

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
FACT SHEET
(Pursuant to NAC 445A.236)

Permittee Echelon Resorts
3930 Howard Hughes Pkwy 5th Floor
Las Vegas NV 89169

Permit No. NV0023621

Facility Echelon Las Vegas
3000 S Las Vegas Blvd
NW corner of intersection with E Desert Inn Rd
(site of former Stardust Hotel Casino)
Latitude 36° 07' 57" N
Longitude 115° 10' 09" W
T21S R61E S9

General This hotel casino project site has been undergoing construction dewatering via temporary wells since June 2007. The hotel towers, podium, and parking structure will all be served with a passive underslab collection system to remove groundwater that impinges upon the structures, and a few of the dewatering wells will be kept in place as well. This permit includes a continuation of the construction dewatering as well as the discharge from the permanent system as it comes on line. The discharge is untreated based on a lack of organic contamination. This is the first NPDES permit for this project; the previous permits were temporaries: TNEV2007515, TNEV2008408, and TNEV2008528.

Receiving Water Characteristics The storm drain discharges to Flamingo Wash, and the standards set at the nearest downstream control point, "Las Vegas Wash at Telephone Line Road" (NAC 445A.199), apply. In addition, the state wide standards for toxic materials, NAC445A.144, are applicable, and Total Maximum Daily Loads (TMDLs) for Las Vegas Wash have been established for total phosphorus and ammonia.

Rationale for Permit Requirements The monitoring requirements, discharge limits, and a summary of the data submitted under the previous permits are presented in the tables below and form the basis for the discussion that follows.

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Monitoring Requirements and Discharge Limitations

Parameter	Discharge Limitation	Monitoring Requirements		
		Sample Location	Frequency	Sample Type
Flow Rate	499,000 gpd ¹	i	continuous	meter
TPH (C6 - C40)	1 mg/l	i	quarterly	discrete
EPA 8260 ²	m&r	i	quarterly	discrete
Total Trihalomethanes	100 µg/l	i	quarterly	discrete
Trichloroethene (TCE)	5 µg/l	i	quarterly	discrete
Tetrachloroethene (PCE)	5 µg/l	i	quarterly	discrete
MTBE ³	20 µg/l	i	quarterly	discrete
Benzene	5 µg/l	i	quarterly	discrete
Toluene	100 µg/l	i	quarterly	discrete
Ethylbenzene	100 µg/l	i	quarterly	discrete
Xylenes (total)	200 µg/l	i	quarterly	discrete
Total Kjeldahl Nitrogen	m&r	i	quarterly	discrete
Total Ammonia as N	m&r	i	quarterly	discrete
Nitrite + Nitrate as N	m&r	i	quarterly	discrete
Total Inorganic Nitrogen	m&r	i	quarterly	discrete
Total Nitrogen	m&r	i	quarterly	discrete
Total Phosphorus	m&r	i	quarterly	discrete
pH	6.5 to 9 su	i	quarterly	discrete
TDS	m&r	i	quarterly	discrete
Metals ⁴	m&r	i	quarterly	discrete

i = before storm drain, m&r = monitor & report

1. Report average gpd per month
2. Full range, report all parameters. This will include the organics listed below this entry in the table.
3. Methyl tert-butyl ether
4. Analyses shall be for total metals and include antimony, arsenic, barium, beryllium, boron, cadmium, calcium, chromium, copper, fluoride, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, selenium, silver, thallium, zinc, and hardness as calcium carbonate.

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Data Summary
 July 2007 - September 2008
 mg/l except as noted

Parameter	Count ¹	Min	Avg	Max	Criteria
flow, gpd	15	33,000	156,000	320,000	
pH, su	13	7.03	7.45	8.00	6.5 - 9.0
Nitrate - N	13	3.20	7.77	9.08	10
TDS	13	2,200	2,558	3,820	1900
tetrachloroethene, µg/l	1	0.57	0.57	0.57	5
chloroform, µg/l	3	0.93	1.18	1.30	100
Ba	1	0.01	0.01	0.01	2
B	1	0.53	0.53	0.53	0.75
Ca	2	259	279	298	
Fe	1	0.77	0.77	0.77	1
Mg	13	108	140	190	

1. Number of times a parameter was measured or analyzed for and detected.

FLOW, 490,000 gpd: Flow data is necessary for determining impacts to the receiving water from the various constituents present. The applicant estimated a maximum flow of 430,000 gpd. As permit fees are based on flow, the limit has been set at the top of the category encompassing the estimated maximum.

TPH (C6 - C40), 1 mg/l: Total petroleum hydrocarbons, full range. This is a technology based limit. The analysis is included because it covers a wide range of potential pollutants, although its usefulness is limited by relatively high reporting limits. TPH is typically split up as gasoline range organics (GRO) C6 - C12, diesel range organics (DRO) C12 - C28, and oil range organics (ORO) C28 - C40. TPH analyses were conducted monthly under the temporary permits and there were no detections.

EPA 8260, full range, report all parameters. Similar in purpose to the TPH analysis but with much lower detection limits. The results will include the organic constituents below. Although these analyses were conducted under the temporary permits, reporting was mostly restricted to toluene and PCE.

- TOTAL TRIHALOMETHANES, 100 µg/l: This is the toxics standard for the municipal or domestic supply beneficial use. Chloroform (CHCl₃) isn't a typical constituent for hydrocarbon plumes, and the reported presence may be due to contamination of laboratory equipment. The full reporting requirement of the current permit will reveal any persistence.

- TRICHLOROETHENE (TCE), 5 µg/l: This is the toxics standard for the municipal or domestic supply beneficial use.
- TETRACHLOROETHENE (PERCHLOROETHENE, PCE), 5 µg/l: This is the Maximum Contaminant Level (MCL) for drinking water.
- METHYL TERT-BUTYL ETHER (MTBE), 20 µg/l: This limit is taken from the Corrective Action program, and is based on taste and odor considerations.
- BENZENE, 5 µg/l: This is the toxics standard for the municipal or domestic supply beneficial use.
- TOLUENE, 100 µg/l: Toluene is methyl benzene. This technology based limit is used instead of the toxic standard (14,300 µg/l) since it's easily achievable.
- ETHYLBENZENE, 100 µg/l: This technology based limit is used instead of the toxic standard (1,400 µg/l) since it's easily achievable.
- XYLENES (TOTAL), 200 µg/l: This is a technology based limit. Total xylenes consist of the three isomers of dimethyl benzene.

NITROGEN and PHOSPHORUS: These are included based on potential inputs from leaking sewers and other sources. Limits aren't used in general because the limited occurrence wouldn't normally justify the level of treatment required. Specie specific information follows.

TOTAL KJELDAHL NITROGEN (TKN), m&r: TKN is the sum of the organic forms plus ammonia, and it's needed as part of the determination of total nitrogen.

TOTAL AMMONIA (NH₃/NH₄) as N, m&r: This is included because it's needed as part of the determination of TIN (below), and because of the TMDL, which is 970 lb/day.

NITRITE (NO₂) + NITRATE (NO₃): These are most often compared to the MCL for nitrate, 10 mg/l. Nitrite rapidly converts to nitrate in the environment.

TOTAL INORGANIC NITROGEN (TIN), m&r: This is included because of the control point standard, 20 mg/l, which is based on existing quality. TIN is determined from the sum of separate analyses for nitrite, nitrate, and ammonia.

TOTAL NITROGEN (TN), m&r: TN is determined from the sum of separate analyses for Kjeldahl, nitrite, and nitrate.

TOTAL PHOSPHORUS, m&r: The TMDL is 434 lb/day.

pH, 6.5 - 9.0, standard units: This is the control point standard, based on beneficial uses. Although not controlled by the treatment processes, an excursion would represent some type of mishap and could be corrected fairly easily.

TDS, m&r: This is included because of existing salinity impacts in the Colorado River basin. This parameter is not limited based on natural occurrence, dilution, and difficulty of treatment.

METALS, monitor & report: These are of interest because of their environmental effects in general. They're not limited based on natural occurrence, dilution, and difficulty of treatment. These analyses were not conducted under the previous permits.

Procedures for Public Comment Notice of the Division's intent to issue discharge permit NV0023621 as described here is being sent to the Las Vegas Review Journal for publication and mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit must submit written comments to the Division within (30) days of the publication date. The comment period can be extended at the discretion of the Administrator. The deadline for comments is 5:00 pm Monday March 23, 2009, although letters postmarked on that date will also be accepted.

A public hearing on the proposed determination can be requested by the applicant, any affected state or interstate agency, the Regional Administrator, or any interested agency, person, or group of persons. The request must be filed within the comment period and indicate the interest of the person filing the request and the reasons why a hearing is warranted. Public hearings granted by the Division are conducted in accordance with NAC 445A.238. The final determination of the Division

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may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Determination The Division has made the tentative determination to issue the proposed discharge permit for a five year term.

Prepared by: Robert J Saunders
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 Bureau of Water Pollution Control
 February 12, 2009