

Table 1 - Seep Well Field (SWF) Operational Metrics

Nevada Environmental Response Trust Groundwater Extraction and Treatment System Enhanced Operational Metrics																			
Date	LS #1 Flow (gpm)	PC-116R (East Well)		PC-99R2/R3 (Center Well)		PC-115R (West Well)		PC-117		PC-118		PC-119		PC-120		PC-121		PC-133	
		Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)
01/01/18	653	167	1534.83	88	1541.82	129	1542.40	115	1537.12	60	1546.49	101	1547.70	50	1548.86	21	1549.94	10	1523.09
01/02/18 ²	557	168	1534.58	87	1541.80	130	1542.39	116	1537.10	61	1546.49	102	1547.69	51	1548.85	20	1549.93	10	1523.08
01/03/18	651	170	1534.47	89	1541.63	132	1542.38	117	1537.10	62	1546.48	102	1547.68	51	1548.84	20	1549.92	11	1523.21
01/04/18	649	167	1534.44	87	1541.88	129	1541.29	115	1537.08	61	1546.45	102	1547.66	51	1548.82	20	1549.90	9.7	1523.16
01/05/18	650	169	1534.30	89	1541.81	131	1541.28	117	1537.07	61	1546.44	102	1547.65	51	1548.80	20	1549.88	9.8	1523.16
01/06/18	649	168	1534.32	88	1541.55	130	1541.27	116	1537.07	61	1546.44	101	1547.64	51	1548.79	21	1549.87	10	1523.37
01/07/18	650	166	1534.13	87	1541.60	128	1541.25	115	1537.04	60	1546.42	101	1547.62	51	1548.78	20	1549.86	9.6	1523.24
01/08/18 ³	535	168	1534.02	83	1541.62	130	1542.07	116	1537.02	61	1546.40	102	1547.61	51	1548.76	20	1549.84	10	1523.19
01/09/18	55	38	1536.07	20	1542.69	27	1543.41	26	1538.74	14	1547.64	23	1548.80	11	1549.87	1.0	1550.85	2.1	1523.71
01/10/18	630	171	1535.45	93	1542.66	130	1543.15	118	1538.36	62	1547.40	104	1548.60	52	1549.72	28	1550.74	11	1523.59
01/11/18	678	169	1535.10	91	1542.29	132	1543.06	116	1538.21	61	1547.33	102	1548.55	51	1549.69	20	1550.74	10	1523.39
01/12/18	654	168	1534.86	91	1542.16	131	1543.01	117	1538.13	61	1547.29	102	1548.51	51	1549.67	20	1550.72	10	1523.36
01/13/18	654	169	1534.53	91	1542.42	131	1542.97	117	1538.08	61	1547.26	102	1548.49	51	1549.65	21	1550.71	10	1523.36
01/14/18	655	165	1534.27	89	1542.95	128	1542.14	115	1538.04	60	1547.24	100	1548.47	50	1549.63	20	1550.69	10	1523.38
01/15/18	628	169	1533.91	91	1542.08	131	1542.91	117	1538.00	61	1547.20	102	1548.43	51	1549.59	20	1550.66	10	1523.45
01/16/18	680	168	1533.74	90	1542.08	130	1542.86	117	1537.93	61	1547.15	102	1548.38	51	1549.54	20	1550.61	10	1523.38
01/17/18	653	169	1533.58	91	1542.81	131	1542.15	117	1537.88	61	1547.11	102	1548.33	51	1549.50	20	1550.57	10	1523.45
01/18/18	653	169	1533.40	91	1541.91	131	1542.77	117	1537.85	61	1547.08	102	1548.30	52	1549.46	20	1550.54	10	1523.62
01/19/18	651	168	1533.35	90	1541.94	131	1542.74	117	1537.82	61	1547.04	102	1548.27	51	1549.43	20	1550.51	9.7	1523.57
01/20/18	653	168	1533.57	90	1541.90	131	1542.67	117	1537.75	61	1546.96	102	1548.19	51	1549.35	20	1550.43	10	1523.48
01/21/18	653	169	1533.53	91	1541.57	130	1542.62	116	1537.70	61	1546.92	102	1548.14	51	1549.30	20	1550.38	10	1523.44
01/22/18 ²	550	168	1533.40	90	1542.00	131	1542.61	116	1537.66	61	1546.88	102	1548.10	51	1549.26	20	1550.34	10	1523.66
01/23/18	651	168	1533.31	89	1541.94	130	1542.55	116	1537.61	61	1546.84	102	1548.05	51	1549.22	20	1550.30	9.7	1523.53
01/24/18	652	167	1533.02	89	1541.77	129	1542.53	116	1537.59	60	1548.03	101	1548.03	50	1549.19	19	1550.27	10	1523.65
01/25/18	651	168	1533.17	90	1541.68	130	1542.48	117	1537.54	61	1546.77	102	1547.98	51	1549.14	20	1550.22	10	1523.69
01/26/18	652	168	1533.21	90	1541.63	130	1542.43	116	1537.50	60	1546.73	101	1547.93	51	1549.09	20	1550.17	10	1523.70
01/27/18	651	168	1533.19	90	1541.85	131	1542.39	117	1537.46	61	1546.69	102	1547.89	51	1549.05	20	1550.13	9.7	1523.50
01/28/18	651	169	1533.11	90	1541.57	131	1542.37	117	1537.43	61	1546.67	102	1547.88	52	1549.04	20	1550.12	10	1523.78
01/29/18 ²	586	168	1532.86	90	1541.93	130	1542.40	117	1537.44	61	1546.70	102	1547.90	51	1549.07	20	1550.14	10	1523.54
01/30/18	651	167	1532.88	89	1541.26	130	1542.44	116	1537.47	60	1546.75	102	1547.95	50	1549.11	20	1550.20	10	1523.58
01/31/18	651	167	1532.97	90	1541.72	130	1542.48	116	1537.48	60	1546.80	101	1548.00	50	1549.17	19	1550.26	9.7	1523.70
Monthly Average	621	164	1533.92	87	1541.95	127	1542.43	113	1537.62	59	1546.91	99	1548.08	50	1549.23	20	1550.30	10	1523.45
Analytical		Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date
Perchlorate		12	1/3/2018	15	1/3/2018	11	1/3/2018	5.5	1/3/2018	6.7	1/3/2018	0.76	1/3/2018	0.0082	1/3/2018	0.016	1/3/2018	2.4	1/3/2018
Hexavalent Chromium		0.0027	1/3/2018	ND	1/3/2018	ND	1/3/2018	0.0030	1/3/2018	ND	1/3/2018	ND	1/3/2018	ND	1/3/2018	ND	1/3/2018	ND	1/3/2018
Total Chromium		0.0027 J	1/3/2018	ND	1/3/2018	ND	1/3/2018	0.0038 J	1/3/2018	ND	1/3/2018	ND	1/3/2018	ND	1/3/2018	ND	1/3/2018	ND	1/3/2018

Notes:
 Flow reported as gpm is a daily average calculated from the totalizer reading.
 ND = Not detected above laboratory method detection limit (Cr(TR)=2.5 ug/L, Cr(VI)=0.20 ug/L).
 J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.
 1: Analytical results are reported from TestAmerica.
 2: On 01/02, 01/08, 01/22, and 01/29, the LS #1 and SWF totalizers were reset. Instantaneous flow rate at the time of the water level measurement was used for these dates.
 3: On 01/08, LS #1 and SWF offline due to loss of power from heavy rain at 8:50 pm. Online on 01/09 at 8:02 pm.
 4: Duplicates taken on 01/03 for well PC-117; average of both values is presented and used for calculation.

Nevada Environmental Response Trust Groundwater Extraction and Treatment System Enhanced Operational Metrics																	
Date	LS #3 Flow (gpm)	ART-1/1A		ART-2/2A		ART-3/3A		ART-4/4A		ART-9		ART-7A/7B		ART-8/8A		PC-150	
		Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow ^{a, b, c, d} (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation ² (ft amsl)	Flow (gpm)	Water Elevation ² (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow ^o (gpm)	Water Elevation (ft amsl)
01/01/18	409	41	1582.92	146	1582.08	18	1580.62	0.80	1579.10	63	1581.02	16	1581.99	176	1582.16	1.5	1576.68
01/02/18 ⁸	406	42	1582.86	148	1582.03	19	1580.58	0.80	1579.09	53	1580.99	14	1581.91	175	1582.11	1.5	1576.68
01/03/18	407	41	1582.83	149	1582.00	18	1580.56	0.76	1579.11	62	1581.00	16	1581.60	177	1582.09	1.5	1576.68
01/04/18	406	41	1582.81	149	1581.98	18	1580.54	0.76	1579.10	62	1581.00	16	1580.19	177	1582.07	1.5	1576.70
01/05/18	406	41	1582.79	148	1581.95	17	1580.52	0.76	1579.10	62	1581.00	16	1580.06	177	1582.05	1.5	1576.70
01/06/18	404	40	1582.78	149	1581.94	18	1580.51	0.76	1579.11	62	1580.98	16	1581.25	177	1582.04	1.5	1576.70
01/07/18	405	40	1582.76	147	1581.92	18	1580.50	0.76	1579.10	62	1580.97	16	1580.72	176	1582.02	1.5	1576.70
01/08/18 ⁴	415	41	1582.74	146	1581.91	21	1580.49	0.76	1579.11	75	1580.94	12	1579.95	177	1582.01	1.5	1576.70
01/09/18	202	20	1582.73	74	1581.89	8.7	1580.48	0.76	1579.10	31	< 1575.00	7.7	< 1578.00	88	1582.00	1.5	1576.70
01/10/18	389	41	1582.77	148	1581.94	18	1580.50	0.17	1579.10	61	1580.97	15	1581.42	177	1582.03	1.5	1576.70
01/11/18	416	40	1582.83	148	1582.00	17	1580.55	0.12	1579.10	61	1580.91	15	1580.12	176	1582.08	1.5	1576.70
01/12/18	406	40	1582.85	149	1582.05	18	1580.56	0.06	1579.10	61	1580.90	15	1580.54	177	1582.10	1.5	1576.70
01/13/18	402	40	1582.91	143	1582.21	17	1580.60	0.08	1579.10	61	1580.92	16	1579.95	176	1582.16	1.5	1576.70
01/14/18	401	40	1582.94	142	1582.23	18	1580.63	0.09	1579.10	61	1580.91	16	1579.23	175	1582.18	1.5	1576.70
01/15/18	385	40	1582.95	142	1582.15	18	1580.64	0.10	1582.29	61	1580.92	16	1580.79	176	1582.19	1.5	1576.70
01/16/18	418	40	1582.90	146	1582.11	18	1580.61	0.04	1582.36	60	1580.91	16	1580.68	175	1582.14	1.5	1576.70
01/17/18	404	40	1582.88	147	1582.05	18	1580.60	0.00	1582.35	61	1580.90	16	1580.15	176	1582.13	1.5	1576.70
01/18/18	404	40	1582.87	147	1582.04	17	1580.59	0.00	1582.34	61	1580.92	16	1581.46	176	1582.12	1.5	1576.70
01/19/18	403	40	1582.90	145	1582.19	18	1580.61	3.5	1582.36	61	1580.92	16	1579.91	176	1582.15	1.5	1576.70
01/20/18	400	40	1582.91	142	1582.20	18	1580.61	3.5	1582.37	60	1580.91	16	1581.94	175	1582.16	1.5	1576.69
01/21/18	399	40	1582.92	142	1582.21	18	1580.62	3.5	1582.38	60	1580.89	16	1579.94	176	1582.16	1.5	1576.69
01/22/18 ⁸	431	40	1582.87	149	1582.05	21	1580.60	3.5	1582.34	52	1580.87	22	1580.83	180	1582.13	1.5	1576.69
01/23/18	404	40	1582.85	148	1582.03	18	1580.58	3.5	< 1575.00	60	1580.90	16	1581.49	178	1582.11	1.5	1576.69
01/24/18	404	41	1582.84	149	1582.01	17	1580.57	4.0	< 1575.00	61	1580.90	16	1580.01	178	1582.10	1.5	1576.69
01/25/18	404	40	1582.83	149	1582.00	17	1580.56	4.0	< 1575.00	60	1580.90	16	1580.30	178	1582.09	1.5	1576.69
01/26/18	400	40	1582.89	144	1582.17	18	1580.60	4.0	1579.12	60	1580.89	16	1581.10	178	1582.14	1.5	1576.69
01/27/18	398	40	1582.91	140	1582.20	18	1580.62	4.0	1579.12	60	1580.90	16	1579.91	177	1582.16	1.5	1576.69
01/28/18	398	40	1582.93	140	1582.21	18	1580.63	4.0	1579.12	60	1580.89	16	1579.85	177	1582.18	1.5	1576.69
01/29/18 ⁸	335	40	1582.94	138	1582.22	23	1580.64	4.0	1579.12	75	1580.91	17	1581.67	180	1582.19	1.5	1576.69
01/30/18	398	40	1582.95	140	1582.24	18	1580.66	4.0	1579.12	60	1580.90	17	1580.33	178	1582.20	1.5	1576.69
01/31/18	398	40	1582.97	140	1582.26	18	1580.67	4.0	1579.12	60	1580.91	16	1580.69	178	1582.22	1.5	1576.69
Monthly Average	395	40	1582.87	143	1582.08	18	1580.58	1.8	1579.55	60	1580.74	16	1580.58	174	1582.12	1.5	1576.69
Analytical ¹		Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc ⁸ (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date
Perchlorate		22	1/4/2018	15	1/4/2018	170	1/4/2018	120	1/4/2018	170	1/4/2018	95	1/4/2018	81	1/4/2018	80	1/4/2018
Hexavalent Chromium		ND	1/4/2018	0.0082	1/4/2018	0.36	1/4/2018	0.16	1/4/2018	0.68	1/4/2018	0.58	1/4/2018	0.11	1/4/2018	0.068	1/4/2018
Total Chromium		ND	1/4/2018	0.0094	1/4/2018	0.39	1/4/2018	0.17	1/4/2018	0.73	1/4/2018	0.60	1/4/2018	0.13	1/4/2018	0.071	1/4/2018

Notes:
 Flow reported as gpm is a daily average calculated from the totalizer reading.
 ND = Not detected above laboratory method detection limit (ClO₂ = 0.5 ug/L; ClO₂ = 10 ug/L; NO₂-N = 0.055 mg/L, Cr(VI) = 0.25 ug/L).
 ART-1, 2, 3, 4, 7B, and 8 have adjacent recovery wells, both of which can be used for extraction. The pumping well can be chosen manually or automatically, based on operational considerations. The wells with transducers are ART-1, -2, -3, -4, -7A, -8, -9, and PC-150.
 1: Analytical results are reported from TestAmerica.
 2: A "^a" preceding the water elevation indicates the reported water level is below the transducer. Average monthly water elevation calculations include the transducer elevation in instances where the water level is below the transducer.
 3: On 01/02, 01/08, 01/22, and 01/29, the LS #2 and AWF totalizers were reset. Instantaneous flow rate at the time of the water level measurement was used for these dates.
 4: On 01/08, LS #3 and AWF offline due to loss of power from heavy rain at 8:50 pm. Online on 01/09 at 8:02 pm.
 5: From 01/15 to 01/18, ART-4 motor and flow meter were replaced. Issue was not resolved with this maintenance.
 6: From 01/22-01/23, the VFD for ART-4 was replaced. Issue was not resolved with this maintenance.
 7: On 01/26, wiring for ART-4 panel box was replaced. ART-4 online and ART-4A offline at 11:22 am.
 8: Conducted periodic bucket tests to confirm flow rates for ART-4. Average flow of 3.5 gpm determined from flow tests for 01/19-01/24 and 4.0 gpm for 01/24-01/31 flows is presented and used for calculation purposes. Flow was steady throughout December but the totalizer showed zero flow because totalizer units are 1,000 gallons.
 9: Duplicates taken on 01/04 for well ART-7B; average of both values is presented and used for calculation.
 10: Conducted periodic bucket tests to confirm flow rates for PC-150. Average flow of 1.5 gpm determined from flow tests is presented for 01/01-01/31 flows and used for calculation purposes. Flow was steady throughout December but the totalizer showed zero flow because totalizer units are 1,000 gallons.

Table 3 - Interceptor Well Field (IWF) Operational Metrics

Nevada Environmental Response Trust Groundwater Extraction and Treatment System Enhanced Operational Metrics																				
Date	I-AR		I-AA		I-AB		I-AC		I-AD		I-B		I-C		I-D		I-E		I-F	
	Flow ³ (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation ² (ft amsl)	Flow ⁵ (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation ² (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow ⁸ (gpm)	Water Elevation (ft amsl)	Flow ⁸ (gpm)	Water Elevation (ft amsl)	Flow ⁹ (gpm)	Water Elevation ^{2,9} (ft amsl)
01/01/18	0.22	1724.28	0.94	1710.29	0.00	1719.66	0.00	1723.91	0.00	1725.03	0.52	1709.97	3.7	1707.93	1.3	1717.80	0.56	1717.95	4.2	1711.76
01/02/18 ¹	0.20	1724.64	0.95	1711.50	0.00	1719.69	0.00	1723.91	0.00	1725.03	0.49	1709.96	3.7	1707.87	1.2	1718.44	0.53	1718.02	4.4	1711.82
01/03/18	0.19	1724.71	0.96	1711.77	0.00	1719.70	0.00	1723.92	0.00	1725.04	0.52	1709.97	3.8	1707.95	1.2	1718.90	0.51	1718.20	4.4	1711.86
01/04/18	0.19	1724.68	1.2	1708.09	0.00	1719.58	0.00	1723.91	0.00	1725.03	0.50	1709.94	3.8	1707.86	1.1	1719.28	0.49	1718.21	4.3	1711.74
01/05/18	0.18	1724.92	1.0	1708.17	0.00	1719.70	0.00	1723.91	0.00	1725.04	0.50	1709.93	3.8	1708.82	1.5	1714.87	1.2	1713.24	4.3	1711.59
01/06/18	0.17	1725.24	1.2	1707.16	0.00	1719.54	0.00	1723.92	0.00	1725.04	0.50	1709.94	3.8	1707.88	1.7	1706.14	1.3	1708.50	4.3	1711.67
01/07/18	0.16	1725.57	1.2	1708.35	0.00	1719.52	0.00	1723.92	0.00	1725.04	0.50	1709.94	3.7	1707.98	1.7	1706.16	1.3	1708.52	4.4	1711.56
01/08/18 ⁴	0.15	1725.61	1.1	1707.49	0.00	1719.53	0.00	1723.94	0.00	1725.05	0.50	1709.92	3.8	1707.68	1.6	1706.16	1.2	1710.82	4.4	1711.52
01/09/18	0.07	1725.95	0.58	1708.16	0.00	1719.81	0.00	1723.97	0.00	1725.06	0.25	1709.93	1.9	1708.36	0.82	1706.17	0.42	1716.15	2.2	1711.52
01/10/18	0.15	1725.20	1.2	1707.33	0.00	1720.01	0.01	1723.85	0.01	1724.04	0.51	1709.93	3.7	1708.73	1.6	1706.16	0.79	1712.04	4.3	1711.51
01/11/18	0.23	1724.37	1.2	1707.40	0.00	NM	0.00	1723.86	0.00	1725.03	0.51	1709.91	3.7	1708.92	1.7	1707.12	1.2	1708.50	4.3	1710.96
01/12/18	0.21	1724.57	1.2	1707.47	0.00	NM	0.00	1723.84	0.00	1725.03	0.50	1709.94	3.8	1709.11	1.6	1707.30	1.3	1708.50	4.3	1710.20
01/13/18	0.21	1724.71	1.2	1707.37	0.00	NM	0.00	1723.85	0.00	1725.03	0.50	1709.93	3.8	1708.93	1.6	1709.87	1.3	1708.50	4.3	1710.76
01/14/18	0.21	1724.95	1.2	1706.72	0.00	NM	0.00	1723.88	0.00	1725.01	0.50	1709.93	3.8	1708.76	1.6	1709.72	1.3	1708.50	4.4	1710.91
01/15/18	0.20	1725.23	1.2	1706.51	0.00	NM	0.00	1723.88	0.00	1725.06	0.50	1709.93	3.8	1709.17	1.6	1711.20	1.3	1708.49	4.2	< 1705.00
01/16/18	0.19	1725.97	1.2	1706.28	0.00	NM	0.00	1723.87	0.00	1725.06	0.50	1709.93	3.8	1708.52	1.5	1712.71	1.3	1708.49	3.8	< 1705.00
01/17/18	0.18	1726.26	1.2	1706.66	0.00	NM	0.00	1723.87	0.00	1725.06	0.51	1709.96	3.8	1709.28	1.5	1715.07	1.3	1708.49	3.7	< 1705.00
01/18/18	0.18	1726.46	1.2	1706.89	0.00	NM	0.00	1723.91	0.00	1725.08	0.51	1709.94	3.9	1708.89	1.5	1713.75	1.3	1708.50	3.9	1705.32
01/19/18	0.18	1726.07	1.2	1707.15	0.00	NM	0.00	1723.96	0.00	1725.10	0.51	1709.95	3.9	1709.06	1.5	1716.33	1.3	1708.50	4.2	1709.53
01/20/18	0.19	1726.03	1.2	1706.94	0.00	NM	0.00	1723.88	0.00	1725.08	0.52	1709.94	3.9	1708.82	1.4	1717.05	1.3	1708.49	4.2	1710.66
01/21/18	0.19	1726.05	1.2	1706.83	0.00	NM	0.00	1723.85	0.00	1725.07	0.52	1709.94	3.9	1707.89	1.4	1717.64	1.3	1708.50	4.2	1711.02
01/22/18 ¹	0.19	1726.15	1.2	1707.42	0.00	NM	0.00	1723.87	0.00	1725.08	0.51	1709.94	3.7	1707.93	1.4	1718.19	1.3	1708.50	4.4	1711.23
01/23/18	0.18	1725.96	1.2	1707.42	0.00	NM	0.00	1723.88	0.00	1725.09	0.52	1709.94	3.9	1707.93	1.4	1718.65	1.3	1708.49	4.4	1711.40
01/24/18	0.18	1725.85	1.2	1707.41	0.00	NM	0.00	1723.93	0.00	1725.11	0.51	1709.96	4.0	1707.91	1.4	1718.79	1.3	1708.49	4.4	1711.58
01/25/18	0.18	1725.74	1.2	1707.26	0.00	NM	0.00	1723.92	0.00	1725.11	0.50	1709.99	4.0	1707.92	1.4	1719.30	1.3	1708.50	4.3	1711.69
01/26/18	0.18	1725.74	1.2	1707.22	0.00	NM	0.00	1723.89	0.00	1725.11	0.50	1709.96	4.0	1708.15	1.3	1719.63	1.3	1708.51	4.3	1711.79
01/27/18	0.17	1725.69	1.2	1706.72	0.00	NM	0.00	1723.88	0.00	1725.10	0.51	1709.96	4.0	1708.11	1.3	1719.90	1.3	1708.51	4.4	1711.88
01/28/18	0.17	1725.63	1.2	1706.79	0.00	NM	0.00	1723.89	0.00	1725.11	0.51	1709.99	4.0	1707.88	1.3	1720.12	1.4	1708.51	4.5	1711.98
01/29/18 ¹	0.17	1725.63	1.2	1707.42	0.00	NM	0.00	1723.93	0.00	1725.12	0.53	1709.98	3.7	1707.93	1.3	1720.33	1.4	1708.71	4.4	1712.07
01/30/18	0.17	1725.58	1.2	1707.47	0.00	NM	0.00	1723.96	0.00	1725.14	0.51	1710.00	4.0	1707.83	1.3	1720.46	1.4	1709.07	4.4	1712.16
01/31/18	0.16	1725.50	1.2	1707.33	0.00	NM	0.00	1723.96	0.00	1725.14	0.51	1709.97	4.0	1707.88	1.3	1720.55	1.4	1708.72	4.4	1712.23
Monthly Average	0.18	1725.45	1.1	1707.64	0.00	1719.67	0.00	1723.90	0.00	1725.04	0.50	1709.95	3.8	1708.32	1.4	1714.64	1.2	1710.36	4.2	1710.61
Analytical ¹	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc ¹ (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date
Perchlorate	1.400	1/23/2018	59	1/23/2018	NM	NM	240	1/10/2018	130	1/10/2018	270	1/23/2018	600	1/23/2018	520	1/23/2018	490	1/23/2018	660	1/23/2018
Hexavalent Chromium	0.13	1/23/2018	0.057	1/23/2018	NM	NM	2.1	1/10/2018	1.0	1/10/2018	0.058	1/23/2018	2.0	1/23/2018	4.8	1/23/2018	6.1	1/23/2018	12	1/23/2018
Total Chromium	0.33	1/23/2018	0.059	1/23/2018	NM	NM	2.1	1/10/2018	1.2	1/10/2018	0.081	1/23/2018	2.1 B	1/23/2018	4.7 B	1/23/2018	6.2 B	1/23/2018	12	1/23/2018

Notes:
 Flow reported as gpm is a daily average calculated from the totalizer reading.
 B = Compound was found in the blank and sample.
 NM = No measurements
 1: Analytical results are reported from TestAmerica.
 2: A "c" preceding the water elevation indicates the reported water level is below the transducer. Average monthly water elevation calculations include the transducer elevation in instances where the water level is below or above the transducer.
 3: On 01/02, 01/08, 01/22, and 01/29, the IWF totalizers were reset. Instantaneous flow rate at the time of the water level measurement was used for these dates.
 4: On 01/08, IWF offline due to loss of power from heavy rain at 8:50 pm. Online on 01/09 at 8:02 pm.
 5: On 01/10, I-AR and I-G adjusted to meet flow target as directed by the Trust.
 6: On 01/11, all power to I-AB was disconnected due to heavy rain causing a 3-foot sinkhole around the well.
 7: On 01/10, I-AB was unable to be sampled due to heavy rain causing a 3-foot sinkhole around the well.
 8: On 01/05 and 01/06, I-D and I-E adjusted to meet flow target as directed by the Trust.
 9: From 01/15-01/18, I-F, I-G, I-Q, and I-X were impacted by the 78-hour vacuum test.

Table 3 - Interceptor Well Field (IWF) Operational Metrics

Nevada Environmental Response Trust Groundwater Extraction and Treatment System Enhanced Operational Metrics																				
Date	I-G		I-H		I-I		I-J		I-K		I-L		I-M		I-N		I-O		I-P	
	Flow ^{9,10} (gpm)	Water Elevation ⁹ (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow ¹¹ (gpm)	Water Elevation (ft amsl)
01/01/18	0.09	1716.55	1.2	1719.35	5.2	1721.57	6.6	1707.06	3.0	1715.40	1.2	1714.25	1.9	1717.89	3.6	1712.64	0.94	1721.38	1.6	1720.80
01/02/18 ⁹	0.14	1717.56	1.1	1719.47	5.0	1721.58	6.5	1707.06	3.1	1715.41	1.2	1714.93	1.8	1718.33	4.0	1712.63	0.91	1721.39	1.8	1720.82
01/03/18	0.11	1715.50	1.1	1719.57	5.0	1721.60	6.5	1707.07	3.1	1715.43	1.1	1715.12	1.8	1718.59	3.7	1712.67	0.90	1721.41	1.7	1720.88
01/04/18	0.10	1716.18	1.1	1719.62	5.0	1721.60	6.5	1707.06	3.1	1715.37	1.4	1711.43	1.8	1718.59	3.7	1712.64	0.90	1721.42	1.7	1720.89
01/05/18	0.10	1716.84	1.1	1719.69	5.0	1721.60	6.5	1707.06	3.1	1715.38	1.4	1711.51	1.8	1718.59	3.6	1712.64	0.90	1721.42	1.7	1720.89
01/06/18	0.10	1716.73	1.1	1719.76	5.0	1721.62	6.6	1707.06	3.0	1715.40	1.4	1711.40	1.8	1718.45	3.5	1712.66	0.91	1721.44	1.8	1720.91
01/07/18	0.10	1716.26	1.1	1719.77	4.9	1721.62	6.4	1707.06	3.0	1715.42	1.4	1711.42	1.8	1718.63	3.5	1712.71	0.90	1721.45	1.8	1720.93
01/08/18 ⁴	0.18	1716.94	1.1	1719.80	5.0	1721.64	6.6	1707.06	3.1	1715.47	1.4	1711.41	1.8	1718.38	3.1	1712.68	0.91	1721.46	1.7	1720.96
01/09/18	0.03	1717.37	0.51	1720.02	2.5	1721.66	3.3	1707.06	1.5	1715.49	0.69	1711.39	0.81	1718.76	1.7	1712.70	0.45	1721.50	0.87	1721.01
01/10/18	0.11	1717.98	0.98	1719.07	5.0	1721.65	6.5	1707.06	3.1	1715.40	1.4	1711.25	1.6	1718.75	3.5	1712.67	0.90	1721.49	1.8	1721.01
01/11/18	0.15	1717.87	1.3	1719.12	5.0	1721.63	6.5	1707.07	3.0	1715.45	1.3	1711.00	1.6	1718.68	3.4	1712.71	0.90	1721.45	1.8	1720.95
01/12/18	0.16	1717.76	1.2	1719.24	5.0	1721.62	6.6	1707.07	3.0	1715.42	1.4	1711.41	1.6	1718.68	3.4	1712.67	0.90	1721.44	1.8	1720.92
01/13/18	0.15	1717.91	1.2	1719.12	4.9	1721.62	6.6	1707.07	3.0	1715.41	1.4	1711.41	1.6	1718.69	3.4	1712.69	0.90	1721.43	1.8	1720.91
01/14/18	0.16	1717.71	1.2	1719.32	4.9	1721.63	6.6	1707.07	3.0	1715.45	1.4	1711.41	1.6	1718.50	3.4	1712.72	0.90	1721.44	1.8	1720.93
01/15/18	0.14	1713.31	1.2	1719.62	4.9	1721.64	6.6	1707.07	3.0	1715.51	1.4	1711.41	1.6	1718.55	3.4	1712.71	0.88	1721.45	1.8	1720.95
01/16/18	0.14	1713.27	1.1	1719.63	4.9	1721.64	6.6	1707.08	3.0	1715.51	1.4	1711.41	1.6	1718.49	3.3	1712.70	0.88	1721.46	1.8	1720.95
01/17/18	0.14	1712.86	1.2	1719.50	5.0	1721.65	6.6	1707.08	3.0	1715.53	1.5	1711.40	1.6	1718.39	3.3	1712.63	0.88	1721.44	1.8	1720.37
01/18/18	0.15	1713.59	1.2	1719.52	5.2	1721.65	6.6	1707.08	3.0	1715.61	1.5	1711.40	1.6	1718.57	3.3	1712.67	0.88	1721.40	2.4	1720.38
01/19/18	0.15	1713.75	1.2	1719.44	5.2	1721.67	6.6	1707.08	3.0	1715.67	1.5	1711.41	1.5	1718.68	3.4	1712.71	0.88	1721.41	2.3	1720.45
01/20/18	0.15	1711.90	1.2	1719.46	5.2	1721.61	6.6	1707.07	3.0	1715.73	1.5	1711.41	1.5	1719.04	3.5	1712.66	0.88	1721.38	2.2	1720.42
01/21/18	0.15	1711.55	1.2	1719.36	5.2	1721.61	6.6	1707.07	3.0	1715.61	1.5	1711.40	1.5	1719.07	3.6	1712.64	0.92	1721.37	2.1	1720.39
01/22/18 ⁹	0.23	1711.56	1.1	1719.41	5.0	1721.63	6.5	1707.08	3.1	1715.61	1.5	1711.41	1.5	1719.21	3.6	1712.68	0.90	1721.39	2.1	1720.48
01/23/18	0.13	1713.79	1.1	1719.41	5.0	1721.65	6.6	1707.07	3.1	1715.63	1.5	1711.40	1.5	1719.28	3.8	1712.65	0.90	1721.42	2.1	1720.50
01/24/18	0.13	1713.74	1.1	1719.61	5.0	1721.69	6.6	1707.07	3.0	1715.71	1.5	1711.41	1.6	1719.29	3.8	1714.27	0.90	1721.46	2.1	1720.64
01/25/18	0.13	1713.77	1.1	1719.68	5.0	1721.76	6.7	1707.07	3.0	1715.81	1.5	1711.41	1.6	1719.27	3.8	1714.90	0.90	1721.52	2.1	1720.77
01/26/18	0.13	1713.05	1.1	1719.77	5.1	1721.72	6.6	1707.07	3.0	1715.77	1.5	1711.41	1.5	1719.22	3.8	1715.59	0.91	1721.53	2.1	1720.80
01/27/18	0.13	1714.08	1.1	1719.78	5.2	1721.73	6.6	1707.07	3.0	1715.80	1.5	1711.41	1.5	1719.48	3.7	1716.37	0.91	1721.55	2.0	1720.86
01/28/18	0.13	1714.38	1.1	1719.81	5.2	1721.75	6.6	1707.07	3.0	1715.80	1.5	1711.41	1.5	1719.54	3.7	1716.78	0.90	1721.57	2.0	1720.90
01/29/18 ⁹	0.22	1714.63	1.1	1719.87	5.1	1721.78	6.6	1707.07	3.1	1715.78	1.5	1711.41	1.6	1719.64	3.7	1717.08	0.91	1721.60	2.0	1720.94
01/30/18	0.13	1714.76	1.1	1719.94	5.1	1721.80	6.7	1707.08	3.0	1715.96	1.5	1711.41	1.5	1719.57	3.7	1717.30	0.90	1721.64	2.0	1721.02
01/31/18	0.13	1714.86	1.1	1719.97	5.1	1721.81	6.7	1707.08	3.0	1715.97	1.5	1711.44	1.5	1719.74	3.7	1717.44	0.90	1721.71	2.0	1721.04
Monthly Average	0.13	1715.10	1.1	1719.57	5.0	1721.66	6.5	1707.07	3.0	1715.58	1.4	1711.72	1.6	1718.85	3.5	1713.61	0.88	1721.47	1.9	1720.80
Analytical ¹	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date
Perchlorate	1,400	1/23/2018	1,100	1/23/2018	880	1/10/2018	280	1/10/2018	220	1/10/2018	460	1/23/2018	730	1/23/2018	480	1/23/2018	850	1/23/2018	980	1/23/2018
Hexavalent Chromium	20	1/23/2018	14	1/23/2018	9.9	1/10/2018	3.9	1/10/2018	2.2	1/10/2018	0.60	1/23/2018	6.1	1/23/2018	6.1	1/23/2018	16	1/23/2018	15	1/23/2018
Total Chromium	19	1/23/2018	15	1/23/2018	12	1/10/2018	4.1	1/10/2018	2.3	1/10/2018	0.60 B	1/23/2018	6.2 B	1/23/2018	6.4	1/23/2018	17	1/23/2018	16	1/23/2018

Notes:
 Flow reported as gpm is a daily average calculated from the totalizer reading.
 B = Compound was found in the blank and sample.
 1: Analytical results are reported from TestAmerica.
 2: A "c" preceding the water elevation indicates the reported water level is below the transducer. Average monthly water elevation calculations include the transducer elevation in instances where the water level is below or above the transducer.
 3: On 01/02, 01/08, 01/22, and 01/29, the IWF totalizers were reset. Instantaneous flow rate at the time of the water level measurement was used for these dates.
 4: On 01/08, IWF offline due to loss of power from heavy rain at 8:50 pm. Online on 01/09 at 8:02 pm.
 5: On 01/10, I-AR and I-G adjusted to meet flow target as directed by the Trust.
 9: From 01/15-01/18, I-F, I-G, I-Q, and I-X were impacted by the 78-hour vacuum test.
 10: On 01/03, I-G and I-Q adjusted to meet flow target as directed by the Trust.
 11: On 01/17, the pump for I-P was replaced.

Table 3 - Interceptor Well Field (IWF) Operational Metrics

Nevada Environmental Response Trust Groundwater Extraction and Treatment System Enhanced Operational Metrics																				
Date	I-Q		I-R		I-S		I-T		I-U		I-V		I-W		I-X		I-Y		I-Z	
	Flow ^{9, 10, 12, 13} (gpm)	Water Elevation ⁹ (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow ⁹ (gpm)	Water Elevation ^{9, 15} (ft amsl)	Flow (gpm)	Water Elevation ² (ft amsl)	Flow ¹⁶ (gpm)	Water Elevation ² (ft amsl)
01/01/18	0.20	1718.55	1.4	1714.34	2.5	1711.00	0.33	1712.55	0.83	1708.38	4.2	1719.18	0.29	1720.59	3.3	1712.01	1.1	1715.43	7.5	< 1707.89
01/02/18 ⁴	0.13	1718.60	1.5	1714.13	2.5	1711.00	0.33	1712.62	0.84	1708.48	4.3	1719.20	0.30	1720.60	3.3	1712.48	1.2	1715.27	7.6	< 1707.89
01/03/18	0.18	1718.32	1.5	1714.06	2.5	1711.01	0.34	1712.62	0.85	1708.85	4.3	1719.23	0.30	1720.64	3.3	1712.72	1.2	1715.54	7.8	< 1707.89
01/04/18	0.16	1718.53	1.5	1713.62	2.4	1711.02	0.33	1712.66	0.84	1708.64	4.3	1719.24	0.30	1720.59	3.7	1702.88	1.5	1709.72	7.8	< 1707.89
01/05/18	0.19	1717.03	1.5	1713.75	2.4	1711.00	0.33	1712.64	0.85	1708.83	4.3	1719.24	0.32	1720.60	3.6	1707.32	1.3	1707.86	7.8	< 1707.89
01/06/18	0.22	1717.20	1.5	1713.46	2.4	1711.02	0.34	1712.69	0.76	1710.91	4.3	1719.26	0.32	1720.61	3.4	1702.86	1.5	< 1705.00	7.8	< 1707.89
01/07/18	0.22	1717.76	1.5	1713.41	2.4	1711.02	0.34	1712.74	0.76	1710.62	4.4	1719.27	0.33	1720.59	3.7	1702.86	1.4	< 1705.00	7.8	< 1707.89
01/08/18 ⁴	0.22	1717.37	1.5	1713.49	2.3	1711.00	0.33	1712.80	0.76	1710.76	4.4	1719.31	0.31	1720.63	3.4	1702.86	1.5	< 1705.00	7.9	< 1707.89
01/09/18	0.10	1717.46	0.74	1713.52	1.2	1711.02	0.16	1713.01	0.38	1710.82	2.2	1719.35	0.13	1720.85	3.7	1702.86	0.73	< 1705.00	3.9	< 1707.89
01/10/18	0.24	1718.54	1.4	1714.79	1.9	1711.84	0.33	1712.90	0.75	1710.96	4.3	1719.31	0.28	1720.68	3.7	1698.41	1.4	< 1707.79	7.8	< 1707.89
01/11/18	0.26	1718.53	1.4	1714.49	2.3	1711.02	0.33	1712.85	0.76	1710.87	4.3	1719.28	0.36	1720.53	3.6	1698.59	1.4	1708.01	7.8	< 1707.89
01/12/18	0.25	1718.51	1.2	1714.46	2.5	1711.01	0.33	1712.80	0.76	1710.80	4.3	1719.26	0.37	1720.50	3.6	1698.78	1.4	1709.57	7.8	< 1707.89
01/13/18	0.25	1718.59	1.3	1714.30	2.5	1711.01	0.32	1712.79	0.76	1710.85	4.4	1719.25	0.38	1720.46	3.6	1698.56	1.4	1707.46	7.8	< 1707.89
01/14/18	0.24	1718.46	1.4	1714.22	2.5	1711.02	0.32	1712.84	0.76	1710.80	4.4	1719.27	0.39	1720.45	3.6	1700.86	1.4	1706.90	7.9	< 1707.89
01/15/18	0.23	1716.71	1.5	1713.65	2.5	1711.02	0.32	1712.80	0.76	1710.80	4.4	1719.29	0.40	1720.46	3.5	1706.37	1.4	1706.35	8.0	< 1707.89
01/16/18	0.22	1716.12	1.5	1713.30	2.5	1711.01	0.32	1712.66	0.76	1710.86	4.4	1719.28	0.40	1720.46	3.4	1699.13	1.4	1706.86	8.0	< 1707.89
01/17/18	0.22	1716.20	1.5	1713.59	2.6	1711.02	0.32	1712.61	0.76	1710.56	4.4	1719.29	0.40	1720.40	3.4	1709.86	1.4	1708.20	8.0	< 1707.89
01/18/18	0.21	1716.65	1.5	1713.93	2.6	1711.02	0.32	1712.60	0.78	1710.09	4.4	1719.27	0.40	1720.36	3.4	1699.41	1.4	1708.70	8.0	< 1707.89
01/19/18	0.22	1718.16	1.5	1713.98	2.6	1711.03	0.32	1712.69	0.81	1710.08	4.2	1719.30	0.41	1720.37	3.5	1701.34	1.4	1708.45	8.0	< 1707.89
01/20/18	0.23	1716.95	1.5	1713.92	2.6	1711.02	0.32	1712.70	0.77	1710.18	4.2	1719.23	0.41	1720.30	3.6	1698.76	1.4	1708.57	7.5	< 1707.89
01/21/18	0.21	1716.88	1.5	1713.92	2.7	1711.02	0.32	1712.75	0.78	1710.26	4.2	1719.21	0.41	1720.30	3.6	1699.61	1.4	1709.94	7.5	< 1707.89
01/22/18 ⁴	0.24	1718.06	1.5	1714.10	2.7	1711.04	0.33	1712.77	0.79	1710.18	4.3	1719.25	0.40	1720.32	4.0	1698.59	1.4	1709.52	7.8	< 1707.89
01/23/18	0.25	1718.12	1.5	1714.18	2.6	1711.01	0.33	1712.75	0.77	1710.52	4.3	1719.27	0.41	1720.36	3.8	1710.97	1.4	1709.43	7.9	< 1707.89
01/24/18	0.24	1718.18	1.5	1714.08	2.9	1711.02	0.33	1712.87	0.77	1710.69	4.3	1719.34	0.40	1720.43	3.8	1708.96	1.4	1707.59	7.9	< 1707.89
01/25/18	0.21	1718.16	1.5	1714.21	2.8	1711.01	0.33	1712.90	0.76	1710.84	4.3	1719.43	0.32	1720.69	3.9	1708.47	1.4	1707.14	6.9	< 1707.89
01/26/18	0.21	1718.14	1.5	1714.26	2.8	1711.01	0.33	1712.97	0.75	1711.23	4.3	1719.41	0.30	1720.70	3.9	1706.04	1.4	1707.77	8.1	< 1707.89
01/27/18	0.22	1717.32	1.5	1714.21	2.8	1711.01	0.33	1713.02	0.74	1711.17	4.4	1719.43	0.29	1720.72	4.0	1702.86	1.4	1707.08	8.1	< 1707.89
01/28/18	0.20	1717.63	1.5	1714.21	2.8	1711.01	0.33	1713.17	0.77	1709.84	4.5	1719.46	0.29	1720.74	4.0	1699.02	1.4	1707.44	8.0	< 1707.89
01/29/18 ⁴	0.18	1718.91	1.5	1714.19	2.8	1711.01	0.32	1713.24	0.80	1710.19	4.4	1719.50	0.30	1720.79	4.1	1704.03	1.5	1707.36	8.2	< 1707.89
01/30/18	0.15	1718.90	1.5	1714.17	2.8	1711.01	0.33	1713.24	0.81	1709.88	4.3	1719.55	0.31	1720.83	4.1	1703.50	1.4	1706.82	8.1	< 1707.89
01/31/18	0.16	1719.11	1.5	1714.25	2.8	1711.01	0.33	1713.28	0.81	1710.18	4.3	1719.57	0.34	1720.70	4.1	1704.82	1.4	1707.92	8.1	< 1707.89
Monthly Average	0.21	1717.86	1.4	1714.01	2.5	1711.23	0.32	1712.82	0.77	1710.26	4.3	1719.31	0.34	1720.56	3.7	1703.73	1.4	1708.34	7.7	< 1707.89
Analytical ¹	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date
Perchlorate	1,300	1/23/2018	800	1/23/2018	430	1/23/2018	1,400	1/23/2018	1,500	1/23/2018	835	1/10/2018	840	1/23/2018	1,000	1/23/2018	810	1/23/2018	400	1/10/2018
Hexavalent Chromium	16	1/23/2018	0.30	1/23/2018	0.94	1/23/2018	19	1/23/2018	18	1/23/2018	14.5	1/10/2018	16	1/23/2018	8.8	1/23/2018	0.52	1/23/2018	8.4	1/10/2018
Total Chromium	16	1/23/2018	0.35 B	1/23/2018	0.94 B	1/23/2018	19	1/23/2018	19	1/23/2018	17.5	1/10/2018	16	1/23/2018	9.0	1/23/2018	0.54 B	1/23/2018	9.9	1/10/2018

Notes:
 Flow reported as gpm is a daily average calculated from the totalizer reading.
 B = Compound was found in the blank and sample.
 1: Analytical results are reported from TestAmerica.
 2: A "<" preceding the water elevation indicates the reported water level is below the transducer. Average monthly water elevation calculations include the transducer elevation in instances where the water level is below or above the transducer.
 3: On 01/02, 01/08, 01/22, and 01/29, the IWF totalizers were reset. Instantaneous flow rate at the time of the water level measurement was used for these dates.
 4: On 01/08, IWF offline due to loss of power from heavy rain at 8:50 pm. Online on 01/09 at 8:02 pm.
 9: From 01/15-01/18, I-F, I-G, I-Q, and I-X were impacted by the 78-hour vacuum test.
 10: On 01/03, I-G and I-Q adjusted to meet flow target as directed by the Trust.
 12: On 01/01 and 01/30, I-Q adjusted to meet flow target as directed by the Trust.
 13: On 01/04, motor for I-Q was replaced.
 14: Duplicates taken on 01/10 for well I-V; average of both values is presented and used for calculation purposes.
 15: On 01/14, it was confirmed the I-X transducer had failed. Previous water elevation measurements are suspect. Manual water level measurements will be taken going forward and started on 01/06.
 16: On 01/25, motor for I-Z was replaced.

Table 4 - Treatment Plant Operational Metrics

Nevada Environmental Response Trust Groundwater Extraction and Treatment System Enhanced Operational Metrics																
Date	LS #2	GWTP Effluent ¹				GW-11 Influent ¹				FBR Plant Influent ¹						
	Flow (gpm)	Flow (gpm)	TA - Cr (TR) (mg/L)	TA - Cr (VI) (mg/L)	TA - ClO ₂ (mg/L)	Flow ⁵ (gpm)	TA - Cr (TR) (mg/L)	TA - Cr (VI) (mg/L)	TA - ClO ₂ (mg/L)	Flow ^{5 6} (gpm)	TA - ClO ₂ (mg/L)	ETI - ClO ₂ (mg/L)	TA - ClO ₃ (mg/L)	TA - NO ₂ - N (mg/L)	TA - Cr (TR) (mg/L)	TA - Cr (VI) (mg/L)
01/01/18	957	77				0.00				1,050		233				
01/02/18 ³	959	76				0.00				1,048		199	150	13	0.049	0.029
01/03/18	957	76				0.00				1,050		222				
01/04/18	953	78	0.26	ND	740	0.00				1,074		219				
01/05/18	952	79				0.00				1,070		206				
01/06/18	952	77				0.00				1,069	230	254				
01/07/18	953	77				0.00				1,043		277				
01/08/18 ^{3 4}	215	77				0.00				371		265		13	0.039	0.020
01/09/18	246	74				0.00				868		209				
01/10/18	922	76				0.00				1,025		268				
01/11/18	989	79	0.17	ND	610	0.00				1,083		240				
01/12/18	958	79				0.00				1,075		219				
01/13/18	953	80				0.00				1,055	240	233				
01/14/18	952	80				0.00				1,051		267				
01/15/18	915	79				0.00				1,012		198		14	0.044	0.031
01/16/18	993	77				0.00				1,083		204				
01/17/18	955	77				0.00				1,033		238				
01/18/18	956	80	0.25 B	ND	720	3.8	0.086 B	0.062	49	1,057		244				
01/19/18	954	81				0.00				1,057		268				
01/20/18	950	82				0.00				1,056	280	233				
01/21/18	952	81				0.00				1,052		265				
01/22/18 ³	930	81				0.00				1,027		273		14	0.050	0.041
01/23/18	954	82				0.00				1,051		187				
01/24/18	954	82				0.00				1,077		166				
01/25/18	953	81	0.45	ND	650	0.00				1,086		285				
01/26/18	950	82				0.00				1,066		266				
01/27/18	947	82				0.00				1,029	250	281				
01/28/18	948	83				0.00				1,059		315				
01/29/18 ³	1,056	82				0.00				1,165		219		13	0.043	0.029
01/30/18	948	81				0.00				1,063		250				
01/31/18	948	83				0.00				1,064		246				
Monthly Average ²	909	79	0.30	ND	677	0.12	0.09	0.062	49	1,031	249	240	150	13	0.045	0.031

Notes:

- Flow reported as gpm is a daily average calculated from the totalizer reading.
- ND = Not detected above laboratory method detection limit (ClO₂ = 0.5 ug/L; ClO₃ = 10 ug/L; NO₂-N = 0.055 mg/L, Cr(VI) = 0.25 ug/L).
- B = Compound was found in the blank and sample.
- 1: ETI = Envirogen internal process control data, TA = TestAmerica data.
- 2: All average concentrations reported are monthly flow weighted averages.
- 3: On 01/02, 01/08, 01/22, and 01/29, LS #2 totalizer was reset. Instantaneous flow rate at the time of the water level measurement was used for these dates.
- 4: On 01/08, LS #2 offline due to loss of power from heavy rain at 8:50 pm. Online on 01/09 at 8:02 pm.
- 5: Flows bypassed GW-11 Influent and FBR Plant Influent totalizers from 01/01 to 01/31 due to FBR plant influent strainers clogging, except for monthly sampling.
- 6: From 01/01 to 01/31, the FBR Plant Influent Flow was estimated by summing flows for LS #2, GWTP Effluent, and GW-11 Effluent.

Table 4 - Treatment Plant Operational Metrics

Nevada Environmental Response Trust Groundwater Extraction and Treatment System Enhanced Operational Metrics														
Date	1st Stage FBR ⁷			2nd Stage FBR ⁷			FBR Plant Effluent ¹							
	Flow (gpm)	pH (s.u.)	ORP (mV)	Flow (gpm)	pH (s.u.)	ORP (mV)	Flow ⁸ (gpm)	TA - ClO ₄ (mg/L)	ETI - ClO ₄ (mg/L)	TA - ClO ₃ (mg/L)	TA - Cr (TR) (mg/L)	TA - Cr (VI) (mg/L)	TA - NO ₃ - N (mg/L)	ETI - Turbidity (NTU)
01/01/18	1,178	6.6	-364	1,004	6.5	-361	1,099		ND					3
01/02/18	1,160	6.6	-264	1,927	6.5	-359	1,087		ND	0.021	0.0057	ND	ND	4
01/03/18	1,199	6.6	-312	1,746	6.6	-364	1,088		ND					7
01/04/18	1,188	6.6	-288	1,808	6.5	-362	1,116		ND					6
01/05/18	1,185	6.6	-332	1,876	6.5	-357	1,110		ND					2
01/06/18	1,187	6.6	-307	1,842	6.6	-361	1,108	ND	ND					2
01/07/18	1,153	6.6	-280	1,857	6.5	-357	1,081	ND	ND					3
01/08/18	1,187	6.6	-198	1,865	6.6	-366	1,029	ND	ND		0.011	ND	ND	2
01/09/18	1,177	6.5	-307	1,942	6.5	-363	802	ND	ND					13
01/10/18	1,187	6.6	-384	1,926	6.5	-361	1,097	ND	ND					3
01/11/18	1,225	6.7	-385	1,944	6.5	-362	1,046	ND	ND					3
01/12/18	1,198	6.7	-369	1,866	6.5	-360	1,078	ND	ND					3
01/13/18	1,184	6.7	-363	1,847	6.5	-372	1,105	ND	ND					2
01/14/18	1,172	6.6	-327	1,939	6.5	-333	1,089	ND	ND					2
01/15/18	1,177	6.6	-355	1,912	6.5	-337	1,095	ND	ND		0.0046 J	ND	ND	2
01/16/18	1,138	6.6	-293	1,877	6.5	-345	1,083	ND	ND					2
01/17/18	1,127	6.6	-272	1,717	6.5	-343	1,041	ND	ND					3
01/18/18	1,170	6.6	-376	1,667	6.6	-345	1,091	ND	ND					3
01/19/18	1,163	6.6	-387	1,726	6.6	-357	1,089	ND	ND					4
01/20/18	1,173	6.6	-388	1,778	6.6	-355	1,097	ND	ND					4
01/21/18	1,167	6.6	-382	1,900	6.6	-354	1,095	ND	ND					1
01/22/18	1,181	6.6	-384	1,922	6.6	-354	1,095	ND	ND		0.0068	ND	ND	2
01/23/18	1,178	6.6	-385	1,853	6.6	-355	1,082	ND	ND					2
01/24/18	1,211	6.6	-376	1,883	6.5	-352	1,121	ND	ND					3
01/25/18	1,196	6.6	-371	1,879	6.6	-359	1,123	ND	ND					5
01/26/18	1,161	6.6	-348	1,775	6.5	-357	973	ND	ND					6
01/27/18	1,147	6.6	-363	1,735	6.6	-362	1,062	ND	ND					4
01/28/18	1,173	6.6	-347	1,800	6.6	-359	1,065	ND	ND					3
01/29/18	1,204	6.6	-308	1,837	6.5	-359	1,092	ND	ND		0.015	ND	ND	5
01/30/18	1,174	6.6	-334	1,877	6.6	-349	1,107	ND	ND					8
01/31/18	1,151	6.6	-343	1,746	6.6	-354	1,087	ND	ND					3
Monthly Average ²	1176	6.6	-339	1815	6.5	-356	1,075	ND	ND	0.021	0.0085	ND	ND	4

Notes:

Flow reported as gpm is a daily average calculated from the totalizer reading.

ND = Not detected above laboratory method detection limit (ClO₄ = 0.5 ug/L; ClO₃ = 10 ug/L; NO₃-N = 0.055 mg/L, Cr(VI) = 0.25 ug/L).

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

1: ETI = Envirogen internal process control data, TA = TestAmerica data.

2: All average concentrations reported are monthly flow weighted averages.

7: For 1st and 2nd stage FBRs, flow measurements are collected from the influent lines and pH and ORP samples are collected from the recycle lines.

8: FBR Plant Effluent represents effluent discharged to Las Vegas Wash. While this may represent the entirety of the FBR Plant effluent, any diversions to GW-11 are subtracted from the original effluent flow.

GW-11 Level Monitoring		
Date	Field Measurement (ft)	Volume (MG)
01/15/18	30.2	36.4
01/31/18	30.5	36.0

GW-11 Leak Detection Monitoring				
Date	Amount Pumped ¹ (gallons)			
	NW Corner	NE Corner	SW Corner	SE Corner
01/16/18	0	2,540	0	0
01/31/18	0	1,161	0	0

GW-11 Composite Sample ^{2 3}		
Analytes	Concentration	Units
Perchlorate	10	mg/L
Chlorate	12	mg/L
Ammonia as N	3.3	mg/L
Total Phosphorus	0.066	mg/L
Total Dissolved Solids (TDS)	9,250	mg/L
Total Suspended Solids (TSS)	21	mg/L
pH	8.4	s.u.
Calcium	450	mg/L
Iron	0.30	mg/L
Chromium (total)	0.017	mg/L
Chromium VI	ND	mg/L
Chloride	3,225	mg/L
Nitrate as N	ND	mg/L
Sulfate	2,625	mg/L

Notes:

ND = Not detected above laboratory method detection limit (NH₃-N= 0.1 mg/L; Total P = 0.025 ug/L; Cr(VI) = 0.25 ug/L).

1: Pumping occurs over three consecutive days. The total amount pumped over the three day period is listed with the last day pumping occurred.

2: Corner Composite Sample collected quarterly, most recent sampling results presented. Sampled on: November 15, 2017 by Envirogen.

3: The laboratory inadvertently ran each corner sample separately rather than as a composite sample. The average of the four results are presented for each analyte.

Nevada Environmental Response Trust Groundwater Extraction and Treatment System Enhanced Operational Metrics						
Date	Flow ¹ (gpm)	FBR Influent Concentration			Influent Function Load ² (lbs/day)	6 Month Rolling Average (lbs/day)
		ClO ₄ ³ (mg/L)	NO ₃ as N (mg/L)	ClO ₃ (mg/L)		
Feb 2017	1,017	103	11	170	697	588
Mar 2017	951	99	12	180	672	621
Apr 2017	1,066	87	13	190	759	652
May 2017	1,102	88	12	190	773	702
June 2017	1,047	95	12	170	720	716
July 2017	1,058	118	12	170	777	733
Aug 2017	1,072	124	9.8	170	773	746
Sep 2017	1,070	114	11	190	806	768
Oct 2017	1,060	180	11	130	821	778
Nov 2017	1,042	279	11	130	1,030	821
Dec 2017	1,070	259	12	150	1,072	880
Jan 2018	1,031	249	13	150	1,021	920

Notes:

Concentrations and flow are presented as monthly average.

1: Flow used in loading calculation is average monthly FBR effluent flow to be consistent with historical loading calculations.

2: FBR loading calculated as $[(0.9 \cdot \text{NO}_3 \text{ as N} + 0.17 \cdot \text{ClO}_3 + 0.18 \cdot \text{ClO}_4) \cdot \text{Flow} \cdot 1440 / 1000000 \cdot 8.34]$.

3: Treatment of AP-5 wash water began on July 17, 2017 and was suspended on August 4, 2017 to allow Envirogen to evaluate internal process controls to meet discharge limits. Treatment of AP-5 wash water resumed on August 31, 2017.

Table 7 - AP Area Operational Metrics

Nevada Environmental Response Trust Groundwater Extraction and Treatment System Enhanced Operational Metrics																
Date	E1-1				E1-2				E1-3				E2-1			
	Flow ⁴ (gpm)	Water Elevation (ft amsl)	Cr (VI) ¹ (mg/L)	ClO ₂ ¹ (mg/L)	Flow (gpm)	Water Elevation (ft amsl)	Cr (VI) ^{1,5} (mg/L)	ClO ₂ ^{1,5} (mg/L)	Flow (gpm)	Water Elevation (ft amsl)	Cr (VI) ^{1,6} (mg/L)	ClO ₂ ^{1,6} (mg/L)	Flow ⁴ (gpm)	Water Elevation (ft amsl)	Cr (VI) ¹ (mg/L)	ClO ₂ ¹ (mg/L)
01/01/18	2.2	1,721.49			1.3	1,711.63			1.00	1,715.40			1.4	1,713.22		
01/02/18	1.9	1,721.85	0.031	650	1.3	1,712.09	0.051	1,500	0.92	1,711.95	0.14	1,045	1.2	1,715.16	0.030	250
01/03/18	1.8	1,721.65			1.2	1,710.18			0.57	1,711.84			1.2	1,714.45		
01/04/18	1.4	1,721.65			0.91	1,710.77			0.51	1,718.12			0.91	1,712.99		
01/05/18	2.0	1,721.78			1.3	1,711.31			0.72	1,715.72			1.3	1,713.12		
01/06/18	2.0				1.3				0.72				1.3			
01/07/18	2.0				1.3				0.72				1.3			
01/08/18 ³	3.0	1,721.90	0.030	450	2.0	1,713.84	0.051	1,500	1.4	1,718.01	0.14	800	2.2	1,718.52	0.029	200
01/09/18	0.57				0.39				0.26				0.42			
01/10/18	1.9	1,722.18			1.3	1,713.08			0.86	1,715.22			1.5	1,717.89		
01/11/18	1.8	1,721.93			1.2	1,711.57			0.78	1,711.41			1.3	1,713.74		
01/12/18	1.7	1,721.85			1.2	1,711.29			0.72	1,711.62			0.95	1,712.65		
01/13/18	1.7				1.2				0.72				0.95			
01/14/18	1.7				1.2				0.72				0.95			
01/15/18	1.9	1,722.26	0.031	540	1.3	1,713.41	0.055	1,600	0.84	1,715.76	0.15	955	1.2	1,716.17	0.029	180
01/16/18	0.0				1.2	1,713.33			0.89	1,714.56			0.0			
01/17/18	0.0				1.3	1,716.97			0.67	1,711.21			0.0			
01/18/18	1.5	1,722.93			0.99	1,715.65			0.51	1,720.20			0.94	1,726.29		
01/19/18	1.9	1,722.55			1.2	1,715.68			0.73	1,719.59			1.3	1,724.39		
01/20/18	1.9				1.2				0.73				1.3			
01/21/18	1.9				1.2				0.73				1.3			
01/22/18	1.7	1,722.38	0.029	540	1.2	1,716.21	0.050	1,700	0.82	1,719.14	0.13	910	1.2	1,720.54	0.026	180
01/23/18	1.8	1,722.46			1.2	1,715.70			0.86	1,716.51			1.4	1,722.70		
01/24/18	2.2	1,722.49			1.4	1,715.54			1.0	1,716.37			1.7	1,718.27		
01/25/18	1.7	1,722.34			1.1	1,714.12			0.76	1,713.99			1.3	1,714.89		
01/26/18	1.8	1,722.31			1.2	1,714.19			0.79	1,714.73			1.4	1,715.27		
01/27/18	1.8				1.2				0.79				1.4			
01/28/18	1.8				1.2				0.79				1.4			
01/29/18	2.0	1,722.39	0.031	530	1.4	1,715.16	0.053	1,300	0.95	1,715.61	0.15	820	1.5	1,715.74	0.031	200
01/30/18	1.7	1,722.13			1.1	1,713.83			0.77	1,713.42			1.2	1,715.98		
01/31/18	2.1	1,722.24			1.5	1,714.64			0.97	1,714.82			1.5	1,715.27		
Monthly Average ²	1.7	1722.14	0.030	538	1.2	1713.65	0.052	1,527	0.78	1715.24	0.14	900	1.2	1716.86	0.029	200

Notes:

Flow reported as gpm is a daily average calculated from the totalizer reading. *Italicized* flow rates indicate a totalizer reading was not recorded that day.

1: Analytical results are reported from TestAmerica.

2: All average concentrations reported are monthly flow weighted averages.

3: On 01/08, AP Area flushing system was offline due to loss of power from heavy rain at 8:50 pm. Online on 01/09 at 8:02 pm.

4: On 01/16, E1-1, E2-1, E2-2, and E2-3 were offline at 7:45 am to provide more capacity at the GWTP for water associated with the 78-hour vacuum test. Back online on 01/18 at 10:35 am.

5: Duplicates taken on 01/29 for well E1-2; average of both values is presented for calculation purposes.

6: Duplicates taken on 01/02 and 01/15 for well E1-3; average of both values is presented for calculation purposes.

Nevada Environmental Response Trust Groundwater Extraction and Treatment System Enhanced Operational Metrics																
Date	E2-2				E2-3				E2-4				E2-5			
	Flow ⁴ (gpm)	Water Elevation (ft amsl)	Cr (VI) ¹ (mg/L)	ClO ₂ ¹ (mg/L)	Flow ⁴ (gpm)	Water Elevation (ft amsl)	Cr (VI) ¹ (mg/L)	ClO ₂ ¹ (mg/L)	Flow (gpm)	Water Elevation (ft amsl)	Cr (VI) ¹ (mg/L)	ClO ₂ ¹ (mg/L)	Flow (gpm)	Water Elevation (ft amsl)	Cr (VI) ^{1,7} (mg/L)	ClO ₂ ^{1,7} (mg/L)
01/01/18	2.1	1,714.62			2.2	1,715.44			2.3	1,714.89			0.97	1,714.26		
01/02/18	1.8	1,715.55	0.019	480	1.8	1,719.72	0.012	560	2.2	1,717.37	0.020	1,000	0.56	1,716.48	0.040	1,900
01/03/18	1.7	1,715.06			1.7	1,715.96			2.0	1,715.59			0.75	1,717.60		
01/04/18	1.3	1,714.32			1.5	1,717.70			1.6	1,715.71			0.61	1,714.23		
01/05/18	1.9	1,714.51			2.0	1,717.88			0.73	1,715.50			0.85	1,714.16		
01/06/18	1.9				2.0				0.73				0.85			
01/07/18	1.9				2.0				0.73				0.85			
01/08/18 ³	2.7	1,716.72	0.017	380	2.4	1,718.94	0.010	370	2.1	1,729.73	0.017	680	1.3	1,718.05	0.037	1,350
01/09/18	0.52				0.45				0.39				0.24			
01/10/18	2.0	1,718.64			2.0	1,724.14			2.1	1,725.58			1.0	1,719.44		
01/11/18	1.8	1,715.13			1.9	1,716.91			1.9	1,718.71			0.80	1,710.92		
01/12/18	1.8	1,715.11			1.7	1,717.29			2.1	1,718.79			0.60	1,718.15		
01/13/18	1.8				1.7				2.1				0.60			
01/14/18	1.8				1.7				2.1				0.60			
01/15/18	2.1	1,714.94	0.018	420	1.5	1,720.75	0.011	510	1.8	1,718.49	0.018	710	0.48	1,725.30	0.031	910
01/16/18	0.0				0.0				1.5	1,717.82			0.52	1,719.81		
01/17/18	0.0				0.0				1.6	1,726.81			0.84	1,726.72		
01/18/18	1.6	1,719.29			1.6	1,724.41			1.5	1,726.52			0.57	1,724.09		
01/19/18	2.1	1,717.60			2.2	1,721.33			2.0	1,723.50			0.83	1,723.61		
01/20/18	2.1				2.2				2.0				0.83			
01/21/18	2.1				2.2				2.0				0.83			
01/22/18	2.0	1,715.43	0.017	430	1.8	1,717.55	0.011	540	1.5	1,721.45	0.016	790	0.62	1,716.37	0.030	1,400
01/23/18	2.1	1,714.38			2.1	1,720.16			1.9	1,724.62			0.92	1,724.90		
01/24/18	2.5	1,712.92			2.4	1,716.27			2.5	1,721.16			1.1	1,718.47		
01/25/18	1.8	1,711.42			1.8	1,716.53			1.8	1,718.71			0.77	1,716.58		
01/26/18	1.7	1,715.66			2.0	1,717.28			1.9	1,721.01			0.86	1,717.55		
01/27/18	1.7				2.0				1.9				0.86			
01/28/18	1.7				2.0				1.9				0.86			
01/29/18	1.9	1,715.73	0.019	390	2.0	1,716.68	0.012	530	2.1	1,718.16	0.018	780	0.84	1,713.24	0.039	1,300
01/30/18	1.6	1,716.00			1.7	1,717.64			1.9	1,718.41			0.75	1,720.01		
01/31/18	1.9	1,715.96			2.1	1,716.48			2.2	1,717.01			0.97	1,718.30		
Monthly Average ²	1.7	1715.43	0.018	419	1.8	1718.45	0.011	503	1.8	1720.25	0.018	787	0.77	1,718.55	0.035	1,360

Notes:

- Flow reported as gpm is a daily average calculated from the totalizer reading.
- 1: Analytical results are reported from TestAmerica.
- 2: All average concentrations reported are monthly flow weighted averages.
- 3: On 01/08, AP Area flushing system was offline due to loss of power from heavy rain at 8:50 pm. Online on 01/09 at 8:02 pm.
- 4: On 01/16, E1-1, E2-1, E2-2, and E2-3 were offline at 7:45 am to provide more capacity at the GWTP for water associated with the 78-hour vacuum test. Back online on 01/18 at 10:35 am.
- 7: Duplicates taken on 01/08 and 01/22 for well E2-5; average of both values is presented for calculation purposes.

Figure 1 - GW-11 Pond Volume and FBR Influent Perchlorate Concentration

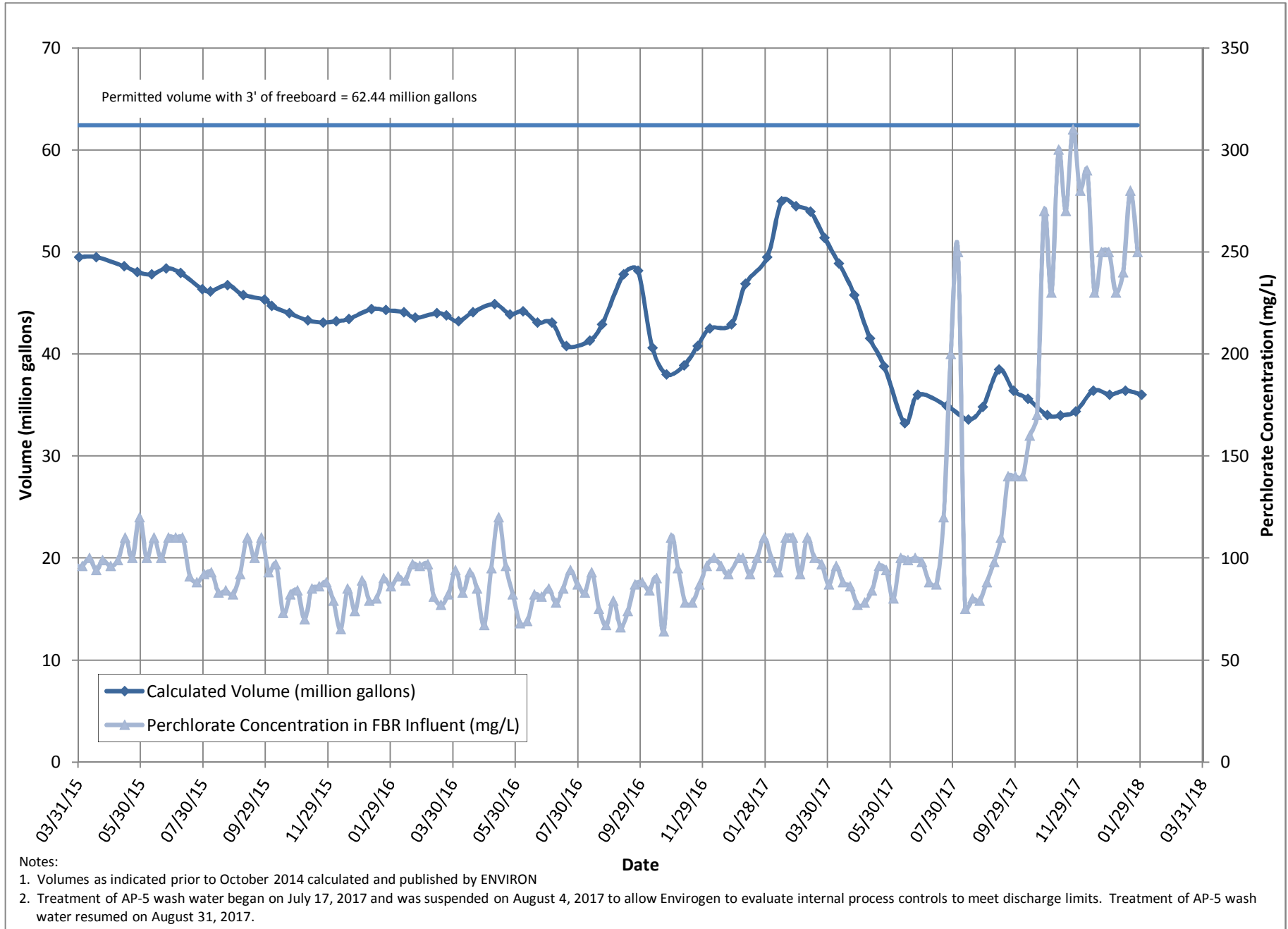


Figure 2 - FBR Equivalent Loading Calculation

