

April 26, 2016

Compliance Coordinator Nevada Division of Environmental Protection Bureau of Water Pollution Control 901 South Stewart Street, Suite 4001 Carson City, Nevada 89701-5249

Subject: Groundwater Discharge Permit NEV2001515

Discharge Monitoring Report - 1st Quarter 2016

Dear Compliance Coordinator:

The Nevada Environmental Response Trust (NERT or Trust) maintains Groundwater Discharge Permit #NEV2001515 (Permit), which covers the synthetically double-lined ponds GW-11 and AP-5 at the NERT site in Henderson, Nevada. During the 1st quarter 2016, no water was discharged directly to a receiving water body from either GW-11 or AP-5. Treated water from a groundwater extraction and treatment system (GWETS) at the NERT Site, which treats extracted groundwater for perchlorate, is discharged to Las Vegas Wash pursuant to NPDES Permit #NV0023060. The GWETS is operated by Envirogen Technologies Inc. (ETI).

AP-5

The Trust is in the process of decommissioning the AP-5 Pond. Activities related to decommissioning are overseen by the Nevada Division of Environmental Protection (NDEP), Bureau of Industrial Site Cleanup. In the interim, water is periodically added to keep the pond solids moist (Table 1b).

Leakage rate testing in the single leak detection sump serving the AP-5 Pond resumed during the 1st quarter 2016 following installation of a new pump. Standard operating procedures for leakage rate testing were provided to NDEP by the Trust in an attachment to a letter to NDEP dated July 24, 2015. NERT suspended access on the AP-5 Pond liner and berm due to potential safety concerns. Pond water level measurements, therefore, were not conducted during the 1st quarter 2016. Pond water level measurements resumed on April 4, 2016, following clearance to access the berm portion of the pond.

GW-11

Liquid was detected in three of four GW-11 corner leak detection wells during the 1st quarter 2016. The southeast corner well detected no leakage during the quarter. Currently, pumps do not reach the bottoms of the northwest and southwest detection wells. The Trust and ETI are evaluating alternatives to re-position the northwest and southwest pumps. The pump in the northeast detection well was re-positioned on March 31, 2016, approximately 20 feet lower than its former position. The northeast detection well now is believed to have a pump in position approximately at the bottom of the well.

Attachment 1 provides January, February, and March 2016 Discharge Monitoring Reports (DMRs). Attachment 2 provides pond monitoring tables with water balance and leak detection monitoring information. This DMR also

provides corrected data from transcription errors for the GW-11 pond water levels reported with the 2nd quarter 2015 DMR and for several GW-11 leak detection values reported with the 3rd quarter 2015 DMR.

Please contact me at (702) 966-8340 or kyle.hansen@tetratech.com for any questions regarding this report.

Sincerely,

Tetra Tech, Inc.

Kyle Hansen, CEM

Field Operations Manager/Geologist

CEM 2167, exp. 9/18/16

Hyled. Hansen

Overnight Mail

Attachments: Attachment 1: Discharge Monitoring Reports

Attachment 2: Pond Monitoring Results

cc: Greg Lovato, Bureau of Corrective Actions, NDEP

James Dotchin, Bureau of Corrective Actions, NDEP Weiquan Dong, Bureau of Corrective Actions, NDEP

Nikita Lingenfelter, Bureau of Water Pollution Control, NDEP

Nevada Environmental Response Trust Tanya O'Neill, Foley and Lardner LLP

Todd Webster, Envirogen Technologies, Inc. Michael Delvecchio, Envirogen Technologies, Inc.

Allan J. DeLorme, Ramboll Environ John Pekala, Ramboll Environ Derek Amidon, Tetra Tech, Inc.

Discharge Permit NEV2001515 – 1st Quarter 2016 DMR CEM Certification

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and, to the best of my knowledge, comply with all applicable federal, state and local statutes, regulations and ordinances.

Kyle S. Hansen CEM 2167, expires 9-18-16

Hyled. Hansen

ATTACHMENT 1

Discharge Monitoring Reports

January 2016

February 2016

March 2016

PERMITTEE NAME/ADDRESS:

Nevada Environmental Response Trust NAME:

c/o Envirogen Technologies 510 Fourth Street ADDRESS:

Henderson, NV 89015

FACILITY: Nevada Environmental Response Trust

LOCATION: Henderson, NV ATTN: Kyle Hansen

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

NEV2001515 PERMIT NUMBER

001 DISCHARGE NUMBER

MONITORING PERIOD FROM: 16 01 01 16 | 01 | 31 TO:

NO DISCHARGE:

PARAMETER		QUA	INTITY OR LOADING	AMERICAN .		QUALITY OR CONCE		re completing this t			
PARAMETER		AVERAGE	MAXIMUM	UNITS	30 Day Ave (mg/l)	7 Day Ave (mg/l)	30 Day Ave	UNIT	NO. EX	FREQUENCY OF ANALYSIS	SAMPLI TYPE
Flow	SAMPLE MEASUREMEN	See attached	d Tables 1a and b	MGD			(jb/day)		0	Monthly	Flow Meter
Influent	PERMIT RÉQUIREMEN	T Monitor	and Report								
Leak Detection Information	SAMPLE MEASUREMEN	See attached	See attached Tables 2a and b			The second section of the second section is the second section of the second section is a second section of the second section is a second section sec	The new case with the set the fail fair to the set of t		0	Bi-Monthly	Discrete-Fie Measureme
	PERMIT REQUIREMENT	T Monitor	and Report								
Pond Water Level	SAMPLE MEASUREMEN	T See attached	Tables 1a and b	feet	Promise Only on Tenth Commission and Commission of Tenth of				0	Bi-Monthly	Discrete-Fiel
	PERMIT REQUIREMEN	T Monitor	and Report					1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Arana Arana Arana		
Storage Volume	SAMPLE MEASUREMEN	T See attached	Tables 1a and b	gallons	Share data for that Datas	We are to the least one has an inches on the least of the least one has a least one le			0	Bi-Monthly	Calculatio
	PERMIT REQUIREMENT	T I I I I I I I I I I I I I I I I I I I	GW-11: 76,100,000 AP-5: 1,817,000								
Discharge to FBR	SAMPLE MEASUREMEN	See attached	Tables 1a and b	gallons					0	Bi-Monthly	Flow Mete
	PERMIT REQUIREMENT	Monitor and Report						Selfu production of the selfu of the self			
Water Balance Information	Vater Balance Information SAMPLE MEASUREMENT See atta		Tables 1a and b	gallons		And the second s	Personal Control of the Control of t	3	0	Monthly	Calculatio
	PERMIT REQUIREMENT	Monitor and Report									
Territory (Control of the Control of	SAMPLE MEASUREMEN	T							Proposition of the		
	PERMIT REQUIREMENT										
NAME / TITLE PRINCIPAL EXECUTIV	VE OFFICER			L				TELEPHO	ONE	DA	TE
CEM 2167, exp 9-18-16		LECTION OR SUPERVISION IN ACCORDA OPERLY GATHER AND EVALUATE THE RSONS WHO MANAGE THE SYSTEM, ORMATION, THE INFORMATION SUBINIT OF COMMISTIC IN AM AWADE THAT THE	T THIS DOCUMENT AND ALL ATTACHMEN NOE WITH A SYSTEM DESIGNED TO ASS INFORMATION SUBMITTED. BASED ON I OR THOSE PERSONS DIRECTLY RES- TED IS, TO THE BEST OF MY KNOWLEDG FEE ARE SIGNIFICANT PENALTIES FOR 8 MPRISONMENT FOR KNOWING VIOLATIONS	URE THAT QUALIFIED MY INQUIRY OF THE PONSIBLE FOR GAT SE AND BELIEF, TRUE	PERSONNEL PERSON OR HERING THE	IRE OF PRINCIPAL EXI	ULU ECUTIVE	702-966-8		16 04	
TYPED OR PRINTED				OFFICER OR AUTHORIZED AGENT AREA CODE			AREA CODE NU		YEAR M	O DAY	

COMMENT AND EXPLANATION OF ANY VIOLATIONS Ponds GW-11 and AP-5

(Reference all attachments here)

PERMITTEE NAME/ADDRESS:

NAME: Nevada Environmental Response Trust

ADDRESS: c/o Envirogen Technologies 510 Fourth Street

Henderson, NV 89015

FACILITY: Nevada Environmental Response Trust

LOCATION: Henderson, NV ATTN: Kyle Hansen

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) DISCHARGE MONITORING REPORT (DMR)

NEV2001515 PERMIT NUMBER

001 DISCHARGE NUMBER

MONITORING PERIOD FROM: 16 | 02 | 01 16 | 02 | 29 TO:

NO DISCHARGE:

ATTN: Kyle Hansen			and the second s			NOTE: Read	d instructions befo	re completing	this fo	orm.		
PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO.	FREQUENCY	SAMPLE	
		AVERAGE	MAXIMUM	UNITS	30 Day Ave (mg/l)	7 Day Ave (mg/l)	30 Day Ave (lb/day)	UNIT	EX	OF ANALYSIS	TYPE	
Flow	SAMPLE MEASUREMENT	See attached	Tables 1a and b	MGD					0	Monthly	Flow Meter	
Influent	PERMIT REQUIREMENT	Monitor and Report										
Leak Detection Information	SAMPLE MEASUREMENT	See attached	See attached Tables 2a and b						0	Bi-Monthly	Discrete-Fiel Measuremer	
	PERMIT REQUIREMENT	Monitor	and Report									
Pond Water Level	SAMPLE MEASUREMENT	See attached	Tables 1a and b	feet					0	Bi-Monthly	Discrete-Fiel Measuremen	
	PERMIT REQUIREMENT	Monitor a	and Report					92 2 3 3 4 4				
Storage Volume	SAMPLE MEASUREMENT	See attached	Tables 1a and b	gallons	Sound for her har was come only one one recognize the pre-part standard	The last test hand terminate and rear state and are true and time state in the last test in			0	Bi-Monthly	Calculatio	
	PERMIT REQUIREMENT		GW-11: 76,100,000 AP-5: 1,817,000									
Discharge to FBR	SAMPLE MEASUREMENT	See attached	Tables 1a and b	gallons					0	Bi-Monthly	Flow Meter	
	PERMIT REQUIREMENT	Monitor and Report									Control of the Contro	
Water Balance Information	SAMPLE MEASUREMENT	See attached Tables 1a and b		gallons		Barrers and Table Service and California and Califo	m man' na Tabilla i an' aon na Callifoldia ao ao ao (1997) ao	2	0	Monthly	Calculation	
	PERMIT REQUIREMENT			NT Monitor and Report		ENT Monitor and Report		CONTROL OF THE STATE OF THE STA				
	SAMPLE MEASUREMENT	·							************			
	PERMIT REQUIREMENT			-				AAA		SANGERA PARABETA PARABETA PARABETA		
NAME / TITLE PRINCIPAL EXECUTIVE OFFICER					1.11	1 1		TELEPHO	ONE	DA	TE	
PROFERTY GATHER A PRISONS WHO MAN RECOMMEND. THE IN RECOMMEND. THE IN RECOMMEND. THE IN RECOMMEND THE POSSIBLE THE POSSIBL		TON OR SUPERVISION IN ACCORDAN RLY GATHER AND EVALUATE THE R NS WHO MANAGE THE SYSTEM.	THIS DOCUMENT AND ALL ATTACHME ICE WITH A SYSTEM DESIGNED TO ASS NFORMATION SUBMITTED, BASED ON OR THOSE PERSONS DIRECTLY RES	URE THAT QUALIFIED MY INQUIRY OF THE PONSIBLE FOR GAT	PERSONNEL CONTRACTOR OF THE PERSON OF THE PE							
		AATION THE INFORMATION SUBMITT	ED IS, TO THE BEST OF MY KNOWLED E ARE SIGNIFICANT PENALTIES FOR I PRISONMENT FOR KNOWING VIOLATION	WE AND BELLET THE	FORMATION, SIGNATE	RE OF PRINCIPAL EXE		702-966-8	340	16 04	1 20	
TYPED OR PRINTED					OFFICER OR AUTHORIZED AGENT			AREA CODE NUMBER Forms by WindowChem(707		YEAR M		

COMMENT AND EXPLANATION OF ANY VIOLATIONS Ponds GW-11 and AP-5

(Reference all attachments here)

PERMITTEE NAME/ADDRESS: NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) NAME: Nevada Environmental Response Trust DISCHARGE MONITORING REPORT (DMR) ADDRESS: c/o Envirogen Technologies NEV2001515 001 510 Fourth Street **PERMIT NUMBER** DISCHARGE NUMBER Henderson, NV 89015 MONITORING PERIOD FACILITY: Nevada Environmental Response Trust LOCATION: Henderson, NV 16 | 03 | 01 16 03 | 31 NO DISCHARGE: FROM: TO: ATTN: Kyle Hansen NOTE: Read instructions before completing this form. QUANTITY OR LOADING QUALITY OR CONCENTRATION **PARAMETER** 30 Day Ave **AVERAGE MAXIMUM** UNITS 7 Day Ave (mg/l) UNIT 30 Day Ave (mg/l) (lb/dav) SAMPLE See attached Tables 1a and b Flow MGD MEASUREMENT PERMIT Influent REQUIREMENT Monitor and Report SAMPLE See attached Tables 2a and b Leak Detection Information gallons MEASUREMENT PERMIT Monitor and Report REQUIREMENT SAMPLE **Pond Water Level** See attached Tables 1a and b MEASUREMENT feet PERMIT Monitor and Report REQUIREMENT SAMPLE Storage Volume See attached Tables 1a and b gallons MEASUREMENT PERMIT GW-11: 76,100,000 REQUIREMENT AP-5: 1.817.000 SAMPLE Discharge to FBR See attached Tables 1a and b gallons MEASUREMENT PERMIT Monitor and Report REQUIREMENT SAMPLE

NAME / TITLE PRINCIPAL EXECUTIVE OFFICER

MEASUREMENT

PERMIT

REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT

Kyle Hansen

CEM 2167, exp 9-18-16 TYPED OR PRINTED

Water Balance Information

I CERTIFY UNDER PEMALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT GUALUFIED PERSONNEL PROPERTY GRATER AND EVALUATE THE SPORTMON SUBMITTED ANSED ON MY MOUNT OF THE PERSON OR PERSONS OFFICELY. RESPONSIBLE FOR GATHERING THE PROMINATION, THE PROPERTY OF A SYSTEM AND CONTINUE THE STORMATION, THE PROPERTY OF A SYSTEM AND CONTINUE THE PROPERTY OF A SYSTEM AND CONTINUE. A SYSTEM AND CONTINUE THE AND AND A SYSTEM AND CONTINUE AND A SYSTEM AND

See attached Tables 1a and b

Monitor and Report

TELEPHONE DATE SIGNATURE OF PRINCIPAL EXECUTIVE 16 04 20 702-966-8340 OFFICER OR AUTHORIZED AGENT AREA CODE NUMBER YEAR MO DAY Forms by WindowChem(707)864-0645;p/n11090;v5.01;4/1/96

Х

NO.

EX

0

FREQUENCY

ANALYSIS

Monthly

Bi-Monthi

Bi-Monthly

Bi-Monthly Calculation

Bi-Monthly Flow Meter

Monthly

SAMPLE

TYPE

Flow

Meter

Discrete-Field

Measurement

Discrete-Field

Measurement

Calculation

COMMENT AND EXPLANATION OF ANY VIOLATIONS Ponds GW-11 and AP-5

(Reference all attachments here)

gallons

ATTACHMENT 2

Pond Monitoring Results

1st Quarter 2016

Corrections to 2nd Quarter 2015 GW-11 Pond Water Level Data

Corrections to 3rd Quarter 2015 GW-11 Pond Leak Detection Data

Pond Monitoring Results

Table 1a – GW-11 Pond Level and Storage Volume

Date	Flow Into GW-11 (MGD)	Pond Water Level (vertical depth in feet)	Storage Volume (thousand gallons)	Discharge to FBRs (million gallons)	Water Balance (million gallons)
1/11/16	4.04	12.92	44,444	21.17 (01/01/16 - 01/16/16)	0.0
1/25/16	1.34	12.90	44,332	18.91 (01/16/16 - 01/31/16)	-0.2
2/12/16		12.85	44,109	18.65 (02/01/16 - 02/14/16)	
2/23/16	1.29	12.71	43,551	19.91 (02/14/16 - 02/29/16)	-0.6
3/8/16	0.444	12.86	44,165	1.23 (03/01/16 - 03/16/16)	0.4
3/24/16	0.111	12.77	43,774	0.00 (03/16/16 - 03/31/16)	0.1

MGD = million gallons per day

Table 1b - AP-5 Pond Monitoring Information

Date	Flow Into Pond ¹ (MGD)	Pond Level ^{2, 3} (vertical depth in feet and inches)	Storage Volume (thousand gallons)	Discharge to FBRs (gallons)	Water Balance (million gallons)		
04/2046	04/0040		NA	0	0.00		
01/2016 0.004	0.004	0.004	NA	NA	0	0.08	
02/2046	0.002	NA	NA	0	0.00		
02/2016	02/2016 0.003	NA	NA	0	0.02		
03/2016	6 0.003	NA	NA	0	0.00		
		NA	NA	0	-0.03		

¹The AP-5 pond is in the process of being decommissioned. There is no routine flow into or out of AP-5 except to keep the solids moist. The flow into AP-5 has been expressed as a rate, per the requirements of Table 1 of the permit.

¹Due a boatman bug outbreak on GW-11, extraction well flows bypassed GW-11 and were directed to the fluidized bed reactors, beginning March 2, 2016.

²The depth includes pond solids and added water.

³No volume measurements were collected in Q1 2016. Volume measurement was suspended on October 27, 2015, due to safety concerns that perchlorate residuals could be present on the liner. Volume measurements resumed on April 4, 2016 and will be reported in the Q2 2016 DMR.

Table 2a - GW-11 Pond Leak Detection Monitoring

Dates ¹	Volume in Detection Wells					
Dates	(gallons)					
01/13/16 – 01/15/16	NW - 0					
и	NE – 0					
и	SW – 0					
и	SE – 0					
01/26/16 – 01/28/16	NW – 26					
ű	NE – 0					
ű	SW - 399					
ű	SE – 0					
02/10/16 – 02/12/16	NW – 0					
ш	NE – 0					
и	SW - 997					
и	SE – 0					
02/23/16 – 02/25/16	NW – 45					
и	NE – 0					
ш	SW - 0					
и	SE – 0					
03/10/16 - 03/12/16	NW - 0					
и	NE – 0					
и	SW - 0					
и	SE – 0					
03/24/16 - 03/26/16	NW – 29					
и	NE – 211					
и	SW - 0					
ű	SE – 0					

¹Twice monthly pumping activities occurred over a 3-day period to evaluate the leakage rates in GW-11, in accordance with procedures specified in a letter to NDEP-BWPC, dated May 28, 2015. The procedure is comprised of the following: days 1 and 2 consist of pumping the well contents dry. Day 3 provides the monitoring day for the gallons per day recharge rate. The value reported here represents the cumulative volume pumped during all 3 days. During the reporting period, the leakage rate did not exceed 125 gallons/acre/day.

Table 2b - AP-5 Pond Leak Detection Monitoring

Date	Volume in Detection Well (gallons)
01/18/16 ¹	72
01/26/16 - 01/28/16	308
02/10/16 - 02/12/16	197
02/23/16 - 02/25/16	321
03/10/16 - 03/12/16	244
03/24/16 - 03/26/16	273

²NERT temporarily suspended leakage rate testing in AP-5, which was documented in a letter to NDEP-BWPC, dated July 24, 2015. Leakage rate testing resumed with new pump equipment on January 18, 2016. Twice monthly pumping activities occurred over a 3-day period to evaluate the leakage rates in AP-5, following the initial January 18, 2016, pumping event. The 3-day evaluation is consistent with the method used for the GW-11 Pond: days 1 and 2 consist of pumping the well contents dry. Day 3 provides the monitoring day for the gallons per day recharge rate. The value reported here represents the cumulative volume pumped during all 3 days. During the reporting period, the leakage rate did not exceed 125 gallons/acre/day.

Table 3a – Corrected Q2 2015 GW-11 Pond Level and Storage Volume

Date	Flow Into GW-11 (MGD)	Corrected Pond Water Level (vertical depth in feet)	Storage Volume (thousand gallons)	Discharge to FBRs (million gallons)	Water Balance (million gallons)
4/10/15	4.40	14.1	49,657	17.07 (04/1/15 - 04/15/15)	0.4
4/18/15	1.19	14.1	49,542	19.73 (04/15/15 - 04/30/15)	0.1
5/15/15	4.07	13.9	48,627	19.28 (05/1/15 - 05/15/15)	4.0
5/28/15	1.27	13.8	48,058	20.44 (05/15/15 - 05/30/15)	-1.3
6/11/15	4.40	13.7	47,888	18.95 (06/1/15 - 06/15/15)	0.0
6/25/15	1.18	13.9	48,400	17.96 (06/15/15 - 06/30/15)	-0.2

Table 3b - Corrected Q3 2015 GW-11 Pond Leak Detection Monitoring

Dates	Volume in Detection Wells (gallons)
7/16/15 – 7/18/15	NW – 36
и	NE – 38
и	SW – 1556
и	SE – 89
7/29/15 – 7/31/15	NW – 4
и	NE – 0
и	SW - 1029
и	SE – 111
8/11/15 — 8/13/15	NW – 0
u	NE – 0
и	SW - 0
и	SE – 102
8/25/15 - 8/27/15	NW – 3
и	NE – 3
14	SW - 0

Dates	Volume in Detection Wells (gallons)			
ű	SE – 72 Corrected			
9/10/15 – 9/12/15	NW – 0			
ű	NE – 0			
ű	SW – 182 Corrected			
ű	SE – 49			
9/22/15 — 9/24/15	NW – 0			
ű	NE – 0			
и	SW – 451 Corrected			
и	SE – 104 Corrected			