.25	5			1.49	ug/l	(b)	6	g	1.49	ug/l	(b)	17	g
Calcium			2,000		1,552	mg/L	(a)	5,871	kg	1,016	mg/L	(a)	11,527	kg
Carbon Dioxide					137	mg/L	(a)	519	kg	117	mg/L	(a)	1,331	kg
Carbonate					3.6	mg/L	(a)	14	kg	2.0	mg/L	(a)	22	kg
Chloride			49,400		1,373	mg/L	(a)	5,194	kg	1,325	mg/L	(a)	15,037	kg
Chromium, Hexavalent	11	100			36	ug/l	(b)	135	g	32	ug/l	(b)	361	g
Chromium, Trivalent	74				0.197	ug/l	(b)	1	g	0.142	ug/l	(c)	n/a	g
Copper	9	1,300			0.015	ug/l	(b)	0	g	0.015	ug/l	(b)	0	g
Cyanide	5.2	200			0.030	ug/l	(b)	0	g	ND	ug/l	(c)	NA	g
Fluoride		4.0			3.5	mg/L	(a)	13	kg	2.5	mg/L	(a)	28	kg
Hydrogen Sulfide	2.0				NA	mg/L	(a)	NA	kg	NA	mg/L	(a)	NA	kg
Iron	1,000				1.0	mg/L	(a)	4	kg	0.7	mg/L	(a)	8	kg
Lead	2.5	15			3.6	ug/l	(b)	14	g	2.2	ug/l	(b)	25	g
Magnesium			3,100		597	mg/L	(a)	2,258	kg	393	mg/L	(a)	4,458	kg
Manganese		50			11.9	ug/l	(a)	45	g	11.9	ug/l	(a)	135	g
Mercury (dissolved)	12	2000	7-45		30-70	ng/l	(b)	0	g	30-70	ng/l	(b)	1	g
Nickel	52				14.9	ug/l	(b)	56	g	14.9	ug/l	(b)	169	g
Phenolic Compounds (Total)					ND	ug/l	(b)	NA	g	ND	ug/l	(c)	NA	g
Potassium			1,900		78	mg/L	(a)	294	kg	54	mg/L	(a)	608	kg
Selenium	4.6	50	0.6	2	55.0	ug/l	(b)	208	g	44.7	ug/l	(b)	507	g
Silica (Total)					155	mg/L as SiO2	(a)	587	kg	147	mg/L as SiO2	(a)	1,671	kg
Silver	1.6				1.49	ug/l	(b)	6	g	1.49	ug/l	(b)	17	g
Sodium			27,900		1,254	mg/L	(a)	4,742	kg	889	mg/L	(a)	10,093	kg
Strontium					555	ug/l	(a)	2,100	g	499	ug/l	(a)	5,664	g
Sulfate		1,000	5,600		4,537	mg/L	(a)	17,162	kg	2,568	mg/L	(a)	29,139	kg
Thallium					1.49	ug/l	(b)	6	mg	1.49	ug/l	(b)	17	g
Zinc		5,000 (g)			30	ug/l	(b)	113	g	30	ug/l	(b)	339	g
Acid-Extractable Compounds					ND	mg/L	(b)	0	kg	ND	mg/L	(b)	NA	kg
Base-Neutral Compounds					ND	mg/L	(b)	0	kg	ND	mg/L	(b)	NA	kg
Volatile Organic Compounds					ND	mg/L	(b)	0	kg	ND	mg/L	(b)	NA	kg

- Notes:
- (a) Unless otherwise noted, the source of information is design documents for the SWGWTP drawing G-10. Worst case source concentrations were assumed for the purposes of this permit.
  - (b) Values are from water quality sampling during well pump testing. Samples measuring below the detection limit (i.e. Non-Detect) are reported at one-half of the detection limit.
  - (c) NA=Not Available.
  - (d) Maximum daily concentrations calculated from worst case by-product discharges with all shallow RO trains off. Maximum daily loading occurs on an average day when all trains of the plant are fully operating.
  - (e) Daily mass calculations assume flow weighted average among four shallow well RO trains and two deep well RO trains.
  - (f) Concentration and mass values assume a 99.5% membrane rejection and a 1.2 engineering factor.
  - (g) Utah secondary drinking water standard.
  - (i) Conversion factor for kg/day to lbs/day multiply by 2.2.