STATE OF CALIFORNIA

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
320 W. 4th Street, Suite 200, Los Angeles

FACT SHEET
WASTE DISCHARGE REQUIREMENTS
for
LB/L SUNCAL-MANDALAY, LLC
WESTPORT AT MANDALAY BAY

NPDES Permit No.: CA0064491
Public Notice No.: 02-056

FACILITY ADDRESS	FACILITY MAILING ADDRESS
Westport at Mandalay Bay	LB/L Suncal-Mandalay, LLC.
South of Wooley Road	21601 Devonshire Street, Ste. 116
Oxnard, CA 93035	Oxnard, CA 91311
	Contact: Mike Walline
	Telephone: (818) 772-2077

I. Public Participation

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the above-referenced facility. As an initial step in the WDR process, the Regional Board staff has developed tentative WDRs. The Regional Board encourages public participation in the WDR adoption process.

A. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments should be submitted either in person or by mail to:

Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

To be fully responded to by staff and considered by the Regional Board, written comments should be received at the Regional Board offices by 5:00 p.m. on November 22, 2002.

B. Public Hearing

The Regional Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: December 12, 2002
Time: 9:00 a.m.
Location: City of Los Angeles, Board of Public Works Hearing Room
200 North Spring Street
Los Angeles, CA

Interested persons are invited to attend. At the public hearing, the Regional Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

C. Waste Discharge Requirements Appeals

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Board's action to the following address:

State Water Resources Control Board, Office of Chief Counsel
ATTN: Elizabeth Miller Jennings, Senior Staff Counsel
1001 I Street, 22nd Floor
Sacramento, CA 95814

D. Information and Copying

The Report of Waste Discharge (ROWD), related documents, tentative effluent limitations and special conditions, comments received, and other information are on file and may be inspected at 320 West 4th Street, Suite 200, Los Angeles, California 90013, at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Los Angeles Regional Board by calling (213) 576-6600.

E. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Board, reference this facility, and provide a name, address, and phone number.

II. Introduction

LB/L Suncal-Mandalay LLC (hereinafter Discharger) discharges groundwater from dewatering operations near the Westport at Mandalay Bay development site under waste discharge requirements (WDRs) contained in Order No. 97-045 adopted by the Regional Board on May 12, 1977, CI-8282. Order 97-045 serves as the *General National Pollutant Discharge*

Elimination System (NPDES) Permit and Waste Discharge Requirements for Groundwater Discharges from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties (CAG994001) (General Construction Dewatering Permit). LB/L Suncal-Mandalay LLC's Westport at Mandalay Bay project was enrolled in the General Construction Dewatering Permit on September 26, 2001.

The Discharger has filed a ROWD and has applied for individual WDRs and NPDES permit to cover the discharge of treated groundwater from the site. The Discharger anticipates an increase in the discharge volume (from 1.5 million gallons per day (MGD) to 10 MGD during the rainy season that is predicted to exhibit el nino conditions). The 10 MGD discharge flow rate is not eligible for coverage under the General Construction Dewatering Permit. A pre-permit site inspection was also conducted on September 27, 2002, to observe operations and collect additional data to facilitate development of permit limitations and conditions.

III. Description of Facility and Waste Discharge

The Discharger is developing 58.3 acres of land located between the Edison Canal and Victoria Avenue on the south side of Wooley Road in the city of Oxnard, California. The land area will be developed to include 358 multi-family residences with waterfront features. The project components include:

- excavation, grading, and building on the area where the residences will be located,
- widening and deepening of the north-south trending Edison Canal (also referred to as the Reliant Energy Canal) and an unnamed east-west trending channel (typically referred to as the Harbor Island Canal or Channel 1),
- excavation of 323,100 cubic yards of material to provide a connection to Channel 1, a navigable waterway,
- placement of 151 boat slips,
- placement of 1,800 cubic yards of slope protection along the Edison Canal and Channel 1 and 7,400 cubic yards of slope protection for the connection of Channel 1, and
- installation of buoys to restrict access by boats in the Edison Canal. The discharge of return water from an upland, contained disposal area. Material dredged from the Edison Canal and Channel 1 (Harbor Island Canal) would be temporarily stockpiled in an upland contained disposal area adjacent to Wooley Road and the Edison Canal. As the dredged material dries, the water would be returned to the Edison Canal.

Up to 10 million gallons per day (MGD) of treated groundwater from the shallow unconfined aquifer, which extends to 50 feet, will be discharged from 58.3 acres of land during subsurface grading and excavation operations. A berm currently surrounds the area that is being developed. Groundwater dewatered during the grading will be pumped using a trench drain system, augmented by dewatering wells as needed. The groundwater will subsequently be pumped into settlement tanks, ponds or other filtration devices prior to discharge into the surface waters.

The treated groundwater will be discharged to the Harbor Island Canal and the Edison Canal. The locations of the discharge outfalls are (see Figure 1):

Outfall	Receiving Water	Latitude	Longitude

Outfall 001	Harbor Island Canal	34° 11' 26" North	119° 14' 02" West
Outfall 002	Edison Canal	34° 11' 8" North	119° 13' 51" West
Outfall 003	Edison Canal	34° 11' 16" North	119° 13' 57" West
Outfall 004	Edison Canal	34° 11' 5" North	119° 13' 41" West

Effluent limitations contained in the General Construction Dewatering Permit which currently covers discharges from the Westport at Mandalay Bay construction site and representative monitoring data are presented in the following table:

	Existing Effluent Limitations		**Discharge Conc. (March 2001 –June 2002)**
Constituent (units)	**Daily Maximum**	**30-Day Average**	**Range**
pH	6.5-8.5	--	7.8 – 8
Temperature	100°F	---	NA
Oil and Grease (mg/L)	15	10	<5
BOD_5 (mg/L)	30	20	2
Total suspended solids (mg/L)	150	50	10-150
Turbidity	150	50	13 – 150
Settleable solids	0.3	0.1	0.1
Sulfides	1.0	--	<0.05
Detergents as MBAS (mg/L)	0.5	--	<0.05
Phenols (mg/L)	1.0	--	<100
Phenolic Compounds(chlorinated) (µg/L)	1.0	--	<0.5
Benzene (µg/L)	1.0	--	<0.5
Toluene (µg/L)	150	--	0.28 – 2
Ethylbenzene (µg/L)	700	--	<1.0
Xylene (µg/L)	1750	--	0.85 – 3
Ethylene dibromide (µg/L)	0.05	--	<1.0
Carbon tetrachloride (µg/L)	0.05	--	<1.0
Tetrachloroethylene (µg/L)	5.0	--	<1.0
Trichloroethylene (µg/L)	5.0	--	<1.0
1,4-dichlorobenzene (µg/L)	5.0	--	<1.0
1,1-dichloroethane (µg/L)	5.0	--	NA
1,2-dichloroethane (µg/L)	0.5	--	<0.5
1,1-dichloroethylene (µg/L)	6.0	--	<1.0
Vinyl chloride (µg/L)	0.5	--	<0.5
Arsenic (µg/L)	50	--	4
Cadmium (µg/L)	5	--	<5
Chromium (µg/L)	50	--	7
Copper (µg/L)	1,000	--	3 – 60
Lead (µg/L)	50	--	50 – 80
Mercury (µg/L)	2	--	0.04 – 0.07
Selenium (µg/L)	10	--	6 – 11
Silver (µg/L)	50	--	<10
Total petroleum hydrocarbon (µg/L)	100	--	30 – 400
Methyl tertiary butyl ether (µg/L)	35	--	<2

NA = Not analyzed.

Under the previous permit (CAG994001), the discharger reported violations of established effluent limits for lead (limit equals 50 micrograms/liter (µg/L) with a reported concentration of 80 µg/L on

and total petroleum hydrocarbons (TPH) diesel (limit of 100 μg/L) with a reported concentration of 300 μg/L from Point 1 on May 10, 2002. At Point 3 on May 24, 2002 the detected concentration of selenium of 11 μg/L and TPH diesel of 400 μg/L exceeds the limits of 10 and 100 μg/L respectively. On June 4, 2002 the detected concentration of TPH diesel from the Southern Outfall (designated Outfall 001) was 300 μg/L, well in access of the 100 μg/L effluent limit.

On August 26, 2002 samples were collected associated with the discharge of 100,000 gallons of surface water. The total suspended solids (TSS) was 250 mg/L well in excess of the daily maximum and monthly average limit of 150 and 50 mg/L respectively. The turbidity was 150 NTU, which exceeds the monthly average limit of 50 NTU.

IV. Applicable Plans, Policies, Laws, and Regulations

The requirements contained in the proposed Order are based on the requirements and authorities contained in the following:

1. The Federal Clean Water Act (CWA). The federal Clean Water Act requires that any point source discharge of pollutants to a water of the United States must be done in conformance with an NPDES permit. NPDES permits establish effluent limitations that incorporate various requirements of the CWA designed to protect water quality.

2. Title 40, Code of Federal Regulations (40 CFR) – Protection of Environment, Chapter 1, Environmental Protection Agency, Subchapter D, Water Programs, Parts 122-125 and Subchapter N, Effluent Guidelines. These CWA regulations provide effluent limitations for certain dischargers and establish procedures for NPDES permitting, including how to establish effluent limitations, for certain pollutants discharged.

3. On June 13, 1994, the Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan contains water quality objectives and beneficial uses for inland surface waters and for the Pacific Ocean. The receiving waters for the permitted discharge covered by this permit are the Edison Canal and Harbor Island Canal, a section of the Channel Islands Harbor. The Edison Canal is a waterway which conveys salt water from the Channel Islands Harbor to the Edison Canal Estuary, the Reliant Energy Power Plant, and finally to the Pacific Ocean. The tributary rule states that those waters not specifically listed (generally smaller tributaries) are designated with the same beneficial uses as the streams, lakes or reservoirs to which they are tributary. Hence the beneficial uses of the Edison Canal Estuary were used to determine the applicable and appropriate water quality standards for the Edison Canal. The beneficial uses listed in the Basin Plan for the Edison Canal Estuary are:

   Existing: industrial service supply, contact and noncontact recreation, marine habitat, wildlife habitat, and rare, threatened, or endangered species.

   The Harbor Island Canal is a portion of the Channel Islands Harbor, a water of the United States. The tributary rule requires that discharges into a surface water must protect

downstream uses. Hence, the beneficial uses of the Channel Islands Harbor are also applicable to the Harbor Islands Canal. The beneficial uses of the Channel Islands Harbor as listed in the Basin Plan are:

Existing: industrial service supply, navigation, contact and noncontact recreation, commercial and sport fishing, marine habitat, wildlife habitat.

4. The State Water Resources Control Board (State Board) adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters.

5. On May 18, 2000, the U.S. Environmental Protection Agency (USEPA) promulgated numeric criteria for priority pollutants for the State of California [known as the *California Toxics Rule* (CTR) and codified as 40 CFR 131.38]. In the CTR, USEPA promulgated criteria that protect the general population at an incremental cancer risk level of one in a million (10^{-6}), for all priority toxic pollutants regulated as carcinogens. The CTR also provides a schedule of compliance not to exceed 5 years from the date of permit renewal for an existing discharger if the Discharger demonstrates that it is infeasible to promptly comply with the CTR criteria.

6. On March 2, 2000, the State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP*).* The SIP was effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the National Toxics Rule (NTR), and to the priority pollutant objectives established by the Regional Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by the USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP was effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The SIP requires the dischargers' submittal of data sufficient to conduct the determination of priority pollutants requiring water quality-based effluent limitations (WQBELs) and to calculate the effluent limitations. The CTR criteria for saltwater or human health for consumption of organisms, whichever is more stringent, are used to develop the effluent limitations in this Order to protect the beneficial uses of the Channel Islands Harbor and the Edison Canal Estuary.

7. 40 CFR section 122.44(d)(vi)(A) requires the establishment of numeric effluent limitations to attain and maintain applicable narrative water quality criteria to protect the designated beneficial uses. Where numeric water quality objectives have not been established in the Basin Plan, 40 CFR section 122.44(d) specifies that WQBELs may be set based on USEPA criteria and supplemented, where necessary, by other relevant information to attain and maintain narrative water quality criteria to fully protect designated beneficial uses.

8. State and Federal antibacksliding and antidegradation policies require Regional Board actions to protect the water quality of a water body and to ensure that the waterbody will not be further degraded. The antibacksliding provisions are specified in section 402(o) of the CWA and in 40

CFR, section 122.44(l). Those provisions require a reissued permit to be as stringent as the previous permit with some exceptions where effluent limitations may be relaxed.

9. Effluent limitations are established in accordance with sections 301, 304, 306, and 307 of the CWA, and amendments thereto. These requirements, as they are met, will maintain and protect the beneficial uses of the Channel Islands Harbor and the Edison Canal Estuary.

10. Existing waste discharge requirements contained in Board Order No. 97-045, General NPDES Permit No. CAG994001 were used to regulate discharges from the Westport at Mandalay Bay site of up to 1.5 MGD starting on September 26, 2001. In some cases, permit conditions (effluent limitations and other special conditions) established in the existing waste discharge requirements have been carried over to this permit.

V. Regulatory Basis for Effluent Limitations

The CWA requires point source discharges to control the amount of conventional, nonconventional, and toxic pollutants that are discharged into the waters of the United States. The control of the discharge of pollutants is established through NPDES permits that contain effluent limitations and standards. The CWA establishes two principal bases for effluent limitations. First, dischargers are required to meet technology-based effluent limitations that reflect the best controls available considering costs and economic impact. Second, they are required to meet WQBELs that are developed to protect applicable designated uses of the receiving water.

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

- Best practicable treatment control technology (BPT) is based on the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and nonconventional pollutants.

- Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and nonconventional pollutants.

- Best conventional pollutant control technology (BCT) is a standard for the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the "cost reasonableness" of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.

- New source performance standards (NSPS) that represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BCT, BAT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR 125.3 of the NPDES regulations authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern.

If a reasonable potential exists for pollutants in a discharge to exceed water quality standards, WQBELs are also required under 40 CFR 122.44(d)(1)(i). WQBELs are established after determining that technology-based limitations are not stringent enough to ensure that state water quality standards are met for the receiving water. WQBELs are based on the designated uses of the receiving water, water quality criteria necessary to support the designated uses, and the state's antidegradation policy. For discharges to inland surface waters, enclosed bays, and estuaries, the SIP establishes specific implementation procedures for determining reasonable potential and establishing WQBELs for priority pollutant criteria promulgated by USEPA through the CTR and NTR, as well as the Basin Plan.

There are several other specific factors affecting the development of limitations and requirements in the proposed Order. These are discussed as follows:

1. Pollutants of Concern

The CWA requires that any pollutant that may be discharged by a point source in quantities of concern must be regulated through an NPDES permit. Further, the NPDES regulations and SIP require regulation of any pollutant that (1) causes; (2) has the reasonable potential to cause; or (3) contributes to the exceedance of a receiving water quality criteria or objective. The SIP includes provisions for priority pollutant criteria promulgated by USEPA in the CTR and NTR, and for those priority pollutants outlined in the Basin Plan.

Effluent limitations in the current permit were established for many of the metals or other contaminants of concern that may be present in elevated concentrations in the groundwater. A preliminary review of the data submitted for discharges from the site indicates that the concentrations of three priority pollutants (lead, copper, and mercury) may exceed the effluent limits. The data also yielded exceedances of the current limits for TPH (detected at 400 μg/L) and selenium (detected at 11 μg/L) which are 100 and 10 μg/L respectively.

Regional concerns in the Oxnard Forebay groundwater basin include elevated nitrogen from septic systems and agricultural areas. Neither, the Edison Canal Estuary or the Harbor Islands Canal has limits for nitrogen in the Basin Plan. Consequently, this permit does not include a limit for that constituent. However, this permit does include requirements for monitoring nitrogen, boron, chloride, sulfate and total dissolved solids.

2. Technology-Based Effluent Limitations

This Discharger has enrolled in and complies with all provisions of the State Water

Resources Control Board Water Quality Order No. 99-08-DWQ, National Pollutant Discharge Elimination System (NPDES) *General Permit for Storm Water Discharges Associated with Construction Activities* (General Permit). The General Permit includes requirements to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) along with Best Management Practices (BMPs) that will prevent all construction pollutants from contacting storm water and with the intent of keeping all products of erosion from moving off site into receiving waters.

Due to the lack of national ELGs for construction operations and the absence of data available to apply BPJ, and pursuant to 40 CFR 122.44(k), the Regional Board will require the Discharger to develop and implement a *Best Management Practices Plan* (BMPP). The purpose of the BMPP is to establish site-specific procedures that will prevent the discharge of pollutants in treated groundwater. The BMPP should also address non-storm water discharges from outside the facility. In particular, the facility must ensure the discharge of pollutants associated with all onsite activities including equipment operation, equipment maintenance, vehicular entry and exit is minimized. The combination of the SWPPP and BMPP and existing permit limitations based on past performance and reflecting BPJ will serve as the equivalent of technology-based effluent limitations, in the absence of established ELGs, in order to carry out the purposes and intent of the CWA.

3. Water Quality-Based Effluent Limitations

As specified in 40 CFR 122.44(d)(1)(i), permits are required to include WQBELs for toxic pollutants (including toxicity) that are or may be discharged at levels which cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses for the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria (that are contained in other state plans and policies, or USEPA water quality criteria contained in the CTR and NTR). The specific procedures for determining reasonable potential, and if necessary for calculating WQBELs, are contained in the SIP.

The CTR contains both saltwater and freshwater criteria. According to 40 CFR 131.38(c)(3), freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95 percent or more of the time; saltwater criteria apply at salinities of 10 ppt and above at locations where this occurs 95 percent or more of the time; and at salinities between 1 and 10 ppt the more stringent of the two apply. The CTR criteria for saltwater or human health for consumption of organisms, whichever is more stringent, are used to prescribe the effluent limitations in this Order to protect the beneficial uses of the Edison Canal and the Harbor Islands Canal.

(a) Reasonable Potential Analysis (RPA)

In accordance with Section 1.3 of the SIP, the Regional Board will conduct a reasonable potential analysis (RPA) for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Regional

Board would analyze effluent data to determine if a pollutant in a discharge has a reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that have a reasonable potential, numeric WQBELs are required. The RPA considers water quality objectives outlined in the CTR, NTR, as well as the Basin Plan. To conduct the RPA, the Regional Board must identify the maximum observed effluent concentration (MEC) for each constituent, based on data provided by the Discharger.

Section 1.3 of the SIP provides the procedures for determining reasonable potential to exceed water applicable water quality criteria and objectives. The SIP specifies three triggers to complete a RPA:

1) Trigger 1 – If the MEC is greater than or equal to the CTR water quality criteria or applicable objective (C), a limitation is needed. For certain constituents present in this discharge that were nondetect, the MEC was set at the method detection limit consistent with section 1.3 of the SIP.

2) Trigger 2 – If MEC<C and background water quality (B) > C, a limitation is needed.

3) Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, etc. indicates that a WQBEL is required.

Sufficient effluent and ambient data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Regional Board to conduct the RPA. Upon review of the data, and if the Regional Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

(b) Calculating WQBELs

If a reasonable potential exists to exceed applicable water quality criteria or objectives, then a WQBEL must be established in accordance with one of three procedures contained in Section 1.4 of the SIP. These procedures include:

1) If applicable and available, use of the wasteload allocation (WLA) established as part of a total maximum daily load (TMDL).

2) Use of a steady-state model to derive maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).

3) Where sufficient effluent and receiving water data exist, use of a dynamic model, which has been approved by the Regional Board.

(c) Impaired Water Bodies in 303 (d) List

Section 303(d) of the CWA requires states to identify specific water bodies where

water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d) listed water bodies and pollutants, the Regional Board plans to develop and adopt TMDLs that will specify WLAs for point sources and load allocations (LAs) for non-point sources, as appropriate.

The USEPA has approved the State's 303(d) list of impaired water bodies. Certain receiving waters in the Los Angeles and Ventura County watersheds do not fully support beneficial uses and therefore have been classified as impaired on the 1998 303(d) list and have been scheduled for TMDL development.

The Edison Canal Estuary and the Channel Islands Harbor is located in the Ventura watershed. The Edison Canal is a man-made channel, used to direct ocean water from the Channel Islands Harbor through Edison Canal Estuary, the Reliant Energy Mandalay Generating Station to the coastal zone of the Pacific Ocean. The Edison Canal, is a tributary to the Edison Canal Estuary. The Edison Canal Estuary is not listed on the 1998 303 (d) list of impaired waterbodies.

The Channel Islands Harbor is located south of the Santa Clara River and is in the immediate vicinity of considerable residential development and some agricultural land. The harbor is home to many recreational boats and two boatyards. Sediment sampling in 1998 revealed elevated contaminant levels for several metals. The Channel Islands Harbor is on the 1998 303 (d) list for lead and zinc. The Bay Protection and Toxic Cleanup Report lists the harbor as a site of concern due to DDT and silver sediment concentrations and sediment toxicity.

(d) Whole Effluent Toxicity

Whole Effluent Toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative "no toxics in toxic amounts" criterion while implementing numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and measures mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental response on aquatic organisms. Detrimental response includes but is not limited to decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. The existing permit does not contain toxicity limitations or monitoring requirements.

In accordance with the Basin Plan, acute toxicity limitations dictate that the average survival in undiluted effluent for any three consecutive 96-hour static or continuous

flow bioassay tests shall be at least 90%, with no single test having less than 70% survival. Consistent with Basin Plan requirements, this Order includes acute toxicity limitations.

In addition to the Basin Plan requirements, Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters.

The discharges from the Westport at Mandalay Bay site will occur only during the grading and development of the site which is estimated to continue for four months. The Discharger will be required to conduct chronic toxicity testing. The Order includes a chronic testing trigger hereby defined as an exceedance of 1.0 toxic units chronic (TU_c) in a critical life stage test for 100% effluent. (The monthly median for chronic toxicity of 100% effluent shall not exceed 1.0 TU_c in a critical life stage test.) If the chronic toxicity of the effluent exceeds 1.0 TU_c, the Discharger will be required to immediately implement accelerated chronic toxicity testing according to Monitoring and Reporting Program, Item IV.D.1. If the results of two of the six accelerated tests exceed 1.0 TU_c, the Discharger shall initiate a toxicity identification evaluation (TIE).

4. <u>Specific Rationale for Each Numerical Effluent Limitation</u>

Section 402(o) of the Clean Water Act and 40 CFR 122.44(l) require that effluent limitations standards or conditions in re-issued permits are at least as stringent as in the existing permit. The Regional Board has determined that reasonable potential exists for all pollutants that are regulated under the current permit; therefore effluent limitations have been established for these pollutants. Furthermore, the effluent limitations for metals have been modified based on the revised water quality criteria contained in the CTR and the requirements contained in Section 1.4 of the SIP. This modification includes establishing both MDELs and AMELs. The effluent limitations calculated based on these revised criteria and requirements are more stringent than the existing daily maximum limitations for all of the metals except for arsenic, cadmium, chromium and selenium. The limit in the previous Order for daily maximum limits in the previous order were more stringent and consequently were used in this Order. There are neither saltwater criteria for aquatic life protection nor criteria for human health protection for total chromium in the CTR. Therefore, the maximum daily effluent limitation for total chromium has been carried over from the existing permit, and interim monitoring for reasonable potential will be required for the trivalent and hexavalent forms of chromium. Compliance with the criteria for total chromium should be protective of receiving water beneficial uses. The AMELs calculated for arsenic and cadmium are more stringent than the daily maximum concentrations and have been included as monthly average final effluent limitations. Calculations of the CTR final effluent limitations for the constituents included in the General Construction Dewatering Permit and a summary of the RPA analysis are provided in Attachment A.

There are currently no applicable Basin Plan objectives for Miscellaneous Ventura Coastal Streams such as the Edison Canal Estuary and Harbor Islands Canal for TDS, sulfate, chloride, boron, and nitrogen. Therefore, no effluent limitations are established for these parameters in the Order.

In compliance with 40 CFR 122.45(f), mass-based limitations have also been established in the proposed Order for conventional and priority pollutants and metals. 40 CFR 122.45(b) requires that a long-term average flow rate is established and used to derive the mass-based limitations in the Order. Since this is a new project, no long-term average flow has been calculated. Instead, staff utilized the maximum permitted flow from the previous permit of 1.5 MGD to calculate the monthly average mass-based limitation. The maximum mass-based effluent limit was calculated using the maximum permitted flow rate of 10 MGD flow.

When calculating the mass for discharges, the appropriate flow, daily maximum for daily maximum mass calculations, and the monthly average flowrate when calculating the monthly average mass should be substituted in the following equation.

Mass (lbs/day) = flow rate (MGD) X 8.34 X effluent limitation (mg/L):

where: mass = mass limit for a pollutant in lbs/day
effluent limitation = concentration limit for a pollutant, mg/L
flow rate = discharge flow rate in MGD

The following table provides the final effluent limitations.

Constituent (units)	Discharge Limitations		Rationale[1]
	Daily Maximum Concentration	Monthly Average Concentration	
pH	6.5 – 8.5	---	BP
Temperature	100°F	---	TP
Oil and Grease (mg/L)	15	10	EP
BOD_5 (mg/L)	30	20	EP
Total suspended solids (mg/L)	150	50	EP
Turbidity (NTU)	50	---	Basin Plan
Settleable solids (ml/L)	0.3	0.1	EP
Sulfides (mg/L)	1.0	---	EP
Phenols (mg/L)	1.0	---	EP
MBAS (mg/L)	0.5	---	Basin Plan
Phenolic compounds (µg/L)	1.0	---	EP
1,1-dichloroethane (µg/L)	5	---	EP
1,1-dichloroethylene (µg/L)	6.0	3.2	CTR
1,2-dichloroethane (µg/L)	0.5	---	EP
1,4 Dichlorobenzene (µg/L)	5	---	EP
Benzene (µg/L)	1.0	---	EP
Carbon tetrachloride (µg/L)	0.5	---	EP
Constituent (units)	**Discharge Limitations**		**Rationale[1]**
	Daily Maximum Concentration	**Monthly Average Concentration**	
Ethylbenzene (µg/L)	700	---	EP
Ethylene dibromide (µg/L)	0.05	---	EP
Methyl tertiary butyl ether (µg/L)	5	---	EP
Tetrachloroethylene (µg/L)	5	---	EP
Toluene (µg/L)	150	---	EP
Trichloroethylene (µg/L)	5	---	EP

Vinyl chloride (µg/L)	0.5	---	EP
Xylenes (µg/L)	1,750	---	EP
Arsenic[2] (µg/L)	50	29	EP/CTR
Cadmium[2] (µg/L)	5	---	EP
Chromium III[2] (µg/L)	50	---	EP
Copper[2,3] (µg/L)	4.8	2.3	CTR
Lead[2,3] (µg/L)	13	6.6	CTR
Mercury[2,3] (µg/L)	0.1	0.05	CTR
Selenium[2] (µg/L)	10	---	EP
Silver[2] (µg/L)	1.9	0.9	CTR
Zinc[2] (µg/L)	90	45	CTR
Total petroluem hydrocarbons (µg/L)	100	---	EP

[1] EP = Existing Permit, CTR = California Toxics Rule, BP = Basin Plan, Thermal Plan.
[2] Discharge limitations for these metals are expressed as total recoverable.
[3] These limits are effective after June 30, 2003. Prior to June 30, 2003 the interim effluent limits are used to determine compliance for discharges from the site.

There are very little data to perform a reasonable potential analysis for most of the toxic parameters. In such circumstance, the SIP recommends that additional data is gathered prior to permit issuance, or that additional data is gathered during the term of the permit.

The data available was used to perform an RPA for discharges from the site. The RPA indicates that three constituents (copper, lead, and mercury) have the potential to exceed the CTR based WQELs prescribed in the table above. Hence, interim limits have been prescribed for these constituents. The interim limits are the most stringent of the limits that were included in the General Construction Dewatering Permit and the MEC reported in data previously collected at the site. The RPA for mercury indicated a potential to exceed the calculated monthly average concentration but not the daily maximum concentration. Hence, the interim daily maximum effluent concentration is the same as the final effluent concentration, but the interim monthly average concentration is the MEC reported in the data set.

Interim Effluent Limitations. From the effective date of this Order until June 30, 2003 the discharge of an effluent in excess of the following limitations is prohibited:

Constituent (units)	Discharge Limitations		Rationale[1]
	Daily Maximum Concentration	Monthly Average Concentration	
Copper[2] (µg/L)	60	---	MEC
Lead[2] (µg/L)	50	---	EP
Mercury[2] (µg/L)	0.1	0.07	CTR/MEC

[1] EP = Existing Permit, MEC = maximum effluent concentration, CTR = California Toxics Rule.
[2] Discharge limitations for these metals are expressed as total recoverable. The effluent limits in this table are effective from the date of adoption of this Order through June 30, 2003.

During one sampling event at the site the concentration of selenium (11 µg/L) exceeded the limit included in the General Construction Dewatering Permit (10 µg/L). Samples of treated groundwater also had elevated concentrations of TPH and turbidity. The implementation of best management practices onsite during the groundwater treatment (effective settling and/or filtration) may alleviate these exceedances.

This permit, includes limits for all of the constituents included in the previous order along with a requirement to monitor the 126 priority pollutants bimonthly. Monitoring requirements are discussed in greater detail in Section III, of the Monitoring and Reporting Program CI-8282.

5. **Monitoring Requirements**

For regulated parameters, the previous permit for Westport at Mandalay Bay required monthly monitoring for conventional pollutants, quarterly monitoring for a few volatiles and metals, annual monitoring for acute toxicity, and the remaining priority pollutants. According to Section 1.3 of the SIP, if data are unavailable or insufficient to conduct the RPA, the Regional Board must establish interim requirements that require additional monitoring for the pollutants in place of a WQBEL. Upon completion of the required monitoring, the Regional Board must use the gathered data to conduct the RPA and determine if a WQBEL is required. As prescribed in the Monitoring and Reporting Program, the Regional Board shall require periodic monitoring for pollutants for which criteria or objectives apply and for which no effluent limitations have been established.

(a) Effluent Monitoring

To demonstrate compliance with effluent limitations established in the permit, more frequent monitoring requirements from the existing permit will be applied to the reissued permit. Monitoring data during the previous permit term suggest that the Discharger has the potential to exceed the established effluent limitations for turbidity, selenium, lead, copper, mercury, and TPH. Therefore, the Board is requiring monthly

monitoring for these constituents, to ensure compliance with established effluent limitations. This monitoring schedule is effective upon adoption of the Order by the Regional.

(b) Effluent Monitoring for Reasonable Potential Determination

In compliance with the SIP, the Discharger is required to submit data sufficient for: (1) determining if WQBELs for priority pollutants are required, and (2) to calculate effluent limitations, if required. Further, the SIP requires that the data be provided no later than May, 2003. Therefore, the Discharger will be required to conduct an interim monitoring program for all CTR priority pollutants until April 2003.

This interim monitoring shall occur at the following locations:

- Effluent discharge point.
- Receiving water. The monitoring stations shall be at 50 feet upstream from the discharge point into the Edison Canal or the Channel Islands Harbor.

(c) Receiving Water Monitoring

In addition to the requirements for monitoring the receiving water described in (b) above, the Discharger will be required to perform general observations of the receiving water when discharges occur during the receiving water monitoring event and report the observations in the quarterly monitoring report. The Regional Board in assessing potential impacts of future discharges will use data from these observations. If no discharge occurred during the observation period, this shall be reported. Observations shall be descriptive where applicable, such that colors, approximate amounts, or types of materials are apparent.

(d) Storm Water Monitoring

The Discharger shall implement the requirements of the State Water Resources Control Board Water Quality Order No. 99-08-DWQ, National Pollutant Discharge Elimination System (NPDES) *General Permit for Storm Water Discharges Associated with Construction Activities* (General Permit). This Order includes requirements to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) along with specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting storm water and with the intent of keeping all products of erosion from moving off site into receiving waters.