

Brian Sandoval, Governor Leo M. Drozdoff, P.E., Director Colleen Cripps, Ph.D., Administrator

FACTSHEET (pursuant to NAC 445A.236)

Permittee Name: STEWART ENVIRONMENTAL, INC 9101 WEST SAHARA AVENUE, #105-B32 LAS VEGAS, NV - 89117

Permit Number: NV0024220

Location: VILLAGE SHOP #4/SINCLAIR STATION, CLARK 2151 NORTH RANCHO DRIVE, LAS VEGAS, NV - 89106 LATITUDE: 36.19951430, LONGITUDE: -115.19708150 TOWNSHIP: T20S, RANGE: R61E, SECTION: S19

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Outfall City	Outfall State	Outfall Zip	Outfall County	Latitude	Longitude	Receiving Water
001	REMEDIATION DISCHARGE	External Outfall		LAS VEGAS	NV	89016	CLARK	36.199910	-115.197360	LAS VEGAS WASH

General:

The Permittee, Stewart Environmental, Inc., has applied for a National Pollutant Discharge Elimination System (NPDES) permit to discharge treated groundwater from the Village Shop #4/Sinclair Station to the Las Vegas Wash, via the City of Las Vegas storm drain system. Formerly leaking underground storage tanks (LUSTs) have resulted in hydrocarbon contamination of the near-surface groundwater aguifer within the LUST area and near the dispensing pumps. The contaminated groundwater includes the following pollutants at concentrations that currently exceed or have exceeded the state action levels established for groundwater: benzene, toluene, ethylbenzene, xylenes (BTEX) and Methyl tertiary butyl ether (MTBE). The BTEX action levels are based on the EPA primary drinking water regulation maximum contaminant levels: 5 µg/L, 1000 µg/L, 700 µg/L, and 10000 µg/L respectively. The site-specific action level for MTBE is 200 µg/L and the Total Petroleum Hydrocarbons screening level for soil is 100 mg/kg. The USTs are still in place at the site and the release source has been repaired. Seven groundwater extraction wells will be utilized to pump the impacted groundwater to the surface for treatment. The hydrocarbon components will be removed from the recovered groundwater using two 2,000 pound granulated activated carbon (GAC) absorption vessels placed in series. The treatment system will be located within a secured fenced compound and fitted with pressure gauges, sample ports, and a flow meter. Following treatment, up to 0.0288 Million Gallons per Day (MGD) of the treated water will be discharged into an underground storm water channel which drains into the Las Vegas Wash.

Discharge Characteristics:

The treated groundwater discharged to the City of Las Vegas storm drain system shall meet the Division's technology based remediation standards for BTEX, MTBE, and total petroleum hydrocarbons (TPH).

Receiving Water:

The treated groundwater will be discharged to the Las Vegas Wash via the City of Las Vegas storm drain system. The water quality standards for the Las Vegas Wash, from Telephone Line Road to the confluence of the discharges from the City of Las Vegas and the Clark County wastewater treatment plants, are found in NAC 445A.2156.

Summary of Changes From Previous Permit:

This is a new permit.

Proposed Effluent Limitations:

During the period beginning on the effective date of this permit and lasting until the permit expires, the Permittee is authorized to discharge treated groundwater from Outfall 001. The discharge shall be limited, sampled, and monitored by the Permittee as specified below.

	[Ν	Monitoring Requirements				
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Flow rate	Daily Maximum	<= 0.0288 Million Gallons per Day (Mgal/d)		Effluent Gross	001	Continuous	METER
Flow rate	30 Day Average	<= 0.0288 Million Gallons per Day (Mgal/d)		Effluent Gross	001	Continuous	METER
Benzene	Daily Maximum		<= 5 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly	DISCRT
Toluene	Daily Maximum		<= 100 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly	DISCRT
Ethylbenzene	Daily Maximum		<= 100 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly	DISCRT
Xylene ^[2]	Daily Maximum		<= 200 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly	DISCRT
Methyl tert-butyl ether	Daily Maximum		<= 20 Micrograms per Liter (ug/L)	Effluent Gross	001	Monthly	DISCRT
Hydrocarbons, total petroleum ^[1]	Daily Maximum		<= 1 Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly	DISCRT

Discharge Limitations Table for Sample Location 001 (External Outfall) To Be Reported Monthly

Notes (Discharge Limitations Table):

1. EPA Method 8015B and EPA Method 8260B, full range (C6-C40), purgeable and extractable.

2. Total Xylenes.

		Discharge Li	Monitoring Requirements				
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
Nitrogen, ammonia total (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
pH, minimum	Daily Minimum		M&R Standard Units (SU)	Effluent Gross	001	Quarterly	DISCRT
pH, maximum	Daily Maximum		M&R Standard Units (SU)	Effluent Gross	001	Quarterly	DISCRT
Phosphorus, total (as P)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Boron, total (as B)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT
Selenium, total (as Se)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Quarterly	DISCRT

Discharge Limitations Table for Sample Location 001 (External Outfall) To Be Reported Quarterly

Discharge Limitations Table for Sample Location 001 (External Outfall) To Be Reported Annually

	Monitoring Requirements						
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type
1,1,1-Trichloroethane	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
1,1,2,2- Tetrachloroethane	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
1,1,2-Trichloroethane	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
1,1-Dichloroethane	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
1,1-Dichloroethylene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
1,2-Dichlorobenzene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
1,2-Dichloroethane	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
1,2-Dichloropropane	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
1,3-Dichlorobenzene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
1,4-Dichlorobenzene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
2-Chloroethyl vinyl ether, (mixed)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT
			M&R				

Discharge Limitations Table for Sample Location 001 (External Outfall) To Be Reported Annually

	Disc	charge Limita	ations	N	Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type	
Benzene	Daily Maximum		Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT	
Dichlorobromomethane	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT	
Bromoform	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT	
Methyl bromide (Bromomethane)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT	
Carbon tetrachloride	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT	
Chlorobenzene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT	
Chloroethane	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT	
Chloroform	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT	
Methyl chloride (Chloromethane)	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT	
cis-1,3- Dichloropropene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT	
Dibromochloromethane	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT	
Ethylbenzene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT	

Discharge Limitations Table for Sample Location 001 (External Outfall) To Be Reported Annually

Discharge Limitations						Monitoring Requirements			
Parameter	Base	Quantity	Concentration	Monitoring Loc	Sample Loc	Measurement Frequency	Sample Type		
Methylene chloride	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT		
Tetrachloroethylene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT		
Toluene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT		
trans-1,2- Dichloroethylene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT		
trans-1,3- Dichloropropene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT		
Trichloroethylene	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT		
Trichlorofluoromethane	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT		
Vinyl chloride	Daily Maximum		M&R Micrograms per Liter (ug/L)	Effluent Gross	001	Annual	DISCRT		

Rationale for Permit Requirements:

Monitoring is required to assess the quality of the discharge water and to ensure that the treated groundwater will not impact the beneficial uses of the Las Vegas Wash.

A representative groundwater quality analysis from the Village Shop #4/Sinclair Station showed that lead is non-detect at the reporting limit of 0.0050 mg/L. Therefore, no monitoring for this constituent is required.

Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) and Methyl tertiary butyl ether (MTBE): Since the project involves the remediation of petroleum compounds, discharge limitations for these constituents have been incorporated. The Division's technology based remediation standards for BTEX and MTBE are 5 μ g/L, 100

 μ g/L, 100 μ g/L, 200 μ g/L, and 20 μ g/L respectively. These discharge limitations are required to ensure proper treatment prior to discharge.

Boron and Selenium: Quarterly monitoring for Boron and Selenium has been incorporated in this permit due to the 303(d) listing of these parameters as pollutants of concern in the Las Vegas Wash.

Flow: Discharge flow is limited to the design discharge of the groundwater treatment system, which includes a 30-Day Average and Daily Maximum of 0.0288 MGD.

pH: Quarterly monitoring for pH has been incorporated in this permit to ensure that the treated groundwater does not impact the beneficial uses stated in NAC 445A.2156.

Total Dissolved Solids (TDS): NAC 445A.2156 indicates a TDS requirement of 95% of the single value samples being less than or equal to 1,900 mg/L. A background TDS sample indicates that the TDS concentration in the groundwater is less than the NAC 445A.2156 standard. Quarterly monitoring for TDS has been incorporated in this permit due to the 303(d) listing of this parameter as a pollutant of concern in the Las Vegas Wash.

Total Petroleum Hydrocarbons (TPH): The groundwater in the vicinity of the site has been contaminated by a petroleum hydrocarbon release. Monitoring of TPH is required to verify its removal by the treatment system. The Division's technology based remediation standard of 1.0 mg/L has been incorporated in this permit.

Total Phosphorus and Total Ammonia as Nitrogen: Quarterly monitoring for Total Ammonia and Total Phosphorus has been incorporated into this permit due to the Las Vegas Wash Total Maximum Daily Load (TMDL) requirements.

Volatile Organic Compounds (VOCs): Annual monitoring of VOCs is required to detect any changes in plume characteristics at the facility.

Special Conditions:

There are no Special Approvals/Conditions items.

SA – Special Approvals / Conditions Table

ltem #	Description
1	Spent carbon shall be replaced when breakthrough has been detected, with the fresh carbon being placed in the final canister and the other canisters rotated so that the oldest carbon is placed in the first position, and subsequent positions are occupied by decreasingly spent carbon. A sufficient amount of fresh carbon shall be available to replace the activated carbon in all vessels at the same time.

Flow:

The treated groundwater discharge to the City of Las Vegas storm drain system is limited to a 30-day average and daily maximum of 0.0288 MGD.

Corrective Action Sites:

There are six remediation sites besides the Village Shop #4 remediation site managed by the NDEP-Bureau of Corrective Actions (BCA) that are located within one mile of this facility: 8-000610, 8-000032, 8-000383, 8-001779, 8-001810, 8-001804, and H-000043. The BCA does not expect the permitted discharge to have adverse effects on the remediation sites.

Wellhead Protection Program:

This facility is not located within a Wellhead Protection Area; however it is located within a 3,000-foot Drinking Water Protection Area (DWPA) for one well and the 6,000-foot DWPAs for four additional wells. No impacts to drinking water are anticipated from the permitted discharge and/or associated treatment activities.

Schedule of Compliance:

lten #	n Description	Due Date					
1	Within 60 days of permit issuance, the Permittee shall submit two (2) copies of an Operations and Maintenance (O&M) Manual for review by the Division. The O&M Manual shall be prepared by a qualified person familiar with the system operations.	7/30/2015					

SOC – Schedule of Compliance Table

Deliverable Schedule:

Item #	Description	Interval	First Scheduled Due Date					
1	Quarterly Discharge Monitoring Report (DMR)	Quarterly	7/28/2015					
2	Annual Report	Annually	1/28/2016					

DLV– Deliverable Schedule for Reports, Plans, and Other Submittals

Procedures for Public Comment:

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to surface waters of the State of Nevada subject to the conditions contained within the permit, is being sent to the Las Vegas **Review Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 P.M. 5/15/2015, a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted. Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determined to be appropriate. All public hearings must be conducted to accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Determination:

The Division has made the tentative determination to issue / re-issue the proposed 5-year permit.

Prepared by:Briana JohnsonDate:4/9/2015Title:Environmental Scientist