

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 ⁴ (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 ⁶ (gpm)	Water Elevation ⁷ (ft amsl)
07/01/18	669	167	1535.43	85	1539.86	130	1540.99	115	1536.08	58	1545.36	101	1546.47	51	1547.54	19	1548.61	9.7	< 1520.00
07/02/18 ²	575	167	1535.43	89	1540.40	130	1540.99	116	1536.08	59	1545.35	101	1546.46	51	1547.54	19	1548.61	8.5	< 1520.00
07/03/18	642	168	1535.41	86	1540.31	130	1540.97	115	1536.06	59	1545.34	101	1546.45	51	1547.53	19	1548.60	9.7	< 1520.00
07/04/18	641	167	1534.40	85	1540.54	130	1540.97	115	1536.05	58	1545.33	101	1546.44	51	1547.52	19	1548.59	9.7	< 1520.00
07/05/18	649	166	1535.40	84	1540.46	129	1540.97	115	1536.06	58	1545.33	100	1546.45	50	1547.52	19	1548.59	9.6	< 1520.00
07/06/18	633	168	1535.42	86	1540.51	131	1540.99	108	1536.24	59	1545.35	102	1546.47	51	1547.54	20	1548.61	9.8	< 1520.00
07/07/18	619	170	1535.39	87	1540.33	131	1540.97	116	1536.19	60	1545.33	103	1546.45	51	1547.53	20	1548.60	9.9	< 1520.00
07/08/18	643	167	1535.38	85	1539.78	130	1540.97	115	1536.16	59	1545.33	100	1546.45	51	1547.53	19	1548.60	9.0	< 1520.00
07/09/18 ²	522	167	1535.37	84	1540.70	130	1540.95	115	1536.13	58	1545.32	101	1546.44	51	1547.51	19	1548.58	9.2	< 1520.00
07/10/18	646	167	1535.44	85	1540.66	129	1541.02	115	1536.20	58	1545.39	101	1546.51	51	1547.58	19	1548.65	9.7	< 1520.00
07/11/18	652	168	1535.45	86	1540.45	129	1541.07	115	1536.20	59	1545.40	102	1546.53	51	1547.60	19	1548.67	9.7	< 1520.00
07/12/18	639	164	1535.45	84	1540.43	128	1541.07	114	1536.20	57	1545.41	99	1546.54	50	1547.61	18	1548.68	9.6	< 1520.00
07/13/18	646	165	1535.45	84	1540.21	128	1541.07	113	1536.19	57	1545.41	100	1546.54	50	1547.62	19	1548.69	9.6	< 1520.00
07/14/18	645	169	1535.45	86	1540.99	131	1541.07	116	1536.18	59	1545.41	102	1546.54	51	1547.62	20	1548.69	9.8	< 1520.00
07/15/18	645	168	1535.47	85	1540.47	130	1541.10	116	1536.20	59	1545.43	101	1546.57	51	1547.65	19	1548.72	9.8	< 1520.00
07/16/18	645	170	1535.47	87	1540.74	132	1541.11	117	1536.20	60	1545.44	103	1546.59	51	1547.67	22	1548.74	9.9	< 1520.00
07/17/18 ²	531	168	1535.46	88	1540.38	130	1541.10	115	1536.19	59	1545.43	101	1546.59	51	1547.66	19	1548.74	10	< 1520.00
07/18/18	648	167	1535.46	85	1540.46	130	1541.09	115	1536.18	59	1545.44	101	1546.59	51	1547.68	19	1548.76	9.7	1523.66
07/19/18 ³	596	155	1535.45	79	1540.44	120	1541.08	107	1536.15	54	1545.42	94	1546.58	46	1547.86	18	1548.74	8.8	1522.72
07/20/18	436	108	1536.12	57	1540.84	85	1541.51	77	1536.79	39	1545.80	70	1546.93	37	1547.99	14	1549.04	8.4	1524.13
07/21/18	658	167	1535.91	85	1540.74	130	1541.36	115	1536.61	59	1545.67	101	1546.82	51	1547.89	19	1548.96	11	1523.44
07/22/18	661	165	1535.82	84	1540.70	128	1541.30	114	1536.52	58	1545.63	99	1546.77	50	1547.85	19	1548.93	10	1522.86
07/23/18 ²	556	167	1535.77	85	1540.20	130	1541.26	115	1536.47	59	1545.59	101	1546.75	51	1547.83	19	1548.90	11	1522.30
07/24/18	655	168	1535.74	85	1540.56	131	1541.24	115	1536.44	59	1545.56	101	1546.72	51	1547.80	20	1548.88	10	1521.76
07/25/18	649	166	1535.70	85	1540.86	129	1541.21	115	1536.44	59	1545.55	100	1546.70	50	1547.79	19	1548.87	10	1521.16
07/26/18	641	169	1535.66	86	1540.56	131	1541.19	114	1536.47	59	1545.53	102	1546.69	51	1547.77	20	1548.85	11	1520.12
07/27/18	645	168	1535.64	85	1541.02	130	1541.17	115	1536.41	59	1545.50	102	1546.67	51	1547.75	20	1548.83	10	< 1520.00
07/28/18	646	167	1535.60	85	1541.01	130	1541.14	115	1536.36	59	1545.48	101	1546.64	51	1547.73	19	1548.81	9.7	< 1520.00
07/29/18	641	165	1535.59	84	1540.70	129	1541.13	113	1536.32	58	1545.47	100	1546.63	50	1547.72	19	1548.80	10	< 1520.00
07/30/18 ²	425	167	1536.40	82	1541.37	130	1541.52	115	1545.11	59	1545.76	101	1546.89	51	1547.91	19	1548.94	10	< 1520.00
07/31/18	597	168	1535.68	86	1540.48	131	1541.21	71	1536.53	58	1545.55	101	1546.71	51	1547.78	19	1548.86	10	< 1520.00
Monthly Average	616	165	1535.54	84	1540.55	128	1541.12	112	1536.56	58	1545.46	100	1546.60	50	1547.68	19	1548.75	10	1520.71
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
Perchlorate		12	7/18/2018	15	7/18/2018	10	7/18/2018	5.4	7/18/2018	5.6	7/18/2018	0.76	7/18/2018	0.059	7/18/2018	0.18	7/18/2018	0.68	7/18/2018
Hexavalent Chromium		0.0047	7/18/2018	ND	7/18/2018	ND	7/18/2018	0.0050	7/18/2018	ND	7/18/2018	ND	7/18/2018	ND	7/18/2018	ND	7/18/2018	ND	7/18/2018
Total Chromium		0.0044	7/18/2018	ND	7/18/2018	ND	7/18/2018	0.0054	7/18/2018	ND	7/18/2018	ND	7/18/2018	ND	7/18/2018	ND	7/18/2018	ND	7/18/2018

- 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 07/02, 07/09, 07/17, 07/23, and 07/30, 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 07/19, LS #1 and SWF offline at 9:03 pm due to power outage caused by weather. Back online at 6:56 am on 07/20.
 4: On 07/30, PC-117 offline at 3:25 pm due to instrument error. Back online at 8:19 am on 07/31.
 5: Duplicates taken on 07/18 for well PC-119; average of both values is presented and used for calculations.
 6: On 07/18, PC-133 offline from 10:12 am to 10:54 am due to maintenance.
 7: 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.

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* (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow ⁷ (gpm)	Water Elevation (ft amsl)
07/01/18	385	38	1582.57	148	1581.37	19	1582.67	4.0	1579.18	47	1581.59	16	1580.49	175	1581.90	1.5	1576.33
07/02/18 ²	349	39	1582.58	149	1581.37	21	1582.67	4.0	1579.18	46	1581.53	16	1584.63	176	1581.90	1.5	1576.33
07/03/18	385	38	1582.57	149	1581.37	18	1582.67	4.0	1579.18	45	1581.56	16	1581.08	174	1581.90	1.5	1576.32
07/04/18	385	37	1582.58	149	1581.37	19	1582.67	4.0	1579.17	45	1581.64	17	1585.05	175	1581.90	1.5	1576.32
07/05/18	392	38	1582.58	149	1581.38	18	1582.68	4.0	1579.17	45	1581.36	19	1584.24	174	1581.91	1.5	1576.33
07/06/18	395	38	1582.60	148	1581.40	18	1582.69	4.0	1579.18	52	1577.03	20	1584.17	175	1581.93	1.5	1576.32
07/07/18	381	38	1582.65	148	1581.45	19	1582.73	4.0	1579.17	60	1576.92	20	1584.14	175	1581.97	1.5	1576.32
07/08/18	395	37	1582.69	141	1581.49	17	1582.75	4.0	1579.17	57	1577.13	19	1584.06	169	1582.00	1.5	1576.32
07/09/18 ²	330	38	1582.71	150	1581.50	19	1582.76	4.0	1579.17	60	1576.92	20	1584.06	173	1582.01	1.5	1576.32
07/10/18	399	38	1582.72	149	1581.51	18	1582.77	4.0	1579.17	58	1576.97	18	1583.99	176	1582.02	1.5	1576.32
07/11/18	397	38	1582.74	149	1581.53	18	1582.79	4.0	1579.17	57	1576.92	19	1583.99	176	1582.04	1.5	1576.32
07/12/18	394	38	1582.75	149	1581.55	18	1582.80	4.0	1579.17	57	1577.10	20	1583.99	176	1582.05	1.5	1576.32
07/13/18	400	38	1582.77	149	1581.56	18	1582.81	4.0	1579.17	57	1576.89	18	1583.96	176	1582.07	1.5	1576.32
07/14/18	398	38	1582.78	148	1581.57	19	1582.82	4.0	1579.17	57	1576.90	19	1583.95	176	1582.08	1.5	1576.32
07/15/18	398	38	1582.78	148	1581.58	18	1582.83	4.0	1579.17	56	1577.03	19	1583.93	176	1582.08	1.5	1576.32
07/16/18	398	38	1582.80	147	1581.59	19	1582.84	4.0	1579.17	56	1576.97	19	1583.93	176	1582.09	1.5	1576.32
07/17/18 ²	343	38	1582.91	147	1581.78	20	1580.62	3.9	1579.24	49	1577.39	20	1583.93	177	1582.13	1.5	1576.33
07/18/18	396	38	1582.91	149	1581.78	19	1580.62	3.9	1579.24	55	1576.97	19	1583.93	176	1582.13	1.5	1576.33
07/19/18 ²	367	34	1582.90	137	1581.76	8.8	1580.61	3.9	1579.24	51	1578.34	18	1583.91	162	1582.12	1.5	1576.34
07/20/18	267	27	1583.55	100	1582.42	20	1581.13	3.9	1579.24	44	1577.18	11	1584.13	117	1582.72	1.5	1576.36
07/21/18	404	39	1583.29	149	1582.15	20	1580.90	3.9	1579.23	59	1577.81	16	1584.04	176	1582.45	1.5	1576.33
07/22/18	403	38	1583.19	148	1582.05	21	1580.82	3.9	1579.23	58	1577.04	16	1584.02	176	1582.36	1.5	1576.34
07/23/18 ²	389	38	1583.12	150	1581.97	18	1580.76	3.9	1579.23	64	1576.98	16	1584.02	176	1582.30	1.5	1576.34
07/24/18	399	39	1583.07	149	1581.92	20	1580.72	3.9	1579.23	57	1576.82	16	1583.99	176	1582.25	1.5	1576.34
07/25/18	398	39	1583.03	149	1581.88	20	1580.70	3.9	1582.94	58	1576.43	16	1583.99	176	1582.21	1.5	1576.34
07/26/18	384	38	1583.00	149	1581.86	20	1580.67	3.5	1579.23	60	1580.58	18	1584.60	177	1582.19	1.5	1576.33
07/27/18	383	39	1583.00	148	1581.86	20	1580.66	3.5	1579.23	62	1581.34	18	1584.70	175	1582.18	1.5	1576.33
07/28/18	385	38	1582.98	149	1581.83	19	1580.65	3.5	1579.23	63	1581.53	18	1584.78	176	1582.17	1.5	1576.33
07/29/18	385	38	1582.97	148	1581.82	20	1580.64	3.5	1579.22	63	1581.54	18	1584.62	176	1582.16	1.5	1576.33
07/30/18 ²	494	39	1582.97	150	1581.82	17	1580.64	3.5	1579.22	62	1581.69	12	1584.84	177	1582.16	1.5	1576.33
07/31/18	387	39	1582.97	150	1581.82	19	1580.63	3.5	1579.22	63	1581.75	17	1584.84	177	1582.15	1.5	1576.33
Monthly Average	386	38	1582.86	146	1581.69	19	1581.77	3.9	1579.32	55	1578.64	17	1584.00	173	1582.11	1.5	1576.33
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
Perchlorate		25	7/17/2018	14	7/17/2018	220	7/17/2018	150	7/17/2018	180	7/17/2018	130	7/17/2018	90	7/17/2018	66	7/17/2018
Hexavalent Chromium		ND	7/17/2018	0.0070	7/17/2018	0.36	7/17/2018	0.18	7/17/2018	0.69	7/17/2018	0.60	7/17/2018	0.10	7/17/2018	0.062	7/17/2018
Total Chromium		ND	7/17/2018	0.0076	7/17/2018	0.32	7/17/2018	0.16	7/17/2018	0.66	7/17/2018	0.53	7/17/2018	0.096	7/17/2018	0.055	7/17/2018

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; ClO₃ = 10 ug/L; NO₃-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: On 07/02, 07/09, 07/17, 07/23 and 07/30, the LS #3 and AWF totalizers were reset. Instantaneous flow rate at the time of the water level measurement was used for these dates.
 3: On 07/19, LS #3 and AWF offline at 9:03 pm due to power outage caused by weather. Back online at 6:56 am on 07/20.
 4: On 07/08, LS #3 offline briefly due to instrument error.
 5: Duplicates taken on 07/17 for well ART-2; average of both values is presented and used for calculations.
 6: Conducted periodic bucket tests to confirm flow rates for ART-4. Average flow of 4.0 gpm for 07/01-07/16, 3.9 gpm for 07/17-07/25, and 3.5 gpm for 07/26-07/31 determined from flow tests is presented and used for calculation purposes. Flow was steady throughout the month but the totalizer showed zero flow because totalizer units are 1,000 gallons.
 7: Conducted periodic bucket tests to confirm flow rates for PC-150. Average flow of 1.5 gpm determined from flow tests is presented for 07/01-07/31 flows and used for calculation purposes. Flow was steady throughout the month but the totalizer showed zero flow because totalizer units are 1,000 gallons.

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 ⁴ (gpm)	Flow ⁵ (gpm)	TA - Cr (TR) (mg/L)	TA - Cr (VI) (mg/L)	TA - ClO ₂ (mg/L)	Flow ⁶ (gpm)	TA - Cr (TR) (mg/L)	TA - Cr (VI) (mg/L)	TA - ClO ₂ (mg/L)	Flow ^{6,7} (gpm)	TA - ClO ₂ (mg/L)	ETI - ClO ₂ (mg/L)	TA - ClO ₂ (mg/L)	TA - NO ₃ - N (mg/L)	TA - Cr (TR) (mg/L)	TA - Cr (VI) (mg/L)
07/01/18	949	72				0.00				1,084		114				
07/02/18 ³	914	71				0.00				1,031		109	150	12	0.018	0.013
07/03/18	927	70				0.00				1,051		88				
07/04/18	927	69				0.00				1,049		105				
07/05/18	939	69	0.44	ND	790	2.4	0.088	0.042	68	1,032		98				
07/06/18	929	71				0.00				1,036		99				
07/07/18	901	69				0.00				996	120	108				
07/08/18	935	68				0.00				1,009		109				
07/09/18 ³	1,064	68				0.00				1,151		109		12	0.042	0.033
07/10/18	943	67				0.00				1,052		92				
07/11/18	949	68	0.32	ND	720	0.00				1,051		93				
07/12/18	932	69				0.00				1,024		108				
07/13/18	942	70				0.00				1,044		113				
07/14/18	937	64				0.00				1,025	100	112				
07/15/18	936	28				0.00				1,026		75				
07/16/18	937	59				0.00				1,004		69		11	0.036	0.023
07/17/18 ³	1,064	58				0.00				1,152		119				
07/18/18	941	59	0.19	ND	600	0.00				1,025		105				
07/19/18	869	58				0.00				941		114				
07/20/18	627	58				0.00				730		127				
07/21/18	944	58				0.00				1,041	110	107				
07/22/18	940	58				0.00				1,035		91				
07/23/18 ³	829	58				0.00				897		115		10	0.032	0.028
07/24/18	939	58				0.00				1,005		112				
07/25/18	939	58	0.13	ND	570	0.00				998		129				
07/26/18	921	58				0.00				998		130				
07/27/18	922	58				0.00				1,062		127				
07/28/18	924	58				0.00				1,059	120	118				
07/29/18	923	58				0.00				1,075		105				
07/30/18 ³	958	57				0.00				1,154		126		11	0.011	0.0048
07/31/18	887	58				0.00				1,035		108				
Monthly Average ²	925	62	0.27	ND	669	0.08	0.088	0.042	68	1,028	113	107	150	11	0.029	0.022

Notes:

Flow reported as gpm is a daily average calculated from the totalizer reading. The only exceptions are the instantaneous flow readings recorded for the 1st and 2nd Stage FBR flows.
 ND = Not detected above laboratory method detection limit (ClO₂ = 0.5 ug/L; ClO₃ = 10 ug/L; NO₃-N = 0.055 mg/L, Cr(VI) = 0.25 ug/L).

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

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

3: On 07/02, 07/09, 07/17, 07/23, and 07/30, LS #2 totalizer was reset. Instantaneous flow rate at the time of the water level measurement was used for these dates.

4: On 07/19, LS #2 offline at 9:03 pm due to power outage caused by weather. Back online at 6:56 am on 07/20.

5: From 07/14 - 07/15, GWTP was offline from 9:41 pm to 6:50 pm due to PLC communication fault.

6: Flows bypassed GW-11 Influent and FBR Plant Influent totalizers from 07/01 to 07/31 due to FBR plant influent strainers clogging, except for monthly sampling.

7: From 07/01 to 07/31, 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 ⁸			2nd Stage FBR ⁸			FBR Plant Effluent ¹							
	Flow (gpm)	pH (s.u.)	ORP (mV)	Flow (gpm)	pH (s.u.)	ORP (mV)	Flow ⁹ (gpm)	TA - ClO ₂ (mg/L)	ETI - ClO ₂ (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)
07/01/18	1,162	7.0	-426	944	6.8	-392	1,100		ND					2
07/02/18	1,169	7.0	-430	936	6.8	-395	1,100		ND	ND				15
07/03/18	1,164	7.0	-324	931	6.9	-390	724		ND					10
07/04/18	1,156	7.0	-371	910	6.8	-391	1,093		ND					5
07/05/18	1,057	7.0	-366	836	6.8	-395	799		ND					3
07/06/18	1,044	7.0	-365	836	6.8	-395	1,068		ND					5
07/07/18	1,044	7.0	-365	836	6.8	-395	1,075	ND	ND					2
07/08/18	1,044	7.0	-365	836	6.8	-395	779		ND					2
07/09/18	1,044	7.0	-365	836	6.8	-395	1,054		ND	0.0036 J	ND	ND		2
07/10/18	1,044	7.0	-365	836	6.8	-395	1,096		ND					2
07/11/18	1,044	7.0	-365	836	6.8	-395	854		ND					3
07/12/18	1,044	7.0	-365	836	6.8	-395	837		ND					4
07/13/18	1,044	7.0	-365	836	6.8	-395	1,086		ND					4
07/14/18	1,044	7.0	-365	836	6.8	-395	1,075	ND	ND					11
07/15/18	1,123	6.8	-426	858	6.7	-408	1,062		ND					22
07/16/18	1,131	6.8	-360	927	6.7	-401	766		ND	0.0029 J	ND	ND		9
07/17/18	1,149	6.9	-287	877	6.7	-399	1,062		ND					1
07/18/18	1,113	6.9	-266	932	6.7	-398	1,074		ND					3
07/19/18	1,044	7.2	-388	836	6.8	-395	691		ND					5
07/20/18	1,104	7.2	-377	865	6.8	-397	759		ND					6
07/21/18	1,104	7.4	-389	935	6.8	-399	1,098	ND	ND					5
07/22/18	1,132	7.2	-372	899	6.8	-384	1,084		ND					4
07/23/18	1,074	7.2	-335	860	6.8	-390	1,049		ND	0.0037 J	ND	ND		3
07/24/18	1,079	7.1	-328	847	6.7	-392	1,070		ND					5
07/25/18	1,002	7.1	-402	811	6.7	-396	527		ND					1
07/26/18	1,044	7.0	-365	836	6.8	-395	1,041		ND					5
07/27/18	1,044	7.0	-365	836	6.8	-395	1,106		ND					3
07/28/18	1,044	7.0	-365	836	6.8	-395	1,110	ND	ND					4
07/29/18	1,044	7.0	-365	836	6.8	-395	844		ND					6
07/30/18	1,044	7.0	-365	836	6.8	-395	1,106		ND	0.0038 J	ND F1	ND		12
07/31/18	1,044	7.0	-365	836	6.8	-395	741		ND					30
Monthly Average ²	1,078	7.0	-365	863	6.8	-395	965	ND	ND	ND	0.0037	ND	ND	6

Notes:

- Flow reported as gpm is a daily average calculated from the totalizer reading. The only exceptions are the instantaneous flow readings recorded for the 1st and 2nd Stage FBR flows.
- ND = Not detected above laboratory method detection limit (ClO₂ = 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.
- F1 = MS and/or MSD Recovery is outside acceptance limits.
- 1: ETI = Envirogen internal process control data, TA = TestAmerica data.
- 2: All average concentrations reported are monthly flow weighted averages.
- 8: 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.
- 9: 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)
07/15/18	31.7	34.4
07/31/18	31.7	34.4

GW-11 Leak Detection Monitoring				
Date	Amount Pumped ¹ (gallons)			
	NW Corner	NE Corner	SW Corner	SE Corner
07/11/18	5	1,941	736	51
07/25/18	13	1,300	705	46

GW-11 Composite Sample ²		
Analytes	Concentration	Units
Perchlorate	9.0	mg/L
Chlorate	12	mg/L
Ammonia as N	0.46	mg/L
Total Phosphorus	0.054 F1	mg/L
Total Dissolved Solids (TDS)	9,500	mg/L
Total Suspended Solids (TSS)	23 H	mg/L
pH	8.2 HF	s.u.
Calcium	410	mg/L
Iron	0.15	mg/L
Chromium (total)	0.0067	mg/L
Chromium VI	0.00069 J	mg/L
Chloride	2,800	mg/L
Nitrate as N	ND	mg/L
Sulfate	2,400	mg/L

Notes:

F1 = MS and/or MSD Recovery is outside acceptance limits.

H = Sample was prepped or analyzed beyond the specified holding time.

HF = Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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.

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: GW-11 Corner Composite Sample is collected quarterly, most recent sampling results are presented. Sampled on: May 31, 2018.

Nevada Environmental Response Trust Groundwater Extraction and Treatment System Enhanced Operational Metrics						
Date	Flow ¹ (gpm)	FBR Influent Concentration			Influent Function Load ³ (lbs/day)	6 Month Rolling Average (lbs/day)
		ClO ₄ ² (mg/L)	NO ₃ as N (mg/L)	ClO ₃ (mg/L)		
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
Feb 2018	1,057	269	13	150	1,090	973
Mar 2018	1,094	168	13	130	836	978
Apr 2018	1,079	91	13	120	624	945
May 2018	1,044	116	12	150	719	894
June 2018	1,037	133	11	160	765	843
July 2018	1,028	113	11	150	691	788

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.

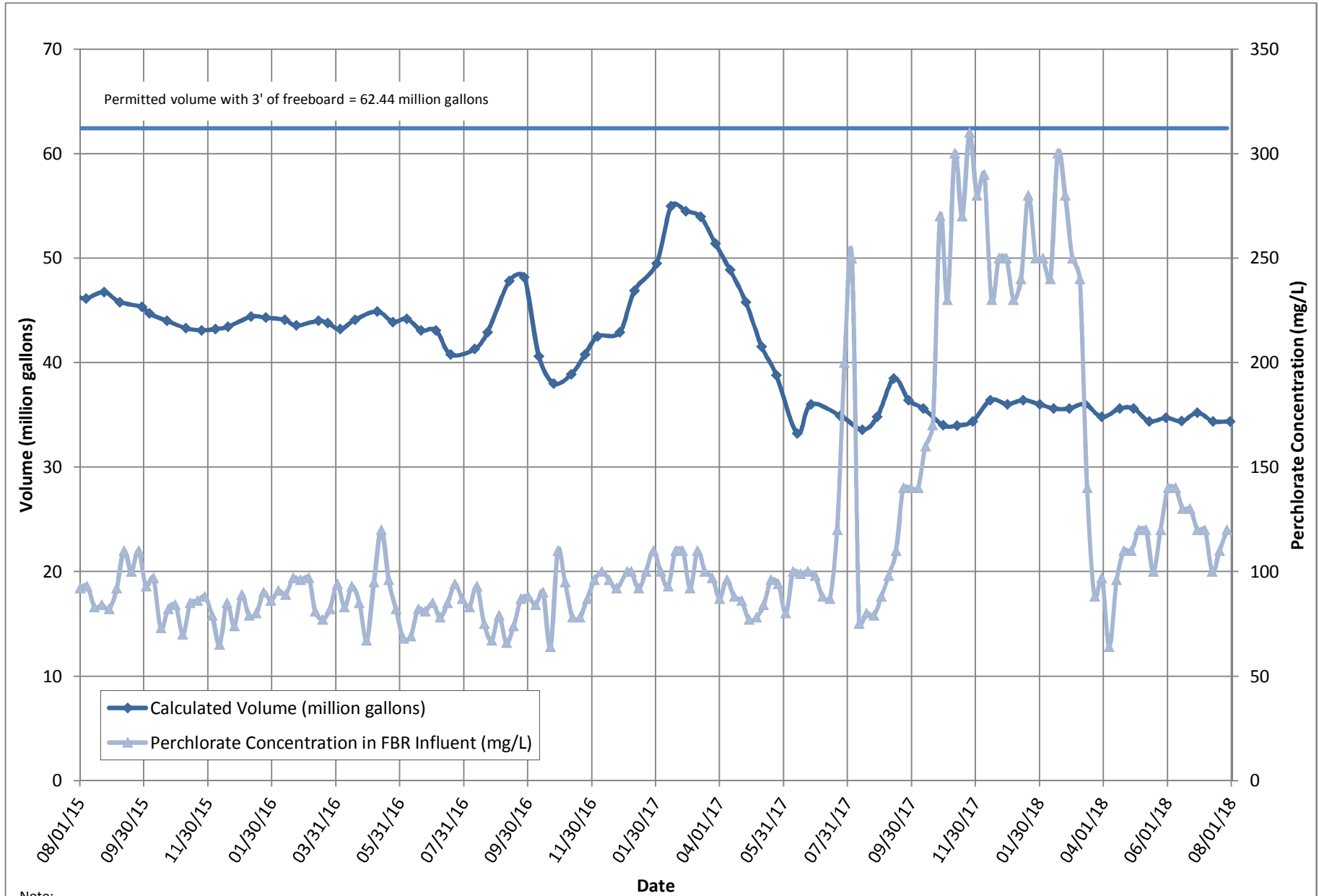
2: Treatment of AP-5 wash water began on July 17, 2017 and was suspended on August 4, 2017 to allow Envirogen to evaluate internal process controls to meet discharge limits. Treatment of AP-5 wash water resumed on August 31, 2017. The AP-5 wash water feed rate was decreased on March 13, 2018 to prepare for the lower seasonal ammonia permit limits beginning April 1.

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

Nevada Environmental Response Trust Groundwater Extraction and Treatment System Enhanced Operational Metrics																
Date	E1-1		E1-2		E1-3		E2-1		E2-2		E2-3		E2-4		E2-5	
	Flow ² (gpm)	Water Elevation (ft amsl)	Flow ² (gpm)	Water Elevation (ft amsl)	Flow ² (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow ⁴ (gpm)	Water Elevation (ft amsl)	Flow (gpm)	Water Elevation (ft amsl)	Flow ⁵ (gpm)	Water Elevation (ft amsl)	Flow ⁵ (gpm)	Water Elevation (ft amsl)
07/01/18	2.4	1711.31	1.1	1710.99	0.51	1710.34	0.89	1713.13	1.3	1713.37	1.1	1715.91	1.4	1714.31	0.35	1715.16
07/02/18	2.4	1711.42	1.0	1710.93	0.50	1710.25	0.89	1712.83	1.3	1713.56	1.1	1716.49	1.4	1714.45	0.36	1714.10
07/03/18	2.4	1710.48	1.0	1709.66	0.50	1709.68	0.87	1713.56	1.2	1714.97	1.1	1715.43	1.4	1714.11	0.35	1714.68
07/04/18	2.4	1711.58	1.0	1710.44	0.47	1710.24	0.89	1714.12	1.2	1714.80	1.1	1714.86	1.3	1714.31	0.35	1714.67
07/05/18	2.4	1711.04	1.0	1710.96	0.46	1709.97	0.88	1713.21	1.2	1714.86	1.0	1716.85	1.3	1714.26	0.33	1715.65
07/06/18	2.4	1711.13	0.99	1710.64	0.50	1710.43	0.88	1713.44	1.3	1714.82	1.0	1716.37	1.3	1714.19	0.27	1714.95
07/07/18	4.0	1710.93	0.93	1710.60	0.43	1710.23	0.83	1713.23	1.2	1714.50	0.97	1716.30	1.3	1714.33	0.16	1714.54
07/08/18	1.0	1711.73	1.2	1711.11	0.56	1711.52	0.90	1714.02	1.5	1708.22	1.1	1717.40	1.1	1717.61	0.07	1718.92
07/09/18	2.4	1711.60	1.1	1710.46	0.50	1710.84	0.88	1714.32	1.1	1715.82	1.1	1717.36	1.1	1717.51	0.09	1719.92
07/10/18	2.3	1711.44	1.0	1710.49	0.48	1710.98	0.86	1715.43	0.24	1720.32	1.3	1715.95	1.2	1717.26	0.01	1722.04
07/11/18	2.4	1711.46	1.1	1710.86	0.48	1710.72	0.92	1712.29	0.97	1717.62	1.3	1714.71	1.2	1716.51	0.35	1716.82
07/12/18	2.3	1711.34	1.1	1710.46	0.50	1710.75	0.89	1712.08	1.1	1715.60	1.3	1714.32	1.2	1716.33	0.37	1715.47
07/13/18	2.3	1711.62	1.1	1710.82	0.45	1710.91	0.89	1708.51	1.2	1714.66	1.3	1713.90	1.2	1715.99	0.08	1718.24
07/14/18	2.3	1711.77	1.1	1711.32	0.46	1712.12	0.84	1713.22	1.2	1713.74	1.2	1714.15	1.2	1715.70	0.44	1717.88
07/15/18	1.3	1724.17	0.64	1724.49	0.27	1725.38	0.58	1728.13	0.93	1728.24	0.84	1728.48	0.82	1728.62	0.27	1728.62
07/16/18	1.4	1717.85	0.57	1717.60	0.33	1716.85	0.42	1726.68	1.0	1722.67	0.99	1722.62	0.53	1725.05	0.06	1726.90
07/17/18	2.7	1711.42	1.2	1710.96	0.53	1710.83	0.95	1711.07	1.4	1713.73	1.4	1713.80	1.0	1718.93	0.52	1707.55
07/18/18	2.5	1711.22	1.1	1710.94	0.50	1710.71	0.87	1713.67	1.3	1712.64	1.4	1713.75	1.1	1718.21	0.35	1717.26
07/19/18	2.5	1711.12	1.1	1710.97	0.50	1709.78	0.85	1714.48	1.3	1713.97	1.4	1714.24	1.0	1720.31	0.40	1715.32
07/20/18	2.5	1711.31	1.1	1711.25	0.51	1710.40	0.85	1714.56	1.2	1714.35	1.3	1715.73	0.61	1721.53	0.17	1719.81
07/21/18	2.4	1711.17	1.1	1711.36	0.50	1709.94	0.89	1714.81	1.3	1714.58	1.3	1715.98	0.79	1720.24	0.38	1715.96
07/22/18	2.5	1712.50	1.1	1710.72	0.50	1710.36	0.87	1713.52	1.2	1714.31	1.3	1715.21	0.88	1719.48	0.32	1716.31
07/23/18	2.4	1712.42	1.1	1710.66	0.49	1710.31	0.79	1713.54	1.3	1713.21	1.3	1713.47	1.2	1717.06	0.36	1715.10
07/24/18	2.4	1711.58	1.1	1709.78	0.49	1710.72	0.88	1708.72	1.3	1712.11	1.3	1712.05	1.1	1717.11	0.38	1714.71
07/25/18	2.4	1711.40	1.1	1709.92	0.49	1710.75	0.76	1715.93	1.2	1713.32	1.3	1712.90	1.1	1717.31	0.37	1714.82
07/26/18	2.4	1711.27	1.1	1709.92	0.48	1711.01	0.86	1713.08	1.2	1713.43	1.3	1712.80	1.2	1716.60	0.38	1714.32
07/27/18	2.4	1711.22	1.1	1710.04	0.50	1711.14	0.84	1714.16	1.3	1713.74	1.2	1715.24	1.2	1716.73	0.38	1714.45
07/28/18	2.4	1711.09	1.1	1710.23	0.51	1711.31	0.83	1715.05	1.3	1713.99	1.2	1717.57	1.2	1716.93	0.37	1714.60
07/29/18	2.4	1710.95	1.1	1709.11	0.50	1710.44	0.83	1713.52	1.3	1712.97	1.2	1715.37	1.2	1716.86	0.35	1714.36
07/30/18	2.4	1711.54	1.1	1709.76	0.50	1710.84	0.83	1714.67	1.2	1713.72	1.2	1715.85	1.2	1717.11	0.35	1714.82
07/31/18	2.4	1711.44	1.1	1709.72	0.49	1710.86	0.85	1710.04	1.2	1713.12	1.2	1714.59	1.3	1714.13	0.38	1713.96
Monthly Average	2.3	1712.02	1.0	1711.20	0.48	1711.31	0.84	1714.16	1.2	1714.87	1.2	1715.80	1.1	1717.39	0.30	1716.51
Analytical	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc ² (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date	Conc (mg/L)	Date
Perchlorate	650	7/19/2018	1,600	7/19/2018	865	7/19/2018	160	7/19/2018	570	7/19/2018	1,000	7/19/2018	1,200	7/19/2018	2,000	7/19/2018
Hexavalent Chromium	0.039	7/19/2018	0.13	7/19/2018	0.31	7/19/2018	0.032	7/19/2018	0.030	7/19/2018	0.027	7/19/2018	0.026	7/19/2018	0.092	7/19/2018
Total Chromium	0.042	7/19/2018	0.14	7/19/2018	0.32	7/19/2018	0.041	7/19/2018	0.035	7/19/2018	0.031	7/19/2018	0.031	7/19/2018	0.11	7/19/2018

Notes:
 Flow reported as gpm is a daily average calculated from the totalizer reading.
 The flow rate at individual wells is adjusted daily to maintain the water level in the wells above the pump.
 1: Analytical results are reported from TestAmerica.
 2: On 07/14, E1-1, E1-2, and E1-3 were offline at 9:41 pm due to instrument error. Back online at 6:50 pm on 07/15.
 3: Duplicates taken on 07/19 for well E1-3; average of both values is presented and used for calculations.
 4: On 07/10, E2-2 flow adjusted to meet flow target as directed by the Trust
 5: On 07/15, E2-4 flow adjusted to meet flow target as directed by the Trust.
 6: On 07/09, 07/10, and 07/15, E2-5 flow adjusted to meet flow target as directed by the Trust.

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



Note:

1. 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. The AP-5 wash water feed rate was decreased on March 13, 2018 to prepare for the lower seasonal ammonia permit limits beginning April 1.

Figure 2 - FBR Equivalent Loading Calculation

