FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: SOUTHERN NEVADA WATER AUTHORITY
P.O. BOX 99956
LAS VEGAS, NV - 89193

Permit Number: NV0023876 - [Modification]

Location: SNWA - THREE KIDS (DEMONSTRATION REPLACEMENT) WEIR, CLARK
N/A, LAS VEGAS, NV - 89101
LATITUDE: 36.096726, LONGITUDE: -114.947238
TOWNSHIP: 21S, RANGE: 63E, SECTION: 28

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Outfall City	Outfall State	Outfall Zip	Outfall County	Latitude	Longitude	Receiving Water
001	SHALLOW GROUNDWATER DISCHARGE	External Outfall		LAS VEGAS	NV	89101	CLARK	36.096726	-114.947238	LAS VEGAS WASH

General:

The Southern Nevada Water Authority (SNWA) is constructing an additional erosion control structure, the Three Kids (Demonstration Replacement) Weir, together with associated bank protection in the Lower Las Vegas Wash (Wash), in Clark County, Nevada. This permit covers the construction of one of the 22 erosion control structures constructed and/or planned for construction in the 7.5 mile long reach of the Wash from the Clark County Reclamation District wastewater outlet to Lake Las Vegas. The Three Kids Weir will be constructed in a portion of the Wash where the channel bed has eroded and become incised to a depth of approximately 38 feet below the original floodplain. The incised channel width at the Weir is approximately 300 feet. The configuration of this weir is similar to the design of weirs installed by the SNWA at seven other locations within the Wash. This weir will also be constructed as single stage, confined rock riprap structure. An upstream steel sheet pile seepage control wall located in the top of weir section and a similar wall located in the apron section of the weir will confine the riprap, reducing movement under high flood flows. The rock riprap will be placed on a three stage filter system placed to prevent fine grained foundation soils from eroding away. The weir construction project requires surface water diversion and shallow groundwater dewatering. A major focus of water management during construction is the management of discharge of groundwater containing perchlorate to the Wash.

Discharge Characteristics:

The discharge is shallow groundwater encountered during construction dewatering. The Weir is located within the major perchlorate plumes that intersect the downstream portions of the Wash. The pumped groundwater will be managed to not increase perchlorate concentrations in Lake Mead or the Lower Colorado River system appreciably. Dewatering will cease when the applicable seasonal perchlorate mass loading limits are exceeded. Winter/spring perchlorate mass loading increase to the Wash is limited to 80 lbs/day, and summer/fall perchlorate mass loading increase to the Wash is limited to 25 lbs/day.

Receiving Water:

The receiving water for the pumped groundwater is the Las Vegas Wash, tributary to Lake Mead. The Wash is the primary wastewater and stormwater drainage outlet for the Las Vegas Valley and surrounding watershed.

Summary of Changes From Previous Permit:

The previous permit only allowed dewatering and discharge during the winter/spring season from December 1 through May 31, each year. This major modification to the permit allows for year round dewatering and discharge, but the perchlorate loading increase is reduced during the summer/fall season, from June 1 through November 30, each year. There are no other changes proposed to the existing permit.

Proposed Effluent Limitations:

Specific sampling requirements are listed in the table below, including frequency and location of sampling. Informational surface water analyte and parameter information collected at non-discharge locations (Northshore Road; two designated locations within Lake Mead; and a Colorado River sampling location immediately below Hoover

Dam) are submitted to the Division under a separate reporting format than the quarterly DMRs submitted in compliance with Table I. The information is reported quarterly via trend lines, graphs, charts and/or other methods. Additional requirements include notifying the Division if the Lake elevation drops below 1060 feet above mean sea level (ft AMSL), and limiting the discharge to a maximum perchlorate mass load increase to the Wash of 80 lbs/day, calculated as the aggregate sum of all Weir project discharges from all Outfalls, from December 1 through May 31, and a maximum daily mass load increase to the Wash of 25 lbs/day during the period from June 1 through November 30, each year.

Discharge Limitations Table for Sample Location 001 To Be Reported Monthly

	Discharge Limitations			Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly When Discharging	DISCRT
Selenium, total recoverable	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Monthly When Discharging	DISCRT
Flow rate[1]	Daily Maximum	<= 6900 Gallons per Minute (gal/min)		Effluent Gross	001	Continuous	METER
Flow, total [1]	Discharge Per Day Total	<= 9.94 Million Gallons (Mgal)		Effluent Gross	001	Continuous	CALCTD
pH, minimum	Monthly Average Minimum		>= 6.50 Standard Units (SU)	Effluent Gross	001	Daily[2]	DISCRT
pH, maximum	Maximum Monthly Average		<= 9 Standard Units (SU)	Effluent Gross	001	Daily[2]	DISCRT
pH, minimum	Minimum		>= 6.50 Standard Units (SU)	Effluent Gross	001	Daily[2]	DISCRT
pH, maximum	Maximum		<= 9 Standard Units (SU)	Effluent Gross	001	Daily[2]	DISCRT
Perchlorate (ClO4) [3]	Daily Maximum [4]	<= 80 Pounds per Day (lb/d)[4]		Effluent Gross	001	Daily	DISCRT

Notes (Discharge Limitations Table):

1. Monitor daily, and report quarterly, maximum daily flow rate and total daily discharge volume.
2. Monitor daily, and report quarterly, the minimum, maximum and 30-day average.
3. Calculate the total daily perchlorate load from the total daily discharge; permit load limit is based on the aggregate sum of all Weir projects' discharge from all Outfalls.
4. Limit of 80 lbs/day is allowed from Dec 1-May 31 (each winter/spring construction dewatering season), and a limit of 25 lbs/day is allowed from June 1-Nov 30 (each summer/fall construction dewatering season). The maximum perchlorate loading rates of 80 lbs/day, and 25 lbs/day, are calculated as the aggregate sum of all Weir project discharges from all Outfalls. The loading rates/limits are actually mass loading increases to the Wash.

Special Conditions:

SA – Special Approvals / Conditions Table

Item #	Description
1	Additional Monitoring Requirements: Parameters Discharge Limitations Sampling Locations Monitoring Frequency Monitoring Type TPH[1](mg/L) M&R 001 Event Discrete 1. Collect a background total petroleum hydrocarbon (TPH) sample prior to first discharge, and collect a sample in the event of a fuel leak/visible sheen. Use Appropriate EPA Methods for the full range of TPH, C6-C40, purgeable and extractable. Report background analytical on first DMR. Report event-required analytical on quarterly DMR, following the quarter of the event that required sampling.

Flow:

6900 gpm daily max, and 9.94 MG maximum total daily discharge.

Corrective Action Sites:

There is one identified Bureau of Corrective Actions (BCA) remediation site within a one-mile radius of the project discharge areas. This is the City of Henderson closed landfill, located approximately ¼ mile up-gradient and topographically higher along the south bank of the Wash. The two up-gradient perchlorate plumes are a considerable distance from the Three Kids Weir (the leading edge of the perchlorate plume being remediated by AMPAC is approximately 3 miles upstream, and the leading edge of the perchlorate plume being remediated by Tronox is approximately 2 miles upstream). The BCA has indicated that the proposed weir construction project, as permitted by this permit, will not substantially impact the remediation projects or the perchlorate plumes.

Wellhead Protection Program:

N/A.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit to the Division, for review and approval, an updated Dewatering Plan (Plan) for the modified dewatering schedule, including the summer/fall dewatering. Before implementing changes to an approved Plan, the Permittee shall submit proposed changes to the Division for review and approval.	5/1/2013
2	The Permittee shall submit to the Division, for review and approval, an updated Monitoring, Sampling and Analysis Plan (SAP) that describes the year-round (both winter/spring season and summer/fall season) sampling, analyses, monitoring and methodology that will be used to determine when the dewatering discharges are to commence or cease (this will be based on a minimum Lake WSEL of 1060 AMSL and on the temperature from the multi-parameter probe monitoring of Lake Mead sampling locations). The SAP shall summarize the sampling, analyses, monitoring and data reporting to be conducted for the Northshore Road sampling location, two sampling locations in Lake Mead, and from the Colorado River at a position immediately below Hoover Dam (from the power generation deck). Before implementing	5/1/2013

	changes to an approved SAP, the Permittee shall submit proposed changes to the Division for review and approval.	

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	7/28/2013
2	Annual Plots	Annually	1/28/2014

Procedures for Public Comment:

The Notice of the Division's intent to reissue 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. **3/23/2013** , 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.650.

Proposed Determination:

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

Prepared by: **Jeryl Gardner**
Date: **6/25/2012**
Title: **P.E.**