FINAL

RESPONSE PLAN
NORTH SHORE AT MANDALAY BAY
198 SOUTH HARBOR BOULEVARD
OXNARD, CALIFORNIA

Prepared for

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January 4, 2019

Project Number S041.001.001

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APPENDICES

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ACRONYMS AND ABBREVIATIONS

1,1-DCA	1,1-dichloroethane
1,2-DCA	1,2-dichloroethane
1,1-DCE	1,1-dichloroethene
1,1,1-TCA	1,1,1-trichloroethane
cis-1,2-DCE	cis-1,2-dichloroethene
trans-1,2-DCE	trans-1,2-dichloroethene
µg/L	micrograms per liter
APCD	Air Pollution Control District
ARCADIS	ARCADIS U.S., Inc.
bgs	below ground surface
Canonie	Canonie Environmental Services Corp.
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CLRRA	California Land Reuse and Revitalization Act
COC	chemical of concern
COPC	constituents of potential concern
CPT	cone penetration test
CUP	Conditional Use Permit
CVOC	chlorinated volatile organic compound
cy	cubic yard(s)
DNAPL	dense nonaqueous-phase liquid
DTSC	Department of Toxic Substances Control
EAS	Environmental Assessment Specialists
EIR	Environmental Impact Report
Environmental CC&Rs	Environmental Covenants, Conditions, and Restrictions
EPA	U.S. Environmental Protection Agency
ESC	Earth Systems Consultants
ESE	Environmental Science and Engineering
FS/RAP	Feasibility Study and Remedial Action Plan
GAC	granular-activated carbon

HASP	Health and Safety Plan
HHRA	Human Health Risk Assessment
JNJ	JNJ Sales and Services, Inc.
LFR	LFR, Inc.
LLC	limited liability corporation
LPM	low permeability membrane
MCL	maximum contaminant level
mg/kg	milligrams per kilogram
MIP	membrane interface probe
MNA	monitored natural attenuation
MPL	MPL Property Holdings, LLC
MRP	Monitoring and Reporting Program
msl	mean sea level
NEC	Northshore Environmental Conservancy, Inc.
O&M	operation and maintenance
O&M Plan	Operation and Maintenance Plan
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
Phase I	Phase I Environmental Site Assessment
PID	photoionization detector
PLC	programmable logic controller
PMW	permanent monitoring well
PRACR	Partial Remedial Action Completion Report
RAO	remedial action objective
RAP	Remedial Action Plan
RDIP	Remedial Design and Implementation Plan
RI	Remedial Investigation
RMW	remedial monitoring well
RP	Draft Response Plan
RPA	Resource Protection Area
RPO	Response Plan Objective

RSL	Regional Screening Level
RW	remedial well
RWQCB	Los Angeles Regional Water Quality Control Board
SCA	Soil Consolidation Area
SCU	Site Conditions Update
Site	the North Shore at Mandalay Bay site located at 198 South Harbor Boulevard, 90 acres of land situated at the northeast corner of the intersection of South Harbor Boulevard and West Fifth Street in Oxnard, California
SoundEarth	SoundEarth Strategies California, Inc.
SVE	soil vapor extraction
SWRCB	California State Water Resources Control Board
TCE	trichloroethene
TDS	total dissolved solids
Terraphase	Terraphase Engineering Inc.
TPH	total petroleum hydrocarbon
TSCA	Toxic Substances Control Act
VC	vinyl chloride
VCA	Voluntary Cleanup Agreement
VCAPCD	Ventura County Air Pollution Control District
VIM	Vapor Intrusion Mitigation
VOC	volatile organic compound
WDR	waste discharge requirement

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CERTIFICATION

All geologic information, conclusions, and recommendations in this document have been prepared by a California Professional Geologist.

January 4, 2019

Melissa C. Schuetz, PG
Principal Geologist

Date

All engineering information, conclusions, and recommendations in this document have been prepared under the responsible charge of a California Professional Engineer.

January 4, 2019

Charles E. Robinson, PE
Principal Engineer

Date

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EXECUTIVE SUMMARY

This Response Plan for the North Shore at Mandalay Bay site located at 198 South Harbor Boulevard, the northeast corner of West 5th Street and South Harbor Boulevard in Oxnard, California (the Site; Figure 1), was prepared by Terraphase Engineering Inc. (Terraphase; formerly SoundEarth Strategies California, Inc. [SoundEarth]), on behalf of MPL Property Holdings, LLC (MPL), the current owner of the Site. The Response Plan presents and describes the response actions conducted by MPL at the Site since MPL's acquisition of the Site on December 30, 2013, and the response actions proposed to be undertaken at the Site. This Response Plan fulfills a requirement under the California Land Reuse and Revitalization Act (CLRRA, Health and Safety Code Sections 56395.60 et seq.) to define response actions to be undertaken by MPL to ready the site for reuse.

The approximately 90-acre Site will be developed by MPL into about 60 acres of residential use that will have 292 residences with supporting infrastructure and about 30 acres of natural habitat that, in part, provides habitat for a previously extinct plant, the Ventura Marsh Milk-vetch. MPL has been voluntarily undertaking this effort to facilitate Site redevelopment and had no role in the release or disposal of the chemicals found at this Site.

From the 1950s until 1982, the Site was permitted and used for oilfield waste disposal, with oil field drilling fluids disposed to the Site. These drilling fluids contained petroleum hydrocarbons (TPH) and metals that were disposed there along with other non-permitted chemicals including polychlorinated biphenyls (PCBs) and volatile organic compounds (VOCs), which were found during Site characterization and remedial efforts. Site characterization started in 1991, followed by partial remediation in 2007 (groundwater extraction and treatment; hazardous PCB-affected sludge and soil consolidation, excavation, and disposal; TPH-affected soil excavation, biotreatment, and consolidation; excavation and treatment of high concentration VOC soils; and aeration and treatment of TPH-affected soils). The 2007 remedial efforts also created two Soil Consolidation Areas (SCAs) in which chemically affected soils were consolidated and stored beneath a six-foot soil cap that resides beneath the habitat portion of the Site, named Resource Protection Areas (RPAs). Remedial efforts since 2007 include soil vapor extraction (SVE) which has reduced chlorinated VOC concentrations in soil vapors and injection of supplements to accelerate natural degradation of VOCs in the shallow affected ground water.

This Response Plan describes remedial and mitigation efforts planned or underway to prepare the site for safe and productive reuse. In addition, MPL will develop a Contingency Plan for DTSC approval.

Current Site Impacts

Based on soil gas sampling conducted in 2015, concentrations of 1,2-dichloroethane, cis-1,2-dichloroethene (DCE), trans-1,2-DCE, tetrachloroethene (PCE), trichloroethene (TCE), and vinyl chloride (VC; collectively, chlorinated volatile organic compounds [CVOCs]) were detected above acceptable levels according to the Department of Toxic Substances Control (DTSC). Based on groundwater monitoring conducted in 2016 and 2017, concentrations of PCE, TCE, and VC were

detected in groundwater that could release chemicals to soil vapor that could potentially exceed the acceptable DTSC risk range for the inhalation pathway. Soils found in the residential area meet residential clean-up standards.

Response Actions Conducted by MPL

Since acquiring the Site, MPL has undertaken the following response actions in close cooperation with the DTSC, the State of California lead agency since 2004. The following actions implement the previously approved and publicly vetted 2006 Feasibility Study and Remedial Action Plan (FS/RAP) remedy and the 2013 Partial Remedial Action Completion Report in accordance with a Voluntary Cleanup Agreement that MPL entered into with DTSC in December 2013 (VCA):

- ***2014–Present, SCA Groundwater Monitoring***. In accordance with DTSC approved plans, MPL installed and sampled seven shallow groundwater monitoring wells (SCA-01 through SCA-07). An annual monitoring program continues.
- ***2014–2015, Disposition of Soil Treatment Stockpile***. The soils in an ex situ soil treatment cell were sampled and characterized in April 2014. Based on the characterization and under DTSC oversight, approximately 7,000 cy of affected soils were removed and disposed at the Simi Valley Landfill, and approximately 12,000 cy of acceptable soils were placed over the SCAs as cap material, in accordance with the FS/RAP.
- ***2014–Present, Soil-Vapor Extraction.*** An SVE system was installed and has been operating since October 31, 2016 to reduce residual soil vapors.
- ***2013–2016, Post-Remedial Groundwater Monitoring.*** Groundwater monitoring was conducted semi-annually in accordance with a monitoring and reporting program (MRP) associated with the waste discharge requirement (WDR) for the in-situ groundwater treatment.
- ***2016–Present, Groundwater Remediation and Monitoring***. In December 2016, a specialty chemical to enhance biodegradation was injected in two areas to accelerate and enhance groundwater attenuation. Groundwater monitoring was initiated to evaluate this process and reports were submitted quarterly to Regional Water Quality Control Board (RWQCB) and DTSC in 2017, with annual monitoring continuing. A groundwater conceptual site model and remedial status report was prepared and submitted to DTSC in 2018 to evaluate progress toward meeting remedial goals within acceptable timeframes. Based on the evaluation, concentration reductions have been achieved and natural attenuation continues. Water quality objectives have been estimated to be achieved within 20 to 60 years. Given its saline quality and current uses, and the limits of current technology, this is considered a reasonable time frame. Groundwater concentrations are currently monitored annually.

Response Plan Objectives

In response to the necessary actions identified by both the Partial Remedial Action Completion Report (Arcadis 2013b) and the Phase I Environmental Site Assessment ([Phase I], SoundEarth 2017f), the Site-wide and media-specific FS/RAP Remedial Action Objectives (RAO) were evaluated and progress towards attainment of the RAOs is described in the PRACR (ARCADIS 2013a) and the Phase I along with a descriptions of future action items. The Response Plan Objectives (RPOs) below address the remaining impacts at the Site.

The remaining RPOs for the Site are as follows:

1. Reduce soil vapor source concentrations through SVE that, without proper installation, testing, and maintenance of mitigation measures, would pose a risk to future residents from potential inhalation of vapors containing CVOCs posing risks greater than 1×10^{-5} and a hazard index (HI) of 1.
2. Reduce CVOC concentrations in groundwater through MNA to attain water quality objectives or MCLs within a reasonable time frame.
3. Prevent ingestion of groundwater with CVOC concentrations in excess of MCLs.
4. Prevent indoor vapor intrusion of CVOCs at concentrations in excess of a total excess cancer risk of greater than 1×10^{-6} and HI of 1.
5. Prevent contact with soils containing TPH, PCBs, and metals in the SCAs through monitoring and maintaining engineering and institutional controls.
6. Prevent or control exposures to potential residual contaminants in soil-vapor or groundwater using institutional or engineering controls and monitoring.

The RPOs are consistent with the overall goal of residential site redevelopment and operation and maintenance of the RPA under CLRRA.

Response Actions

MPL will complete the response actions summarized below and described in more detail in Section 5.0. The response actions identified in this section include the requirements from the 1996 RAP, 2006 FS/RAP, 2013 PRACR, and VCA.

- Installation of Vapor Intrusion Mitigation (VIM) systems in all residential buildings in accordance with the VIM Systems Design and Construction Plan, as and when residences are constructed on the Site.
- Ongoing operation and maintenance of a Soil Vapor Extraction (SVE) system to reduce VOC concentrations in soil vapor.
- Periodic groundwater monitoring to evaluate the MNA progress and respond to elevated groundwater concentrations that may occur, if necessary.
- Periodic inspections, maintenance, and monitoring of the cap systems in the SCAs to eliminate significant erosion and transport materials from the SCAs.

- Recording and implementing land use restrictions in the form of land use covenants to restrict use in accordance with the institutional controls that will prohibit any construction without implementation of a DTSC-approved VIM Systems Design and Construction Plan; the land use covenant(s) will require access and access restrictions to the RPAs and SCAs, as well as restrictions related to the O&M requirements for the SVE, VIM systems, groundwater remediation efforts, and SCAs.

In accordance with CLRRA, a Public Comment Period was held from April 12 to May 29, 2018, and a Public Meeting was held on April 24, 2018. The Draft Response Plan and Addendum to the Environmental Impact Report were made available for the public to review and comment. A copy of the public meeting transcripts, Response to Public Comments, and final Notice of Determination are included with this Final Response Plan in Appendices A, B, and C.

1.0 INTRODUCTION

Terraphase Engineering Inc. (Terraphase; formerly SoundEarth Strategies California, Inc. [SoundEarth]) prepared this Response Plan for the North Shore at Mandalay Bay site located at 198 South Harbor Boulevard, Oxnard, California (the Site; Figure 1) on behalf of MPL Property Holdings, LLC (MPL), the current owner of the Site. The Response Plan presents and describes the response actions conducted by MPL at the Site since MPL's acquisition of the Site on December 30, 2013, and the response actions proposed to be undertaken at the Site.

MPL applied under Health and Safety Code Section 25395.65 of the California Land Reuse and Revitalization Act (CLRRA, Health and Safety Code Sections 56395.60 et seq.) to establish MPL as a bona fide purchaser and enter into an agreement with DTSC under CLRRA. A Phase I Environmental Site Assessment report was submitted to DTSC on July 28, 2017 (the Phase I; SoundEarth 2017f), and approved by DTSC by an August 18, 2017, letter. The Phase I documented and identified the remaining response actions necessary to complete the remedial actions as defined in the FS/RAP and described in the PRACR and the VCA (as these terms are defined below), and as further identified by MPL at the time of MPL's purchase of the property. The Phase I documented the due diligence completed by MPL that memorializes MPL's completion of All Appropriate Inquiries under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and required by CLRRA.

1.1 Proposed Site Use

MPL intends to develop the approximate 90-acre Site for residential and habitat use. The Site has approved plans to develop a 292-unit residential community on the Site. Two types of residential land uses are currently proposed: 109 detached two-story condominium units and 183 two-story single-family homes with a two- or three-car garage. The common areas include recreational amenities such as parks for use by the future residents of the community, as well as roads, parking areas, hiking trails, and other open space areas. The proposed residential development will encompass about 60 acres on the Site, with the remaining 30 acres dedicated to open space.

In addition, approximately 24.07 acres of the Site will be maintained as Resource Protection Areas (RPAs), which consist of open space and also serve as habitat mitigation. The maintenance and restoration of the on-site Milk-Vetch Preservation Area/Resource Protection Areas (Lots D, F, and H) are addressed in detail in the North Shore Resource Protection Area/Milk-Vetch Preservation Plan (Impact Sciences 2005b), which are included within the RPA. This plan was approved by the California Department of Fish and Game in June 2005. Specifically, the preservation plan addresses the creation and maintenance of RPAs. The plan describes the restoration and maintenance of the dune scrub, coastal sagebrush, dune buckwheat, and coyote brush-willow habitats that have been created and maintained to mitigate the remediation and development activities. In addition, a landscaped buffer area (Lot E, 5.45 acres) separating the plant communities from the residential development is described in the plan. Figure 2 shows the proposed land use for the Site.

1.2 Report Organization

The remainder of this report is organized as follows:

- **Section 2.0, Site Background,** contains a brief description of Site location, regulatory background, history, and physical characteristics such as site geology and hydrogeology.
- **Section 3.0, Response Plan Objectives,** presents the Response Plan objectives for the Site.
- **Section 4.0, Response Actions,** presents the selected response actions conducted by MPL since its purchase of the Site.
- **Section 5.0, Response Action Description,** presents a summary of the response actions conducted by MPL since its purchase of the Site and the future actions to be implemented as identified in the PRACR and Phase I.
- **Section 6.0, Health and Safety, Recordkeeping, and Project Controls,** describes the project controls implemented during the response actions for the Site.
- **Section 7.0, Reporting,** describes the reports anticipated to be prepared for the Site.
- **Section 8.0, Implementation Schedule,** describes the implementation schedule for completed response actions and provides a tentative schedule for the Response Plan and future response actions.
- **Section 9.0, Contingencies,** describes the provisions for actions that may be required by DTSC as provided in the Contingency Plan submitted to DTSC.
- **Section 10.0, Public Participation,** describes the public participation activities that will be carried out for the project.
- **Section 11.0, Limitations,** presents SoundEarth's standard limitations associated with conducting the work reported herein and preparing this Response Plan.
- **Section 12.0, Final Responsiveness Summary**, provides the Final Responsiveness Summary.
- **Section 13.0, CEQA Documents,** presents the California Environmental Quality Act (CEQA) documentation.
- **Section 14.0, Administrative Record**, presents the Administrative Record.
- **Section 15.0, References,** provides a list of materials cited within this Response Plan.

2.0 SITE BACKGROUND

2.1 Physical Description

The Site consists of an irregularly shaped area of approximately 90 acres of vacant and undeveloped land situated at the northeastern corner of the intersection of South Harbor Boulevard and West Fifth Street in Oxnard, California (Figure 1). The Site is relatively flat, with elevations ranging from 10 to 70 feet above mean sea level (CSM) and is located approximately 1,700 feet from the Pacific Ocean. The Site is bordered on the northeast and east by a strip of property on which a canal (the "MRT Canal"—also known as the "Mandalay Canal," "Edison Canal," and the "Reliant Energy Canal") flows from an ocean inlet to the south with cooling water and discharges back to the ocean through a nearby electric generation power plant. An undeveloped tract of land, owned by Reliant Energy, bounds the northwestern portion of the Site.

2.2 Site Operational History

The following Site operational history was obtained from the Phase I (SoundEarth 2017f) as well as historical information available on the Los Angeles Regional Water Quality Control Board (RWQCB) website (SWRCB 1988).

Prior to 1949, the Site was owned by Standard Oil of California but not extensively used (SoundEarth 2017f). In 1954, the McGrath family purchased the Site and the RWQCB issued a Waste Discharge Requirement (Order No. 54-162) to JNJ Sales and Services, Inc. (JNJ) to deposit drilling wastes on a 75-acre portion of the Site (a 35-acre parcel and a 40-acre parcel). From 1954 to 1981, the Site operated as the former Carney & Sons Landfill (the 35-acre parcel, operated by Parker-Martin, Carney & Sons, and JNJ) and JNJ Waste Disposal Facilities (the 40-acre parcel, operated by JNJ), which were permitted oil field waste disposal facilities. Various oil field waste materials (drilling mud and cuttings, tailings, sand, formation water, residual oil, and other chemical compounds) were disposed of at the Site during this time period.

In 1969, Ventura County issued Conditional Use Permits (CUPs) for each of the parcels. CUP-306 was issued to JNJ for the continued operation of the 40-acre parcel, and CUP-3058 was issued to Parker-Martin for the continued operation of the 35-acre parcel. Parker-Martin went bankrupt in 1971 and CUP-3058 was reissued to Carney & Sons Landfill, Inc., which took over operating the 35-acre parcel. In 1974, both CUPs were extended by Ventura County until 1980. In 1979, the RWQCB revised the 1954 Waste Discharge Requirements and reissued one for each parcel. Order No. 79-49 was issued for JNJ's 40-acre parcel, and 79-48 was issued for Carney's 35-acre parcel. In a letter dated October 15, 1979, Jack T. Jamar, President and owner of JNJ, informed the RWQCB that JNJ had taken over the operation of the Carney landfill as of June 16, 1979.

The Ventura County Planning Commission in 1981 completed an Environmental Impact Report (EIR) which revealed concerns for chemical contamination at both locations. As a result of these findings, the Commission revised its use permits, imposing new and additional requirements. JNJ decided against accepting the permits, and instead, closed the operation. In January 1982, the RWQCB notified JNJ that it must file a final closure report. JNJ filed a closure plan with the

RWQCB on May 19, 1982. The residual oil-affected drilling muds were covered with a 3- to 4-foot-thick soil fill/cap composed primarily of drilling muds not affected by petroleum. The Site has not been actively used for any purpose since 1982.

On January 13, 1984, the McGrath family sold its interest in the Site to Sand Hills Ranch. From 1999 through present, the Site has been owned by limited liability corporations (LLCs), including North Shore at Mandalay Bay, LLC (1999 through 2003), Trimark Pacific Mandalay Bay, LLC (2003 through 2009), Mandalay Bay Development, LLC (2009 through 2013), and MPL Property Holdings, LLC (2013 to present).

2.3 Previous Investigations and Remediation

Beginning in approximately 1991, developers began considering the Site for future residential development. In December 1996, a remedial action plan (RAP) for the Site was submitted to and approved by the RWQCB (1996 RAP). An EIR for the residential development project was certified by the City of Oxnard in July 1999, with addendums in May 2005, September 2005, and October 2005. RWQCB was the lead regulatory agency from 1996 through 2004. DTSC has been the lead regulatory agency since 2004.

Previous investigations and DTSC determinations prior to MPL's purchase of the Site are summarized below.

2.3.1 Site Characterization and Investigation (1991-2005)

- **1991–1992, Canonie Environmental Services Corp. (Canonie) Site investigation.** Canonie excavated 40 test pits to depths ranging from 8 to 21 feet below ground surface (bgs) and collected soil samples for laboratory analyses, installed two groundwater monitoring wells to depths of 25 and 70 feet bgs and collected groundwater samples for laboratory analyses, and prepared a remedial technology evaluation plan (LFR Levine Fricke 2004).
- **1993, Earth Systems Consultants (ESC) Site Investigation.** ESC collected and analyzed 182 soil samples from 103 Geoprobe borings at depths ranging from 7 to 32 feet bgs, and collected and analyzed samples from two groundwater monitoring wells. ESC estimated that approximately 375,000 cubic yards (cy) of crude oil-affected soils were present in the upper 5 feet of soil at the Site (LFR Levine Fricke 2004).
- **1996, Richard Kelly Site Investigation.** Ten groundwater samples and three soil samples were collected from nine Geoprobe locations and submitted for laboratory analyses (LFR Levine Fricke 2004).
- **1996, Environmental Science and Engineering (ESE) Site Investigation.** ESE advanced seven cone penetration test (CPT) borings and collected soil and groundwater samples for laboratory analyses, installed and sampled two groundwater monitoring wells, and drilled and sampled seven hand auger borings (LFR Levine Fricke 2004).
- **1996, ESE Remedial Action Plan.** ESE prepared a Site RAP (1996 RAP) that provided a broad description of remedial activities that have since been implemented at the Site (ESE 1996). This

- **2000, Environmental Assessment Specialists (EAS) Site Investigation.** EAS collected and analyzed 10 groundwater samples from six locations (LFR Levine Fricke 2004).
- **2002–2003, LFR Levine·Fricke Site Investigations.** LFR Levine·Fricke installed seven groundwater monitoring wells and began quarterly monitoring activities, collected and analyzed surface water samples from the canal and the Pacific Ocean, and advanced and sampled seven soil borings and 99 test trenches. A geotechnical investigation was conducted in April 2003 (LFR Levine Fricke 2004).
- **2004, LFR Levine·Fricke Summary and Characterization Report.** LFR Levine Fricke summarized the previous investigations conducted at the Site. The report indicated that total petroleum hydrocarbons (TPH), polychlorinated biphenyls (PCBs), and volatile organic compounds (VOCs) were present in sludge and soil to depths of approximately 20 feet bgs. Shallow groundwater at the Site was affected by VOCs (LFR Levine Fricke 2004). This report was submitted to DTSC as part of the VCA application, and by mutual agreement, the Site's lead agency designation was transferred from the RWQCB to DTSC on July 22, 2004.
- **2004, LFR Levine Fricke Soil and Soil Gas Investigation.** In November 2004, LFR Levine Fricke installed and sampled 30 soil borings and 27 soil gas probes (including 8 multi-depth probes).
- **2005, LFR Levine Fricke Soil Gas Sampling Delineation.** This investigation, conducted in January 2005, included 15 step-out soil gas sampling locations, which identified areas of the Site with soil vapors of concern.
- **2005, LFR Levine Fricke Remedial Investigation (RI) Report.** An RI report was submitted in October 2005. The RI report summarized previous investigations and identified Site soils and sludge materials that were deposited on-Site from historical waste disposal operations that posed threats to water quality and human health and warranted remedial consideration. The RI report also included a pre-remedial Human Health Risk Assessment (HHRA).

2.3.2 Remedial Design/Action (2005-2009)

- **2005, LFR Draft FS/RAP.** This FS/RAP included the Toxic Substances Control Act (TSCA) Sampling and Analysis Plan as an appendix to the FS/RAP on June 22, 2005, and a revised draft FS/RAP on October 21, 2005. DTSC approved the draft FS/RAP for public comment in a letter dated October 24, 2005. A public comment period was held from October 24 to December 6, 2005, with a public meeting on November 17, 2005. The FS/RAP screened and consolidated available technologies and assembled these technologies into five remedial alternatives for consideration in accordance with the National Contingency Plan. Alternative 3 was selected as the remedial strategy for the Site to address Site risks, landfill closure, and water-quality concerns as well to prepare the Site for residential development. This Response Plan includes ongoing remedial response actions selected and approved in the FS/RAP. The FS/RAP Alternative 3 consisted of the following remedial technologies:
    - Affected groundwater extraction and treatment (air stripping, activated carbon, or other equivalent technology)
    - Affected groundwater in situ treatment

- Groundwater monitored natural attenuation
- Hazardous PCB-affected sludge and soil excavation and disposal
- TPH-affected soil excavation, biotreatment, consolidation, and stratification within Soil Consolidation Areas (SCAs) located beneath the RPAs
- Soil-capping of the SCAs for surface use as habitat mitigation within the RPAs
- Potential excavation of high concentration VOC soils, which could serve as a long-term contamination source to groundwater
- Potential Soil Vapor Extraction (SVE)/aeration and treatment of TPH-affected soils and high-concentration VOC-affected soils
- Fencing and access controls to minimize pedestrian traffic into the RPA/SCA
- Deed Restrictions and controls to facilitate long-term operation and maintenance (O&M) of remedial systems and areas

- **2006–2007, LFR Preliminary Draft Remedial Design and Implementation Plan (RDIP).** LFR submitted the RDIP in May 2006, which provided the design and implementation for Site remediation activities.
- **2006, LFR Groundwater Investigation.** In July and August 2006, LFR installed temporary and permanent groundwater monitoring wells at the Site. Data from well installation and initial sampling were submitted to DTSC in LFR's Data Transmittal, July 2006 through January 2007, dated January 19, 2007, which was included as an appendix to the RDIP.
- **2006, U.S. Environmental Protection Agency (EPA) Approval for the PCB Waste Cleanup and Disposal Activities.** EPA approval was received in a letter dated August 25, 2006.
- **2006, LFR Final FS/RAP.** On August 31, 2006, LFR submitted the final FS/RAP, including an HHRA. The FS/RAP presented the proposed remedial alternative for the Site, including the TSCA Sampling and Analysis Plan for PCBs. DTSC approved the FS/RAP on August 31, 2006. EPA approval for the PCB waste cleanup and disposal activities was received in a letter dated August 25, 2006. Hazardous waste-level PCBs (greater than 50 milligrams per kilogram [mg/kg]) were disposed of at the Kettleman Class I disposal facility, and the remaining PCB-affected soils and drilling materials were contained on Site in the two SCAs, beneath a felt geotextile and a vegetated 3- to 6-foot-thick soil cap.
- **2006–2007, LFR Additional Site Characterization.** From October 2006 through January 2007, LFR conducted additional site characterization for remedial purposes. Soil and soil gas samples were collected from four locations, and 10 grab groundwater samples were collected from shallow and deep perched zones (October 16–18, 2006). Sixteen membrane interface probe (MIP) borings were advanced from November 13–17, 2006, and soil and groundwater confirmation sampling for the MIP investigation was conducted on December 5, 2006. A grab groundwater investigation was conducted in the MIP area on December 11 and 12, 2006. In accordance with the FS/RAP and RDIP process, LFR abandoned temporary monitoring wells in preparation for grading activities on December 18–20, 2006, and conducted additional grab groundwater sampling and step out sampling (January 8–10 and January 12, 2007). Data from the site characterization are presented in the Data Transmittal, July 2006 through January 2007 (LFR 2007a).

- **2007, LFR Additional Groundwater Characterization.** As part of the remedial characterization efforts, in accordance with the FS/RAP and the iterative RDIP amendment process, LFR conducted additional grab groundwater characterization (20 locations) and soil characterization (9 soil borings and 6 test pits). The results were summarized in the RDIP dated August 6, 2007. DTSC approved the RDIP in a letter dated July 11, 2007.
- **2007, LFR Final RDIP.** On August 15, 2007, LFR submitted the Final RDIP to DTSC. The RDIP provided remedial design and implementation details to be implemented in accordance with the FS/RAP, including the procedures for consolidation of affected soils in the SCAs. This document had a number of iterative additions and approvals with the last DTSC approval of the RDIP on July 11, 2007. On August 31, 2007, DTSC provided comments to the final RDIP, which was implemented with DTSC concurrence.
- **2006–2008, LFR Remedial Action Implementation.** LFR conducted remedial activities, including the excavation of affected soils, excavation and disposal of TSCA hazardous waste soil, soil movement and placement in SCAs, removal and stockpiling of highly affected soils, groundwater dewatering, remedial pumping, substrate placement for in situ treatment, and engineered lower-permeability fill placement. These activities include the following:
  - December 2006. LFR commenced excavation and grading activities approved in the FS/RAP and RDIP.
  - October 24, 2007 through November 16, 2007. Dewatering operations for dense nonaqueous-phase liquids source removal and groundwater granular activated carbon treatment in accordance with the RDIP.
  - January 2008. Remedial grading operations ended. SCA, addition of groundwater amendment, and other remedial efforts completed.
  - March 14, 2008. Final grading was completed. All soil movement was completed.
  - March 21, 2008. Start of remedial groundwater pumping in accordance with the RDIP. Start of ex situ SVE treatment system in accordance with the RDIP.
  - June 2, 2008. Completion of remedial groundwater pumping.
- **2008–2009, LFR Aboveground Soil Vapor Extraction.** Approximately 18,900 cy of soil that contained elevated concentrations of VOCs (source soils as defined in the FS/RAP) were dewatered and excavated from beneath the water table and encased in HDPE plastic sheeting to build a soil treatment pile. As approved in the RDIP and permitted by the Ventura County Air Pollution Control District, an SVE system extracted VOCs and remediated the "Burrito" soils from June 1, 2008, to December 10, 2009. Based upon soil sampling conducted in February and December 2009, the residual concentration of the affected soils (soil treatment stockpile) being treated with SVE exceeded the FS/RAP remedial action objectives (RAOs). SVE efforts were discontinued on December 10, 2009.

2.3.3 Post-Remedial Sampling and Monitoring (2008-2013)

- **2008, LFR Post-Remedial Sampling.** Between 2008 and 2012, in accordance with the FS/RAP, LFR conducted extensive sampling efforts to evaluate post-remedial site conditions relative to RAOs. These post-remedial characterization efforts consisted of the collection

and analysis of over 400 groundwater samples, over 500 soil samples, and over 300 soil vapor samples in the period from 2008 to July 2012. The initial post-remedial sampling results were transmitted to DTSC via email on April 1, 2008.

- **2008, LFR Post-Remedial Submittals.** LFR submitted a Groundwater Remedial Progress and Monitoring Plan (LFR 2008a), Post-Remedial Human Health Risk Assessment (LFR 2008b), and a letter regarding Description of North Shore at Mandalay Bay Foundation Vapor Barrier Elements (LFR 2008c).
- **2008, DTSC Approvals.** On October 10, 2008, DTSC confirmed the suitability of the Site for residential use and conditioned residential development on the installation of passive and active vapor barriers beneath all 292 parcels. DTSC approved LFR's revised technical documents, Description of North Shore at Mandalay Bay Foundation Vapor Barrier Elements (October 10, 2008; LFR 2008c) and Groundwater Remediation Progress and Monitoring Plan for the North Shore at Mandalay Bay Project (September 17, 2008; LFR 2008a).
- **2008–2012, LFR/ARCADIS Groundwater Monitoring.** LFR and ARCADIS conducted quarterly groundwater monitoring and submitted reports to the RWQCB and DTSC, in accordance with the Monitoring and Reporting Program (MRP) associated with the waste discharge requirements for the substrate placement.
- **2011, ARCADIS Soil Vapor Sampling.** On April 14, 2011, ARCADIS conducted limited soil vapor sampling. The results showed that soil vapor concentrations were decreasing.
- **2011, ARCADIS Request to Modify the North Shore at Mandalay Bay MRP.** On July 11, ARCADIS submitted a revised request to reduce the scope of groundwater monitoring.
- **2012, RWQCB Approval.** On July 11, RWQCB approved the reduction in groundwater monitoring to eight wells with fewer analytes monitored on a semiannual basis in order to monitor natural attenuation.
- **2012–2016, ARCADIS Groundwater Monitoring.** ARCADIS conducted semiannual groundwater monitoring and submitted reports to the RWQCB and DTSC, in accordance with the MRP.
- **2013, ARCADIS Site Conditions Update.** In October 2012, ARCADIS conducted additional soil, soil gas, and groundwater sampling and an updated HHRA was prepared to reflect an updated evaluation of Site conditions. The Site Conditions Update report was submitted February 21, 2013 (ARCADIS 2013a). In a letter dated February 22, 2013, DTSC approved the Site Conditions Update report and Risk Assessment, and made clarifications to the October 10, 2008, letter (DTSC 2013a). The additional sampling consisted of the following:
  - Drilling 135 soil borings to depths ranging from 5 to 20 feet bgs, continuously logging soil lithology, and collecting 1 to 4 soil samples from each soil boring.
  - Analyzing 12 soil samples plus 1 duplicate sample for VOCs using EPA Method 8260B/5035 and 11 soil samples for physical parameters.
  - Installing 122 temporary soil vapor probes and 10 permanent soil vapor probes in the soil borings, collecting a total of 206 soil vapor samples from depths of 5 feet bgs (132

locations), 10 feet bgs (22 locations), and 15 feet bgs (20 locations) and analyzing the samples for VOCs in an on-site mobile laboratory using EPA Method 8260B.
- Collecting 47 groundwater samples (plus duplicates) from the groundwater monitoring wells and grab groundwater locations and analyzing the samples for VOCs using EPA Method 8260B.

- DTSC reviewed and approved the 2013 Site Conditions Update report with the following clarifications to the October 10, 2008 Letter:
  - 175 individual parcels have results that are below risk management goals for the Site and have been deemed suitable for unrestricted land use.
  - 29 parcels require localized active soil vapor treatment to meet risk management goals for the Site.
  - To allow for development to proceed while the risk management goals for the Site are being achieved, 117 parcels within Areas A, B, and C should include additional protective measures in the form of individual passive Vapor Intrusion Mitigation (VIM) systems.
  - The technology and layout of localized active soil vapor treatment and additional protective measures in the form of individual passive VIM systems will be defined by the owner in consultation with DTSC and will be subject to DTSC approval.

- **2013, ARCADIS PRACR.** A PRACR was prepared that summarized the remedial actions completed through 2012 and defined the remaining obligations to be completed following the sale of the property out of foreclosure. The report was submitted to DTSC on March 1, 2013 (ARCADIS 2013b).
- **2013, MPL Property Transfer.** Following detailed review of the property documents, and after gaining clarification from DTSC as to the nature of the 2013 Site Conditions Update Report and Risk Assessment remedial requirements, the property was purchased by MPL Property Holdings, LLC on December 31, 2013.

2.3.4 Response Actions Conducted by MPL

Upon MPL's acquisition of the Site in December 2013, MPL and the Department of Toxic Substances Control (DTSC) entered into a Voluntary Cleanup Agreement (VCA), setting forth the scope of work for response actions to be undertaken by MPL, as outlined in general accordance with Section 7 of the Partial Remedial Action Completion Report (PRACR) prepared by ARCADIS, US. (ARCADIS 2013b) and the DTSC-approved Feasibility Study and Remedial Action Plan (FS/RAP) prepared by LFR, Inc. (LFR 2006). Since acquiring the Site, MPL has undertaken the following response actions that implement the FS/RAP remedy and the PRACR in accordance with the VCA:

- **2014–Present, Soil Consolidation Area Monitoring.** SoundEarth presented the proposed groundwater monitoring well network and sampling frequency for the SWRCB Title 27 detection monitoring program in a work plan dated June 30, 2014. DTSC approved the work plan on July 21, 2014 (DTSC 2014c). The installation, development, and baseline sampling results for the seven shallow groundwater monitoring wells (SCA-01 through SCA-07)

installed between August 26 and September 18, 2014, were described in the Revised Soil Consolidation Area Well Installation Report, dated February 20, 2015 (SoundEarth 2015a). DTSC approved the installation of the SCA wells in a letter dated July 21, 2014 (DTSC 2014c). Quarterly sampling of the SCA groundwater monitoring wells was conducted from 2014 to 2015, and semiannual sampling was conducted in 2015 and 2016. Annual groundwater sampling is currently being conducted.

- **2014–2015, Disposition of Soil Treatment Stockpile.** Additional sampling and characterization of VOC-impacted soils in the ex situ soil treatment cell were conducted in April 2014 and presented in a work plan to segregate and dispose of the non-RAO-compliant soils and place the RAO-compliant soils in the SCA as cap material, in accordance with the FS/RAP. DTSC approved the Characterization and Disposition of Treated Soils and Work Plan for Final Disposition of Treated Soils in a letter dated March 3, 2015 (DTSC 2015a). Under the oversight of DTSC, approximately 6,939 cy of affected soils (soils exceeding the numeric RAOs in the FS/RAP) were removed and disposed at the Simi Valley Landfill and approximately 11,961 cy of RAO-compliant soils (soils that were below numeric RAOs in the FS/RAP) were deposited on-Site as SCA cap material, in accordance with the FS/RAP.
- **2014–Present, Soil Vapor Extraction.** An SVE pilot test was conducted in August 2014 in accordance with the SVE Pilot Test Work Plan, dated June 9, 2014 (SoundEarth 2014a). DTSC provided a conditional approval of the SVE Pilot Test Work Plan on June 26, 2014. The results of the SVE pilot test and the conceptual design of the SVE system were presented in the Soil Vapor Extraction Pilot Test and Design Report, dated March 17, 2016 (SoundEarth 2016b). DTSC approved the conceptual design in a letter dated May 19, 2016. Selected permanent soil gas monitoring probes were sampled April 2015 as a baseline prior to the SVE treatment. The results of the sampling were presented in the Baseline Soil Gas Monitoring Report, dated July 14, 2015. A final Baseline Soil Gas Monitoring Report was submitted to DTSC on March 6, 2017 (SoundEarth 2017c). The SVE system was installed from August 2016 through October 2016 and has been running in startup mode since October 31, 2016. A Soil Vapor Extraction System Start-up Report was submitted to DTSC on March 7, 2017 (SoundEarth 2017d). DTSC approved the Start Up report on April 21, 2017 (DTSC 2017a) and provided clarification on May 12, 2017 (DTSC 2017b).
- **2014–Present, Groundwater Enhanced Monitored Natural Attenuation and Monitoring.** Eight remedial monitoring wells (RMWs) were monitored semiannually in accordance with the MRP in 2013 and 2014. In June 2014, DTSC verbally requested that five additional remedial wells be sampled along with the wells included in the MRP sampling program. Remedial wells RW-4, RW-13, RW-16, RW-18, and RW-21 were included in the sampling program, from first semester 2014 through first semester 2015. In December 2016, MPL conducted limited injections of a substrate material (EHC-L and additives) in two areas to accelerate and enhance the Site groundwater's monitored natural attenuation (MNA). Four new groundwater monitoring wells were installed (RMW-10 through RMW-13), a new Waste Discharge Requirement (WDR) with RWQCB was obtained, and an MRP for the new remedial areas was initiated. The MRP for the Daramend application was terminated and an

annual Site-wide groundwater monitoring program was initiated under DTSC oversight. WDR monitoring reports were submitted quarterly to RWQCB and DTSC in 2017.

2.3.5 Key Decision Documents

Key decision documents approving and evaluating the actions include the following:

- Remedial Action Plan for the North Shore at Mandalay Bay Property in Oxnard California, December 20, 1996 (1996 RAP) approved by the RWQCB
- North Shore at Mandalay Bay EIR, certified by the City of Oxnard July 1999
- Addendum to the North Shore at Mandalay Bay EIR May 2005 by the City of Oxnard (First EIR Addendum)
- Addendum to the North Shore at Mandalay Bay EIR September 2005 by the City of Oxnard (Second EIR Addendum)
- Addendum to the North Shore at Mandalay Bay EIR October 2005 by the City of Oxnard (Third EIR Addendum)
- Feasibility Study and Remedial Action Plan, dated August 31, 2006, approved by DTSC on August 31, 2006 (FS/RAP)
- DTSC Notice of Determination (California Environmental Quality Act), dated October 17, 2006
- DTSC Approval of Residential Use at the North Shore at Mandalay Bay Site, dated October 10, 2008
- DTSC Approval of Site Condition Update Report and Risk Assessment, dated February 22, 2013 (also clarifies the 2008 approval)
- Partial Remedial Action Completion Report (PRACR), dated March 1, 2013, approved by DTSC on March 1, 2013
- DTSC Approval of Characterization and Disposition of Treated Soils and Work Plan for Final Disposition of Treated Soils, dated March 3, 2015
- DTSC Letter regarding Review of Agreements Reached for Developer-Selected Foundations and the Extent and Nature of Active Soil Vapor Extraction for Remedial Design and Costing Documents Review, dated July 31, 2015
- DTSC Approval of Technical Memorandum—Work Plan for Groundwater Treatment Using Enhanced Natural Attenuation, North Shore at Mandalay Bay, dated January 25, 2016
- DTSC Approval of Soil Vapor Extraction Pilot Test and Design Report, North Shore at Mandalay Bay, dated May 19, 2016
- RWQCB adoption of Waste Discharge Requirements and Monitoring and Reporting Program for groundwater injection of organic and iron substrate materials, dated September 26, 2016

- DTSC approval of the Site for residential development, construction, and occupancy with the operation of the SVE, implementation of land use controls and verification of the operation of VIM systems, dated May 12, 2017

2.4 Site Geology and Hydrogeology

The generalized conceptual geologic model prior to Site grading and remediation included sand ("dune sand") at depths of approximately 15 to 20 feet bgs (approximate elevation 10 feet msl). An approximate 10-foot-thick clayey silt layer ("the clayey silt") occurs from an approximate elevation of 10 feet to 0 feet msl. The clayey silt grades into a clay ("the basal clay") located at the bottom of the layer at an approximate elevation of 0 to 4 feet below msl. Above the basal clay within the clayey silt and sometimes within the dune sand, occasional sand stringers are present with perched water zones encountered. Below the basal clay is an approximately 10-foot-thick sand layer ("the upper beach sand"), underlain by an approximately 5-foot-thick clayey silt layer, and then the lower beach sand. The upper and lower beach sand layers are the first water-bearing aquifers with advective transport. The upper and lower beach sands are in hydraulic communication with the canal and are tidally influenced.

During remediation and geotechnical grading activities, engineered fill was placed throughout the portions of the Site designated for residential use to depths of 5 to 25 feet bgs. In general, fill material is present to greater depths in the western portion of the Site.

The Site groundwater has little advective flow as two local recharge sources, the adjacent MRT Canal to the northeast, and the Pacific Ocean to the southwest readily flow to and from Site groundwater. Both of these sources are saline, apparently causing the Site's shallow groundwater to also be saline, as discussed in the 1996 RAP and approved by the RWQCB in October 1997, Remedial Investigation Report (LFR Levine Fricke 2005), FS/RAP (LFR 2006), and the final Remedial Design and Implementation Plan (LFR 2007b). As a result of the influence of the Canal and the Pacific Ocean, groundwater gradients at the Site are relatively flat and tidally influenced, with little flow, and reside at approximate elevations of 2 to 9 feet above msl.

Data from recent groundwater sampling events indicate that groundwater is present at depths of approximately 20 feet below the top of the well casings, with elevations (May 2016) ranging from approximately 2.08 feet msl in RW-12 to 9.52 feet msl in PMW-02. Groundwater gradients generally mildly slope toward the canal in the northern/eastern portion of the Site. Groundwater near the canal is tidally influenced and can typically fluctuate 2 to 3 feet, with tidal influences diminishing with distance from the canal.

Based on historical piezometric data and CPT data, it appears that the regional groundwater gradient toward the ocean is interrupted by the Mandalay Canal. The Mandalay Canal also serves as a localized drain of Site water, reversing the groundwater gradient from the central portion of the Site back toward the canal.

The Mandalay Canal has been periodically dredged for maintenance purposes to an approximate working depth of -10.0 feet msl. The operating water elevation in the Mandalay Canal is 0.5 foot msl, which fluctuates with the tide. Based on the Site lithology, the dredging

would be expected to have removed the aquitard over a width of 40 feet along the entire eastern and northern boundary of the Site. As a result, the lower beach sand aquifer became the hydrostatic minimum, enabling the Site to drain both to the west and to the east. The depth of the Mandalay Canal intersects the lower beach sand aquifer, causing regional groundwater from the east and water from the Site to slowly discharge to the canal rather than to the ocean.

While in a typical coastal setting, the area behind the dunes is characterized by upward groundwater gradients, the presence and subsequent deepening of the canal reversed the vertical groundwater gradient at the Site and increased the salt content in Site groundwater to levels not suitable for potable use. The pre-canal upward groundwater gradients were relieved by the canal construction, effectively lowering the Site's historical groundwater levels to the relatively lower elevations observed today. Some of the Site's perched water continues to drain to the current groundwater elevation and appears to be the remnant of the higher elevation groundwater conditions that existed before the canal effectively drained the Site's groundwater.

2.5 Nature and Extent of Impacts

The following is a description of the nature and extent of the current Site impacts (Figure 3).

2.5.1 Chemicals of Concern

Eleven constituents of potential concern (COPCs) were identified for the Site and analyzed during the Site Conditions Update and Human Health Risk Assessment of October 2012 (ARCADIS 2013a). The COPCs selected included benzene, carbon tetrachloride, 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), 1,2-dichloroethane (1,2-DCA), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), tetrachloroethene (PCE), 1,1,1-trichloroethane (1,1,1-TCA), trichloroethene (TCE), and vinyl chloride (VC). These chemicals were selected based upon the historical chemical concentrations observed in soil, soil gas, or groundwater.

- Based on the October 2012 sampling, chemicals of concern (COCs) retained for soil gas were benzene, 1,1-DCA, 1,1-DCE, 1,2-DCA, cis-1,2-DCE, trans-1,2-DCE, PCE, TCE, and VC, with VC as the primary chemical driving risks that may exceed the acceptable DTSC risk range. TCE and PCE also contribute significant risk in limited portions of the Site in Area B. Areas with risks that were estimated to potentially exceed the risk threshold ($1x10^{-5}$) for vapor intrusion risk to residential houses, estimated with slab on grade construction, are shown on Figure 3.
- Based on the October 2012 sampling, COCs retained for groundwater were benzene, 1,1-DCA, 1,1-DCE, 1,2-DCA, cis-1,2-DCE, trans-1,2-DCE, PCE, TCE, and VC. VC concentrations were found to drive a high portion of the estimated potential risk that could exceed the DTSC selected unacceptable risk threshold for potential vapor risk from groundwater off-gassing. Figure 3 depicts the Areas (A, B, and C) that reflect areas evaluated to have potential long-term concern for potential risks from observed vapors or from future groundwater off-gassing.
- Soils in the residential area of the Site were successfully remediated in 2007 as approved by DTSC in their October 10, 2008 letter.

- COCs in soil consolidated within the SCAs are TPH, barium and other metals, dioxins, and PCBs.

Maximum concentrations and risks associated with the COCs detected at the Site are listed in the table below from recent sampling events, including the baseline soil gas sampling event conducted in April 2015, and post-enhancement groundwater sampling data collected in 2016 and 2017.

COC	Maximum Detected	Location	Carcinogenic Risk	Noncarcinogenic Risk (Hazard Index)	Sample Date
Soil Gas (µg/L)[(1)]					
Benzene	0.53	P-SG-15-10'	3.7E-06	0.01	April 2015
1,1-DCA	8	P-SG-14-15'	1.8E-06	0.0045	April 2015
1,1-DCE	19	P-SG-34-15'	NA	0.12	April 2015
1,2-DCA	5.4	P-SG-15-10'	3.2E-05	0.49	April 2015
Cis-1,2-DCE	340	P-SG-32-15'	NA	20	April 2015
Trans-1,2-DCE[(3)]	420	P-SG-32-15'	NA	2.4	April 2015
PCE	3,700	P-SG-29-5'	6.2E-03	67	April 2015
TCE	640	P-SG-32-15'	6.4E-04	140	April 2015
VC	1,000	P-SG-32-15'	1.9E-02	5.8	April 2015
Groundwater (µg/L)[(2)]					
Benzene	71.9	RMW-12	4.9E-05	0.13	November 2016
1,1-DCA	253	RW-01	1.7E-07	0.0094	November 2016
1,1-DCE	13	RW-24	NA	0.027	September 2016
1,2-DCA	9.34	RW-07	4.4E-07	0.009	September 2016
Cis-1,2-DCE	48.6	RMW-12	NA	0.25	November 2016
Trans-1,2-DCE[(3)]	11.4	RW-01	NA	0.0031	September 2016
PCE	27.5	SCA-07	5.3E-06	0.059	February 2017
TCE	153	SCA-07	1.6E-05	3.7	February 2017
VC	235	RMW-10	1.5E-03	0.46	September 2017

Notes:

Bold indicates above the risk management threshold of 1×10^{-5}.

Data includes wells installed within future residential areas. Data does not include pre-injection data from RW-16, SCA-02 or RMW-10 or data from non-residential areas. Post-injection data is included.

[(1)]Soil-gas risks are from Table 3 of the Baseline Soil Gas Monitoring Report (SoundEarth 2017c).

[(2)]Groundwater risks are based on the inhalation pathway and are calculated using the site-specific target levels and groundwater transfer factors developed in the Exponent 2012 human health risk assessment included as an attachment to the Site Conditions Update (Arcadis 2013a).

[(3)]Site-specific target levels and groundwater transfer factors were not developed for trans-1,2-DCE in the 2012 HHRA. Therefore, the trans-1,2-DCE hazard was estimated using the groundwater transfer factor for cis-1,2-DCE with a screening level ten times the cis,1-2-DCE screening level.

µg/L = micrograms per liter
COC = chemicals of concern
DCA = dichloroethane
DCE = dichloroethene
mg/kg = milligrams per liter
NA = not applicable
PCE = tetrachloroethene
RMW = remedial monitoring well
RW = remedial well
SCA = Soil Consolidation Area
SoundEarth = SoundEarth Strategies, Inc.
TCE = trichlorothene
VC = vinyl chloride

2.5.2 Targeted Areas

Soil and groundwater impacts at the Site were characterized with investigation and addressed through remediation with partial remediation implemented in 2004 through 2009 as described in Section 2.3. Ongoing remedial activities are discussed herein. Additional soil gas and groundwater sampling was conducted during the Site Conditions Update (SCU) in 2012, and an HHRA was prepared to estimate risks associated with potential exposure to VOCs in 2012 soil gas sampling results via inhalation of indoor air under a residual exposure scenario. Based on the SCU and HHRA conducted in 2012, DTSC determined that the use of the site-specific target cancer risk level of 10 in a million (1×10^{-5}) and a non-cancer target hazard index of one were appropriate risk management goals for the Site (DTSC 2013). DTSC further identified individual parcels within Areas A, B and C that required remedial action and/or mitigation to meet risk management goals for the Site. These areas were further defined through additional characterization efforts conducted in 2015 and are described below and depicted in Figure 3.

Area A. Area A is located in the northeastern portion of the Site in the area along the MRT canal and in the area where the affected soils excavation and groundwater pump and treat activities were completed. While confirmation soil sampling conducted in 2009 did not indicate soil concentrations above the RAO goals established in the 2005 FS/RAP, subsequent soil gas and groundwater sampling conducted in 2008 and 2012 indicated soil gas concentrations above the risk management goal of 1×10^{-5} in a localized area on the eastern portion of Area A and elevated groundwater concentrations beneath portions of this area (Figure 3). Volatilization of chlorinated volatile organic compounds (CVOCs) in soil used for engineered fill, residual native CVOC-affected soil near the margins of the excavation areas, and volatilization of VOC-affected groundwater are potential contributors to the risk in Remedial Area A. The future planned use of Remedial Area A includes single family residences and park areas.

Area B. Area B is located in the southwestern portion of the Site along Harbor Boulevard. While confirmation soil sampling conducted in 2009 did not indicate soil concentrations above the remedial goals established in the 2005 FS/RAP, subsequent soil gas sampling conducted in 2008 and 2012 indicated soil gas concentrations above risk management goals in Area B (Figure 3). Volatilization of CVOCs in soil used for engineered fill is the potential contributor to the risk in Remedial Area B. The future planned use of Remedial Area B includes single-family residences.

Area C. Area C is located in the northwestern portion of the Site along Harbor Boulevard. Soil gas sampling conducted in 2012 indicated concentrations above risk management goals beneath the road portion of Area C. Volatilization of CVOCs in soil used for engineered fill beneath the

future road is the potential contributor to the risk in Area C. The future planned use of Area C is single-family residences.

2.5.2.1 Groundwater Targeted Areas

Vinyl Chloride. Elevated VC concentrations (250 µg/L to 1,000 µg/L in RW-16) were present in an approximate 225-foot by 125-foot area in the vicinity of monitoring well RW-16 (largely within or adjacent to Area A). The area was treated with the substrate EHC-L injections in December 2016. As of September 2017, the VC-affected area has decreased in size to an approximate 50-foot by 50-foot area in the vicinity of monitoring well RMW-10, with the highest VC concentration of 235 µg/L in RMW-10.

TCE. TCE concentrations greater than 250 µg/L were present in an approximate 50-foot by 50-foot area in the vicinity of monitoring well SCA-02. The area was treated with EHC-L injections in December 2016. As of September 2017, the TCE plume has decreased to a single concentration of 3.33 µg/L TCE in monitoring well SCA-02.

2.5.3 Soil Consolidation Areas

As described in Section 2.3, the Site remedial grading effort identified and consolidated affected soils and sludge materials in two SCAs to minimize and interrupt transport pathways to receptors. An evaluation of these materials found them to have low water solubility (LFR 2006).

Soils consolidated into the SCAs contained the following:

- TPH at concentrations up to 500 mg/kg for C_5-C_8 volatile aliphatics and C_9-C_{12} volatile aromatics, and 5,000 mg/kg for C_9-C_{12} volatile aliphatics, C_9-C_{18} extractable aliphatics, C_{19}-C_{36} extractable aliphatics, and C_{11}-C_{22} extractable aromatics
- Barium at concentrations up to 10,000 mg/kg
- Chlordane at concentrations up to 2.5 mg/kg
- Dioxins at concentrations up to 0.01 mg/kg
- PCBs at concentrations up to 50 mg/kg

The soil cap material consists of soil with concentrations below industrial screening levels (2008) of the following chemicals:

- Barium (less than 6.5 mg/kg)
- Dioxins (less than 0.000016 mg/kg)
- PCBs (less than 0.74 mg/kg)
- Benzene (less than 1.4 mg/kg)
- Carbon tetrachloride (less than 0.55 mg/kg)
- Chloroform (less than 0.47 mg/kg)

- 1,1-DCA (less than 1,700 mg/kg)
- 1,2-DCA (less than 0.6 mg/kg)
- 1,1,2-TCA (less than 1.6 mg/kg)
- TCE (less than 6.5 mg/kg)
- PCE (less than 1.3 mg/kg)
- VC (less than 0.75 mg/kg)

A geotextile fabric is present between the affected materials and the soil cap materials. In addition, a 15-mil polyethylene geotextile was placed from the surface to near groundwater, around the perimeter of the SCA, adjacent to the future residences, to diminish potential concerns for methane migration from the SCAs to residences.

3.0 RESPONSE PLAN OBJECTIVES

Site-wide and media-specific RAOs were identified and included in the FS/RAP. The attainment of the RAOs is described in the PRACR along with a description of future action items (ARCADIS 2013a). The Response Plan Objectives (RPOs) below address the remaining impacts at the Site.

The RPOs for the Site are as follows:

1. Reduce soil vapor source concentrations through SVE that, without proper installation, testing, and maintenance of mitigation measures, pose a risk to future residents from potential inhalation of vapors containing CVOCs posing risks greater than 1×10^{-5} and a hazard index (HI) of 1.
2. Reduce CVOC concentrations in groundwater through MNA to attain water quality objectives or MCLs within a reasonable time frame.
3. Prevent ingestion of groundwater with CVOC concentrations in excess of MCLs.
4. Prevent indoor vapor intrusion of CVOCs in excess of a total excess cancer risk of greater than 1×10^{-6} and HI of 1.
5. Prevent contact with soils containing TPH, PCBs, and metals in the SCAs through monitoring and maintaining engineering and institutional controls.
6. Prevent or control exposures to potential residual contaminants in soil-vapor or groundwater using institutional or engineering controls and monitoring.

The RPOs are consistent with the overall goal of residential site redevelopment and operation and maintenance of the RPA under CLRRA.

4.0 RESPONSE ACTIONS

MPL will complete the response actions summarized below and described in more detail in Section 5.0. The response actions identified in this section include remaining requirements from the 1996 RAP, 2006 FS/RAP, 2013 PRACR, and VCA.

- Ongoing operation and maintenance of a Soil Vapor Extraction (SVE) system to reduce VOC concentrations in soil vapor.
- Installation of VIM systems, in all residential buildings, in accordance with the VIM Systems Design and Construction Plan, as and when residences are constructed on the Site.
- Periodic groundwater monitoring to evaluate the MNA progress and respond to elevated groundwater concentrations that may occur, if necessary.
- Periodic inspections, maintenance, and monitoring of the cap systems in the SCAs to eliminate significant erosion and transport of SCA materials from the SCAs.
- Recording and implementing land use restrictions in the form of land use covenant(s) to restrict use in accordance with the institutional controls that will prohibit any construction without implementation of a DTSC-approved VIM Systems Design and Construction Plan; the land use covenant(s) will require access and access restrictions to the RPAs and SCAs, as well as restrictions related to the O&M requirements for the SVE, VIM systems, groundwater remediation efforts, and SCAs.

5.0 RESPONSE ACTION DESCRIPTION

Each response action that will be undertaken under this Response Plan, as identified in the preceding Section, is described in more detail below. Project controls are described in Section 6.0.

5.1 Soil Vapor Extraction

To further reduce residual low-level VOC soil vapors, an SVE treatment system was constructed and installed at the Site in accordance with SoundEarth's Soil Vapor Extraction Pilot Test and Design Report (SoundEarth 2016b) and the FS/RAP. The system was installed from August 2016 through October 2016, it has been in operation since October 31, 2016 and it will continue to be operated, maintained, repaired and replaced (if necessary) as described below.

The SVE system includes 41 extraction wells, approximately 9,000 linear feet of extraction conveyance piping, three 15-horsepower blowers, and a vapor absorption system. The vacuum is transmitted by the extraction piping system to the 41 extraction wells, distributed across the affected areas (Remedial Area A and Remedial Area B), and extends into the geologic strata containing the affected vapors to be removed and treated. Details of design, permitting, construction, and initial operation are included in the Soil Vapor Extraction System Start-up Report (SoundEarth 2017d).

MPL will undertake the following long-term operation and maintenance SVE system activities:

- System control and communications will be provided by a programmable logic controller (PLC) through an Internet connection to facilitate remote monitoring of critical system operational parameters and remote modifications of system operations
- Regular emails will be sent from the PLC with critical system data such as flow rate, influent and effluent photoionization detector (PID) readings, and airstream temperatures, and will provide notification of conditions that require attention such as SVE system shut down, condensate high water levels, and flow rates or temperatures outside of normal operating conditions
- The SVE system is equipped with an emergency stop push-button for manual system shutdown, if necessary
- Monthly O&M visits will be conducted to evaluate and maintain system operation.
- Periodic vapor samples of the system air stream will be collected for laboratory analysis to evaluate progress of the SVE system in removing VOCs from the Site.
- Periodic monitoring and sampling of the SVE extraction wells and field monitoring of selected soil vapor probes will be conducted to evaluate and confirm sufficient SVE system radius of influence, and to evaluate concentrations of VOCs and other parameters in the soil vapor.

- Annual reports will be prepared for DTSC describing results of soil gas sampling.
- Maintenance will include the periodic disposal of "spent" GAC and liquid condensate, as needed.

System performance and future consideration for when the system has fulfilled its remedial contribution will be made by considering multiple lines of evidence including the observed mass removal, concentration reduction in the SVE system influent and CVOC concentration reductions in the Soil Vapor Probes.

5.2 Vapor Intrusion Mitigation

In 2008, DTSC approved the Site for residential use with the implementation of vapor barrier remedial and mitigation elements for all residences (DTSC 2008). In 2013, DTSC clarified that approval with the requirement for active soil vapor treatment and passive VIM systems at 117 parcels (DTSC 2013a). In 2015, EPA expressed support for the implementation of active VIM measures in all homes (DTSC 2015c). Accordingly, as and when residences are constructed on the Site, all residential buildings will include VIM design elements in accordance with the VIM Systems Design and Construction Plan, as approved by DTSC, and the specifications contained on Figures 5 and 6. MPL will be responsible for proper design and will require construction of the VIM system components in all residences. MPL will maintain responsibility for construction quality assurance and quality control, and oversight of the builders who will devise construction drawings and construct the residences gaining approvals required by the City of Oxnard. MPL will inspect each homebuilder's installation of the VIM systems in each residence to ensure that the VIM systems are installed in accordance with the design specifications described in the VIM Systems Design and Construction Plan. MPL will require each homebuilder to make corrections or repairs appropriate to ensure that the VIM systems are installed in accordance with the VIM Systems Design and Construction Plan.

5.2.1 VIM System Description

All residences will have VIM systems to be constructed with both passive and active mitigation systems. The active systems include typical radon-type exhaust fans (exhaust fans) to reduce sub-slab pressures. These exhaust fans also collect and transport vapors from the sub-slab zones, through extraction piping and discharge these vapors through roof vents. Remote electrical monitoring and surveillance systems will be used in all VIM systems to notify MPL of exhaust fan malfunction to initiate appropriate repairs. These monitoring and repair efforts are intended to minimize exhaust fan downtime. Two different VIM systems are specified in order to provide future homebuilders some latitude to select the most appropriate system:

1. The first vapor barrier and venting system option consists of a liner (low permeability membrane [LPM]) placed directly beneath the post-tension slab, that provides a passive barrier. As shown on Figure 6, two specifications of LPM are planned for different areas of the Site. In addition, beneath the LPM, a 6-inch layer of washed uniform gravel with 4-inch-diameter vent piping will be placed to create a permeable layer in which lower pressure would be created by the exhaust fan. The exhaust fan will be connected to the permeable

layer vent piping and actively discharge sub-slab vapors to the atmosphere above the roof line.

2. The second VIM system option would use an aerated slab. This VIM system creates a sub-slab open void space of about 1 foot, with the slab elevated on concrete pedestals created by specialized recycled plastic forms. This VIM system creates a passive more easily vented layer to more effectively vacate vapors and transmit pressure reductions. The exhaust fan would actively vent the sub-slab void space to above the roof line, similar to the LPM and gravel system.

Both of these options include identical electronic monitoring and communication systems that notify MPL of the operational status of the exhaust fans in order to remotely verify exhaust fan operation and the pressure differential between the sub-slab and living area.

5.2.2 VIM Operation and Maintenance

While the O&M requirements could be modified in consultation with DTSC, the long-term VIM O&M tasks include the following:

1. Initially, conduct an annual Site visit to check the fan operation manually at 292 houses.
2. Conduct real time remote (online) monitoring of VIM system function.
3. Maintain and operate all system components.
4. Conduct periodic maintenance and repairs, as needed.

5.3 Monitored Natural Attenuation

Residual VOCs in shallow groundwater are being treated and will continue to be treated by MPL with a long-term MNA process in accordance with DTSC's approval of the 2006 FS/RAP (DTSC 2006a) and 2013 PRACR (DTSC 2013b) to attain RWQCB water quality objectives (e.g., MCLs) within a reasonable time frame as defined by SWRCB Resolution 92-49. MNA is the final technology being implemented to remediate the Site's groundwater in accordance with the FS/RAP. The progress to attain the RAOs and RPOs, the remedial progress, the conceptual Site model, the time frame estimated to attain RPOs are described in the Groundwater Conceptual Site Model and Remedial Progress report (SoundEarth 2018). Groundwater response actions to be conducted by MPL are described below.

- Long-term Site-wide groundwater monitoring of approximately 13 groundwater monitoring wells will be conducted annually and an additional 5 groundwater monitoring wells will be sampled biennially to monitor Site-wide natural attenuation.
- Groundwater well maintenance and repair will be conducted as needed to maintain the integrity of the groundwater monitoring wells.
- Annual reports will be prepared for submittal to DTSC that include tables, figures, statistical trend analysis, and contaminant mass calculations. This continuous monitoring and ongoing

evaluation will be implemented to monitor the MNA's progress in achieving water quality objectives.

5.4 Soil Conservation Area/Resource Protection Area

The RPA portion of the Site includes two SCAs, which contain affected soil and sludge excavated from other portions of the Site during the remedial efforts. To maintain the integrity of the SCA cap systems and reduce the potential for erosion that could result in exposure, the caps will be inspected twice each year, and cap deficiencies encountered during such inspections that affect the integrity and efficacy of the caps will be repaired and corrected. Vegetation viability and integrity will be evaluated and maintained to minimize erosion and dust generation. To evaluate the potential of releases from the SCAs to groundwater, leak detection groundwater monitoring is being conducted. Given that maintenance of the plant cover provides for long-term cap stability and sustainability, these inspections will be performed at the beginning of the rainy season in November and following the rainy season in May. Annual groundwater sampling will be conducted in November of each year. Reporting will be conducted in accordance with the O&M Plan.

5.5 Institutional Controls

Institutional Controls will be reflected in the Land Use Covenant and Environmental CC&Rs. These controls will include the following:

- Prohibition of any construction of residential buildings unless the VIM Systems are installed in all such buildings in accordance with this Response Plan and the VIM Systems Design and Construction Plan as approved by DTSC.
- Operation and Maintenance requirements for groundwater monitoring, the SCA, future VIM systems (including supplying power for VIM operation), and the SVE.
- Access restrictions to the RPA to minimize pedestrian traffic.
- Prohibitions against the installation of groundwater wells.
- Requirements to allow MPL access to the groundwater monitoring systems, the SVE systems and the VIM systems for continued operation and maintenance.
- Restrictions against any interference with, disruption of, damage to, or tampering with any of the groundwater monitoring systems, SCA soil caps, the SVE systems and the VIM systems.

6.0 HEALTH AND SAFETY, RECORDKEEPING, AND PROJECT CONTROLS

The following describes the project control measures that will be used during the implementation of the response actions. Project controls include site control measures for site safety and protection of human health. Project control measures will be implemented during the construction of the VIM and outlined in the Builder's plans. A qualified inspector representing MPL will be present during the response action field activities and quality assurance and quality control efforts.

6.1 Site-Specific Health and Safety Plan

All work performed at the Site will be conducted in accordance with applicable state and federal occupational and health safety standards as set forth in Title 29 Chapters 1910 and 1926 of the Code of Federal Regulations; California Health and Safety Regulations as set forth in Title 8, California Code of Regulations; and guidance established by the DTSC and EPA. A Site-specific Health and Safety Plan (HASP) currently exists for the Site. The HASP may be updated/amended, as necessary, prior to and throughout the implementation of this Response Plan. A Site-specific HASP will be available on-Site during fieldwork. The HASP defines the project's minimum health and safety requirements and designates protocols to be followed for the field operation to comply with state and federal health and safety requirements. Documentation and records that verify training and/or certification for employees will be maintained. These records will be made available upon request.

6.2 Site Preparation and Security Measures

6.2.1 Utility Clearance

The limits of any proposed excavations areas, including soil and soil gas borings, well installations, excavations, and trenches, will be marked in the field and Underground Service Alert will be contacted to identify locations of underground utilities at least 48 hours prior to initiating subsurface activities.

6.2.2 Surveying

Site surveying of the O&M systems will be conducted by a California licensed surveyor and the Site Civil Engineer for the project.

6.2.3 Permitting

All necessary and applicable permits will be obtained for response action activities. The permits will be kept on-Site and will be made available for inspection during working hours.

6.2.4 Access and Security

Access to the Site during response action implementation is restricted to authorized personnel only. The Site is fenced along Fifth Street and Harbor Boulevard, with a locked entry gate

controlling access from each road. The MRT Canal limits access from the east. Temporary fencing (e.g., caution taped-off delineators) and/or other forms of site control will be utilized to delineate construction areas or work exclusion zones when necessary. The field geologist or engineer monitors and documents all personnel and heavy equipment entering and leaving the Site and the work exclusion zones. The Site will be secured in the absence of the field geologist/engineer, owner's representative, or contractor.

6.3 Field Documentation

6.3.1 Field Logbooks

Documentation of field activities (e.g., probe and well installation, monitoring activities, construction activities, truck trips, sampling techniques, and environmental conditions) is recorded in a field log book.

Depending on the nature of the field activity, entries in the field logbook may include the following for each fieldwork date:

- Site name and address
- Recorder's name
- Team members and their responsibilities
- Time of Site arrival/entry on-Site and time of Site departure
- Other personnel on-Site
- A summary of any on-Site meetings
- Quantity of impacted soils excavated
- Quantity of impacted soils temporarily stored on-Site
- Quantity of excavated soils in truckloads transported off-Site
- Names of waste transporters and proposed disposal facilities
- Copies or numbers of manifests or other shipping documents (such as bill of landing) for waste shipments
- Deviations from the work plan or Site-specific HASP
- Changes in personnel and responsibilities, as well as reasons for the changes
- Levels of safety protection
- Calibration readings and equipment model for any equipment used

The following information will be recorded during the collection of each sample:

- Sample identification number
- Sample location and description

- Site sketch showing sample location and measured distances
- Sampler's name(s)
- Date and time of sample collection
- Designation of sample as composite or grab
- Type of sample (i.e., matrix)
- Type of preservation
- Type of sampling equipment used
- Field observations and details important to analysis or integrity of samples (e.g., heavy rains, odors, colors, etc.)
- Instrument readings (e.g., PID, etc.)
- Chain-of-custody form numbers and chain-of-custody seal numbers (if applicable)
- Transport arrangements (courier delivery, lab pickup, etc.)
- Recipient laboratory(ies)

If an error is made, corrections are made by crossing a line through the error and entering the correct information. Corrections are dated and initialed. No entries will be obliterated or rendered unreadable.

6.3.2 Chain-of-Custody Records

Chain-of-custody records are used to document sample collection and shipment to laboratory for analysis. All sample shipments for analyses will be accompanied by a chain-of-custody record. Form(s) will be completed and sent with the samples for each laboratory and each shipment. If multiple coolers are sent to a single laboratory on a single day, chain-of-custody form(s) will be completed and sent with the samples for each cooler. The chain-of-custody record will identify the contents of each shipment and maintain the custodial integrity of the samples. Generally, a sample is considered to be in someone's custody if it is either in someone's physical possession, in someone's view, locked up, or kept in a secured area that is restricted to authorized personnel. Until receipt by the laboratory, the custody of the samples will be the responsibility of the sample collector.

The shipping containers in which samples are stored (usually sturdy cooler or ice chest) will also be sealed with self-adhesive custody seals any time they are not in someone's possession or view before shipping. All custody seals will be signed and dated.

6.3.3 Photographs

Photographs are taken during each field event and include photographs of the soil borings, monitoring wells, injection equipment, excavation area(s), confirmation sample locations, and other areas of interest on Site. When a photograph is taken, the following information will be written in the logbook or will be recorded in a separate field photography log:

- Time, date, location and, if appropriate, weather conditions
- Description of the subject photographed
- Name of person taking the photograph

6.4 Site Monitoring

6.4.1 Air Monitoring

Air monitoring is performed during Site activities in which impacted, or potentially impacted materials are being disturbed or handled (e.g., soil movement). An air-monitoring/health and safety professional (air-monitoring professional) is on-Site to:

- Monitor dust levels in the exclusion zone and other locations. The Site air-monitoring professional has the authority to stop work in the event that on-Site activities generate dust levels that exceed the Site or community action levels. The air-monitoring professional monitors on-Site meteorological instrumentation and/or coordinates with off-Site meteorological professionals to identify conditions that require cessation of work (e.g., winds in excess of 25 mph).
- Assure that all real-time aerosol monitors and industrial hygiene air sampling equipment and media are properly calibrated and in good working condition.
- Coordinate general Site safety activities including all daily hazard communication, safety practices and procedure briefings.
- Oversee personal decontamination practices.
- Provide general Site safety leadership, support, and recordkeeping activities.

6.4.2 Dust Control

Appropriate dust control measures will be implemented during response actions in accordance with the procedures outlined in the applicable DTSC-approved work plans. Dust control measures may include soil wetting and misting to control visible dust emissions.

6.4.3 Other Environmental Monitoring

Field activities are monitored with a PID, organic vapor analyzer, or equivalent, in accordance with the Site-specific HASP.

6.5 Transportation and Traffic Control

Soil movement activities will be conducted in accordance with Transportation and Decontamination Plans, as necessary. The purpose of the plan will be to evaluate potential health, safety, and environmental risks resulting from on-Site and off-Site transportation of materials, equipment, and debris associated with soil removal activities, and from potential cross-contamination during handing of affected soils, and to outline appropriate precautions that were taken to minimize these risks.

6.6 Decontamination

All non-dedicated field sampling equipment is decontaminated using a standard triple-rinse method consisting of distilled water and a non-phosphate detergent. At the end of each workday, the accumulated decontamination water is placed in Department of Transportation-approved 55-gallon drums, which are labeled, sealed, and placed in an area away from Site traffic, pending off-Site transport and disposal.

6.7 Waste Management and Manifests

Waste materials generated during the implementation of the response actions will be secured and placed in interim storage at the Site in a designated area. All waste materials stored at the Site are logged and each container labeled.

Decontamination fluids are secured in 55-gallon drums or other appropriate containers. All containment drums are labeled as to the date and contents. An inventory of drums is maintained.

The contents of the drums are characterized using Site data or sampled, if required by the disposal contractor, to characterize the contents for disposal. The final disposition of all stored materials will be carried out in accordance with federal, state, and local regulations.

In the event that the removed soil or groundwater is profiled as a hazardous waste, a Uniform Hazardous Waste Manifest (hazardous waste manifest) form will be used to track the movement of soil from the point of generation to the point of ultimate disposition.

Waste manifests will include information such as the following:

- Name and address of the generator, transporter, and the destination facility
- U.S. Department of Transportation description of the waste being transported and any associated hazards
- Waste quantity
- Name and phone number of a contact in case of an emergency
- Site EPA Hazardous Waste Generator Number

7.0 REPORTING

This section presents the general reporting procedures for the components of the Response Plan.

7.1 Remedial Action Completion Report

Following completion of the response actions and documentation of O&M, one or more a Remedial Action Completion Reports will be prepared and submitted to DTSC describing remedial actions completed since the submittal of the PRACR showing progress towards RPO achievement.

7.2 Annual Operations and Maintenance Reports

Annual O&M Reports, Site-wide groundwater monitoring reports (including WDR/MRP) and SCA/RPA inspections, will be prepared and submitted to DTSC (and RWQCB as appropriate). The reports will summarize current and historical data, including time-trend data, as appropriate, and will include an interpretation of current results. In addition, reports will include a summary of recommended modifications to the O&M Plan, if any. Such modifications may include, but are not limited to, the following:

- The addition or deletion of wells as appropriate from the monitoring program.
- Modification of the sampling frequency.
- Modification to the laboratory analytical program (e.g., to assist with MNA evaluations).

7.3 Five-Year Reporting

A Five-Year Review Report will be submitted every 5 years that summarizes remedy effectiveness within the reporting period. The report will identify any incidents or problems with the O&M systems, and will evaluate system performance, effectiveness, and protectiveness. The Five-Year Review Report will include a technical assessment and evaluation of the ongoing protectiveness of the remedy, state conclusions, and make recommendations for any changes needed to maintain remedy protectiveness or to alter the monitoring program to provide only data that will provide value in future evaluations. Any modifications to the monitoring program will be agreed to by the DTSC.

8.0 IMPLEMENTATION SCHEDULE

The following is the current schedule for implementation of the Response Plan. The Site's Operation and Maintenance Plan will define the schedule and is anticipated to be modified over time with the approval of DTSC.

Task	Schedule
Ongoing operation and maintenance of the SVE system.	Monthly until SVE shut down.
Installation of VIM systems in accordance with the VIM Systems Design and Construction Plan.	As and when residences are constructed on the Site.
Periodic groundwater monitoring	Annually in November, with reporting in January as defined and modified in the Operations and Maintenance Plan.
Periodic inspections, maintenance, and monitoring of the cap systems in the SCAs	Semi-annually in May and November, with reporting in January as defined and modified in the Operations and Maintenance Plan.
Recording of Land Use Covenant	January 2019

9.0 CONTINGENCIES

Pursuant to California Health and Safety Code Section 25395.96(a)(8), DTSC will require further response actions if hazardous materials that pose an unreasonable risk to human health and safety or the environment are discovered during the course of the response actions described in this Response Plan or the development of the Site. MPL will develop a Contingency Plan for DTSC approval.

10.0 PUBLIC PARTICIPATION

In January 2018, DTSC prepared and mailed a survey to residents and businesses within an area of approximately one-half to 2 miles of the Site. A Community Update was mailed to inform residents and businesses about the proposed Response Plan in an effort to elicit comments on the Response Plan.

10.1 Public Participation Activities

The following public participation activities and opportunities for public involvement were implemented:

1. Public notices were published in the *Ventura County Star* and *Vida*.
2. A copy of the Response Plan was placed in the repositories listed in Section 10.2 prior to the first day of the public comment period.
3. A Fact Sheet was prepared to provide historical information, describe the current site conditions, and provide information on the response action. The Fact Sheet was provided in both English and Spanish and distributed to nearby residents, the key contacts list, and the DTSC mandatory mailing list.
4. A public meeting and open house were held on April 24, 2018. A copy of the public meeting transcript is included in Appendix A.
5. DTSC prepared written responses to public comments received. The Response to Comments is included in Appendix B.

10.2 Information Repositories

Documents related to the environmental investigation and proposed Site cleanup action can be reviewed in Public Information Repositories that will be established at the following locations:

Department of Toxic Substances Control Regional Records Office
9211 Oakdale Avenue
Chatsworth, California 91311
Contact: Sara Vela
Phone: 818-717-6618
Hours: Monday–Friday, 8:00 a.m.–5:00 p.m.

Oxnard Downtown Main Library
251 South A Street
Oxnard, California 93030
Phone: 805-385-7500
Hours: Monday–Thursday, 9:00 a.m.–8:00 p.m.
Saturday 9:00 a.m.–5:30 p.m.
Sunday 1:00 p.m.–5:00 p.m.

Information can also be found at: <www.envirostor.dtsc.ca.gov/public>.

11.0 LIMITATIONS

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, expressed or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report are derived, in part, from data gathered by others, and from conditions evaluated when services were performed, and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We do not warrant and are not responsible for the accuracy or validity of work performed by others, nor from the impacts of changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the use of segregated portions of this report.

12.0 FINAL RESPONSIVENESS SUMMARY

A summary of public comments received and DTSC responses is included as Appendix B.

13.0 CEQA DOCUMENTS

An Environmental Impact (EIR) Report Addendum has been prepared for the project. The EIR Addendum concludes that implementation of the Response Plan will not cause any new significant environmental impacts or a substantial increase in the severity of impacts previously identified in the North Shore EIR. No additional mitigation measures are required for the Response Plan. Therefore, the impacts of the Response Plan are within the scope of impacts already identified in the North Shore EIR, and the North Shore EIR adequately addressed all impacts of the Project. DTSC filed a Notice of Determination (NOD) for this Addendum to the North Shore EIR with the California State Clearinghouse within the State of California Office of Planning and Research. The NOD is included in Appendix C.

14.0 ADMINISTRATIVE RECORD

The administrative record is included in Appendix D.

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_____. 2014d. North Shore at Mandalay Bay-Soil Conservation Area Monitoring Wells, 198 South Harbor Boulevard, Oxnard, California. June 30.

_____. 2014e. Technical Memorandum—Work Plan to Characterize RPA Soils, North Shore at Mandalay Bay, 198 South Harbor Boulevard, Oxnard, California. August 26.

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_____. 2017c. Baseline Soil Gas Monitoring Report, North Shore at Mandalay Bay, 198 South Harbor Boulevard, Oxnard, California. March 6.

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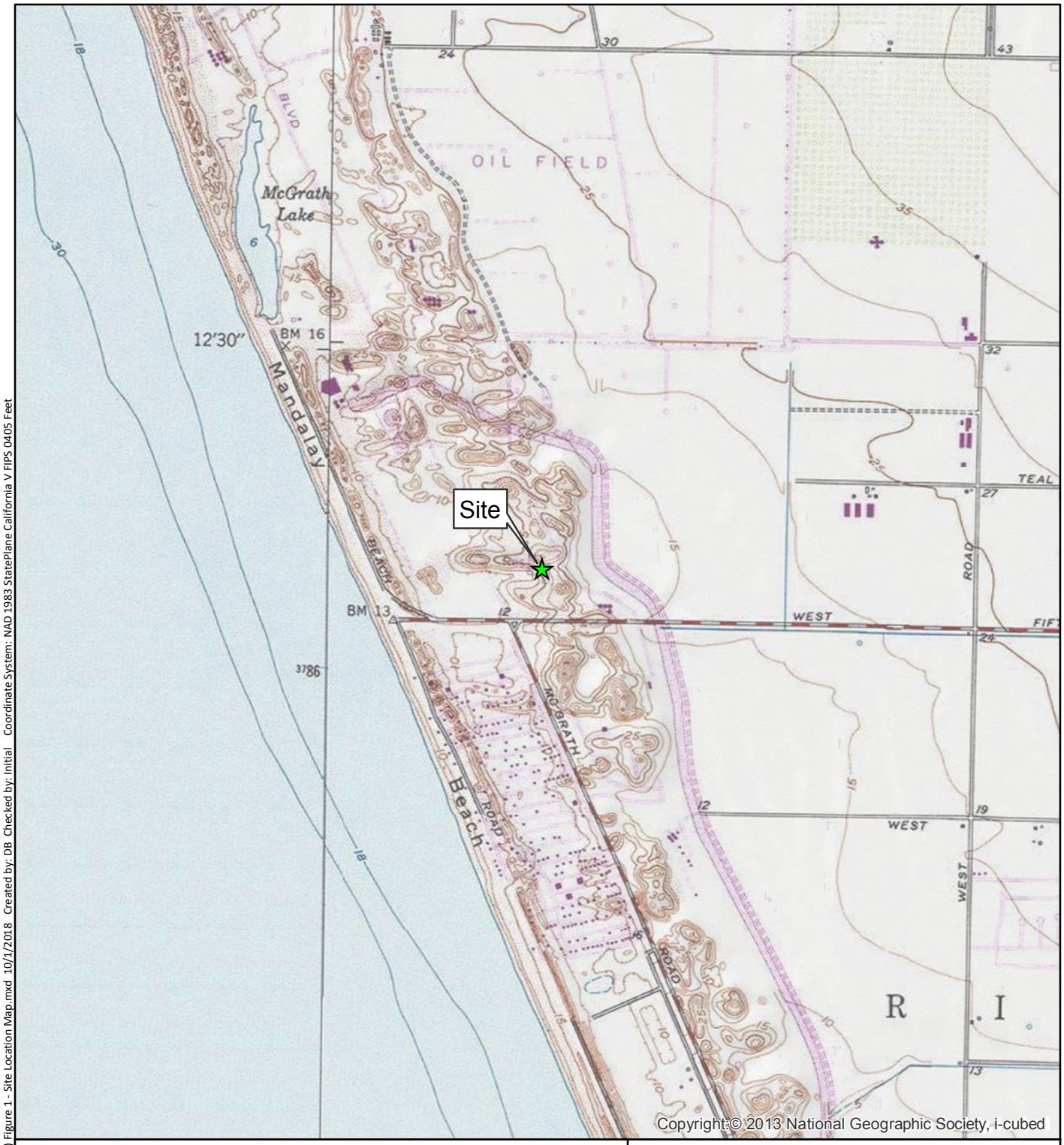
FIGURES



0 2,000 4,000 Feet

1 inch = 2,000 feet

N

Legend

Site Location

Base Map: USGS Oxnard, CA (1967) 7.5 Minute Quadrangle.

SAFETY FIRST

terraphase engineering

CLIENT: MPL Property Holdings, LLC

PROJECT: North Shore at Mandalay Bay

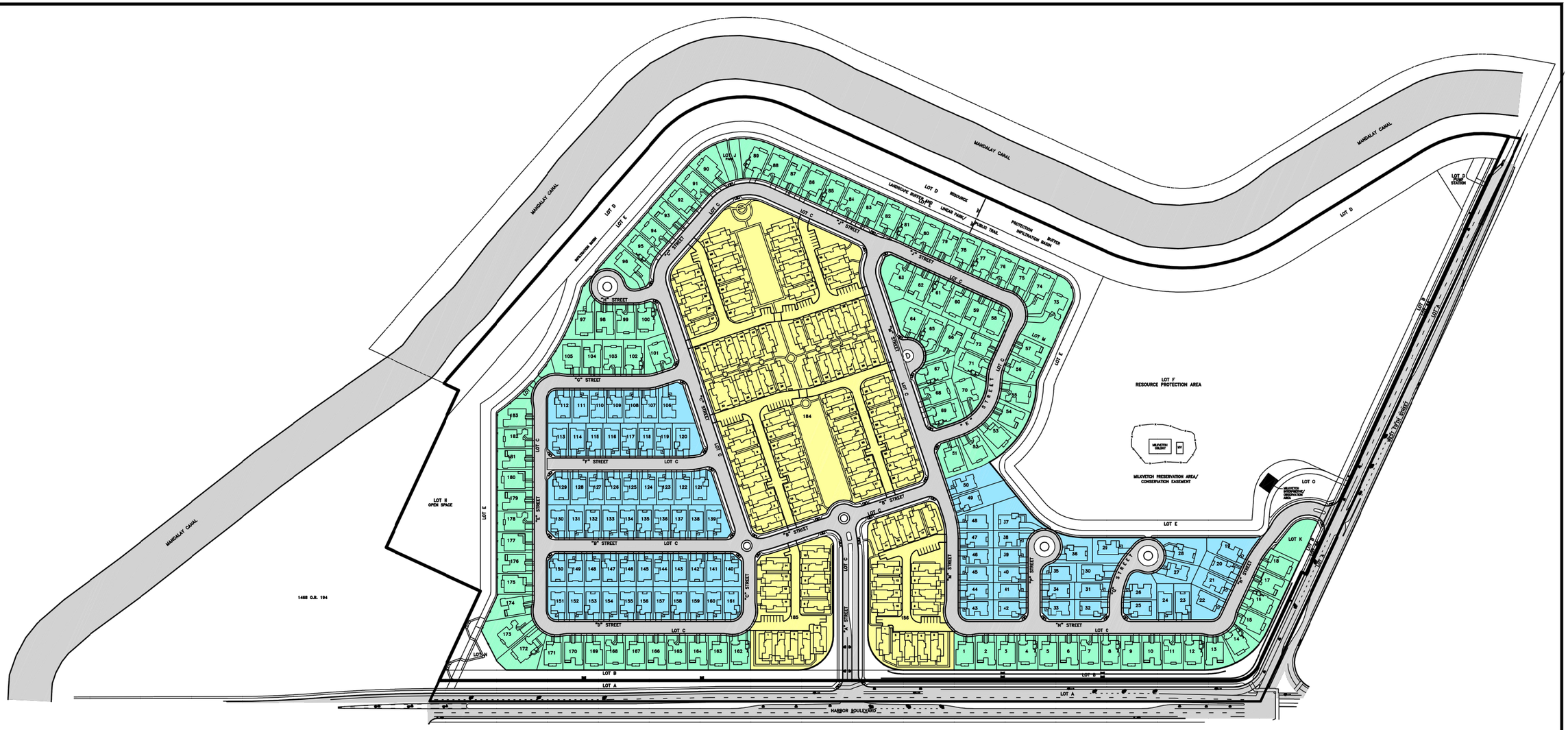
PROJECT NUMBER: S041.001.003

Site Location Map

FIGURE 1

File: K:\GIS\Prj\S041.001 MPL Holdings LLC\MXDs\(20180927) Figure 1 - Site Location Map.mxd 10/1/2018 Created by: DB Checked by: Initial Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet

R:\PROJECTS\S041-MPL_PROPERTY_HOLDINGS_LLC\MANDALAY_BAY\TECHNICAL\CAD\2017_DELIVERABLES\RESPONSE_PLAN



LEGEND

- "A" PRODUCT – 109 UNITS
- "B" PRODUCT – 88 UNITS
- "C" PRODUCT – 95 UNITS

0' 150' 300' 600'

Approximate Scale in Feet

N

SAFETY FIRST

terraphase engineering

CLIENT:	MPL Property Holdings, LLC
PROJECT:	North Shore at Mandalay Bay
PROJECT NUMBER:	S041.001.003

North Shore at Mandalay Bay Land Use

Figure 2

LEGEND

- RESIDENTIAL HOUSING AREA REQUIRING 40 MIL GEOMEMBRANE LOW-DENSITY POLYETHYLENE (LDPE) ABSOLUTE BARRIER® Y-SERIES, Y40BAC, BY RAVEN, OR APPROVED EQUAL (109 RESIDENTIAL LOTS)
- RESIDENTIAL HOUSING AREA REQUIRING 15 MILS, ASTM E 1725 CLASS A VAPOR BARRIER, STEGO® WRAP, OR APPROVED EQUAL (183 RESIDENTIAL LOTS)

  NOTE: CUPOLEX FOUNDATION OPTION DOES NOT REQUIRE GEOMEMBRANE
- AREA WITH SOIL GAS IMPACTS TARGETED FOR SOIL VAPOR TREATMENT
- GROUNDWATER TREATMENT AREA
- EXTENT OF GROUNDWATER AFFECTED BY TOTAL CVOCs GREATER THAN 100 µG/L

CVOC — CHLORINATED VOLATILE ORGANIC COMPOUNDS

µG/L — MICROGRAMS PER LITER

0 100 200

APPROXIMATE SCALE IN FEET

N

SAFETY FIRST	CLIENT: MPL Property Holdings, LLC	Site Impacts Requiring Response Actions
terraphase engineering	PROJECT: North Shore at Mandalay Bay	
	PROJECT NUMBER: S041.001.003	FIGURE 3

LEGEND

P-SG-42	PERMANENT MULTIDEPTH SOIL GAS MONITORING PROBE LOCATION (SOUNDEARTH, APRIL 2015)
MB-103	PERMANENT MULTIDEPTH SOIL GAS MONITORING PROBE LOCATION (ARCADIS, 2012)
NS-13	SOIL GAS MONITORING PROBE LOCATION (SOUNDEARTH, MARCH 2015)
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
SCA	SOIL CONSOLIDATION AREA
SVE	SOIL VAPOR EXTRACTION
A-VSVE-01	VERTICAL SOIL VAPOR EXTRACTION WELL WITH 65-FOOT RADIAL ZONE OF INFLUENCE
	REMEDIAL AREA

REMEDIAL AREA A
24 VERTICAL SVE WELLS

24 VERTICAL SVE WELLS

SOUTHERN SCA BOUNDARY

NORTHERN SCA BOUNDARY

SOUTHERN SCA BOUNDARY
REMEDIAL AREA B
17 VERTICAL SVE WELLS

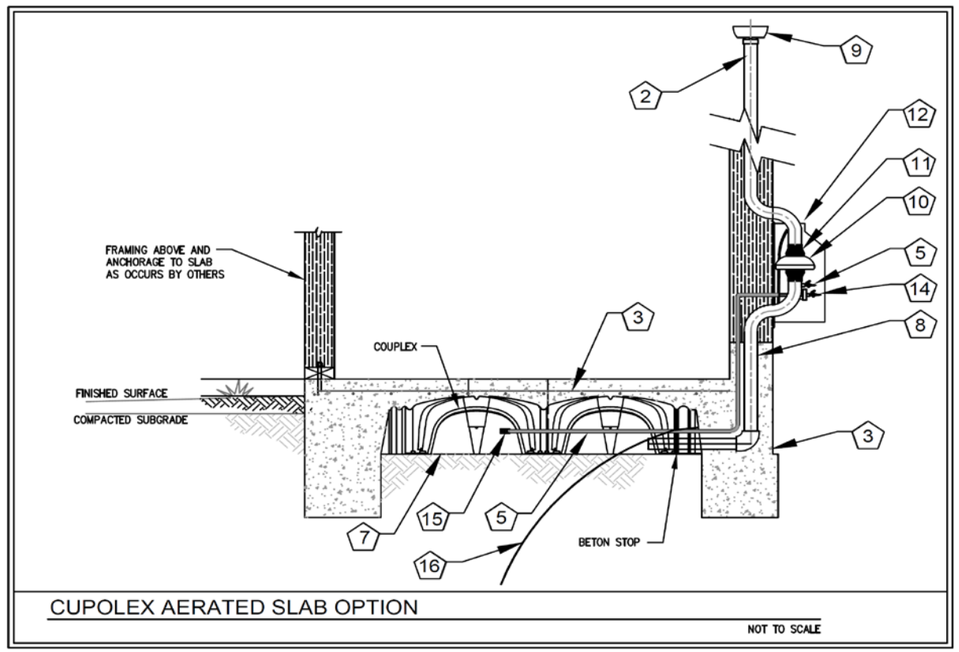
AREA C

LOT F
RESOURCE PROTECTION AREA/ SCA

0 100 200
APPROXIMATE SCALE IN FEET

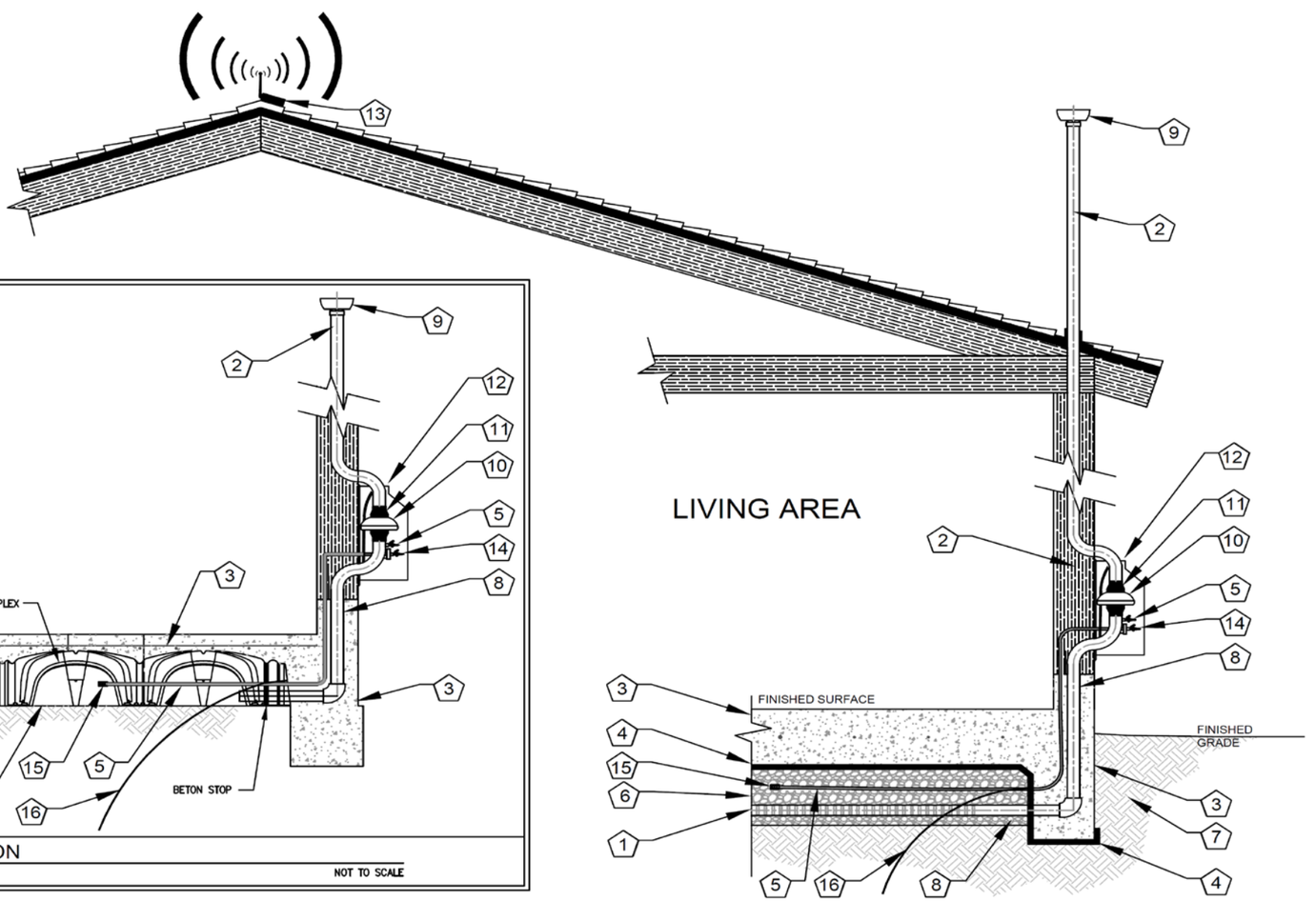
N

SAFETY FIRST	CLIENT: MPL Property Holdings, LLC	Site Plan Showing Location of SVE Wells and Soil Gas Monitoring Probes
terraphase engineering	PROJECT: North Shore at Mandalay Bay	
	PROJECT NUMBER: S041.001.003	FIGURE 4



CUPOLEX AERATED SLAB OPTION

NOT TO SCALE



TYPICAL LOW PERMEABILITY MEMBRANE (LPM) AND MONITORING OPTION

NOT TO SCALE

1 VAPOR INTRUSION MITIGATION (VIM) DETAILS

NOT TO SCALE

NOTES:

(1) TO BE APPROVED BY PROJECT PROFESSIONAL. VAPOR BARRIER TYPE IS SPECIFIC TO RESIDENTIAL UNIT LOCATION ON SITE. SEE FIGURE B-2 FOR VAPOR BARRIER SITE MAP.
(2) FINAL VAPOR BARRIER SHALL INCORPORATE VAPOR BARRIER DESIGN, BY VIM DESIGNER AND BE FINALIZED WITH BUILDER'S STRUCTURAL AND GEOTECHNICAL ENGINEER AND ARCHITECT. FOR REVIEW AND APPROVAL BY PROJECT PROFESSIONAL.
(3) ACCESS PANEL MAY CONTAIN BOTH SUB-SLAB SAMPLE PORT AND RADON FAN CONFIGURATION. ELECTRICAL COMPONENTS SHALL BE SUITABLE FOR OUTSIDE OPERATION OR BE HOUSED WITHIN A NEMA 3X, OR APPROVED EQUAL, ENCLOSURE TO PROTECT AGAINST RAIN AND CORROSION.
(4) SUB-SLAB PIPING SHALL BE PLACED IN THE MID DEPTH IN CRUSHED ROCK BEDDING.
(5) ALL SPECIFIED MATERIALS MAY BE SUBSTITUTED WITH THE APPROVAL OF THE PROJECT PROFESSIONAL.
(6) CUPOLEX AERATED SLAB OPTION WITH SIMILAR RADONAWAY FAN AND SUB-SLAB SAMPLE PORT AS LPM OPTION.
(7) SUBJECT TO BUILDER'S VIM DESIGNER MODIFICATIONS TO BE APPROVED BY PROJECT PROFESSIONAL.
(8) ALL GEOTECHNICAL AND STRUCTURAL BY BUILDER ENGINEER.
(9) VIM DESIGNER AND BUILDER ARCHITECT TO ADAPT THESE DRAWINGS AND SPECIFICATIONS TO BUILDER DESIGNS. THIS FIGURE IS FOR ILLUSTRATION PURPOSES.

ENGINEERING NOTES

1. (5) 4"Ø SCH 40 PVC PERFORATED SUB-SLAB DEPRESSURIZATION OR VENTILATION PIPE. BY BUILDER.
2. (4) 4"Ø SCH 40 RISERS SHALL BE EMBEDDED IN WALL OR CHASE AND VENT TO ATMOSPHERE, ABOVE ROOF. NO VENTING SHALL OCCUR INSIDE RESIDENTIAL UNIT. PIPE SHALL BE SEALED THROUGH ALL PENETRATIONS PER MANUFACTURING SPECIFICATIONS AND APPROVED BY PROJECT PROFESSIONAL. BY BUILDER.
3. STRUCTURAL FOUNDATION SLAB, DESIGNED BY STRUCTURAL ENGINEER, CONSTRUCTED BY BUILDER.
4. (1)(7) SUB-SLAB LOW PERMEABLE MEMBRANE. 60 MIL GEO-SEAL OR 15 MIL STEGO WRAP SHALL BE INSTALLED TO MINIMIZE LEAKS. SEE FIGURE B-2 FOR MEMBRANE TYPE LOCATIONS. BY BUILDER. SEE FIGURE B-5 FOR GEOSEAL DETAILS. SEE ATTACHMENTS A & B.
5. (2) ¼" Ø SCH 40 PVC VITON, SOIL VAPOR SAMPLING PORT COLONIAL ENGINEERING VALVE P/N: V03542N, OR APPROVED EQUAL. BY BUILDER.
6. (5) SUB-SLAB TRANSMISSIVE LAYER. 6"± THICKNESS OF UNIFORM ¾" WASHED CRUSHED ROCK SUB-BASE. SYSTEM PIPING SHALL BE PLACED AT MID LEVEL IN GRAVEL. BY BUILDER.
7. SITE SOILS PREPARED TO APPROVED GEOTECHNICAL ENGINEER'S SPECIFICATIONS. BY BUILDER.
8. ALL 4" PIPING, CONDUITS, AND LOW PERMEABLE MEMBRANE PENETRATIONS SHALL BE SEALED PER MANUFACTURERS SPECIFICATION IN ORDER TO ENSURE INTEGRITY OF VAPOR BARRIER. BY BUILDER. SEE FIGURE B-5 DETAIL 4.
9. RADONAWAY®, VENT CAP (P/N: 76002), OR APPROVED EQUAL, WITH VARMINT GUARD . BY BUILDER.
10. (4) RADON FAN, RADONAWAY® RP145 OR RP265 WITH RADONAWAY® TRANSITION FITTING SKU 13245 COUPLED WITH RADONAWAY® VACUUM ALARM, CHECKPOINT IIAR (P/N: 28001-4) AND MANOMETER (P/N: 50017). REFER TO FIGURE B-4. BY BUILDER.
11. RADONAWAY® RADON FAN COUPLING (P/N: TO PIPE. BY BUILDER.
12. (4) RADONAWAY® COMPLETE FAN COVER KIT P/N: 28043. BY BUILDER.
13. (4) WIRELESS COMMUNICATION ANTENNA. REMOTE DATA MONNIT TRANSMITTER ALTA INDUSTRIAL VOLTAGE METER 0-10VDC. BY BUILDER.
14. SUB-SLAB AND EXISTING SUBSURFACE SOIL VAPOR AND PRESSURE SAMPLE PORT(S) COMPRISED OF AMS FLUOROPOLYMER TUBING PART # 214.98, 214.99, OR 217 OR APPROVED EQUAL WITH PART # 22025 - POLYPROPYLENE BALL VALVE W/ ¼" OD PUSH TO CONNECT PART # 22025
15. SUB-SLAB VAPOR AND PRESSURE SAMPLE PORT COMPRISED OF AMS FLUOROPOLYMER TUBING PART # 214.98, 214.99, OR 217 OR APPROVED EQUAL WITH AMS GAS IMPLANT PART # 21010 OR APPROVED EQUAL
16. EXISTING SOIL VAPOR SAMPLING PROBES TO BE CO-LOCATED WITH SUB-SLAB (SEE FIGURE B-2 (14)(15)) VAPOR PROBES (30 RESIDENCES ONLY)

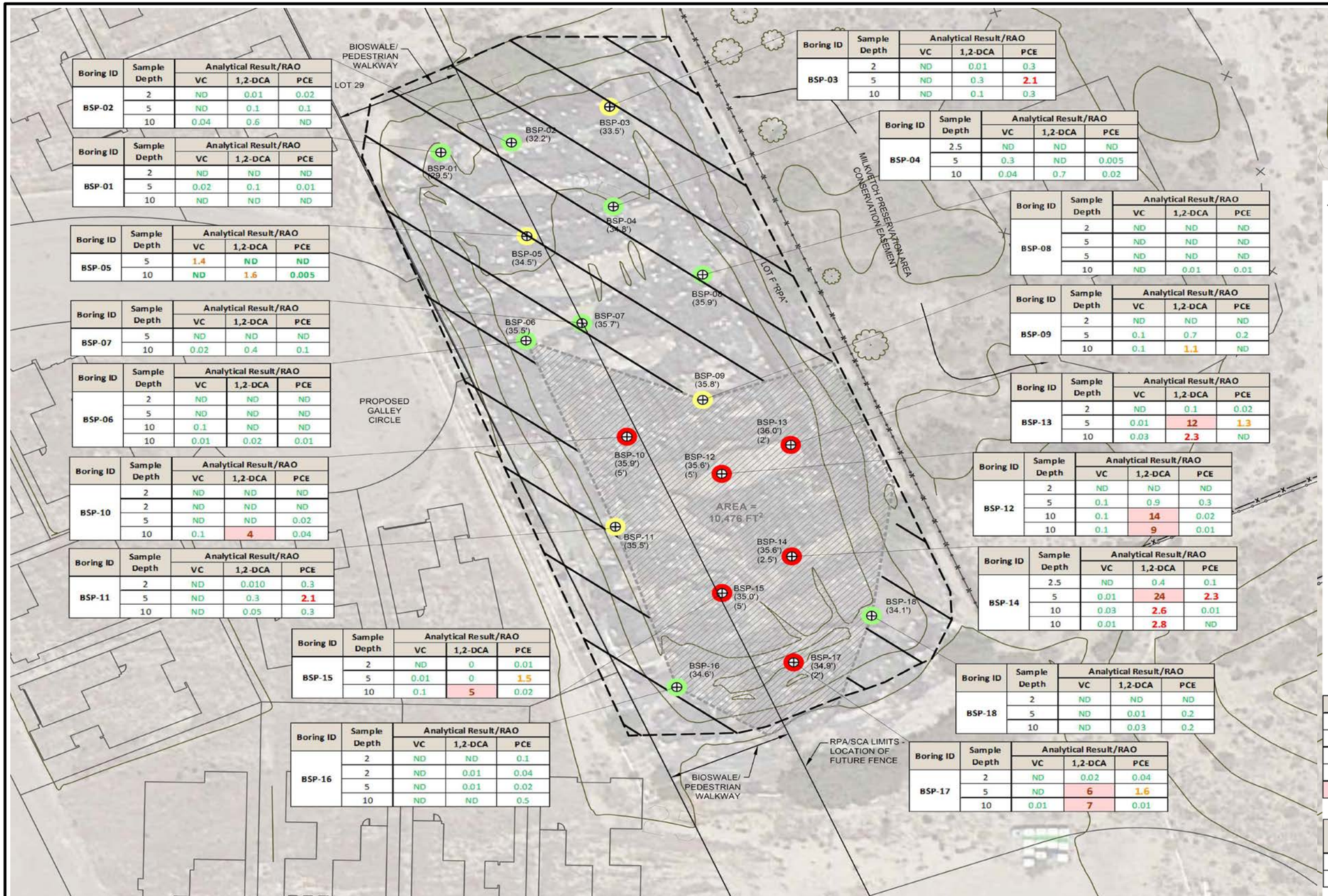
SAFETY FIRST	CLIENT: MPL Property Holdings, LLC	VIM Design Schematic
terraphase engineering	PROJECT: North Shore at Mandalay Bay	
	PROJECT NUMBER: S041.001.003	FIGURE 5

LEGEND

FOR LPM BARRIERS AREA BOUNDARY LINE WITHIN WHICH 60 MIL GEO-SEAL MEMBRANE SHALL BE INSTALLED. ALL OTHER RESIDENCES SHALL HAVE 15 MIL STEGO WRAP BARRIER INSTALLED.

NOTE: CUPOLEX FOUNDATION OPTION DOES NOT REQUIRE LPM OR VENTED GRAVEL

SAFETY FIRST	CLIENT: MPL Property Holdings, LLC	**Site Plan Showing Vapor Barrier LPM Type and Locations**
terraphase engineering	PROJECT: North Shore at Mandalay Bay	
	PROJECT NUMBER: S041.001.003	**FIGURE 6**



Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-02	2	ND	0.01	0.02
	5	ND	0.1	0.1
	10	0.04	0.6	ND

Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-01	2	ND	ND	ND
	5	0.02	0.1	0.01
	10	ND	ND	ND

Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-05	5	1.4	ND	ND
	10	ND	1.6	0.005

Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-07	5	ND	ND	ND
	10	0.02	0.4	0.1

Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-06	2	ND	ND	ND
	5	ND	ND	ND
	10	0.1	ND	ND
	10	0.01	0.02	0.01

Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-10	2	ND	ND	ND
	2	ND	ND	ND
	5	ND	ND	0.02
	10	0.1	4	0.04

Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-11	2	ND	0.010	0.3
	5	ND	0.3	2.1
	10	ND	0.05	0.3

Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-15	2	ND	0	0.01
	5	0.01	0	1.5
	10	0.1	5	0.02

Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-16	2	ND	ND	0.1
	2	ND	0.01	0.04
	5	ND	0.01	0.02
	10	ND	ND	0.5

Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-03	2	ND	0.01	0.3
	5	ND	0.3	2.1
	10	ND	0.1	0.3

Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-04	2.5	ND	ND	ND
	5	0.3	ND	0.005
	10	0.04	0.7	0.02

Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-08	2	ND	ND	ND
	5	ND	ND	ND
	5	ND	ND	ND
	10	ND	0.01	0.01

Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-09	2	ND	ND	ND
	5	0.1	0.7	0.2
	10	0.1	1.1	ND

Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-13	2	ND	0.1	0.02
	5	0.01	12	1.3
	10	0.03	2.3	ND

Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-12	2	ND	ND	ND
	5	0.1	0.9	0.3
	10	0.1	14	0.02
	10	0.1	9	0.01

Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-14	2.5	ND	0.4	0.1
	5	0.01	24	2.3
	10	0.03	2.6	0.01
	10	0.01	2.8	ND

Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-18	2	ND	ND	ND
	5	ND	0.01	0.2
	10	ND	0.03	0.2

Boring ID	Sample Depth	Analytical Result/RAO		
		VC	1,2-DCA	PCE
BSP-17	2	ND	0.02	0.04
	5	ND	6	1.6
	10	0.01	7	0.01

N

0 20 40

APPROXIMATE SCALE IN FEET

LEGEND

- ⊕ BSP-01 — SOIL BORING
- —x— FENCE
- CONTOURS DEPICTING FINAL SITE TOPOGRAPHY
- (34.1') GROUND SURFACE ELEVATION
- (5') RAO COMPLIANT SOIL DEPTH
- SOIL PLACED AS SCA CAP MATERIAL
- APPROXIMATE EXTENT OF STOCKPILE
- EXTENT OF MATERIALS EXPORTED
- DCA — DICHLOROETHANE
- PRG — PRELIMINARY REMEDIAL GOAL
- PCE — TETRACHLOROETHENE
- RAP — REMEDIAL ACTION PLAN
- RAO — REMEDIAL ACTION OBJECTIVES
- RSL — REGIONAL SCREENING LEVEL
- SCA — SOIL CONSOLIDATION AREA
- VC — VINYL CHLORIDE
- ND — NO RESULT DETECTED BELOW LABORATORY REPORTING LIMIT

ALL DEPTHS ARE IN FEET BELOW GROUND SURFACE OF STOCK PILE

- ⊕ EXCEEDS 2013 RSL
- ⊕ EXCEEDS 2006 RAP RAO
- ⊕ NO EXCEEDANCES

Analytical Results as a Factor of 2006 RAP RAO	
GREEN	<1
ORANGE	1 ≤ VALUE < 2
RED	2 ≤ VALUE < 3
DARK RED	> 3
DARK RED	EXCEEDS 2013 RSL

	Cleanup Level (µg/kg)		
	VC	1,2-DCA	PCE
2013 RSL	1,700	2,200	110,000
2006 RAP RAO	750	600	1,300

SAFETY FIRST

terraphase engineering

CLIENT: MPL Property Holdings, LLC

PROJECT: North Shore at Mandalay Bay

PROJECT NUMBER: S041.001.003

Site Plan Showing Analytical Results and Area for Soils Removal

FIGURE 7

N

0 60 120 240

APPROXIMATE SCALE IN FEET

RELIANT ENERGY (MANDALAY) CANAL

RELIANT ENERGY (MANDALAY) CANAL

SOUTHERN SCA

NORTHERN SCA

BARNACLE CIRCLE

CARDIFF PLACE

CAYMAN ISLAND WAY

DRAWBRIDGE DRIVE

BULKHEAD STREET

EDDY PLACE

TREEBOARD PLACE

DRYDOCK PARKWAY

ENDEAVOR DRIVE

FIN CIRCLE

HARPOON LANE

GALLEY CIRCLE

LEGEND

- SITE BOUNDARY
- PARCEL BOUNDARY
- RESOURCE PROTECTION AREA BOUNDARY
- MILK-VETCH PROTECTION AREA (EXCLUDED FROM ANY REMEDIAL ACTIVITIES)
- NORTH SOIL CONSOLIDATION AREAS/CAPPED SOILS AREA
- SOUTH SOIL CONSOLIDATION AREAS (SCAs) CAPPED SOILS AREA
- FORMER LOCATION OF VOC AFFECTED SOIL TREATMENT AREA
- AREA OF RAO COMPLIANT SOIL PLACEMENT

SAFETY FIRST	CLIENT: MPL Property Holdings, LLC	Site Plan Showing Areas of Soil Removal and Placement
terraphase engineering	PROJECT: North Shore at Mandalay Bay	
	PROJECT NUMBER: S041.001.003	FIGURE 8

LEGEND

- PMW-1 — PERMANENT MONITORING WELL
- RMW-3 — REMEDIAL MONITORING WELL
- RW-18 — TEMPORARY REMEDIAL PUMPING & MONITORING WELL
- SCA-1 — SOIL CONSOLIDATION AREA MONITORING WELL
- DARAMEND 2 TO 5 MSL
- DARAMEND 2 TO 12 MSL
- 12/2016 EHC-L -1 TO -11 MSL

N

APPROXIMATE SCALE IN FEET

MRT CANAL

RMW-4, RW-27, RW-26, RW-3, RMW-5, RW-2, RW-6, RW-24, RW-23, RW-25, RW-1, RW-9, RMW-6, RW-22, RW-21, RW-4, RW-8, RW-5, RW-7, RW-20, RW-19, RW-11, RW-13, RW-17, RW-18, RMW-3, RW-14, RW-12, RMW-2, RW-15, RMW-8, RW-16, RMW-9, RMW-10

SEE FIGURE 10 FOR INJECTION DETAIL OF VINYL CHLORIDE AREA

SEE FIGURE 11 FOR INJECTION DETAIL OF TCE AREA

SCA-1, SCA-2, SCA-3, SCA-4, SCA-5, SCA-6, SCA-7

PMW-1, PMW-2, PMW-3, PMW-4, PMW-5

RMW-12, RMW-13, RMW-11

SAFETY FIRST	CLIENT: MPL Property Holdings, LLC	Site Plan Showing Monitoring Well Locations and Injection Areas
terraphase engineering	PROJECT: North Shore at Mandalay Bay	
	PROJECT NUMBER: S041.001.003	FIGURE 9

LEGEND

- RMW-3 — REMEDIAL MONITORING WELL
- RW-18 — TEMPORARY REMEDIAL PUMPING & MONITORING WELL
- SCA-1 — SOIL CONSOLIDATION AREA MONITORING WELL
- MB-HP-7 — GRAB GROUNDWATER LOCATION
- IP-31 — 12/2016 EHC-L -1 TO -11
- DARAMEND 2 TO 5 MSL
- DARAMEND 2 TO 12 MSL
- 4 — HISTORICAL VINYL CHLORIDE CONCENTRATION REPORTED IN MICROGRAMS PER LITER (µg/L)
- HISTORICAL VINYL CHLORIDE ISOCONCENTRATION CONTOUR (µg/L) (DASHED WHERE INFERRED)

N

APPROXIMATE SCALE IN FEET

RW-19 <0.5
RW-18 <0.5
RW-11 3
RW-13 15.3
RW-14 89
RW-17 41
RW-12 42
RW-15 198
RW-16 1,300
RMW-3 2.73
RMW-2 0.55
RMW-8 <0.5
RMW-9 <0.5
RMW-10
MB-HP-10 31
MB-HP-9 11
MB-HP-3 18
MB-HP-2 556
MB-HP-8 132
MB-HP-5 616
MB-HP-7 4
MB-HP-6 159
MB-HP-4 29
MB-HP-1 <0.5

MIP9, MIP11, MIP3, MIP13, MIP2, MIP16, MIP1, MIP15, MIP5, GW1, GW2, GW4, GW5, GW6, GW7, GW8, GW9, TMW-7, TMW-8, TMW-9, TMW-10, TMW-10A, TMW-10B, TMW-10C, NSS12S, HP-01, MW-3, 2-9, 3-5, 3-6, 3-7, 4-13, 1-1 … 1-15

IP-1, IP-2, IP-3, IP-4, IP-5, IP-6, IP-7, IP-8, IP-9, IP-10, IP-11, IP-12, IP-13, IP-14, IP-15, IP-16, IP-17, IP-18, IP-19, IP-20, IP-21, IP-22, IP-23, IP-24, IP-25, IP-26, IP-27, IP-28, IP-29, IP-30, IP-31, IP-32, IP-33, IP-34, IP-35, IP-36, IP-37, IP-38, IP-39, IP-40, IP-41, IP-42, IP-43, IP-44, IP-45, IP-46, IP-47, IP-48, IP-49, IP-50, IP-51, IP-52, IP-53, IP-54, IP-55, IP-56

1,000 — 500 — 250 — 100

SAFETY FIRST	CLIENT: MPL Property Holdings, LLC	Injection Locations – Vinyl Chloride Area
terraphase engineering	PROJECT: North Shore at Mandalay Bay	
	PROJECT NUMBER: S041.001.003	FIGURE 10

LEGEND

RMW-3	REMEDIAL MONITORING WELL
PMW-02	PERMANENT MONITORING WELL
SCA-2	SOIL CONSOLIDATION AREA MONITORING WELL
SCA-GW-01	GRAB GROUNDWATER SAMPLE LOCATION
NS-13	CHARACTERIZATION SOIL VAPOR MONITORING PROBE
IP-58	12/2016 EHC-L
TCE	TRICHLOROETHENE
1.32	HISTORICAL TCE CONCENTRATION REPORTED IN MICROGRAMS PER LITER (µg/L)

N

APPROXIMATE SCALE IN FEET

MW-13

SCA-GW-01
<1

PMW-3
1.32

PMW-4
<1

IP-58

SCA-GW-04
<1

IP-57

SCA-2
387

IP-59

IP-61

IP-60

SCA-GW-02
7.36

RMW-13

SCA-GW-03
28.1

MW-17

RMW-11

NS-13
1.7

SAFETY FIRST	CLIENT: MPL Property Holdings, LLC	**Injection Locations – TCE Area**
terraphase engineering	PROJECT: North Shore at Mandalay Bay	
	PROJECT NUMBER: S041.001.003	**FIGURE 11**

APPENDIX A
PUBLIC MEETING TRANSCRIPT

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

COMMUNITY MEETING AND PUBLIC HEARING FOR THE NORTH SHORE AT MANDALAY BAY PROJECT

OXNARD, CALIFORNIA

TRANSCRIPT OF PROCEEDINGS

April 24, 2018

Reported by: Deborah M. Chatfield, CSR #6254, RPR

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

COMMUNITY MEETING AND PUBLIC HEARING FOR THE

NORTH SHORE AT MANDALAY BAY PROJECT

OXNARD, CALIFORNIA

TUESDAY, APRIL 24, 2018

7:30 P.M.

TRANSCRIPT OF PROCEEDINGS of the North Shore Mandalay Bay Project, Draft Response Plan and Draft Fourth Addendum to the Environmental Impact Report, at Oxnard Performing Arts Center, 800 Hobson Way, Oxnard, California, on Tuesday, April 24, 2018, commencing at 7:37 p.m. and adjourning at 8:35 p.m., before Deborah M. Chatfield, Certified Shorthand Reporter No. 6254, in and for the State of California.

APPEARANCES OF PRESENTERS:

MICHELLE BANKS-ORDONE, Public Participation Specialist, Department of Toxic Substances Control

JAVIER HINOJOSA, Acting Branch Chief, Department of Toxic Substances Control

MARCIA RUBIN, Task Regional Manager, Office of Public Participation, Department of Toxic Substances Control

OXNARD, CALIFORNIA; TUESDAY, APRIL 24, 2018

7:37 p.m.

MS. BANKS-ORDONE: Good evening, everyone.

The open house segment of our public meeting this evening is coming to a close. So if you would be so kind as to have a seat, we'd like to begin the presentation portion of this evening's meeting.

On behalf of the Department of Toxic Substances Control, we would like to thank all of you that came to this evening's public meeting in regards to the North Shore at Mandalay Bay draft response plan as well as the draft fourth addendum to the Environmental Impact Report. During this evening's open house, I hope you had a lot of questions answered, having the opportunity to speak to our subject matter experts.

Tonight we are going to have a presentation that will give you an overview of what has occurred on the project as well as the two documents that are for public comment at this time.

First and foremost I do want to make announcements. It's our understanding that some of the technical documents were not available at the beginning of our public comment period. As a result of that, we are extending our public comment period. So I want you

to know that it is being extended not -- it will not be on May 12th. It will now be on May 29th. That is Tuesday, May 29th. So if you intend on having any additional comments after tonight, if you want to send in written comments, you have until that time. We will also be providing a public notice in regards to that. So everyone will be aware.

There are some agreements that we have in terms of everyone who is attending our meetings. First and foremost, if you do have any electronic devices, make sure you have turned them off or placed them on mute. Treat everyone with respect. We have an intimate group. You have already shown that and continue to. Eliminate cross-conversation that is intimate. We want to make sure we hear everyone. We do have a Q and A period. We'll only take questions for clarification. We do want to hold the time so that we have the public hearing, so that you give us comments that we'll need to respond to in writing. We want to make that very clear.

Tonight's agenda, of course the welcome and presentation. Following the presentation, as I indicated, we will have questions and answers. That Q and A is specific to clarification on the PowerPoint. If there's something you didn't understand that you saw on the slide, if there maybe was an acronym that was

utilized, we can explain it during that time period. Again, you want to move to public hearing. What that allows you to do, if you have the opportunity to review the draft response plan or the draft addendum, we want to hear your comment. We want to hear your questions. That provides us with an opportunity to move forward and address those in a written document. We will do response to comments and we'll mail that back to the commenters. We will close off with what our next steps are and adjourn.

For the Q and A period, because there are a few of us here, if you come to the mic, if you have a card for that, if you could just state your name when you come to the microphone for the Q and A, raise your hand. We will take your question at that time. We are going to try to limit it to two minutes, but we have time since we have a smaller audience. And then we'll proceed, once you stay concise, relative to those and move forward with that public hearing process, which we'll talk about in more detail momentarily.

At this time, I would like to introduce Javier Hinojosa, who is going to be providing us with the remainder of the presentation. I will be coming back shortly thereafter.

MR. HINOJOSA: Thank you, Michelle.

So, good afternoon everyone. My name is Javier Hinojosa and I am a unit chief, acting branch chief currently for the Department of Toxic Substances Control. And I'm here to present to you a little bit about the history of the project as well as the plan that is subject to public comment this date.

So some of you may be familiar with the DTSC. It's one of six agencies under the California Environmental Protection Agency umbrella. While we have agencies under California Environmental Protection Agency that focus on specific media, DTSC is one of those agencies that covers multimedia. We cover soil, groundwater, soil, gas and have various different disciplines within the department that have been involved in this that include engineers, geologists, toxicologists and scientists of which I am one.

Our goal at the Department of Toxic Substances Control is to protect public health and the environment. So today we're talking about the North Shore at Mandalay Bay. This is a project that is in your community located approximately at West Fifth Street and Harbor Boulevard. It's bordered by the MRT Canal or Mandalay Canal and in close proximity is the energy plant as well and the beach, as you can tell by this figure.

It's a 90-acre project that has proposed

redevelopment for residential properties on 60 acres of that and 30 acres of that will remain a resource protection agency. They identified a historic, prehistoric plant known as the Ventura Milk Vetch that must be protected and there as well are two landfills bordering the project that I'll talk about in just a little bit.

The history of the cleanup. First of all, the property was first developed in the 1950s. It was used by J&J and Carney and Sons as an oil field waste disposal. There's a lot of oil in this area. They would drill the wells and create mud from this that had heavy metals in it. This site was slated for disposal of that. They would bring them in in trucks and discharge them into these ponds where they were allowed to separate. That went on for about 30 years. It was in 1991 that the water board initiated investigations at the site, and in fact in '96, they developed initially a cleanup plan known as a remedial action plan.

It was in 2004 that the project was transferred to the DTSC, and we continued with the investigations and under our oversight with a feasibility study, which is an evaluation of potential remedies for a site that was done along with a second remedial action plan that was vetted out with the public back then, there was a

public comment period and a CEQA document as well. It was approved and then approved alternative number 3. I'll talk about that.

Those actions, though, that cleanup activity started in about 2007. In about 2008, those cleanup actions came to what they felt was an end and they did sampling to see if they had met the cleanup goals that were slated in the feasibility study remedial action plan. But at the same time the market crashed and they weren't able to continue forward with the development of the project. The sites were returned back to the bank and the bank maintained the project and did the continued monitoring, and it wasn't until 2012 that they wrapped up the cleanup that was done back in 2007 and 2008 into what is called a partial removal action completion report.

They did more sampling to evaluate the conditions after sitting quiet for about five years, and determined that there were additional actions that still remained to be done. At the end of that, the property was sold to the current owner, which is MPL Holdings, a limited liability corporation that proposes to develop the site as it was vetted for in the '90s for residential homes. They agreed to take on that responsibility to finish the cleanup that was identified

in the feasibility study and RAP, and at the same time they entered into the agreement with the department to do that oversight. And most recently what brings us here today is that they have taken these actions that they propose to implement under a special regulation called CLURA, the California Land Use Revitalization Act, that offers innocent landowners seeking to redevelop sites certain immunities, legal immunities from future lawsuits because they're essentially coming in as an innocent landowner and improving the site.

So as part of that regulation, they're required to prepare a response plan or a cleanup plan of what they intend to do before they can receive those immunities. That's what we are here for today. We are presenting to you the response plan or another cleanup plan that will carry the project forward into that residential development. I'll get into that in just a bit.

Historically, again this was an oil field site. As you can see from this picture here, you see the canal at the bottom. Harbor and Fifth Street here. These were the major landfill areas where they would bring in the trucks to be disposed of and discharge them and then the water would evaporate and the solids would come down and biodegrade. They decompose through the natural

processes. That was in the -- from the '50s through the '80s.

Then following the investigations, they determined that again in these two landfills, they were impacted, they were contaminated with petroleum hydrocarbons which is the only material. In addition to that, they had polychlorinated biphenyls and they had metals associated with that type of industry. They found illegal disposal of volatile compounds through like solvents, like TCE, trichloroethylene, that breaks down into vinyl chloride, which are toxic compounds. They identified those in this area here in the purple. In addition during that time is when they identified the milk vetch, and that had to be protected.

This was the contamination before the cleanup started in 2007. Part of that cleanup was to excavate some of this material and bury it onsite in an area that would not come in contact with people and would not migrate into what they call soil consolidation areas here. Here you see areas being excavated here with the big bulldozer that were then deposited into the soil consolidation areas within the resource protection area. I'll show you a slide in a bit.

The areas that had the high volatile organic compounds, chlorinated volatile organic compounds went

deep. It went into groundwater. What they had to do in this area in order to excavate it, they had to reduce the groundwater and pump some of the groundwater. Here you see an extraction well being pumped. They had to reduce that water that's in the natural formation and they were excavating this and some of it was shipped offsite and some of it was treated onsite in what is sometimes referred in the document as a burrito, which is basically a cell that is encapsulated in plastic, and they put in pipes that then drew air out of it to draw this, these solvent compounds that are volatile. Volatile means like a perfume. You can smell it and it evaporates easily. It came from this area, in the picture that I showed you earlier.

So all of this was -- the different types of waste that were appropriate to be buried were added to these soil consolidation areas. Those areas were excavated 2 feet above the water table, where the groundwater is. Sludge materials were deposited first. Those materials were first tested to be sure they were not going to leach into the groundwater. Then there was less contaminated soils put on top. Ultimately they were capped with about 6 feet of cleaner material that met industrial standards. But they would not meet residential standards. But these are landfills and

nobody is going to live on these areas because it's also part of the resource protection area. Within the SCA is the milk vetch that was found thriving in this oily waste.

This is a cross-section of the SCA. You see here, the white part here, this arrow here represents the water table. The groundwater level. Then the 2 feet of made-up material. Then the next layer of the sludge material. Then the oil field material. And then on top of that, as a marker was put a geotextile that allows you to identify when you're coming into the area in the future. Then it was filled with at least 3 to 6 feet of soil on top of that. That was all done under the auspices of the original cleanup plan, which was the Feasibility Study/Remedial Action Plan of 2006.

Following that implementation, I said they did some sampling and they felt that for the most part, the site was clean and ready for residential use. It left only the soil consolidation areas on two sides. Here is the milk vetch that is protected and independent of this. If you saw it in the previous slide, you saw how the milk vetch was not touched, and it was only around the milk vetch that they were able to bury the soil in.

So this was the situation back in 2007, 2008, the sampling, and that's when the market crashed. After

the market crashed, the site sat vacant without moving forward, without any residential development because there was no market for developing it. The developer was bankrupt at that time. It wasn't until 2012 that the owner of the property, a bank, said we are going to bring closure to this and sell it to anybody. At that time they decided to come back to the Department of Toxic Substances Control and say, what do we need to do? You're going to need to re-evaluate the site to see what the site conditions are. We know you had data back in 2008. Standards have changed.

They prepared a site conditions update. In addition to that, they prepared another risk assessment and they prepared a closure called a plan, a report called a partial remedial action closure report, that are background documents supporting what work needs to be done under this future use.

Following that is when the new owner took over the property in December of 2013. They understood what was still present and they still wanted to develop the property. They took what was spelled out in that partial removal action completion report and began doing that work. So there was a stockpile of soils that had the volatile organic compounds that they evaluated and determined that a portion of it had biodegraded to

levels that were insignificant, and there was a portion that still remained high. So they shipped that portion offsite for disposal and then they took the soils that were cleared and deposited it into the soil consolidation areas as it met the criteria for deposition matter.

In addition to that, we had identified areas in the soil that still had high volatile compounds, and they designed a treatment system to begin to extract soil gas from that and reduce those levels down to acceptable levels for residential use. And they continued the monitoring as spelled out in the original plan and determined that there were some areas that needed some hot spot treatment, which they did. They did enhancements to reduce those levels in the groundwater contamination.

So, at that juncture they were aware of the CLURA regulations, the agreement, California Land Use Revitalization Act, and it provided them an opportunity as a developer to get some immunities. They entered into this agreement and prepared a response plan for those actions they had completed already and still had to complete before they could develop the property. So the response plan that is available for public comment now, that has been extended by 15 days, lays out the

work to be done and it discusses that there's going to be continued operation of the soil vapor extraction system until those levels are found acceptable. It will also require that there be vapor intrusion mitigation measures, meeting barriers installed to protect in the event that there may be vapors coming to the surface, although they are actively being treated currently, and they will continue to monitor groundwater and soil while it continues to pose an elevated risk.

They will monitor and maintain the landfills that are known as the soil consolidation areas, and then they are going to put institutional controls, land use covenants and requirements that will ensure that these mitigation measures that are identified in the response plan will be carried out until they achieve their goals.

This is a little diagram of what the vapor intrusion mitigation measures would look like. This is the foundation of a home. Above that you would have some sort of impermeable membrane to prevent gasses from coming in. Here you would have a passive layer, like a sand or a cobble. In the event there are vapors coming in, they would stop there. In addition to that, they have piping that has a fan to draw vapors out. They would not be allowed to collect. They would be actively drawn out. This has both active and passive features

that would then be vented into the atmosphere. These concentrations are expected to be very low because of the active treatment, but still they are as a secondary and tertiary protective measure being required for the project.

The active system that's currently going on, essentially this is an oversimplified version of that. The contamination that remains in the soil, which is less than maybe 15 feet deep is -- air is drawn through blowers and then they're actively treated in a special unit. There's a big metal box behind the SCA that is visible to the public and homes. Treatment is going on. This is monitored. Areas are being treated based on their prevalence of these volatile compounds.

This picture here, you see the areas that still exhibit some volatile organic compounds or solvents. We call these areas A and B. These areas here, there are these little blue dots, purple dots with a blue dot in the middle. The blue dot represents the extraction well. The gray dot represents the radius from which it is drawing. And then all of these are being piped to the middle SVE system. They are being treated there before being released into the environment.

This area is known as area C. There were low levels that were identified in the middle of the street,

not in any of the homes. But it was still flagged as a potential area but did not require vapor extraction. But all the homes, all these parcels here are going to have these vapor intrusion mitigation measures as currently in the response plan.

I told you that groundwater was impacted. There were significant concentrations that were impacted in the beginning back in 2007 before the cleanup plan was implemented, and contamination was focused in this area here. The different colors represent concentrations of greater than 1,000 milligrams per liter -- micrograms per liter. This was the initial contamination that was addressed through both excavation and pumping and treating and active injection and treatment of soils to reduce that. And these are the areas that are remaining that are of concern to us.

There are wells across the site associated with the monitoring of the SCAs as well. These are the highest levels that remain. A significant drop. But it's going to be continued to be monitored and treated if necessary into the future.

PUBLIC PARTICIPANT: By whom?

MR. HINOJOSA: Currently it's slated to be treated by MPL, the current owner. But in the future, there's going to be created a corporation that will

carry out these long-term responsibilities.

PUBLIC PARTICIPANT: Under the auspices of you?

MR. HINOJOSA: Under the auspices of the Department of Toxic Substances Control, yes.

We heard earlier that the public comment period was initially going to carry through May 12th, but the public comment period has now been extended to May 29th. It is our goal to receive comments from the community that will remedy our sites, if necessary, monitor those remedies. We're going to collect those comments and prepare our comments.

We're here to provide you clarification. If you want a formal Department of Toxic Substances Control response to your comments, we ask you to submit it as well and present it officially during the hearing portion of this meeting.

PUBLIC PARTICIPANT: You're working for the citizens, not the cooperation.

MR. HINOJOSA: Correct. The agency is responsible for the public health of the people of California, correct. Yes.

We will review these comments, prepare a response to comments and, if necessary, revise the documents. There is also a single document out there, an addendum that reflects the minor changes to the

original remedy, which is primarily the vapor intrusion measures that have been added. Once we have evaluated all these, have considered all these, we will let everybody know who commented how their comment was responded to and how it was addressed and incorporate how it was considered and then announce the modification or approval of the response plan as deemed appropriate at that time.

So with that said, I'd like to then pass it back to Michelle for the next part.

MS. BANKS-ORDONE: Thank you, Javier. Right now we're going to talk about the community outreach that the Department of Toxic Substances Control has been doing.

There are a number of tools that we utilize to ensure that the public is informed. First and foremost, the community updates. Hopefully those of you that are here, you have received those. Many of you I've talked to. Also, the community survey. Just for those of you who are here, if you didn't participate in the community survey, we did have an overwhelming response for the one here at North Shore Mandalay Bay. We had well over 10 percent. In terms of interviews and meetings, we had several in the community. Also the newspaper ads. There were a couple people who came in bringing copies

of the ad with them that utilized our public meetings. This is one of those.

Our DTSC website, we want to make sure you make use of that. We do have a hot spot going on over there. There were a couple of you interested in wanting to know how to access and work within the two ways in which you can identify and secure our information. You can always go to www.dtsc.ca.gov. You can find the North Shore at Mandalay Bay project either under site cleanup or under the search mechanism.

We also have a public participation plan. That is a living document. There was one that was completed back in 2007. It is currently being revised now. It is being revised to incorporate all the work we have put into this process. We want to make sure that the voice of the public is heard. The result of those surveys, et cetera, the comments we receive, those are items that will be included in that document.

For contact information, my contact information is on most of the public information materials that have been distributed. If you need any additional information relative to the site, please feel free to contact me. I'm Michelle Banks-Ordone. If you are submitting comments, that will go to the project manager for the North Shore of Mandalay Bay. That is Sara Vela.

Russ Edmondson is also here with us. He is your public information officer. And that is for any media communication. The documents are also available in our information depository. In addition to having the information online, hard copies are available. You can find that right here at the Oxnard Main Library. We also have it available at our Chatsworth office. Written comments, again, the information is there. Information is to be submitted to Sara Vela.

This slide and this presentation, by the way, the entire presentation will be available tomorrow on our website. If you go to www.envirostor, you will be able to access this presentation that was done this evening as well.

Right now we're going to go into our question and answer. I know, Al, you were doing that during the presentation. That's okay. But if you do have any questions relative to the presentation at this time, please ask. This is not the public hearing, but questions for clarification.

MR. CLEMENS: I'll wait.

MS. BANKS-ORDONE: If that's a public hearing comment, yes. We need that on record.

MR. CLEMENS: You mentioned earlier that either the developer or owner would be immune to certain legal

action, whatever it is. Now, once a development grows and the houses get sold, what kind of legal recourse does the homeowner have? What are those?

MS. BANKS-ORDONE: I'm hearing two questions. One of which is a clarifying question, I believe. You can correct me. The other is more of a public comment. The first one is about the immunities. And that's about CLURA. What type of immunities, what does that mean. The second portion I'm hearing you ask about is in terms of future action, if in fact a property owner has a legal recourse, if so, relative to those immunities. I think one of which we can address, which is what those immunities are and how they're handled. The latter is better served in our public hearing comment. Please make it so we have to respond in writing. Put it on a public comment card. It can go into the record.

MR. HINOJOSA: The immunities, they're tied into the liability for causing the contamination. The law that covers cleanups is very complex and usually anyone who contributed to the contamination is liable and can be pursued. If someone comes and purchases a property and they knew there was contamination there, they're liable for everything there, whether they have money or not. Their liability is established.

What CLURA does is a special law that was

passed to improve the redevelopment of what we call these brown fields, dirty sites where there are people that are interested in investing money to clean up the site and the agreement is they cannot be sued for the contamination. They are coming to improve the project. They're not immunities that are given with no investment. It's a huge investment that they must take to improve this. There are mechanisms here in this process. The response plan identifies the general responsibilities that they have. But you will see if you track this project further beyond the response plan, you will see available for you these detailed documents, these institutional controls that will be put upon them as the owner and any successors that they will have to carry these out. Because the landfills aren't going anywhere. They're going to remain there. They have to be maintained. They can't be uncontrolled and let them release into the environment, whether it be runoff or contamination into the groundwater or vapors coming off of them. There aren't any significant vapors in them. These have to be taken care of. There have to be financial mechanisms that will be in place to make sure they are available. The immunities offered to them are immunities from other parties suing them. But the department still holds them accountable for as long as

they're the owner and any successor as well.

MR. CLEMENS: I think the resource should be against the bias psychiatrist.

(Laughter)

MS. BANKS-ORDONE: Okay. Yes, there's a question in the back. State your name.

MR. CHANDLER: Yeah.

MS. BANKS-ORDONE: You don't have to. You filled out a comment card, that's fine.

MR. CHANDLER: I have a question. Something he said a minute ago about landfills. Just under 50 ppm. So PCBs last a while. My question to you Javier is, just how long are those PCBs going to be there? How long is the care going to have to be for that landfill? How much money? In other words, how much time are you going to collect money for to cover it? For example, is that going to go 100 years? Is it going to go 200 years? Are my grand kids going to be dealing with it? They live down on 4501 Channel Islands Boulevard. Who is going to pay for that over that length of time? You have to have the money to cover that, baby.

MR. HINOJOSA: The concentration of polychlorinated biphenyls, which are the PCBs, that remain in the SCA escapes me right now. They were deemed appropriate for burial there because of their

lack of mobility. The idea is that this landfill will be managed in perpetuity. The goal is not necessarily that we're going to go back there and they're going to be cooked and done and available. So current estimates, the department relies on 30-year estimates. But the mechanisms that will be in place for this site will extend farther than 30 years.

That information on the financial assurance will be available again as it becomes final documents and -- but the -- that's being considered.

MR. CHANDLER: Are you suggesting 30 years is the length of time that you're going to get the financial assurance for --

MR. HINOJOSA: That's currently, those are the estimates that we're gathering. But the financial mechanisms will be in place in perpetuity.

MR. CHANDLER: So right now you're looking --

MS. BANKS-ORDONE: I just want to make sure that, one, they're questions. Two, they're clarifying. Because you're getting into an area where I think you would make good public comment to ensure there's a response to it.

MR. CHANDLER: You will get good public comment. I guarantee you. 30 years ain't one of them. Thank you.

MS. BANKS-ORDONE: Thank you.

MR. HINOJOSA: Thank you.

MS. BANKS-ORDONE: Do we have any other clarifying questions?

Let's hear from this gentleman. Yes, sir?

PUBLIC PARTICIPANT: I was wondering if there was any migration of the plume offsite and in the water table or into the surface water or adjacent areas.

MR. HINOJOSA: Correct. There has been sampling that has been done and there's no evidence of any migration, whether it be vertically or laterally. The water table is pretty -- I don't want to speak out of turn because I'm not a geologist. But we do have the project geologist here, Mr. Bruce Garbotchio, and we also have our toxicologist here, Dr. Efram Newhart to answer questions as related to health risks as well.

But those things have been evaluated and the groundwater contamination has been deemed to be contained.

PUBLIC PARTICIPANT: I'm not sure if this is a clarifying question, but you showed some diagrams of these filters that came up, you know, on the ground. What is the life span of those, whatever you're going to put the slab, the filters, the -- yeah, way in the back. You had a box. What is the life span of these?

MR. HINOJOSA: The official design has not been finalized. But those monitors, especially the fans identified here, the system is a multi-effect system. The barrier here is a secondary component. The primary component is that you have this aerated zone that has piping and then you have an active fan that's going to create negative pressure to begin to draw, to draw that out. Those active components will be monitored regularly. They're trying to build in a telemetry system that we can tell if they shut down. But in addition to that, there will be regular inspections of the equipment to make sure that it continues to operate.

This is again secondary to the active treatment of the soil vapors and the subsurface, below the surface and the active treatment, this is monitored, that's a continuation of groundwater which is also considered a vapor intrusion risk.

You had a follow-up question?

PUBLIC PARTICIPANT: One of the questions I brought up earlier in the back was earthquakes.

MR. HINOJOSA: Correct. There's another element to the institutional controls in the event that there's an earthquake, it prompts an inspection. The systems have to continue to operate. There's also the elements of the groundwater monitoring wells and the

soil vapor extraction system. All that has to be actively monitored. There are certain levels of earthquakes that would prompt that. If there's any concern, we can go back in and sample. There are elements to allow for that as well, if anybody has any concern that there's a potential risk.

PUBLIC PARTICIPANT: As far as the fan is concerned, is it on perpetually? Is it activated?

MR. HINOJOSA: I don't know if you're familiar with the radon fans. This area has high radon. They're active and always working. They are always going to be drawing, creating a negative pressure to be drawing vapors out. Always in that negative pressure.

PUBLIC PARTICIPANT: I wouldn't buy a house here, obviously. But the homeowner, how are they going to know if the fan is working or not working when they collapse?

MR. HINOJOSA: They won't necessarily know it's working or not, unless they want to pay attention and ask. There's going to be a group responsible for this. They're going to be responsible for the continued operation of all the systems.

I mentioned this telemetry. It's a digital offsite monitoring to see. If that fan stops working, they will be notified and an inspection will be done,

and someone will be sent out per the operation and maintenance plan.

PUBLIC PARTICIPANT: You approved all of this?

MR. HINOJOSA: We have this plan that is being used actively at other sites as well, including school sites where this is monitored actively for similar-type compounds.

MS. BANKS-ORDONE: If we don't have any more questions regarding clarification on the presentation, we'd like to move to our public hearing portion of the meeting. I want to be very clear during this portion of the meeting, if you have submitted a comment form, this is when we would like to definitely hear from you. If you have not filled one out, Geralyn is holding up the comment form, so please secure one of those. We do have a few people who have already filled one out.

At this time, I would like to bring up who is going to be our public hearing officer, our task regional manager over at the office of public participation and that's Marcia Rubin. I'll let you take the mic at this time.

MS. RUBIN: Thanks, Michelle. During the public hearing portion of our meeting, we accept public comments onto the record which we respond to in our response to comments document. So at this time, we will

accept your comment, take it onto the record. Our court reporter is sitting just to my left. She'll record your comment. When our comment period is over, there will be a formal written response to any of the comments given today. So I'm going to call these in the order of which I received them. If during the public comment period time you come up with something that you would like to enter into the record, Geralyn is sitting here. She can give you a public comment card, and we'll call you up to deliver your public comment.

Our first comment. So when you do come up to the microphone, please speak directly into the mic. State your name and any affiliation you would like to acknowledge and then please deliver your comment clearly and concisely. Our first public comment will come from Phil Chandler.

MR. CHANDLER: My name is Phil Chandler. I work for the Department of Toxic Substances Control. This is an interest in full disclosure. I commented on this project in 2005. I'm not in favor of it. And I've got a number of things which are problematic. I will be providing you with written public comments to amplify this.

But one of the things that I'd probably start with is it's not statutorily intended for in-fill

projects. As you can see from the maps looked at around the room, this thing is on the periphery of Oxnard. Oxnard pulled this land in from the County of Ventura, I think I was told this evening, maybe in the year 2000, something like that. 1999, 2000. This is peripheral. It doesn't fit the statute. So I'm going to be asking the department to take a good close look at what I think is a misapplication of it. And I will probably ask the office of administrative law to take a look at the department's usage of this statute. I think that its interpretation might even be considered an underground regulation. It is problematic.

The health and safety code says that this is supposed to be a real property located in an urban in-fill area and its redevelopment is complicated by the presence of hazardous materials, so on and so forth. The point is, it's not urban in-fill. Okay.

So the major issue for me, because I'm a geologist, I have issues with the monitoring program and influences, and I have issues with what Javier said. We don't have irrigation going into the canal. I don't know if it is. It's just the contamination contours terminate at the canal. Your report says hydraulic continuity. That means some contaminants may be going into the canal even as we speak. That's an issue that

needs to be addressed.

The department is buying into a monitored natural attenuation remedy that was put into place by the water board. I don't believe that we fully meet the criteria of monitored natural attenuation. There's a lot of attenuation that's going on. A lot of the products are degrading, are going from PCB down to vinyl chloride. But by going into the canal, by being in contact with the canal, there's probably some dilution going on. Dilution is not one of the criterion that monitored natural attenuation relies upon. That's a little bit of an issue.

The bigger issue I mentioned in the question to Javier, which is the cost. I want to be sure that the two landfills, make no mistake these are landfills, I call one mount sludge, there's a lot of sludge piled in it, those things are going to be taken care of. Javier referred to it as slightly right. How long? Javier said in perpetuity. In perpetuity is not 30 years. I'm sorry. The department has the capability, so do the consultants on this project have the capability to project how long stuff is going to be around.

The department did an extreme fill, took a look how long it was going to take for the groundwater contamination, it was 450 years in the model. Is the

developer willing to put up the money to take care of it out that long?

I want to be sure, because I own some property down here at 4501, that the City of Oxnard never comes back in and says we have a problem in this development that we permitted. They can't afford to take care of the landfills anymore. You're going to have to pay for it, Phil. I don't want to do that. I want to be sure that the department is going to go through with this, that it gets the money up for a reasonable projection as to how long those PCBs need to be taken care of. That means to go for hauls, that means the monitoring to make sure the tidal influences aren't pulling some of those out, all of that, those issues. It's not a cap. It's cover. I have a feeling that you have textile that is permeable. Okay. That means rainfall on it goes in. That means it comes out the bottom. Maybe it comes out the PCBs, maybe it doesn't. I don't know. I don't know the monitoring is adequate to tell that yet. Those are comments I'm going to make to the -- in writing.

I've got a ton of things I could say. I'm going to stop reading what the FR issued and essentially ask the department to get the money up. We have five different mechanisms that we use in our -- that the department -- I'm not speaking for the department, okay.

I want to see those mechanisms up before these guys get to put one building up. The financial assurance needs to be in place before these things are being sold.

That's probably good enough for the moment. I'll give you some more on the 29th.

MS. RUBIN: Thank you for your comment. Our second comment is from Al Clemens. Would you like to give your comment?

MR. CLEMENS: A couple comments. I applaud the presentation given today. It was a plethora of information. Maybe too much for me. Whatever I wrote, I don't care. As far as the builders are concerned, they have a right to build there, I understand that. If nothing was done and the land remained feral for the last 50 years, would there be any mitigating efforts on your part?

If the land was just there like it has been since 1954 and no buildings were on it or plan to be on it, would you be doing anything from the DTSC's point of view? That's a question.

MS. RUBIN: We'll answer your question in our response to comments document. Because this is the public hearing portion, we can't respond. We'll accept your comment and you'll get a written response.

MR. CLEMENS: Oh, you're like the city council

now.

MS. RUBIN: Our third comment is from Vivian Ortega. Would you like your card?

MS. ORTEGA: Thank you. I'm a neighbor. I live on Fifth and Harbor. I oppose the building on the north shore because of the contamination that still has not been mitigated and will not ever be fully cleaned up, in my opinion and those who I have talked to who are wiser and smarter. The toxicity cannot be removed and the air pollution will be hazardous.

Another thing is that probably close to 1,000 people could be living in that area, which is a major pollution problem both in noise and in odors and all kinds of things that we get. Harbor coming down from Seaward is just two lanes. One lane on each side. So we're going to have such major traffic problems in that area. Fifth Street is also one lane. I just don't see how that is all going to be accommodating to what is already there.

I could see if you were widening the streets or creating some sort of mitigation for the traffic and all that, but still all of that is going to change the environment completely. We are not an urban area. We're a very sleepy area of the world. It's a beautiful area. We don't want to stop other people from coming

here, but seeing this is such a contaminated area, seeing you're just covering it up and having little spouts releasing whatever, I can't see people wanting to buy there. But I'm sure some people will.

I just wonder what the cost is, also, for maintenance every year and how will we know that it's being done? And telemetry, are you going to have like on a computer where everybody's home is being monitored at the same time and there will be a beep beep if there's a problem? How is that going to go? We have all these kinds of issues.

Once they start building, what is coming up in the atmosphere we're going to be subjected to besides all the noise and just the horrible impact it's going to have on this neighborhood for its vastness and its contamination.

That's what I would like to say.

MS. RUBIN: Thank you. Our next comment will be from Adrian Ortega. Would you like your card?

MR. ORTEGA: No. My name is Adrian Ortega. I just wanted to know what the legal recourse would be for home buyers. I'm not sure, will there be, you know, information disclosed on buying, will there be HOAs lifted to pay for all the work or the monitoring that's going to go on? And what about the neighbors? I live

across diagonally. What kind of fumes will be coming out of the spouts? Has someone gone up to and tested and put their nose to it to smell it? You know, they said no. No one has done that. Well, I would like to know, and how it's going to affect us. What about monitoring where we live? Will we be given monitors to see what is happening diagonally from us?

Basically that's it. Thank you.

MS. RUBIN: Thank you. Does anyone else have another comment they would like issued? Please. This is a second comment from Al Clemens.

MR. CLEMENS: In the spirit of questions, no answers, is there anyone here from the DTSC who'd be willing to move into that project? You don't have to answer.

MS. RUBIN: Okay. Do we have any further questions or comments that anyone would like entered into our official record?

No. Okay.

So at this time, we'll conclude our public meeting.

Did you have any closing remarks? Okay.

We want to thank you all for coming tonight and engaging with us and participating in our process. For those of you who did enter a comment into our official

record, your comments and questions will be considered and responded to and you'll receive the written response.

Again, I would like to remind you that the close of our public comment date is now May 29th. You have additional time to review the technical materials and provide your questions, comments, or anything else you would like to contribute up until May 29th. Thank you.

(Whereupon, the public meeting adjourned at 8:35 p.m.)

STATE OF CALIFORNIA)
) ss.
COUNTY OF SANTA BARBARA)

I, DEBORAH M. CHATFIELD, a Certified Shorthand Reporter, do hereby certify:

I am duly qualified Certified Shorthand Reporter in the State of California, holder of Certificate Number CSR 6254 issued by the Court Reporters Board of California and which is in full force and effect;

That said proceedings were taken before me at the time and place therein set forth and were taken down by me in shorthand and thereafter transcribed into typewriting under my direction and supervision;

I further certify that I am neither counsel for, nor related to, any party to said proceedings, nor in any way financially interested in the outcome thereof.

In witness whereof, I have hereunto subscribed my name.

Dated: May 23, 2018

Deborah M. Chatfield

Certified Shorthand Reporter
CSR No. 6254, RPR No. 19233

WORD INDEX

Read Only

#2

Comment Card

Department of Toxic Substances Control

Draft Response Plan and Draft Fourth Addendum to the EIR
The North Shore at Mandalay Bay

April 24, 2018

Name: AL CLEMENS

Affiliation: Neighbor

Address/Phone/Email: 5540 West 5 St #32 93035
805 832 4909

Do you wish to speak? _____ **Yes** ✓ **No**

Question/Comment:

SVE

Mitigation efforts so far have not been adequate. The SVE system may be adequate for developers but injurious to anyone who values breathing. The PCB levels and other severely injurious chemicals plus added trapped pollutes will destroy the environment.

(Please use the back of this card if you need more space)

Cards will be collected at the discussion, or you can mail/email comments directly to Sara Vela, DTSC, 9211 Oakdale Ave., Chatsworth, CA, 91311, or Sara.Vela@dtsc.ca.gov.

#1

Comment Card

Department of Toxic Substances Control

Draft Response Plan and Draft Fourth Addendum to the EIR
The North Shore at Mandalay Bay

April 24, 2018

Name: Phil Chandler

Affiliation: None

Address/Phone/Email: 4501 W. Channel Islands Blvd
(805) 382-3365 Phil@P.Chandler

Do you wish to speak? ✓ **Yes** _____ **No**

Question/Comment:

(Please use the back of this card if you need more space)

Cards will be collected at the discussion, or you can mail/email comments directly to Sara Vela, DTSC, 9211 Oakdale Ave., Chatsworth, CA, 91311, or Sara.Vela@dtsc.ca.gov.

Read Only

#3

Comment Card

Department of Toxic Substances Control

Draft Response Plan and Draft Fourth Addendum to the EIR
The North Shore at Mandalay Bay

April 24, 2018

Name: Vivienne ORTEGA

Affiliation: Neighbor of proposed development

Address/Phone/Email: 5540 W 5th St. #39 Oxnard 93035
805 984-0980

Do you wish to speak? _____ Yes ✓ No

Question/Comment:

I oppose building on the North Shore because of the contamination that still has not been mitigated and will not ever be fully cleaned up. The toxicity cannot be removed and the air pollution, traffic pose threats to the environment

(Please use the back of this card if you need more space)

Cards will be collected at the discussion, or you can mail/email comments directly to Sara Vela, DTSC, 9211 Oakdale Ave., Chatsworth, CA, 91311, or Sara.Vela@dtsc.ca.gov.

Comment Card

Department of Toxic Substances Control

Draft Response Plan and Draft Fourth Addendum to the EIR
The North Shore at Mandalay Bay

April 24, 2018

Name: Adrian Ortega

Affiliation: Neighbor

Address/Phone/Email: 5540 W 5th St. #39
Oxnard, 93035 — 805 984-0980

Do you wish to speak? _____ Yes _____ No

Question/Comment:

Legal recourse for homebuyers if mitigation is not successful?
Legal recourse for people already living in/the neighborhood if contamination becomes airborne.

(Please use the back of this card if you need more space)

Cards will be collected at the discussion, or you can mail/email comments directly to Sara Vela, DTSC, 9211 Oakdale Ave., Chatsworth, CA, 91311, or Sara.Vela@dtsc.ca.gov.

APPENDIX B
RESPONSE TO COMMENTS

Department of Toxic Substances Control

Barbara A. Lee, Director
9211 Oakdale Avenue
Chatsworth, California 91311

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

December 17, 2018

RESPONSE TO PUBLIC COMMENTS ON THE RESPONSE PLAN AND THE ENVIRONMENTAL IMPACT REPORT FOURTH ADDENDUM FOR NORTH SHORE AT MANDALAY BAY SITE, 198 SOUTH HARBOR BOULEVARD, OXNARD (SITE CODE: 301642)

Dear Community Member:

Enclosed is the Department of Toxic Substances Control (DTSC) response to comments received during the public comment period for the North Shore at Mandalay Bay project that extended from April 12, 2018 to May 29, 2018 for the subject documents.

The subject Response Plan presents and describes cleanup actions that the Site has undergone to date and proposes future cleanup actions to be considered. The Fourth Addendum to the Environmental Impact Report (EIR) evaluates the environmental impacts during vapor intrusion mitigation systems implementation.

Based on the public comments received, cleanup actions proposed in the Response Plan and Fourth Addendum will remain unchanged.

DTSC approved the Response Plan on December 17, 2018, and a Notice of Determination pursuant to California Environmental Quality Act (CEQA) for the Fourth Addendum to the (EIR) will be filed with the State Clearing House.

The Response Plan and Fourth Addendum will be available to the public through links, https://www.envirostor.dtsc.ca.gov/public/community_involvement/5850254654/Mandalay%20Bay_Final_Draft_Response_Plan%20041118.pdf,
and
https://www.envirostor.dtsc.ca.gov/public/community_involvement/1484974503/Mandalay%20Bay_Final_Draft_Fourth_Addendum_to_North_Shore_EIR_041118.pdf

Please contact Sara Vela, the Project Manager at, (818) 717-6618, or e-mail at sara.vela@dtsc.ca.gov if you should you have questions.

Sincerely,

Haissam Y. Salloum, P.E.
Branch Chief
Site Mitigation and Restoration Program – Chatsworth
Department of Toxic Substances Control

Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Barbara A. Lee, Director
9211 Oakdale Avenue
Chatsworth, California 91311

Edmund G. Brown Jr.
Governor

RESPONSE TO PUBLIC COMMENTS
ON NORTH SHORE AT MANDALAY BAY RESPONSE PLAN AND FOURTH ADDENDUM TO THE ENVIRONMENTAL IMPACT REPORT

Comment #1 - David and Ann Millican, 5309 Driftwood Street, Oxnard, CA 93035

We support requiring all of the proposed cleanup actions to be conducted at the site – as listed on the community update Fact Sheet dated April 2018. HOA implementation of monitoring and inspection isn't strong enough to maintain compliance with conditions of approval. The HOA should submit reports to Department of Toxic Substances Control for evaluation and compliance. (Off the record). FYI Tankem Brewery regularly parks a pick-up truck with a large sign on it for advertising. On the site or adjacent public right-of-way. For city enforcement on Harbor at entrance.

***Response**: DTSC will continue to provide regulatory oversight and evaluation of the on-going cleanup activities and long-term operation and maintenance activities proposed in the Response Plan, CLRRA Agreement and the Land Use Covenant. The frequency of monitoring will depend on site conditions, but it could be as often as daily monitoring for certain components to as infrequent as semi-annual or annual monitoring. DTSC does not have jurisdiction regarding the parking of vehicles on the public right of way.*

Comment #2 - Pamela Strenger, 5540 West 5th Street, Space 30, Oxnard, CA 93035

I think any site that needs to have VIM systems under each residential site, due to all the harmful chemicals that have been dropped there, is a ridiculous idea. Why would you build on property that is so riddled with chemicals, that you need these VIMs? Additionally, these vapors are going to go out in the air - across the street from where I live. No, I do not want this to happen. I came here to retire and enjoy the rest of my life, not have it cut short due to these chemicals being vented out into the air I breath.

***Response**: The Site is currently being cleaned up through a soil vapor extraction (SVE) system that draws chemical vapors in soil into treatment canisters. The SVE treatment system is actively monitored to ensure compliance with air standards and no significant air emissions are vented into the atmosphere. The SVE will be operated until the cleanup goals are achieved. In addition to the SVE system, each residence constructed onsite will include a Vapor Intrusion Mitigation system. The VIM system for each home is another protective measure to prevent potential vapors from collecting and entering residences. The VIM will prevent vapor intrusion through vapor barriers and continuous venting of potential vapors under the buildings into the atmosphere in negligible*

concentrations that will quickly dissipate and be diluted into the air without impact to residents at the Site or the community at large.

Comment #3 - Suzanne Schechter, 4824 Amalfi Way, Oxnard, CA 93035,

As a resident of Oxnard Shores, I had believed that site had been cleaned of contaminated earth and that new earth was brought in prior beginning development. It has been left that way not developed since. At least 10 years. If it still needs further mitigation, it should be developed as a park, as I do not believe any developer will consider it feasible for housing.

***Response**: While active remediation efforts were installed between 2008 and 2012, the Site remediation activities continued under new site ownership and have made progress since 2012, as described in the Response Plan. The City of Oxnard has approved the Project Site for residential development, and the cleanup activities allow for residential use. The current owner/developer proposes to develop the Site with residential properties and parks. In addition, the development includes approximately 30 acres of open space intended to mitigate habitat loss. As the lead regulatory agency, it is DTSC's responsibility to ensure that cleanup and mitigation measures at the Site protect human health and the environment. For more detail regarding historical cleanup activities conducted under DTSC oversight, please visit the DTSC EnviroStor website: https://www.envirostor.dtsc.ca.gov/public/ and search North Shore at Mandalay Bay.*

Comment #4 - Jay and Christine Davis, 1925 Majorea, Oxnard, CA 93035

The draft addendum to the EIR sets forth a plan to protect the residents of the homes to be constructed. However, it does not specify protections for properties and residents of adjoining properties for release of vapors during construction and after completion. It would appear prudent for the developer to mitigate potential financial liability for damages existing residents may suffer. The recent vapor problems of SoCalGas in Porter Ranch should act as an example to avoid.

***Response**: See response to comment No. 2 above. Both the North Shore at Mandalay Bay Environmental Impact Report (EIR), State Clearing House Number No. 1997061004, certified by the City of Oxnard in July 1999 as Lead Agency for the preparation of the EIR, as well as the Fourth Addendum to the EIR, considered air quality impacts. The EIR included an air quality analysis prepared in accordance with the Ventura County Air Pollution Control District's Guidelines for the preparation of Air Quality Analysis (APCD) Guidelines. The APCD determined that impacts from this project's VIM Systems will be insignificant and do not require regulation, per a September 3, 2009 letter, attached to the Fourth Addendum as Exhibit A, which can be found at:*
https://www.envirostor.dtsc.ca.gov/public/community_involvement/1484974503/Mandalay%20Bay_Final_Draft_Fourth_Addendum_to_North_Shore_EIR_041118.pdf.

Comment #5 - Rebanui Collins, 4540 Lyme Bay, Oxnard, CA 93035,

I am opposed to building homes – definitely against homes being built.

Response: *DTSC acknowledges the commenter's statement. Note that as indicated in response to comment #3 above, the City of Oxnard has approved the Project Site for residential development, and the cleanup activities allow for residential use. The current owner/developer proposes to develop the Site with residential properties and parks and approximately 30 acres of habitat mitigation. As the lead regulatory agency, it is DTSC's responsibility to ensure that cleanup and mitigation measures at the Site protect human health and the environment.*

Comment #6 - Carol Holder, 4501-50 W. Channel Islands Boulevard, Oxnard, CA 93035

1. Despite the active and passive mitigation systems, my concern is about contamination if or when those system cease to function. There has to be on-going monitoring to protect anyone on the site in the future.
2. The project should be for senior housing only. Children are more likely affected and have no choice in where their parents decide to live. The only residents, if this residential use continues as proposed, should be residents who make fully-informed decisions to subject themselves to the potential risks. Thank you (from a 72-year old)

Response: *See Response to Comments No. 1 and 2 regarding DTSC oversight of long-term oversight, on-going treatment and risk reduction.*

The SVE and VIM Systems will be monitored, and an operations and maintenance plan will be developed and approved by DTSC. This plan will present procedures for inspecting, monitoring, and maintaining the systems including notification and reporting procedures and response for unplanned events, such as, the system ceasing to function. The frequency of monitoring will depend on site conditions, but it could be as often as daily monitoring for certain components to as infrequent as semi-annual or annual monitoring.

Comment #7 - Cecilia Del Toro, 4352 Tradewinds Drive, Oxnard, CA 93035,

I'm very concerned with the environmental impact the propped housing development will create to the area.

Response: *Thank you for your comment. Note that the project Site has undergone environmental investigation and cleanup activities since 1991. In 1999, the City of Oxnard certified the Environmental Impact Report (EIR) for the North Shore at Mandalay Bay Project and approved various entitlements for a residential community of 292 homes at the Site. In 2006, DTSC approved the 2005 Feasibility Study and Remedial Action Plan (FS/RAP) which detailed cleanup activities. In addition, as the CEQA Responsible Agency, DTSC filed a Notice of Determination (NOD) and adopted*

findings concluding that the EIR and its Addenda sufficiently addressed all potential impacts from implementing the cleanup activities proposed by the FS/RAP.

DTSC's Fourth Addendum to the EIR (Addendum) also evaluated the Draft RP's proposed technical changes to the cleanup actions at the Site that were authorized in 2006. These technical changes were the result of the vapor intrusion mitigation ("VIM") systems under each residential building at the Site. The Addendum concluded that the VIM will prevent vapor intrusion through vapor barriers and continuous venting of potential vapors under the buildings into the atmosphere in negligible concentrations that will quickly dissipate and be diluted into the air without impact to residents at the Site or the community at large. Most if not all residences are expected to have insignificant or no vapors that cause concern. These systems will increase assurances of safe residences, and do not pose risks to the community at large. These expectations will be confirmed with monitoring during construction and habitation.

Comment #8 - Diane Resnikoff, 5540 W. 5TH ST, Oxnard, CA 93035

I'm troubled that this project is being allowed to be developed. Given the known toxicity issues, much less the unknow, who in their right mind would buy/live directly on top of that soil? Whatever Government Agency that granted the initial permits, and the individuals therein, should be held accountable for the health issues that are sure to come up for the foolish buyers that move there, naively believing the described mitigation methods will be effective. That being said, I sadly, believe that my opinion will mean nothing. DIANE RESNIKOFF

Response: *DTSC appreciates your comment and the opportunity to respond. The Site has undergone environmental investigation and cleanup activities since 1991. It is currently being cleaned up through a soil vapor extraction (SVE) system that draws chemical vapors in soil into treatment canisters. The vapor intrusion mitigation (VIM) system for each home is an added protective measure to prevent potential vapors from collecting and entering residences. As the lead regulatory agency, it is DTSC's responsibility to ensure that cleanup and mitigation measures at the Site protect human health and the environment. DTSC will continue to provide regulatory oversight and evaluation of the on-going cleanup activities and long-term operation and maintenance activities proposed in the Response Plan, CLRRA Agreement and the Land Use Covenant.*

Note also that DTSC considers ***all*** *comments in our decision-making process, analyzes new information that may result in changes to the remedies, prepares and distributes written responses to commenters to ensure transparency and understanding.*

Comment #9 - Michael W. Abram, 2257 Martinique Lane, Oxnard, CA 93035

Please reevaluate the potential risk folks who would reside there, in situations where like strong earthquakes could damage both active and passive control measures for homeowners. They could do a massive earth removal to a hazardous waste site like

Buttonwillow or bring in earth contaminant removal systems on site and process all the contaminant plume, then re-compact substrate and soil.

A person who purchases a home, although informed about risk, should not have exposure to imperceptible hazardous chemicals and regulatory agencies should protect the public.

***Response**: DTSC appreciates your comments and acknowledges your concerns. Please note that significant earth removal did occur earlier in the remediation process pursuant to the 2006 FS/RAP, and further removal was not viewed necessary as part of the path moving forward. The cost to remove residual contamination does not provide significant benefit to protect human health or the environment. The environmental review process has determined that remedy or cleanup activities described in Comment 2 above are protective and safe for future anticipated land use (residential as approved by the City of Oxnard and proposed by the current owner/developer). Please see Response to Comments No. 2 regarding ongoing treatment and risk reduction.*

Comment #10 - Jim Estonio, 4145 Sunset Lane, Oxnard, CA 93035

Why do you continue to allow development of housing when we are running out of water and other natural resources? This housing in town drive out agriculture which provides food and long-term jobs which the elected always say that they want to create. Building housing provides only short-term work and in the long-run do not support themselves through the taxes they pay. See VC Reporter 4-2-2018, "The Vanishing Berry."

***Response**: Thank you for your comments. Please note that DTSC does not have jurisdiction over local planning issues. As the lead regulatory agency, it is DTSC's responsibility to ensure that cleanup activities and mitigation measures at the Site protect human health and the environment. For concerns regarding planning issues, please reach out to the City's Planning and Public Works Departments.*

Comment #11 - Rudy Lopez, 2204 Monaco Drive, Oxnard, CA 93035

I moved to Oxnard after retirement Oct. 1979. Big Oil Tanker Trucks were still dumping toxic waste substances on the N/W corner of 5th St and Harbor. In that 38-year period, I have seen very little done to clean up that area, which had to affect our groundwater and neighboring homes.

Hopefully your efforts will get some action on the aforementioned problem.

***Response:** DTSC acknowledges the commenter's statement and appreciates the opportunity to respond. This response identifies DTSC's actions by providing a summary of cleanup activities, information regarding groundwater and the Addendum's analysis regarding impacts to neighboring homes.*

Cleanup Activities

In accordance with our mission, DTSC analyzed previous site cleanup activities, oversaw current activities and will continue to monitor and evaluate planned activities and their effectiveness. Note that the project Site has undergone environmental investigation and cleanup activities since 1991. Implementation of the Remedial Design and Implementation Plan (RDIP) began in 2006 with cleanup activities, including: the excavation and consolidation of affected soils, excavation and disposal of Toxic Substance Control Act (TSCA) hazardous waste soil, soil movement and placement in soil consolidation areas (SCAs), removal and stockpiling of highly affected soils, groundwater dewatering, remedial pumping, specialty chemical placement for in-place groundwater treatment, and fill placement for a six-foot SCA cap in accordance with the Feasibility Study/Remedial (Cleanup) Action Plan FS/RAP.

Approximately 18,900 cubic yards of CVOC affected soil were dewatered and excavated from beneath the water table and encased in High Density Polyethylene (HDPE) plastic sheeting to build a soil treatment pile. As approved in the RDIP and permitted by the Ventura County Air Pollution Control District (VCAPCD), an SVE system extracted CVOCs and remediated soils from June 1, 2008, to December 10, 2009.

Below is a list of cleanup activities that began in 2013:

2013–2016, Post Remedial Groundwater Monitoring. Groundwater monitoring was conducted semiannually for in place groundwater treatment.

2014–Present, Soil Consolidation Area Monitoring. Seven groundwater monitoring wells were installed. From 2014 to 2015 sampling of the SCA groundwater monitoring wells was conducted quarterly. Semiannual sampling was conducted in 2015 and 2016. Results show containment of the affected soils and groundwater sampling continues yearly.

2014–2015, Disposition of Soil Treatment Stockpile. The treated contaminated soils were sampled and characterized in April 2014. Under DTSC oversight, approximately 7,000 cubic yards of affected soils were removed and disposed at the Simi Valley Landfill. Approximately 12,000 cubic yards of acceptable soils were placed over the SCAs as cap material.

2016–Present, Soil Vapor Extraction (SVE). A SVE system was installed and has been operating since October 31, 2016, to reduce remaining soil vapors of concern.

2016-Present, Groundwater Remediation and Monitoring. In December 2016, a chemical for groundwater treatment was injected in two areas to accelerate natural cleanup of the groundwater. Groundwater monitoring was initiated, and reports were submitted quarterly to the Regional Water Quality Control Board and DTSC in 2017, with ongoing annual monitoring.

2018, Groundwater Conceptual Site Model and Remedial Progress. A groundwater conceptual site model and remedial status report was prepared and submitted to DTSC in 2018. Based on evaluation of those, significant reductions in the concentrations of the chemicals of concern and natural cleanup continues. Groundwater concentrations are monitored annually. Water cleanup is estimated to take 20 to 60 years.

In addition to the items listed above, the Response Plan requires the:

- *Installation, operation and maintenance of vapor intrusion mitigation (VIM) systems in all onsite residences;*
- *Operation and maintenance of the SVE system to reduce CVOCs in soil vapor;*
- *Inspections and monitoring of the SCA soil cap for erosion control and reduce potential risk to human health and the environment; and*
- *Groundwater monitoring of natural cleanup of chemicals of concern, and any elevation of concentrations that might occur.*

Groundwater
Shallow saline groundwater was affected by releases of chlorinated solvents. Cleanup activities removed an estimated 98% of the of contaminants. The process included excavation, pumping removal, specialty chemical treatment, and groundwater treatment. Reduction of the remaining chemicals is occurring naturally (natural cleanup) and is monitored to assure reduction is on schedule. Because the affected water is saline, it is considered unsuitable for drinking and land use covenants prohibit extracting groundwater.

Neighboring Homes
The Addendum concluded that the VIM will prevent vapor intrusion through vapor barriers and continuous venting of potential vapors under the buildings into the atmosphere in negligible concentrations that will quickly dissipate and be diluted into the air without impact to residents at the Site or the community at large.

Comment #12 - Steve Buenges, 1317 Estuary Way, Oxnard, CA 93035,

I am in support of this project. I am wondering what plans there are for the water quality of the canal and the Harbor if the NRG plant ceases to operate in 2020. It appears that the plant and the pumps that circulate the water via the canal will be abandoned. The canal home component of North Shore could be negatively impacted if this happens. Thank you, Steve.

Response: *Thank you for your comment. While DTSC does not have operational authority over closure of the Southern California Edison - Mandalay Generating Station, we will oversee the investigation and cleanup of the property for constituents of concern (any chemicals or contaminants) pursuant to the Resource Conservation and Recovery Act (RCRA) Corrective Action.*

Comment #13 - Martin Glatt, CPA, P.O. BOX 8395, Calabasas, CA 91372,

The info received was not "transparent" and lacks full "disclosures"' I believe in violation of "State Law," in that NO financial info is provided for (A) above. How can anyone comment not knowing costs to taxpayers in California, L.A. or Ventura Counties -?? The "Community Update" poorly done!!

Response: *DTSC acknowledges the commenter's statement; however, it is unclear as to what "financial info" the commenter is referring to. The property owner is responsible for the cleanup of the site, and the long-term care of areas with residual contamination. As to the reference to the Corrective Measures Study, DTSC inadvertently made an error in the "Public Comment Form and Mailing Coupon". As described in the Community Update (April 2018), the Response Plan is the subject of the public comment period*

Comment #14 - Mike Schulz, 2211 Jamestown Lane, Oxnard, CA 93035

There are many problems with the sea walls in Channel Island Harbor. The city needs to fund their repair, and this is unresolved. This issue must be fixed first before any other development. 2) Traffic is heavy in this area. No further development as there is too much traffic.

Response: *The first comment is not related to the Response Plan. DTSC does not have jurisdiction on planning issues. These comments should be directed to the City's Planning and Public Works Departments. The North Shore at Mandalay Bay Environmental Impact Report (EIR)(Impact Sciences, March 1999) for the Residential Project considered and evaluated traffic impacts to the community. The EIR can be found in the City of Oxnard's Planning Office or website*

Comment #15 - Luanne Nast, 5131 Neptune Square, Oxnard, CA 93035

The mailer we received was not clear. In fact, we could not even decipher what "project" this was referring to, but the word "toxic" is frightening. Please send more information on what exactly is occurring in our neighborhood. Thank you, Luanne Nast

Response: *The project refers to the soil and groundwater cleanup activities for the North Shore at Mandalay Bay Site located at 198 South Harbor Boulevard, Oxnard, outlined in detail in the FS/RAP and the Response Plan. All public documents pertaining to the North Shore at Mandalay Bay project can be accessed at the Department of Toxic Substances Control public website at http://www.envirostor.dtsc.ca.gov/public, search North Shore at Mandalay Bay.*

Comment #16 - Moonyeen Powers, address not provided, moonyeen111@aol.com

Why is a location like Mandalay Bay, which is exception for its natural beauty and recreation potential, chosen for a purpose which pollutes this idyllic environment? This

coastal location faces a pristine national park and should be treated with the same respect. Aren't there other locations in less attractive spots?

***Response**: Thank you for your comments. Please note that DTSC does not have jurisdiction over local planning issues. As the lead regulatory agency for the North Shore at Mandalay Bay Site, it is DTSC's responsibility to ensure that cleanup activities and mitigation measures at the Site protect human health and the environment. For concerns regarding planning issues, please reach out to the City's Planning and Public Works Departments.*

Comment #17 - William Boyle, 5065 Sealane Way, Oxnard, CA 93035

I believe this site requires continued monitoring and mitigation to maintain the safety of human life and environmental life. Strict adherence to environmental and health and safety regulations need to be observed and followed to the letter. I believe disturbance of the site due to development will cause hazards to human and environmental health, safety and wellbeing. No Laws or regulation should be broken or skirted just for financial gain.

***Response**: DTSC concurs with the commenter that continued monitoring is necessary to ensure cleanup activities and mitigation measures to protect human health and the environment. As documented in historical reports, significant volumes of contaminated soil and groundwater have been excavated, treated or removed and the home construction soil disturbance will not pose a risk to humans or the environment. Residence construction will occur in soils that have met the remedial action objectives and found not to pose a risk to contractors or the public. Dust monitoring will occur as required under Rule 55 for major earth working projects. DTSC will continue to provide oversight of remedial activities at the Site until the project goals and targets are met.*

Comment #18 - John Segerstrom, 2565 Greencastle Court, Oxnard, CA 93035

When I moved to Mandalay Bay in 1985, I was told by my real estate agent that sand dunes were not to be developed and were to be maintained in their natural state. I was surprised when the soil remediation work started as the land had sat dormant for such a long time. Have the remediation efforts not been successful? Why is the passive and active vapor intrusion mitigation required? The "shores" does not have remediation nor vim. Is there concern for that area as well? My first preference would be to return the area to its original natural state.

***Response**: Thank you for your comment and the opportunity to respond. The North Shore at Mandalay Bay Site was an improperly closed oil field waste facility and oil waste landfill. Over the past 15 years, DTSC has overseen cleanup activities completed to protect the public, environment, and future residents. Cleanup efforts have greatly reduced volatile organic compounds (VOCs) in groundwater and soils, which will continue as outlined in the Response Plan (RP). Although soil and groundwater VOC concentrations are greatly reduced, DTSC has determined that passive and active*

vapor intrusion mitigation is required as a precaution measure to provide enhanced protections to future residents of the Site.

Additionally, the VOC contamination in soil and groundwater requiring the VIM system is contained within the Project Site and does not extend off-site. The "shores" were not part of the former oil waste disposal operations and are not subject to the proposed cleanup or VIM system.

Comment #19 - Ralph Roussey, 2130 Greencastle Way, Oxnard, CA 93035

Oil well tailings spread on sand probably not worse that natural seepage cleaned up already.

Response: *Thank you for your comment. It has been noted.*

Comment #20 - Terry Gibson, 4501 W. Channel Islands Boulevard #55, Oxnard, CA

Please take into consideration that the development is ill planned- Harbor Blvd is a 2-lane road, the traffic will be worse than Victoria. Also, we have no water. Why are we building when we have a drought!? Bad idea for this area at this time. Enlarge Harbor to 4 lanes, figure out a way to get us out of the drought and then build. The timing is awful.

Response: *Thank you for your comments. Please note that DTSC does not have jurisdiction over local planning issues. As the lead regulatory agency for the North Shore at Mandalay Bay Site, it is DTSC's responsibility to ensure that cleanup activities and mitigation measures at the Site protect human health and the environment. For concerns regarding planning issues, please reach out to the City's Planning and Public Works Departments.*

In relation to traffic mitigations, The North Shore at Mandalay Bay EIR (Impact Sciences, March 1999) for the Residential Project considered and evaluated traffic impacts to the community. We understand that road improvements were included in the EIR conditions. The EIR can be found in the City of Oxnard's Planning Office or webpage.

Comment #21 - Lee Allen, 5034 Nautilus Street, #3, Oxnard, CA 93035,

Remember Love Canal?

Response: *DTSC disagrees with the commenter's assertion. Love Canal is a neighborhood within Niagara Falls, New York. The neighborhood was known as the location of a 70-acre landfill, which became the epicenter of a large environmental pollution incident that posed a threat to the health of hundreds of residents and culminated in an extensive Superfund cleanup operation. To the contrary, the Northshore at Mandalay Bay Site has undergone rigorous regulatory processes – as*

outlined in the Feasibility Study and Remedial Action Plan (FS/RAP) and the Response Plan (RP) – and is addressing health and environmental concerns.

Comment #22 - Mary Jo Ortega, 5130 Beachcomber Street, Oxnard, CA 93035

I live very close to 5th and Harbor. This project needs to be stopped. Who would buy a home there, if they knew the history of the site. Project sounds too risky to be continued. I don't want to be breathing fumes or particulate matter from the disturbed soil.

***Response*:** *DTSC appreciates your comments and acknowledges your concerns. As documented in historical reports, significant volumes of contaminated soil and groundwater have been excavated, treated or removed and the soil disturbance from home construction will not pose significant risks to human health and the environment. With the approval of the Response Plan (RP), DTSC required dust suppression measures during grading activities and air monitoring in accordance with the Air Pollution Control District Rules for any major earth working projects. No significant vapors, particulates, or associated health risks were observed during the 2007-2008 remedial grading efforts. Soil sampling results indicate no reason for concern from remaining grading activities.*

Comment #23 - Charlotte Batistic, 1059 Mandalay Beach Road, Oxnard, CA 93035

I am concerned about venting toxins into the air through the pipes. The winds will blow the vapors toward my house and surrounding community. The toxins have soaked into the soil and will leach into the ground, buildings, and air. No clean-up action! Let me breathe fresh ocean air!!

Response: *DTSC appreciates your comments and the opportunity to respond. The venting of potential vapors under the buildings into the atmosphere will be in negligible concentrations that will also quickly dissipate and be diluted into the air without impact to residents at the Site or the community at large. As indicated in Response to Comment No. 17, significant volumes of contaminated soil and groundwater have been excavated, treated or removed and the home construction soil disturbance will not pose a risk to humans or the environment. Air monitoring was performed during the Site remedial grading phase of the project that verified compliance with health and safety regulations. Future residential and infrastructure construction will not disturb soils of concern, but there will be the normal dust monitoring required at any major earthworking site. As detailed in the Response Plan (RP), groundwater at the Project Site has been extensively tested and treated with ongoing monitored natural attenuation. Based on the past, current and future cleanup activities and verification sampling, no significant impacts to air are anticipated. DTSC will continue to provide oversight of remedial activities at the Site until the project goals and targets are met.*

Comment #24 - Holly Ware, 4207 Harbour Island Lane, Oxnard, CA 93035; Mailing Address: 26358 Woodlark Lane, Valencia CA 91355

As a resident of Santa Clarita for nearly 30 years, I've watched the toxic clean-up of this Whittaker-Bermite area of our city. This has shown me how much of a plume or spread of contamination as it spread through the water table. Can this Oxnard site have spread to our area in Harbor Island? Was there ever a mitigation or clean-up before this was built? Is there cause for concern? Thank you. (Note: My mailing address is still in Valencia.)

Response: *Thank you for your comment. Impacts to the Project Site's groundwater were limited to shallow water bearing zones, and cleanup activities have removed more than 98% of the mass observed. Because of these successful efforts, there is no real potential for the Project Site to impact regional resources. There is also no evidence that previous groundwater contamination spread offsite or effected additional water resources. The affected water from the Project Site did not migrate to Harbor Island. All historical sampling data and remediation that has occurred on the Site can be found at the DTSC public website: www.envirostor.dtsc.ca.gov/public.*

Comment #25 - Young Chang, Eugene Chang, 1479 Windshore Way, Oxnard, CA 93035-1405

Since my home is located directly east from the site, on-shore wind could bring toxic dust and odor.

Response: *DTSC appreciates your comments and acknowledges your concerns. Please review the Response to Comment No. 2 regarding inhalation risks. Additionally, residential construction will occur on areas already remediated. There are no toxic dusts or odors anticipated. Further, VIM system monitoring will be conducted to verify and document compliance.*

Comment #26 - Philip B. Chandler 4501 W. Channel Islands Blvd., # 86 Oxnard, CA 93035

[Comments from Mr. Chandler are presented below as excerpts from his letter and labeled for response. The letter contains major comments as headings and secondary comments within the various sections. A copy of his letter is attached to this Response to Comments document]

MISUSE OF THE CALIFORNIA LAND REUSE AND REVITALIZATION ACT OF 2004 (CLLRA) AT MANDALAY BY DTSC

Misuse of the California Land and Revitalization act of 2004 (CLRRA) at Mandalay Bay by DTSC. DTSC has signed the "Standard Agreement for Participating under California's Land Reuse and Revitalization Act (CLLRA) Program Docket No. HAS-FY 17/18-097." With MPL for this Development project. As is too common with DTSC, it has ignored the very requirements of the statute that it purports to be using to provide protections to a favored Developer. **There were disturbing issues with adherence to statutory definitions and extent of protections especially with regarding**

groundwater contamination.

***Response**: DTSC determined that the Proponent met all the requirements to enter into the CLRRA process, including the requirements for a Bona Fide Purchaser set forth in Division 20, Chapter 6.82 (commencing with section 25395.60) of the Health & Safety Code and submitting documentation that met conditions set forth in Section 25395.80. The proponent conducted All Appropriate Inquires in accordance with Standard Practice for Environmental Site Assessments per ASTM per ASTM E1527-05.*

CLRRA was enacted by Assembly Bill No. 389, Montanez, on September 23, 2004. I contend that this Agreement represents application of underground regulations and which in this instance are diametrically discrepant with the actual CLRRA statute, DTSC's own model CLLRA agreements, and even the boilerplate CLRRA description in this document.

***Response:** The Agreement itself is not the subject of the Response Plan nor of the public comment period documents. As the Commenter indicated the regulations were introduced as bill in the Assembly, the Legislature approved the bill, the Governor signed it into law and DTSC is authorized to enter into such agreements.*

Core to CLRRA is that the Site be ***"...real property located in an urban infill area..."*** This subject Agreement passes the Site off as **"urban infill"** when is clearly not. DTSC states that "***By entering into this subject Agreement, MPL Property Holdings LLC ("MPL") meets the CLRRA requirement to enter into such an agreement."*** Why is it "urban infill"? Statements from within the subject Agreement itself demonstrate that it isn't, e.g. "The Site is bordered on the northeast and east by a strip of property on which a canal owned by Reliant Energy flows from an ocean inlet to the south with cooling water discharges back through a nearby electric generation power plant. The northwestern, west and south portions of the Site are bordered by undeveloped land". Being surrounded by undeveloped land is not "urban infill".

***Response**: California Health and Safety Code 25395.79.2(a) defines a "site" as "real property" located in an Urban Infill area for which the expansion, redevelopment, or reuse may be complicated by the presence of hazardous materials. California Health &Safety Code 25395.79.2 (c) defines "urban infill area" with a two-part definition.*

(c) For purposes of this section, the following definitions shall apply:

(1)"Infill area" means a vacant or underutilized lot of land within an urban area that has been previously developed or that is surrounded by parcels that are or have been previously developed.

(2)"Urban area" means either of the following:

(A) An incorporated city.

(B) An unincorporated area that is completely surrounded by one or more incorporated cities that meets both of the following criteria:

(i) The population of the unincorporated area and the population of the surrounding incorporated cities is equal to a population of 100,000 or more.
(ii) The population density of the unincorporated area is equal to, or greater than, the population density of the surrounding cities.

Please reference the latter and former for further descriptions.

I ask that DTSC exercise section 4.2 Withdrawal and Termination of the 2018 CLRRA Agreement to "Withdraw from or Terminate" it now. A petition to Office of Administrative Law (OAL) has been prepared in which I am alleging that DTSC's faulty interpretation of the "urban landfill" requirement of CLRRA for this Agreement is an underground regulation

Response: *Comment noted.*

POTENTIAL ENVIRONMENTAL AFFAIRS/TRIBAL JUSTICE (EJ/TA) COMMENT PERIOD EXTENSION

There appears to be a new Environmental Justice/Tribal Affairs (EJ/TA) policy that requires more extensive communication and coordination with Tribes on DTSC projects. There is nothing in Envirostor that indicates compliance with this relatively new policy and the Tribal involvement. **In particular, did DTSC hold any discussions with the Chumash-related Wishtoyo Foundation and its Ventura Coastkeeper. If they were not given the same consideration as is being at other locations throughout DTSC's purview, please explain why not. If not, please extend the public comment period and seek a meeting with them to discuss DTSC's creation of its Mandalay PCB Landfill aka SCA.**

Response: *The North Shore EIR and Addenda did not address cultural resources because this impact category did not exist at the time those documents were prepared. California Assembly Bill 52 ("AB 52") codified a requirement that state and local agencies consult with Native American tribes for projects within NOPs published in July 2015 or later, many years past the date on which these Project documents were published.*

This requirement is reflected in DTSC's Memorandum on Tribal Outreach and Consultation, which provides that AB 52 tribal consultation is required only when a project needs "any negative declarations, mitigated negative declarations or environmental impact reports," and only when "a Notice of Preparation for a Draft Environmental Impact Report, Notice of Mitigated Negative Declaration or Notice of Negative Declaration is filed on or after July 1, 2015." (Id. at page 4 (emphasis added). AB 52 thus does not apply to the Project because the Response Plan does not require

an EIR, MND or ND. As such, AB 52 does not apply to this Project and discussions with tribes and organizations like the ones noted in your comments was not required

As required by the draft policy, in September 2017 DTSC Site Mitigation Staff submitted a memorandum to Environmental Justice/Tribal Affairs staff where we notified them of the North Shore at Mandalay Bay Response Plan and remedial activity associated with the plan.

The Environmental Justice/Tribal Affairs Unit is in communication with the North Shore at Mandalay Bay project team regarding progress and updates between agencies and the tribes that would potentially be interested in the activities proposed for the property.

UNLICENSED DTSC PERSONNEL

As an example of this issue, the Envirostor Database (Envirostor) Completed Activities section for this "Site" ---begins with an October 20, 2005 technical report folder containing only that report and an approval letter. That letter is from Sayareh Amir, Chief Site Mitigation and Brownfields Reuse Program, for the "Final Remedial Investigation Report for the North Shore at Mandalay Bay Oxnard California". Ms. Amir had no license as either a Professional Engineer Civil or as a Professional Geologist. The subject technical report was signed and stamped by licensed Professional Engineer #C035368 Charles E. Robinson and Donald Bradshaw, Professional Geologist #5300. Since the report summarizes remedial investigation work, evaluates soils and hydrologic data and draws various soils and hydrologic conclusions Ms. Amir's letter of approval is in effect unlicensed practice on behalf of DTSC. Much of the subsequent DTSC work in Envirostor follows in a similar vein. I contend that the public has been ill-served and ill-protected DTSC's behavior. **I request that DTSC extend the public comment period until it has gone back over all the materials developed and submitted on this project and demonstrate that DTSC provided adequate professional review of each document before moving forward with the draft RP. If problems exist---fix them and re-notice.**

Response: *DTSC professional staff (Registered Geologist and Professional Engineers) have been working on this project since DTSC started providing oversight since 2004 and have reviewed all relevant documents approved by DTSC to date. The consultants performing work on behalf of MPL have Registered/Professional Geologists and Engineers that have overseen the work and have prepared the documents submitted to DTSC.*

DTSC MANDALAY PCB LANDFILL AKA SCA

Placement of PCB-contaminated Waste and Soils

In proposing to approve this draft RP, DTSC appears to be agreeing with the project proponent that a portion of the earlier illegally disposed waste which may have polychlorinated biphenyls (PCBs) below the State's Total Toxic Limit Concentration

(TTLC) <50 ppm is appropriate to be "consolidated" in the DTSC Mandalay PCB Landfill aka SCA. The "landfill "was euphemistically titled a Resource Protection Area and now a Soil Consolidation Area (SCA). DTSC stated in the 2005 public meeting and subsequently that this waste was inert and that therefore the DTSC Mandalay PCB Landfill aka SCA would be appropriate without a liner or an impermeable cap or any of the other protections afforded landfills under state landfill statutes and regulations. Moreover, DTSC appears to be agreeing that contaminated soils, could be placed as close as 2-foot above saturation---illegally disposed PCB contaminated sludge, etc. **Is it correct that DTSC approved the emplacement of PCB-contaminated soils within 2 feet of tidally-influenced ground water and without it being specified as to what point in the tidal cycle---and which tidal cycle-- the depth to ground water was being established for purposes of placement e.g. whether it was being measured at mean lower low water or what? Please change the draft RP to reflect how this was done.**

Response: *The soil consolidation area (SCA) is located within the Resource Protection Area. The design of the SCA was approved with previously vetted documents. Tests conducted with assistance from the Office of Environmental Health Hazard Assessment demonstrated the inert nature of this material, and, therefore, liners in the design were not necessary.*

Tidal Fluctuations

In 2004, LFR performed a follow-up study using wells MW-1, MW-2, MW-12, MW-13, MW-16, and MW-17. This study showed a consistent tidal influence in all but one well. The next year the RI report states that "Depth-to-groundwater measurements were taken on site with no special adjustments made for tidal influence". Likewise, the latest groundwater monitoring report in the Envirostor Database is the "WDR Monitoring Report-Second Quarter 2017", prepared for MPL Property Holdings, LLC and dated July 28, 2017, does not seem to acknowledge tidal issues in section 2.2.1. Some of the nine MRP wells appear to be positioned where tidal influence would seem likely. Please explain why this important characteristic is not addressed in the MRP report. Is it in the approved Sampling and Analysis Plan (SAP)? Does DTSC have an approved SAP for this "Site" ----especially for the DTSC Mandalay PCB Landfill aka SCA.

A 2014 report mentioned that groundwater elevations have fluctuated between approximately 4 and 7 feet above mean lower low water (MLLW) from 1984 to present. How much of this fluctuation was due to tidal influences? How much due to infiltration? Was the DTSC Mandalay PCB Landfill aka SCA installed only two feet above MLLW?

Response: *The tidal fluctuation characteristics and the activities performed on the Site were the subject of previously evaluated and vetted reports that were approved. In addition to the documents cited by the commenter, initially the Tide Monitoring Report, North Shore at Mandalay Bay (H2OGeol, November 15, 2001) presented the effect of*

tides on the Site. The SCAs were excavated to an elevation of approximately 2 feet msl (approximately 1 foot above the groundwater table).

Leaching Study

Only six samples appear to have been run for leaching. This is ridiculous for so many acres of waste. More should have analyzed before a decision is reached about creating a the DTSC PCB landfill, without the proper landfill protections required by statute and regulation, for the previously illegally disposed waste at this "Site" ---presuming of course that the crooked County of Ventura did not intend for such disposal in the first place. **Explain how DTSC can propose accepting so few analyses-----both overall and for leaching. Explain how this fits with USEPA DQO objectives (DQO) for similar sampling**.

***Response*:** *Monitoring the Soil Consolidation Areas remain a part of the remedy moving forward. This comment is associated with content that was given a proper public comment period and was previously publicly vetted and therefore not associated with this public comment period for the subject Response Plan.*

Hundreds of samples were used to identify the nature of the chemicals to be evaluated for leaching. Then, after selecting a reasonable set of previously analyzed samples, six samples were selected to verify the leaching characteristics (originally examined from a variety of literature sources) of the identified chemicals.

These samples and leaching analyses verified the known and anticipated characteristics of the chemical compounds. As a result, the professional judgment of the responsible licensed professionals was approved by DTSC and deemed this evaluation suitable to facilitate the design

The SCAs were designed to receive materials excavated from other areas of the Site. Materials were placed in the landfills in the following sequence:

The fill/cap material contained low levels of TPH, metals, PCBs and dioxins at concentrations below the SCA area target goals and for which, based on leachability studies, were also found to be inert, i.e., not to be leachable at levels that would pose a threat to water quality.

In accordance with the FS/RAP approved plan, an alternative landfill design without a liner was used for the SCA, because the fill/cap material constituents of concern, which, based on leachability studies were also found to be inert, i.e., not to be leachable at levels that would pose a threat to water quality.

USEPA determined the North Shore at Mandalay Bay PCB materials with concentrations less than 50 ppm could be consolidated on the Site pursuant to a work plan submitted under 40 CFR 761.61(c). The USEPA issued an approval in a letter dated August 25, 2006.

PCBs and Groundwater Protection

DTSC must re-examine the PCB landfill and provide additional protection to avoid PCB release into the environment----even at low levels---because of the bioaccumulation and even biomagnification in the food webs. Preferably the PCB-contaminated soil should be removed from the coast and placed into a lined Class 2 or Class 3 landfill at an inland location

DTSC needs to go back and revisit its remedy. It won't put a liner in now. It won't remove the PCBs from the zone of either today's or future groundwater fluctuation. However, it can treat the DTSC Mandalay PCB Landfill as such and not as an SCA. It can require a cap to eliminate infiltration. It can provide adequate monitoring----consistent with landfill requirements--- that addresses tidal changes and long-term sea level rise. I ask that DTSC retract its draft RP and change the remedy again

Response: *This comment was addressed in previously held 2005 public comment period and is not relevant to this public comment period for the subject Response Plan. Historical documents are on DTSC's Envirostor website. Reopening the remedy is not necessary.*

LEACHING ANALYSES METHOD DETECTION LIMITS

The data on method detection limits (MDL) and reporting limits (RL) should have been provided in the body of the text. If these are higher than SFRWQCB screening number, additional analyses need to be obtained which have limits in the right range. Please provide the pertinent information on the leaching analyses. The SFRWQCB number for dioxin is 4.0 x 10-6 g/l. **Did the leaching analyses that MPL performed have appropriate detection and reporting limits for evaluating against that number or U.S. EPA's 2017 RSL**

Response: *This is not a subject for comment during the current public comment period. This matter is not discussed in this Response Plan.*

PREFERENTIAL ATTACHMENT OF PCBS AND DIOXINS TO PARTICULATES

PCBs and dioxins are known to preferentially attach to particulates---"PCBs have a high octanol: water partition coefficient and low solubility in water. Consequently, PCBs in water tend to partition out of the water phase and adsorb to sediment and suspended particles, especially particulate matter with higher organic carbon content." Filter feeders can begin the bio-accumulation from small amounts on small particles **Explain how the samples were handled in the field and prepared for analysis at the laboratory. In particular, describe any filtration that occurred, at what part in**

the process, and why. This question holds for all canal surface, ground, and/or interstitial waters in the sediments (presuming someone examined this).

Response: *Filter feeders will not be exposed to PCBs from the SCAs because the PCBs are entrained in the filled soils and there is no evidence that they are being transported in groundwater to the canal. Sediment samples taken from the Canal were not filtered and did not show detection of PCBs. The SCA wells analyzed for PCBs in 2015 and 2017 were filtered. This was done because of the phenomena cited by the commenter that the water quality, not the sediment quality, was being evaluated. The Responsible Party has agreed to evaluate reinstalling or replacing wells installed within the limits of the SCA fill material to provide further monitoring data on this issue.*

The content of this comment is not a matter discussed in the Response and not subject to this public comment period.

GROUNDWATER MONITORING

Well Turbidity

The monitoring protocols must be rewritten and all of the wells that have excessive turbidity must be replaced not addressed in the MRP report.

Suggested Alternative:

Response: *DTSC recognizes the commenter's concern. Review of field data for the SCA wells (June 2015) and MRP wells (May 2017) indicates that the turbidity for most wells is not significantly elevated. Monitoring is conducted in accordance with EPA sampling protocols for low flow sampling. Monitoring protocols to be described in the Operation and Maintenance Plan anticipate ongoing evaluation of the monitoring wells, including redevelopment and/or replacement, as needed.*

As a result of these comments, a well located at the edge of the SCA that exhibited elevated turbidity was replaced. Sampling activities will continue to be diligent in the application of EPA approved protocols for turbidity. DTSC will re-evaluate the sampling methods, and if necessary, require the redevelopment of wells to reduce the inflow of fine sediment to the well. See also comment above: Preferential Attachment of PCBs and Dioxins to Particulates.

Please explain why this important characteristic is not addressed in the MRP report Is it in the approved Sampling and Analysis Plan (SAP)? Does DTSC have an approved SAP for this "Site" ---especially for the DTSC Mandalay PCB Landfill aka SCA. The following further acknowledges tidal influences.

I contend that the WDRs so signed are not valid and DTSC should request MPL to replace them.

Response: *The commenters concerns about tidal fluctuation appear to be the result of confusion rather than fact. The commenter previously affirmed the nature of PCBs to adhere to colloids or soils and organic materials, and this characteristic is the basis and justification for the SCA design, as PCBs simply do not migrate in these types of geologic environments. For PCBs to be released to the canal or to the aquifers, significant colloidal transport would be required, which is not expected in this geologic setting. The groundwater velocities are very low or even stagnant, and there are ample fines in the soil matrix to entrain colloids. Given this, variations in tides would not cause PCB releases.*

GROUNDWATER MONITORING

SCA

The SCA sampling program is inadequate. A groundwater Sampling and Analysis Plan (SAP) that allows highly turbid water to be sampled for years is a travesty.

Response: *Please see response to comment on groundwater turbidity above.*

Vinyl Chloride MNA

"During the current period, the groundwater elevations in the revised MRP monitoring wells ranged between 2.08 ft msl (RW-12) and 9.02 ft msl (PMW-03; Table 1)". **What tidal cycles were these measured on?**

Response: *Water levels were measured on May 23, 2017 revealed the following: 10 wells were measured at about 7 am just before the morning high tide, 17 wells were measured around 10 am just after the high tide and 9 wells were measured at around 2 pm at the low tide.*

Studies of the effect of tides at the site were conducted in the past (Tide Monitoring Report, North Shore at Mandalay Bay, prepared by H2OGeol, November 15, 2001). Wells located near the canal showed a strong correlation with rising and falling sea level as measured in the adjacent canal. The change in water level in the wells near the canal was between 2 and 3 feet, whereas the variation in actual sea level was approximately 6 feet. Wells located further from the canal showed less (1 foot or less) or no variation.

The comment cites the difference in elevation between wells RW-12 (2.08 ft msl) and PMW-03 (9.02 ft msl) during the "current monitoring period". These wells were both measured in the morning (7:08 and 7:25 am respectively) and therefore, the variation in elevation is more likely due to which stratigraphic interval is intercepted by the well screen and where on the site it is located.

Most of the wells on site have groundwater elevations between 2 and 6 feet above sea level. Only three wells (RMW-4, PMW-2, and -3) have elevations of approximately 9 feet above sea level. DTSC will recommended that all water levels be taken at the same time (as close as possible) and the time in relation to high or low tide be recorded.

MONITORED NATURAL ATTENUATION

However, a bigger problem is that the discharge of contaminated ground water into the channel means failure of a primary MNA guidance element---MNA is not DILUTION!!!!! So, diluting the "Site's" groundwater plume in the Pacific Ocean is not MNA. **DTSC MUST RE-EVALUATE ITS REMEDY SELECTION AND ADDRESS THIS MATTER PROPERLY!!!!!** The RWQCB Waste Discharge Requirements---signed by a PE Mechanical (This means not authorized to practice hydrology as a Civil Engineer) --- totally avoid the marine discharge and lack of canal monitoring. It is up to DTSC to address the monitoring and to directly request the RWQCB to revise its WDRs to specify that discharge of contaminated groundwater into the canal and the Pacific Ocean is acceptable and intended. Likewise, DTSC must explain to the RWQCB that MNA does not mean **DILUTION.**

Response: *Shallow saline groundwater was affected by releases of chlorinated solvents. Cleanup activities removed an estimated 98% of the of contaminants. The process included excavation, pumping removal, specialty chemical treatment, and groundwater treatment. Because of these successful efforts, there is no real potential for the Project Site to impact regional resources. There is also no evidence that previous groundwater contamination spread offsite or effected additional water resources. Reduction of the remaining chemicals is occurring naturally (natural cleanup) and is monitored to assure reduction is on schedule. Because the affected water is saline, it is considered unsuitable for drinking and land use covenants prohibit extracting groundwater. All historical sampling data and remediation that has occurred on the Site can be found at the DTSC public website: www.envirostor.dtsc.ca.gov/public.*

HABITAT ISSUES

Explain how DTSC can create a new landfill such a short vertical distance above ground water and such a short distance from a canal that connects to a recreational harbor at one end and the ocean on the other----without performing an ecological risk assessment that address benthic marine critters first. I ask that DTSC back up and have the proponent perform such a risk assessment before proceeding with cheating the landfill. Explain what the SET values would be for surf perch, steelhead, and other such fish that might be part of a food web related to the canal and its two termini for PCBs and dioxin. Has DTSC even checked with the USEPA Biological Technical Assistance Group (BTAG)? What are the NOAELs for these Materials? The PCB leach test demonstrates a possible pathway for exposure given no liner and no cap. The ground water under the site is in hydraulic continuity with the canal. **Why weren't benthic micro fauna and flora examined for PCB and dioxin content? Please provide the applicable bioaccumulation factors for typical**

birds and fishes at or near the site. Please provide a table of the habitat and dietary preferences of species at or near the site. List the detrivores in the canal. On at least one study that DTSC was involved in the SF Bay area, showed risk-based concentrations of PCB in sediment for plovers and herons of less than 1 mg/kg and for dioxin as low as .000016 mg/kg for the plover. **Please provide such numbers for the macro fauna at and near this site.**

Response: *The subject matter discussed in this comment is not described in the Response Plan which is the subject of this comment period. The was no ecological risk assessment done for this Site. A risk assessment was performed prior to the 2006 public meeting that identified the risks to be addressed by the remediation. This work product went through public comment, and the FS/RAP public process addressed this work product and orientation.*

The Response Plan (and PRACR) did not have ecological risk assessment discussion, as there are no identified deficiencies with the prior remedial effort or characterization in this regard.

An ecological risk assessment was not necessary because the source control would address the only identified pathway (surficial PCBs being ingested by ecological receptors). The canal sampling never showed any meaningful impact, and no other impacted receptor was identified besides humans. This is why we the 6' cap had to be deep enough to prevent burrowing animals from going into the PCB contaminated soils.

PCB ENVIRONMENTAL "HALF-LIFE"

The presence of PCBs in sediments to pose potential long-term public health and ecosystem risks. That is nice, but how long is long-term, how long do PCBs last. This is a crucial question---unanswered by DTSC or MPL and its consultants---that critically bears on the statutory requirement for Financial Responsibility (FR) for O&M. https://www.nap.edu/read/10041/chapter/4#43

Response: *The United States Environmental Protection Agency approved the Waste Disposal and Cleanup Activities of polychlorinated biphenyl (PCB) under the Toxic Substances Control Act (TSCA) on August 25, 2006.*

FINANCIAL ASSURANCE

A real O&M effort will take money. Given that in 2008 according to the U.S.EPA and the Willamette Group that half-life of some of the longer-lived PCB congeners could be anywhere from 495 years to infinity, this financial assurance could be a large amount.

Besides its normal "kicking the can down the road", does DTSC have a reasonable plan to cover long-term care for its very own PCB-landfill?

***Response**: The Operation and Maintenance Plan (O&M Plan) is connected with a Contingency Plan that proposes contingencies associated with the SCAs.*

The Department of Toxic Substances Control requires evidence of financial capacity to perform the activities approved in the Response Plan to maintain the remedy and mitigation proposed and is referred to as the financial mechanisms. Part of the Responsible Party's financial obligations include arranging for secure funding to pay for proposed Response Plan activities.

In closing, I ask that DTSC not approve this draft RP in its present form.

***Response**: DTSC Appreciates your comments and the opportunity to respond. Please see detailed responses to your comments listed above.*

Comment #27 - Mixteco/Indigena Community Organizing Project, P.O. BOX 20543 OXNARD CA 93034-0543

***Response:** DTSC appreciates Mixteco/Indigena Community Organizing Project's participation in the public comment process and acknowledges your concerns. Please note that response have been organized under each question/comment and written in italic.*

Will each of the 292 units receive an individual VIM unit? If so, who monitors/maintains these units?

***Response**: Each home will have a VIM unit. The Responsible Party or designated entity will monitor the VIM systems and ensure they are properly functioning with DTSC oversight.*

What will be the air quality impact during construction for the surrounding area?

***Response:** The Environmental Impact Report's Fourth Addendum addresses the impacts of air quality. It determined that as a result of the VIM systems, construction will have insignificant impacts to the air quality.*

How will you communicate air quality issues to people living and working in the area? What language will these communications be in?

***Response:** Significant air impacts from the VIM systems are not anticipated; however, air monitoring of VIM systems will be performed regardless. Any public communications will be sent out to the community in English and Spanish. For the continued protection of human health and the environment, DTSC will also work directly with the farm owners to facilitate outreach to farm workers in Mixteco with assistance of local non-profits.*

Are there other communities that are using the VIM systems that we can look to as examples? Were these possible example systems built in earthquake prone zones?

Response: *VIM systems are used throughout the United States to mitigate vapor intrusion. Similar systems have been constructed in earthquake prone areas and will continue to function if the fan is maintained. In the event of earthquake damage, the Responsible Party will make the necessary repairs.*

Given that DTSC oversees ground/soil issues, which agency will ensure the safety of farmworkers who have unknowingly inhaled the processed area from the SVE system that has been on-site since 2007?

Response: *All atmospheric discharges from the Site's SVE systems were and are treated with activated carbon and have not posed a significant risk to the public health. Air released from the SVE systems have been and are monitored in accordance with the Ventura County Air Pollution Control District. The prior SVE system was discontinued on December 10, 2009. The current SVE system was installed in 2016.*

What is your plan for non-written languages such as Mixteco? Will you use media such as radio and television?

Response: *As indicated above, DTSC will work with farm owners to facilitate outreach to farm workers in Mixteco with assistance of local non-profits. Radio or television outreach is not currently anticipated but will be reviewed if the demand arises as a result of other methods of outreach.*

Comment #28 - Central Coast Alliance United for a Sustainable Economy 2021 Sperry Ave., #9 Ventura, CA 93033

Response: *DTSC thanks Central Coast Alliance United for a Sustainable Economy for its participation in the public comment process and acknowledges your concerns. Please note that response have been organized under each question/comment highlighted and written in italic.*

Are Communications and Community Notices being made accessible to farmworkers?

Response: *Public Notices and other communication updating activities at the Site are available on the DTSC public Envirostor website (www.dtsc.ca.gov) under the Public tab, in local English and Spanish newspapers and are mailed out to addresses in proximity from the Site. However, based on community feedback provided during DTSC outreach process, we will work with farm owners to facilitate outreach to farm workers in Mixteco with assistance of local non-profits.*

How will DTSC outreach to farmworkers whose primary language is Mixteco, an indigenous language from Southern Mexico that is now the dominant first language of farmworkers on the Oxnard plain?

Response: *The DTSC is committed to ensuring early, equal, and meaningful access to DTSC programs, services, activities and information to persons with limited English Proficiency (LEP). DTSC employed procedures of the Language Access Policy to ensure early, equal, and meaningful access to the subject document, the Response Plan. The public meeting held for the subject Response Plan also had ample translators and translating devices in the Mixteco language. Additionally, as we begin to oversee compliance with the RP, and for the continued protection of human health and the environment, DTSC will also work with the farm owners to facilitate outreach to farm workers in Mixteco with assistance of local non-profits. The Language Access Policy can also be found on the DTSC public website for your review.*

What are methods for outreach to farmworkers? What forms of outreach can notify farmworkers with limited written literacy, particularly for highly technical information regarding this project?

Response: *DTSC agrees with the commenter that outreach to farmworkers working on adjacent properties is warranted simply to keep them informed, even if the project VIMs pose no risk to off-site workers. Based on community feedback provided during DTSC's outreach process, we will work with farm owners to facilitate outreach to farm workers in Mixteco with assistance of local non-profits.*

We request that DTSC hold at least one informational meeting for farmworkers on an adjacent field or worksite where they can be verbally informed of the health risks in their primary language. This will ensure that the necessary health and safety information is directly relayed in an environment where people can ask questions and fully engage. We encourage the DTSC to work directly with the farm owners to facilitate this outreach and to contract with the Mixteco Indigenous Community Organizing Project (MICOP) to for translation services.

Response*: Please note that translation services for Spanish and Mixteco languages were offered at the public meeting held on April 24, 2018. Additionally, DTSC's Public Participation specialist held a meeting on May 23, 2018 with Arcenio Lopez and Genevieve Flores-Haro, Mixteco/Indígena Community Organizing Project to discuss the project. As a result of the meeting, DTSC concurs that working with adjacent farm owners to outreach to farmworkers in Mixteco is beneficial. We want to make sure that farmworkers understand that trace onsite contaminants of concern (chemicals/contaminants) do not pose a risk to neighboring sites or the community at large. Should monitoring efforts illustrate any changes, we also want to ensure the farmworkers are aware of any necessary safety protocols.*

What are the exposure risks associated with the development of this property?

Response: *Contaminants of concern could potentially pose risks to occupants of buildings on the property if no mitigation measures were implemented. However, soil disturbed during development should pose no unusual environmental concerns, since site soils were remediated to approved standards in accordance with the RAP.*

Although no hazardous soils are expected to be encountered and dust monitoring will be conducted during grading activities to ensure that conditions do not pose a risk to workers on the property. Potential impacts to the environment were evaluated pursuant to California Environmental Quality Act (CEQA) as documented in the Environmental Impact Report prepared by the City of Oxnard which concluded that no significant impacts to the environment would occur if mitigation measures were implemented.

What, specifically, are the toxic substances that on-site workers and others in adjacent areas might be exposed to in pre-construction site development?

Response: *The contaminants of concern are volatile organic compounds, polychlorinated biphenyl, polyaromatic hydrocarbons, metals and petroleum hydrocarbons. However, as indicated above these chemicals do not pose a risk to neighboring sites or the community at large. Onsite workers are also not at risk due to past remedial efforts. Further, remedial air monitoring during the movement of affected soils did not identify any health risks, and Site soils met the RAP cleanup criteria.*

What risks could these substances present for individuals such as farmworkers and beach users who are engaging in extended outdoor physical activity near the site?

Response: *The Site contaminants of concern at the Site do not pose a risk to off-site receptors.*

What protections will be provided to on-site workers to limit their exposure to potentially harmful soil and water vapors released during site development and construction?

Response*: Risk associated with activities at the Site have been evaluated for the short-term on-site worker and determined not to be of concern. The Developer/Construction worker employer is responsible for ensuring that all workers receive ("Right to Know") training to learn about past uses of the Site and current Site conditions. A Site-Specific Health & Safety Plan should include procedures for taking engineering, administrative and work practices to ensure that employees are properly protected from contaminants and other elements. If necessary, the employer will provide personal protective equipment and training as required by CalOSHA.*

We request that health and safety protections deemed necessary by Cal OSHA for on-site workers be offered to farmworkers or anyone else who is actively working in adjacent sites while construction is ongoing.

Response: *Thank you for your comment. Please see response to previous comment. Employers are responsible for their workers safety and required to comply Cal OSHA regulations. If unexpected soils of concern are encountered, health and safety protections, as well as additional monitoring, will be implemented.*

Is this development consistent with the City of Oxnard's Local Coastal Plan?

Response: *Yes.*

Does this development plan account for the city's plan to migrate beach recreational areas inland to accommodate for sea level rise?

Response: *Yes.*

Will this development be protected from local severe weather events?

Response: *Please note that DTSC does not have jurisdiction over local planning issues. As the lead regulatory agency, it is DTSC's responsibility to ensure that cleanup activities and mitigation measures at the Site protect human health and the environment. For concerns regarding planning issues, please reach out to the City's Planning and Public Works Departments.*

How could sudden flooding during storm surges potentially affect the Northern and Southern Soil Consolidation Areas?

Response: *The Soil Consolidation Areas (SCAs) will be routinely inspected as part of the Operation and Maintenance Plan. In addition to the Operations and Maintenance Plan, a Contingency Plan has been submitted to DTSC to address actions that will be taken in the event the SCAs appear compromised.*

How will vented vapors be treated after undergoing SVE pre- and post-construction?

Response: *Soil gas is being and will continue to be treated after being extracted by the SVE system with granulated activated carbon in compliance with the Ventura County Air Pollution Control District rules. Current data indicates that VIM vapors do not pose a significant threat to onsite or offsite residents. This will be verified by ongoing monitoring of these systems.*

Does the EIR address the potential effect of the marine layer or fog on the atmospheric dispersal of vapors released during SVE?

Response: *Yes. SVE vapors are being and will be treated to levels that do not depend on dispersion or other wind conditions that could be compromised by marine layers.*

Will there be continued local monitoring of air quality during and after construction?

Response: *Soil cleanup has been completed at the site, and development activities will be subject to dust monitoring similar to that required on all major earthmoving projects. VIM systems will be monitored to ensure that occupants of future structures are protected.*

What actions will be taken if air quality is found to remain in excess of the acceptable cancer risk of 10-6?

Response: *If air quality is found to be in excess of the acceptable cancer risk of 10^{-6} and is a result of the contaminants from the site, DTSC will act immediately and require the responsible party to evaluate the cause of the contaminant release and address the source with mitigation or remediation with or continued oversight. Given existing data, this is not expected.*

We request that one or more air monitoring stations be installed in the agricultural fields closest to the North Shore Project. This will establish a baseline air quality level that can be compared to measurements taken throughout and after the construction process in order to assess whether or not there is a rise in toxic emissions in these areas. Farmworkers are consistently exposed to toxic pesticides over extended periods of time, putting them at a high environmental health risk. Additional exposures to particulate pollution from roads and highways near fields further raise their health risks, resulting in compounding effects and increased illnesses and cancer rates. It is imperative that the risk of exposure from construction of this project is mitigated to the fullest extent for this especially sensitive population.

Response: *Contaminants of concern at the site do not a pose a risk to off-site receptors during implementation of the response action activities. Per the Ventura County Air Quality Management District, the developer is required to implement dust suppression measures such as applying gravel and asphalt to highly used roads and applying water to minimize dust emissions.*

PUBLIC MEETING COMMENTS, April 24, 2018:

Comment # 29 Phil Chandler

a) Not statutorily intended for in-fill requirements, I think it is misapplication of "it" [in-fill] The interpretation of might even be considered an underground regulation – the problem is it is not urban in-fill.
b) Some contaminants are going into the canal.
c) Monitored Natural Attenuation remedy. I don't think we fully meet the criteria of monitored natural attenuation. But by going into the canal; by being in contact with the canal, there's probably some dilution going on, and dilution is not one of the criteria that Monitored Natural Attenuation relies upon.
d) The bigger issue is cost. I want to be sure those are taken care of. IN perpetuity is not 30 years. The department has the capability so do the consultants on this project have the capability to project how long stuff is going to be around. Is the developer willing to put up the money to take care of it out that long (Department did extreme fill, took a look how long for groundwater contamination - model showed 450 years)?] Be sure the department gets the money up front to pay for projection of cleanup for PCBs]; that means to go for hauls, make sure tidal influences aren't pulling some of those out.
e) It's not a cap it's a cover; [maybe the rainfall comes out the PCBs] – I don't know if the monitoring is adequate to tell that yet.

f) Ask the department to get the money up. I want to see those mechanisms up before these guys get to put one building up. Financial assurance needs to be in place before these things are being sold.

***Response*:** Thank you for your comments. Detailed responses are provided to your written comments, which are reiterated here in your verbal comments. Please refer to Response to Comment No. 26.

Comment #30: Al Clemens

If nothing was done and the land remained feral for the last 50 years, would there be any mitigating efforts on your part?

***Response**: DTSC notification of contaminated properties varies. DTSC address contaminated sites statewide with limited resources. We can process cleanup actions more readily when resources are available. Development projects like this one can sometimes provide the necessary resources to implement final cleanup and response measures.*

If the land was just there like it has been since 1954 and no buildings were on it or plan to be on it, would you be doing anything from the DTSCs point of view?

***Response:** DTSC notification of contaminated properties varies. This site has been under DTSC's oversight for some time and is identified for cleanup. However, priorities are subject to change with policy and budget directives.*

Comment #31 - Vivian Ortega

Oppose building…toxicity cannot be removed and air pollution will be hazardous; Traffic problem; Just covering up and having little spouts releasing everywhere.

***Response:** DTSC appreciates your comment and acknowledges your concerns.*

<u>Building</u>
Please note that DTSC does not have jurisdiction over local planning issues. As the lead regulatory agency, it is DTSC's responsibility to ensure that cleanup activities and mitigation measures at the Site protect human health and the environment. For concerns regarding planning issues, please reach out to the City's Planning and Public Works Departments.

<u>Toxicity</u>
The Site has undergone environmental investigation and cleanup activities since 1991. It is currently being cleaned up through a soil vapor extraction (SVE) system that draws chemical vapors in soil into treatment canisters. The vapor intrusion mitigation (VIM) system for each home is an added protective measure to prevent potential vapors from

collecting and entering residences. The VIM will prevent vapor intrusion through vapor barriers and continuous venting of potential vapors under the buildings into the atmosphere in negligible concentrations that are not expected to pose significant risks, and that will quickly dissipate into the air without impact to residents at the Site or the community at large. As the lead regulatory agency, it is DTSC's responsibility to ensure that cleanup and mitigation measures at the Site protect human health and the environment. DTSC will continue to provide regulatory oversight and evaluation of the on-going cleanup activities and long-term operation and maintenance activities proposed in the Response Plan, CLRRA Agreement and the Land Use Covenant.

Traffic
In relation to traffic mitigations, the North Shore at Mandalay Bay Environmental Impact Report (EIR)(Impact Sciences, March 1999) for the Residential Project considered, evaluated, and addressed traffic impacts to the community. The EIR can be found in the City of Oxnard's Planning Office or webpage.

I wonder what the cost is...for maintenance every year and how will we know it's being done?

***Response**: Costs for annual maintenance for remedial activities described in the Response Plan are in the Financial Assurance component of the Operation and Maintenance Plan. This information will be available after the approval of the Response Plan. Cleanup activity will be documented in reports and submitted to DTSC for review as compliance with the Response Plan for DTSC oversight.*

Telemetry...are you going to have on a computer where like everyone's home is being monitored at the same time and there will be a beep beep if there is a problem? How is that going to go?

***Response:** Telemetry to be used will be evaluated in the Vapor Intrusion Mitigation (VIM) operation. The design will be approved by DTSC as part of the oversite obligation for final construction and design, subsequent to the Response Plan approval. Final design of the Telemetry will be approved during the VIM construction and design submittal to DTSC.*

Once they start building, what is coming up in the atmosphere we're going to be subjected to besides all the noise and just the horrible impacts it's going to have on this neighborhood for its vastness and its contamination.

***Response:** Please see response to your inquiry about construction, toxicity and traffic above. There are no anticipated risks of concern.*

 # 32 - Adrien Ortega

What is the legal recourse for homebuyers? Will there be information disclosed on buying? Will there be HOAs lifted to pay for all the work or the monitoring that's going to go on?

Response: *While it is not within DTSC jurisdiction to respond to real estate disclosure questions, it is anticipated that future home buyers will be informed of the property history. As indicated in the Environmental Covenants, Conditions, and Restrictions (Environmental CC&Rs), the homeowners' association or associations (HOA[s]) and owners of homes constructed on the Site will be required to comply with the Environmental CC&Rs, which the Site Responsible Parties (SRPs) will enforce. The Environmental CC&Rs (a) prohibit the HOAs and each owner from modifying, damaging, removing, or tampering with, in any manner, the VIM systems, the SVE and vapor monitoring systems, the groundwater wells and monitoring systems, the SCA access restrictions, SCA Caps, and all other long-term O&M-related infrastructure (O&M Systems); and (b) require the HOAs and each owner to provide the SRP cooperation, electrical power, and access to the O&M Systems to operate, maintain, repair, replace, and/or enhance mechanical, electrical, and other elements of these systems. The HOAs and homeowners will be required to cooperate with the SRP in ensuring compliance with the Environmental CC&Rs.*

a) And what about the neighbors…what kind of fumes will be coming out the spouts?

b) Has someone gone up to and tested and put their nose to it to smell it? How will this affect us?

c) What about monitoring where we live? Will we be given monitors to see what is happening diagonally from us?

Response: DTSC Appreciates your comments and acknowledges your concerns.

Air Quality for the Community at Large
The Site is currently being cleaned up through a soil vapor extraction (SVE) system that draws chemical vapors in soil into treatment canisters. The SVE treatment system is actively monitored to ensure compliance with air standards and no significant air emissions are vented into the atmosphere. The SVE will be operated until the cleanup goals are achieved. In addition to the SVE system, each residence constructed onsite will include a Vapor Intrusion Mitigation system. The VIM system for each home is another protective measure to prevent potential vapors from collecting and entering residences. The VIM will prevent potential vapor intrusion through vapor barriers and continuous venting of soil vapors under the buildings into the atmosphere in negligible concentrations that will also quickly dissipate into the air without impact to residents at the Site or the community at large.

Emissions from the vents will be insignificant and were determined not to be a health risk to onsite receptors, therefore not a health concern to offsite receptors. These understandings will be verified through testing under the purview of DTSC.

Monitoring

As the lead regulatory agency, it is DTSC's responsibility to ensure that cleanup and mitigation measures at the Site protect human health and the environment. DTSC will continue to provide regulatory oversight and evaluation of the on-going cleanup activities and long-term operation and maintenance activities proposed in the Response Plan, CLRRA Agreement and the Land Use Covenant.

May 28, 2018

Ms. Sara Vela, Project Manager
Department of Toxic Substances Control
Brownfields and Environmental Restoration Program
Chatsworth Office
9211 Oakdale Avenue
Chatsworth, California 91311
sara.vela@dtsc.ca.gov

COMMENTS ON DRAFT RESPONSE PLAN (RP) DRAFT RESPONSE PLAN (RP) AND DRAFT FOURTH ADDENDUM TO THE 1999 ENVIRONMENTAL IMPACT REPORT (ADDENDUM) FOR THE NORTH SHORE AT MANDALAY BAY PROJECT

Dear Ms. Vela:

I have a personal interest because I live near the North Shore at Mandalay Bay development located at 198 Harbor Blvd., Oxnard, Ventura County, California. This is a DTSC project which I have been opposed to since the early 2000's and have made public comment upon. I attended DTSC's combined public meeting and public hearing held on Tuesday April 24, 2018.

MISUSE OF THE CALIFORNIA LAND REUSE AND REVITALIZATION ACT OF 2004 (CLLRA) AT MANDALAY BY DTSC

DTSC has signed the "Standard Agreement for Participating under California's Land Reuse and Revitalization Act (CLLRA) Program Docket No. HAS-FY 17/18-097." With MPL for this Development project. As is too common with DTSC, it has ignored the very requirements of the statute that it purports to be using to provide protections to a favored Developer. **There were disturbing issues with adherence to statutory definitions and extent of protections especially with regarding groundwater contamination.**

CLRRA was enacted by Assembly Bill No. 389, Montenez, on September 23, 2004. I contend that this Agreement represents application of underground regulations and which in this instance are diametrically discrepant with the actual CLRRA statute, DTSC's own model CLLRA agreements, and even the boilerplate CLRRA description in this document. Core to CLRRA is that the Site be ***"...real property located in an urban infill area..."*** This subject Agreement passes the Site off as **"urban infill"** when is clearly not. DTSC states that "***By entering into this subject Agreement, MPL Property Holdings LLC ("MPL") meets the CLRRA requirement to enter into such***

an agreement." Why is it "urban infill"? Statements from within the subject Agreement itself demonstrate that it isn't, e.g. "The Site is bordered on the northeast and east by a strip of property on which a canal owned by Reliant Energy flows from an ocean inlet to the south with cooling water discharges back through a nearby electric generation power plant. The northwestern, west and south portions of the Site are bordered by undeveloped land". Being surrounded by undeveloped land is not "urban infill".

DTSC states in the subject CLRRA Agreement ***"By entering into this Agreement, MPL Property Holdings LLC ("MPL") meets the CLRRA meets the CLRRA requirement to enter into such an agreement."***

DTSC further states in the subject CLRRA Agreement that ***"The Site is bordered on the northeast and east by a strip of property on which a canal owned by Reliant Energy flows from an ocean inlet to the south with cooling water discharges back through a nearby electric generation power plant. The northwestern, west and south portions of the Site are bordered by undeveloped land."***

So DTSC is effectively stating that MPL meets the CLRRA requirements with land bounded on three sides by undeveloped land.

Below is a site eligibility quotation directly from DTSC's ***"Standard Agreement for Participating under California's Land Reuse and Revitalization act (CLRRA) Program Docket No. HAS-FY 17/18 -097***" a specific CLRRA agreement signed by DTSC with MPL earlier this year:

> "3.2 Site Eligibility. On July 28, 2017 MPL submitted to DTSC an All Appropriate Inquiries (AAI) report which, which along with a previously submitted CLRRA application, provides sufficient information for DTSC, pursuant to HSC section 25392.92(c), to prepare this Agreement, to determine that the Site is an eligible site under HSC section 25395.79.2 and to determine MPL meets the conditions that apply as of the effective date of this Agreement to qualify as a BFP pursuant to HSC § 25395.69. Based on the information submitted in the application and the AAI report, DTSC has determined that the Site meets the definition of the site specified under HSC section 25395.79.2 *because* ***"...it is real property located in an urban infill area and its redevelopment is complicated by the presence of hazardous materials and is not excluded as an NPL site or state superfund site and is not solely impacted by a petroleum release."***

So, this "Site" is obviously not "urban infill" but has been treated as such by DTSC---just look at the image on the DTSC Public Notice at:
https://www.envirostor.dtsc.ca.gov/public/deliverable_documents/2994947671/Mandalay%20Bay_Public%20Comment%20Community%20Update-Fact%20Sheet%282%29%20040618.pdf

or the PowerPoint presentation used on April 24, 2018 at a public meeting. The Public Participation people indicated that the presentation would be posted on DTSC's website today. Note, that the City of Oxnard annexed this non-urban land from the County of Ventura in the late early 2000's for purposes of expanding Oxnard's development---not "urban infill". H&SC section 25395.79.2 requires this "Site" to be *"...**real property located in an urban infill area..."*** in order to be eligible for CLRRA. My guess is that MPL and/or the City of Oxnard alleged that their project was "urban infill".

One of the first sites that came up on a Google keyword search using urban infill definition was https://www.nlc.org/resource/urban-infill-brownfields-redevelopment\

The following definition was provided:

"Urban infill is defined as new development that is sited on vacant or undeveloped land within an existing community, and that is enclosed by other types of development. The term "urban infill" itself implies that existing land is mostly built-out and what is being built is in effect "filling in" the gaps. The term most commonly refers to building single-family homes in existing neighborhoods but may also be used to describe new development in commercial, office or mixed-use areas."

I ask that DTSC exercise section 4.2 Withdrawal and Termination of the 2018 CLRRA Agreement to "Withdraw from or Terminate" it now. A petition to Office of Administrative Law (OAL) has been prepared in which I am alleging that DTSC's faulty interpretation of the "urban landfill" requirement of CLRRA for this Agreement is an underground regulation.

POTENTIAL ENVIRONMENTAL AFFAIRS/TRIBAL JUSTICE (EJ/TA) COMMENT PERIOD EXTENSION

At the time I first wrote comments on this project in 2005 Ms. Rita Kamat was Unit Chief for Southern California Cleanup Operations at the Department of Toxic Substances Control's Glendale office. I asked for the comment period to be extended on technical grounds such as document and data accessibility but somehow there was a "no go "on such an issue. Just recently, DTSC extended the comment period for some technical issues. There appears to be a new Environmental Justice/Tribal Affairs (EJ/TA) policy that requires more extensive communication and coordination with Tribes on DTSC projects. There is nothing in Envirostor that indicates compliance with this relatively new policy and the Tribal involvement. **In particular, did DTSC hold any discussions with the Chumash-related Wishtoyo Foundation and its Ventura Coastkeeper. If they were not given the same consideration as is being at other locations throughout DTSC's purview, please explain why not. If not, please extend the public comment period and seek a meeting with them to discuss DTSC's creation of its Mandalay PCB Landfill aka SCA.**

UNLICENSED DTSC PERSONNEL

As an example of this issue, the Envirstor Database (Envirostor) Completed Activities section for this "Site" ---begins with an October 20, 2005 technical report folder containing only that report and an approval letter. That letter is from Sayareh Amir, Chief Site Mitigation and Brownfields Reuse Program, for the "Final Remedial Investigation Report for the North Shore at Mandalay Bay Oxnard California". Ms. Amir had no license as either a Professional Engineer Civil or as a Professional Geologist. The subject technical report was signed and stamped by licensed Professional Engineer #C035368 Charles E. Robinson and Donald Bradshaw, Professional Geologist #5300. Since the report summarizes remedial investigation work, evaluates soils and hydrologic data and draws various soils and hydrologic conclusions Ms. Amir's letter of approval is in effect unlicensed practice on behalf of DTSC. Much of the subsequent DTSC work in Envirostor follows in a similar vein. I contend that the public has been ill-served and ill-protected DTSC's behavior. **I request that DTSC extend the public comment period until it has gone back over all the materials developed and submitted on this project and demonstrate that DTSC provided adequate professional review of each document before moving forward with the draft RP. If problems exist---fix them and re-notice.**

DTSC MANDALAY PCB LANDFILL AKA SCA

Placement of PCB-contaminated Waste and Soils

In proposing to approve this draft RP, DTSC appears to be agreeing with the project proponent that a portion of the earlier illegally disposed waste which may have polychlorinated biphenyls (PCBs) below the State's Total Toxic Limit Concentration (TTLC) <50 ppm is appropriate to be "consolidated" in the DTSC Mandalay PCB Landfill aka SCA. The "landfill "was euphemistically titled a Resource Protection Area and now a Soil Consolidation Area (SCA). DTSC stated in the 2005 public meeting and subsequently that this waste was inert and that therefore the DTSC Mandalay PCB Landfill aka SCA would be appropriate without a liner or an impermeable cap or any of the other protections afforded landfills under state landfill statutes and regulations. Moreover, DTSC appears to be agreeing that contaminated soils, could be placed as close as 2-foot above saturation---illegally disposed PCB contaminated sludge, etc. **Is it correct that DTSC approved the emplacement of PCB-contaminated soils within 2 feet of tidally-influenced ground water and without it being specified as to what point in the tidal cycle---and which tidal cycle-- the depth to ground water was being established for purposes of placement e.g. whether it was being measured at mean lower low water or what? Please change the draft RP to reflect how this was done.**

Tidal Fluctuation

In 2004, LFR performed a follow-up study using wells MW-1, MW-2, MW-12, MW-13, MW-16, and MW-17. This study showed a consistent tidal influence in all but one well. The next year the RI report states that "Depth-to-groundwater measurements were taken on site with no special adjustments made for tidal influence". Likewise, the latest

groundwater monitoring report in the Envirostor Database is the "WDR Monitoring Report-Second Quarter 2017", prepared for MPL Property Holdings, LLC and dated July 28, 2017, does not seem to acknowledge tidal issues in section 2.2.1. Some of the nine MRP wells appear to be positioned where tidal influence would seem likely. Please explain why this important characteristic is not addressed in the MRP report. Is it in the approved Sampling and Analysis Plan (SAP)? Does DTSC have an approved SAP for this "Site" ----especially for the DTSC Mandalay PCB Landfill aka SCA.

A 2014 report mentioned that groundwater elevations have fluctuated between approximately 4 and 7 feet above mean lower low water (MLLW) from 1984 to present. How much of this fluctuation was due to tidal influences? How much due to infiltration? Was the DTSC Mandalay PCB Landfill aka SCA installed only two feet above MLLW?

Leaching Study

Only six samples appear to have been run for leaching. This is ridiculous for so many acres of waste. More should have analyzed before a decision is reached about creating a the DTSC PCB landfill, without the proper landfill protections required by statute and regulation, for the previously illegally disposed waste at this "Site" ---presuming of course that the crooked County of Ventura did not intend for such disposal in the first place. **Explain how DTSC can propose accepting so few analyses-----both overall and for leaching. Explain how this fits with USEPA DQO objectives (DQO)for similar sampling**.

If DTSC examined the documents submitted to it by the various historical project proponents it would have learned that at least one sample that had been subjected to a leaching test, actually leached PCBs at a concentration of 5.3 :g/l. Although this amount is very small, it was well more than the San Francisco Regional Water Quality Control Board (SFRWQCB) guidance for *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater* to which it was compared at the time by the consultant

PCBs and Ground Water Protection

Unless the RWQCB WDRs and MRP extend to discharge of PCBs into ground water at the DTSC Mandalay PCB Landfill aka SCA, then there are some issues with how DTSC is handling this. As to the extent of the WDRS, neither dioxins nor PCBs appear to be part of the MRP----since they are not monitored. A gross oversight in any event. It may be noted that "The MCL of 0.5 ppb for PCBs in drinking water was the practical quantitation level based on U.S. EPA approved analytical chemistry detection methodology and monitoring requirements (U.S. EPA, 1991)." Note the 1991. Since it has also been noted that "PCBs have a high octanol-water partition coefficient and low solubility in water. Consequently, PCBs in water tend to partition out of the water phase and adsorb to sediment and suspended particles, especially particulate matter with higher organic carbon content." it is therefore a major issue as to how PCBs are

sampled and analyzed. MPL Property Holdings, LLC's and other Owner's consultants have

The 2005 FS/RAP stated "Fill/cap materials will be placed into excavations first, because contaminants contained within these materials are **essentially insoluble in water.** Sludge materials will be sprayed with an appropriate solution to control and minimize any volatile emissions, and the sludge will be augmented with nutrients to intensify biological treatment during excavation. It will then be placed within the RPA at a depth to be determined during remedial design. Concurrent to the placement of sludge, an in situ SVE/aeration system and network of pipes will be installed." It further stated, "Water quality is not threatened by these materials, making an impervious cap unnecessary and even deleterious to methane migration concerns and long-term degradation from aerobic processes." So, in effect, DTSC's whole remedy is based on PCBs being so "immobile" that a pervious soil cover that allows unabated infiltration and an unlined bottom---set with 2 feet of ground water (remember the tidal influence---no indication as to whether this was mean lower low water, mean high water, or whatever). Oh, no mention that the PCBs being disposed of may have half-lives of 495 years and that Climate Change is resulting in rising sea levels. How lovely that DTSC does not feel obligated to follow at least some semblance of common sense.

First one needs to point out that small-sized sediment particulates and colloidal particles can move within soil and sediment pore-space. PCBs adhered to either particulates and colloids would therefore also move without having to be "leached." Remember infiltration and tidal flux----enablers for such migration. Years ago, I cited in my first public comments a San Francisco Regional Water Quality Control Board (SFRWQCB) screening number for PCBs in ground water as being.012 g/l. I inferred that some of the so-called inert waste that had been disposed in the DTSC Mandalay PCB Landfill aka SCA could leach----from the one sample--- at a concentration 100's of times greater than should be of concern to DTSC. U.S.EPA's 2017 Regional Screening Level (RSL) Summary Table cites the Protection of Groundwater Soil Screening Levels (SSL), MCL-based GW risk as being 7.8 µg/kg for low risk PCBs. This means that ground water is threatened to have the MCL exceeded by low-risk PCBs from soil with as little as 7.8 µg/kg.

It was clear at the time that DTSC created the PCB landfill that "both revised and new models on how PCBs behave in the environment were needed". Similarly, "more information on ow PCBs affect relevant physiological and behavioral characteristics of organisms that are susceptible to contamination are needed." DTSC should have created a PCB landfill that was isolated from the environment. Instead it stupidly created one that is open at the top for infiltration and at the bottom for saturation and tidally driven migration into the environment. DTSC covered the top with soil thereby allowing infiltration and left the bottom unlined. Putting the unlined bottom within the zone of tidal fluctuation was idiocy. Sea-level rise was not unknown at the time of DTSC's decision and should have been factored into the PCB Landfill.

DTSC must re-examine the PCB landfill and provide additional protection to avoid PCB release into the environment----even at low levels---because of the bioaccumulation and even biomagnification in the food webs. Preferably the PCB-contaminated soil should be removed from the coast and placed into a lined Class 2 or Class 3 landfill at an inland location

DTSC needs to go back and revisit its remedy. It won't put a liner in now. It won't remove the PCBs from the zone of either today's or future groundwater fluctuation. However, it can treat the DTSC Mandalay PCB Landfill as such and not as an SCA. It can require a cap to eliminate infiltration. It can provide adequate monitoring----consistent with landfill requirements--- that addresses tidal changes and long-term sea level rise. I ask that DTSC retract its draft RP and change the remedy again

LEACHING ANALYSES METHOD DETECTION LIMITS

The data on method detection limits (MDL) and reporting limits (RL) should have been provided in the body of the text. If these are higher than SFRWQCB screening number, additional analyses need to be obtained which have limits in the right range. Please provide the pertinent information on the leaching analyses. The SFRWQCB number for dioxin is 4.0×10^{-6} g/l. **Did the leaching analyses that MPL performed have appropriate detection and reporting limits for evaluating against that number or U.S. EPA's 2017 RSL**

PREFERENTIAL ATTACHMENT OF PCBS AND DIOXINS TO PARTICULATES

PCBs and dioxins are known to preferentially attach to particulates---"PCBs have a high octanol:water partition coefficient and low solubility in water. Consequently, PCBs in water tend to partition out of the water phase and adsorb to sediment and suspended particles, especially particulate matter with higher organic carbon content." Filter feeders can begin the bio-accumulation from small amounts on small particles. **Explain how the samples were handled in the field and prepared for analysis at the laboratory. In particular, describe any filtration that occurred, at what part in the process, and why. This question holds for all canal surface, ground, and/or interstitial waters in the sediments (presuming someone examined this).**

GROUNDWATER MONITORING

Well Turbidity

The latest groundwater monitoring report in the Envirostor Database is the "WDR Monitoring Report-Second Quarter 2017", prepared for MPL Property Holdings, LLC and dated July 28, 2017. Section 2.2.2 Field Parameters refers the reader to Table 2 for the nine MRP wells. So, the MRP does appear to address some wells monitored for the DTSC PCB Landfill aka SCA. The nine MRP wells do not appear to be positioned optimally and other wells perhaps need to be included. There appear to be too few

SCA wells along the actual canal and there is a similar issue with turbid wells. The pattern of excessive turbidity in the MRP wells is clear in Table 2. This does not seem to have elicited comment from DTSC. The data from RW-12 at 317 NTU especially renders the data from it unacceptable for VOCs. If the well cannot produce non-turbid water to be sampled, it needs to be replaced. This issue needed to be addressed in the draft RP. Go over both MRP and SCA monitoring programs, fix them, and re-notice an adequate RP. All the old high turbidity data---anything more than 5 NTUs or at worst 10 NTU2--- needs to be considered invalid.

The monitoring wells for the DTSC PCB landfill aka SCA produce unacceptably high turbidity water. However, DTSC accepts the results and says nothing. It has passed this data off as being representative for years. To measure dissolved PCBs, water less than 5 NTU's should be produced not 30, 60, 200 or 300 NTUs. All the data collected from wells with a high degree of turbidity is not acceptable as being representative.

Let me also point out that over 40 wells emplaced in relatively undisturbed material across Harbor Blvd. at the former Southern California Edison Mandalay Power plant seem capable of producing relatively non-turbid water. For example, in the 2009 annual Groundwater Monitoring Report, MW-28 reported 0.68 NTUs.

https://www.envirostor.dtsc.ca.gov/public/deliverable_documents/9765507340/Mandalay%202009%20Annual-Pages%201-290.pdf

So, it is not a problem with the natural lithology of the area or the "water". It appears that either the wells are poorly constructed such that DTSC never should have accepted for monitoring or the DTSC PCB landfill aka SCA is bleeding particulates into the groundwater that lies just 2 feet below the bottom of the landfill thanks to an earlier idiotic decision by DTSC to approve the landfill aka SCA design.

So, how does DTSC handle thus? It ignores the turbidity and blesses the samples as being representative. The samples are of course filtered before analysis. I could not determine whether this was done in the field or laboratory but "dirty" water is generally not put into the GC/MS by a laboratory. Given the quotation above that "...PCBs in water tend to partition out of the water phase and adsorb to sediment and suspended particles, especially particulate matter with higher organic carbon content." it is likely that either the consultant or the laboratory filtered out any PCBs from DTSC's PCB landfill aka SCA. Not unsurprisingly, DTSC and MLP's consultant proudly state that no PCBs have exited the PCB landfill aka SCA. While I am mostly concerned about screwing up the sampling at the landfill aka SCA wells, the same concern exists for VOC analyses since VOCs also preferentially seek out particulates

This idiocy should not continue any further. **The monitoring protocols must be rewritten and all of the wells that have excessive turbidity must be replaced**. It would also be useful to analysis the material filtered out of the water samples at the DTSC PCB landfill aka SCA---given the PCBs preference for adsorbing onto particulates. This may or may not be useful for the vinyl chloride contamination water samples

Tidal Fluctuation

In 2004, LFR performed a follow-up study using wells MW-1, MW-2, MW-12, MW-13, MW-16, and MW-17. This study showed a consistent tidal influence in all but one well. However, the latest groundwater monitoring report in the Envirostor Database is the "WDR Monitoring Report-Second Quarter 2017", prepared for MPL Property Holdings, LLC and dated July 28, 2017, does not seem to acknowledge tidal issues in section 2.2.1. Many of the nine MRP wells appear to be positioned where tidal influence would seem likely. **Please explain why this important characteristic is not addressed in the MRP report. Is it in the approved Sampling and Analysis Plan (SAP)? Does DTSC have an approved SAP for this "Site" ---especially for the DTSC Mandalay PCB Landfill aka SCA. The following further acknowledges tidal influences**

"As a result of the influence of the MRT Canal and the Pacific Ocean, groundwater gradients at the Site are relatively flat and tidally influenced, with tidal influences: little flow, and reside at approximate elevations of -1 to 2 feet above msl." and "Groundwater gradients generally mildly slope toward the MRT Canal in the northern/eastern portion of the Site. Groundwater near the MRT Canal is tidally influenced and can typically fluctuate 2 to 3 feet."

DTSC failed to have a proper evaluation of tidal influences mad before it had its Mandalay PCB Landfill aka SCA constructed to within 2 feet of groundwater ---at whatever part of any of the many tidal cycles that could be involved that 2 feet means.

In fact, the tidal effects on groundwater discharge to the canal most likely varies significantly across time scales ranging from hours to years. One study calculated variations in tidally driven ground water discharge "...based on a 1-year record of hydraulic head in a salt marsh...and observed that groundwater discharge" ...varied by an order of magnitude over the course of the year." In fact, "Groundwater discharge was proportional to tidal amplitude and varied by at least a factor of 2 between spring and neap tides. Monthly average groundwater discharge was "...inversely proportional to average sea level; it increased by nearly a factor of 2 as sea level declined by 50 cm from late summer to late winter." It was also found that "The effect of short-term (days) variations in sea level associated with wind events and storms was small in comparison." In essence groundwater discharge is "...probably proportional to tidal amplitude in nearly all coastal settings," The study also pointed out that "In addition to daily variations in SGD associated with tidal cycles, field studies have documented variations in SGD on spring-neap [Robinson et al., 2007a; de Sieyes et al., 2008, 2010; Santos et al., 2009b], seasonal [Michael et al., 2005; de Sieyes et al., 2010; Gonneea et al., 2013b], and interannual [Anderson and Emanuel, 2010; Gonneea et al., 2013a] time scales." The study pointed out that "Storms can also cause significant groundwater exchange in submarine groundwater flow systems [Moore and Wilson, 2005; Hu et al., 2006; Smith et al., 2008; Santos et al., 2009a; Wilson et al., 2011; Xin et al., 2014]" Most of the foregoing represent thoughts and considerations lacking in the so-called tidal studies for the Mandalay "project" neither DTSC nor the RWQCB was sufficiently

cognizant to require better. Most of the studies cited above focused on a single time scale and the relative importance of variations that occur over different time scales is not well developed. For purposes of MRP groundwater sampling to support the purported MNA and for the SCA sampling to support contentions that PCBs etc. Are not being discharged from the unlined DTSC Mandalay PCB Landfill.aka SCA, understanding of the variations occurring over different time scales is critical for the short-term field observations that DTSC and the RWQCB are requiring and for realistic planning the sampling. MPL dis not develop this information nor does it propose to do so. Neither does DTSC intend to require it----based on draft RP. A set of small diameters piezometers---with very short screens (4 to 12 inches in length) need to be installed at the SCA and in the VOC contaminated ground water adjacent to and perpendicular to the canal. These should be equipped with well loggers that record on no greater an interval than twenty minutes. Given that monitoring of the SCA will likely continue for 495 years or more, a year's worth of data should be collected to guide the sampling program

REGIONAL WATER QUALITY CONTROL BOARD WASTE DISCHARGE REQUIREMENTS

Mr. Unger, as Executive Office of the Los Angeles Regional Water Quality Control Board, signed a review and approval letter on the June 11, 2012 "Revised Monitoring and Reporting Program NO. CI-9295 - The North Shore at Mandalay Bay Site, 198 South Harbor Boulevard, Oxnard, California (File NO. 98-197, Waste Discharge Requirements Order NO. R4-2007-0019, Series NO. 025, DTSC Site Code 301242-11, CI-9295, Global ID WDR100000467) Among other things this document contended that the site was meeting a Monitored Natural Attenuation (MNA) remedy and specified Waste Discharge Requirements including constituents to be analyzed and specified sampling interval. Various aspects of this letter dealing with MNA, concerned hydrology which is governed under the P.E. C (Professional Engineer, Civil) license as well as the P.G. (Professional Geologist) license. Mr. Unger is licensed by the California Board for Professional Engineers, Land Surveyors, and Geologists (BPELSG) as M and CH (Professional Engineer, Mechanical and Chemical). In other words, the technical document in question required signature by a Civil Engineer not a Mechanical Engineer or a Chemical Engineer and should be considered fundamentally invalid for DTSC to base its decisions upon. **I contend that the WDRs so signed are not valid and DTSC should request MPL to replace them.**

GROUNDWATER MONITORING

SCA

The SCA sampling program is inadequate. A groundwater Sampling and Analysis Plan (SAP) that allows highly turbid water to be sampled for years is a travesty. Fix it in a revised version of the draft RP and re-notice.

Vinyl Chloride MNA

"During the current period, the groundwater elevations in the revised MRP monitoring wells ranged between 2.08 ft msl (RW-12) and 9.02 ft msl (PMW-03; Table 1)". **What tidal cycles were these measured on?**

MONITORED NATURAL ATTENUATION

Section 5.0 "RESPONSE ACTION DESCRIPTION" of the draft RP document includes MNA in **Subsection 5.3 "MONITORED NATURAL ATTENUATION".** Unfortunately, the section and subsection do little to explain or justify the use of that approach to complete the removal of VOCs—most notably vinyl chloride—from the ground water. The term is thrown around like a magic wand. However, the section and subsection do appear to refer the reader to a more fulsome and useful treatment in the statement "Residual VOCs in shallow groundwater long-term MNA process in accordance with DTSC's approval of the **2006 FS/RAP (DTSC 2006a) and 2013 PRACR (DTSC 2013b)** to attain RWQCB water quality objectives (e.g., MCLs) within a reasonable time frame as defined by SWRCB Resolution 92-49. MNA is the final technology being implemented to remediate the Site's ground water in accordance with the FS/RAP." Sadly, those two documents are no more useful than the draft RP in explaining and justifying DTSC's "wand waving" use of MNA as the final "technology." Since this is presumably the last document of its nature, DTSC owes it to the public to fix here its past approved messes

DTSC needs to require MPL Property Holdings, LLC and its consultant to make use of the following guidance in revising the RP and take a long look itself at those guidance before being so loose with its approvals:

- U.S. Environmental Protection Agency, 1998, Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater, Office of Research and Development, EPA600-R-98-128, September 1998

  https://semspub.epa.gov/work/HQ/100000022.pdf

- U.S. Environmental Protection Agency, 2004, Performance Monitoring of MNA Remedies for VOCs in Groundwater, OSWER 9355.4-25. EPA540-R-03-004, September 2003, [Also EPA/600/R-04/027, April 2004]

  https://semspub.epa.gov/work/HQ/189717.pdf

Of many concerning things about the MLP MNA, the utter disregard for discharge into the marine environment seems to be most characteristic of DTSC statewide. This of course also plopping the DTSC PCB Landfill aka SCA down next to the "SCE" canal that links to Channel Islands Harbor at one end and the Pacific Ocean at the other.

The October 2005 RI Report (the earliest technical document in Envirostor involving DTSC although "Site" investigations had gone for years before) stated "Based upon the available piezometric data and CPT data, it appears that the regional groundwater gradient toward the ocean is interrupted by the Mandalay Canal, which appears to serve as a localized drain, reversing the groundwater gradient from approximately the service road back toward the canal." Even though this report was approved by an unlicensed supervisor, didn't this give someone at DTSC a clue that such interruption meant on-going discharge of site-derived contaminants into the marine environment. Maybe it was the 2002 work by Levine Fricke where three----"count-em three"----samples were obtained from surface water "In November 2002, LFR installed seven groundwater monitoring wells at the Site (MW-11 through MW-17) and began quarterly groundwater monitoring activities. As part of the fourth quarter 2002 groundwater monitoring activities, three surface water samples (CS-1, CS-2, and OS-1) were collected from the canal adjacent to the Site and the Pacific Ocean" While I did not review each monitoring report nor each investigation document, I cannot find where any comprehensive evaluation was made of the obvious discharge to the canal. I found no record that these samples were collected with regard to tide—yes DTSC the canal connects to the ocean---position in the water column----such as near the canal interface where discharge was occurring or at the bottom of the canal where discharge was also likely. This of course is a massive data gap and DTSC needs to do something about a systematic evaluation and then upgrading (RWQCB)/augmenting (DTSC) the MRP monitoring.

However, a bigger problem is that the discharge of contaminated ground water into the channel means failure of a primary MNA guidance element---MNA is not DILUTION!!!!! So, diluting the "Site's" groundwater plume in the Pacific Ocean is not MNA. **DTSC MUST RE-EVALUATE ITS REMEDY SELECTION AND ADDRESS THIS MATTER PROPERLY!!!!!** The RWQCB Waste Discharge Requirements---signed by a PE Mechanical (This means not authorized to practice hydrology as a Civil Engineer) --- totally avoid the marine discharge and lack of canal monitoring. It is up to DTSC to address the monitoring and to directly request the RWQCB to revise its WDRs to specify that discharge of contaminated groundwater into the canal and the Pacific Ocean is acceptable and intended. Likewise, DTSC must explain to the RWQCB that MNA does not mean **DILUTION.**

HABITAT ISSUES

Explain how DTSC can create a new landfill such a short vertical distance above ground water and such a short distance from a canal that connects to a recreational harbor at one end and the ocean on the other----without performing an ecological risk assessment that address benthic marine critters first. I ask that DTSC back up and have the proponent perform such a risk assessment before proceeding with cheating the landfill. Explain what the SET values would be for surf perch, steelhead, and other such fish that might be part of a food web related to the canal and its two termini for PCBs and dioxin. Has DTSC even checked with the USEPA Biological Technical Assistance Group (BTAG)? What are the NOAELs for these Materials? The PCB leach test demonstrates a possible pathway for exposure

given no liner and no cap. The ground water under the site is in hydraulic continuity with the canal. **Why weren't benthic micro fauna and flora examined for PCB and dioxin content? Please provide the applicable bioaccumulation factors for typical birds and fishes at or near the site**. Please provide a table of the habitat and dietary preferences of species at or near the site. List the detrivores in the canal. On at least one study that DTSC was involved in the SF Bay area, showed risk-based concentrations of PCB in sediment for plovers and herons of less than 1 mg/kg and for dioxin as low as .000016 mg/kg for the plover. **Please provide such numbers for the macro fauna at and near this site.**

PCB ENVIRONMENTAL "HALF-LIFE"

The presence of PCBs in sediments to pose potential long-term public health and ecosystem risks. That is nice, but how long is long-term, how long do PCBs last. This is a crucial question---unanswered by DTSC or MPL and its consultants---that critically bears on the statutory requirement for Financial Responsibility (FR) for O&M. https://www.nap.edu/read/10041/chapter/4#43

DTSC frequently and arbitrarily uses a 30-year time-frame for calculating FR. The draft RP sketchily describes the need for O&M but does not appear to lay out the whole plan. Thirty years is inadequate for PCBs. For example, PCBs have not added to the "Site" since circa 1980. The so-called clean-up and landfilling was done in 2007. Therefore, PCB lifetime at site is 30-years already and they have not "biodegraded" away. Why would DTSC think another measly 30 years of care is all that is needed? No reason except to "kick the can down the road- "---as usual to reduce the level of fuss with a "client" and have the public bear the cost later

So maybe a little science, something DTSC management likes to avoid in their decision-making. In 2008, the Lower Willamette Group submitted a table to U.S. EPA of chemical degradation rates for fate and transport modeling ("Degradation half-lives for select chemicals in soils, sediments, and surface waters"). Rather striking was the that the degradation half-life for tougher PCB congeners ranged from 495 years to infinite. **What the devil is DTSC going to do about 495 years of financial assurance for its DTSC Mandalay PCB Landfill aka SCA? Stick it to the public again like it did with BKK and Exide. Oh, by the way, half-life means half gone not all gone so 49 mg/kg goes to 24.5 mg/kg not zero and O&M needs to continue.**

The following is a useful quote for DTSC, "The compositions of PCB congener mixtures that occur in the environment differ substantially from those of the original technical Aroclor mixtures released to the environment (Zell and Ballschmiter 1980; Giesy and Kannan 1998; Newman et al. 1998). As discussed previously, the difference is due to the changes in the composition of PCB mixtures over time after release into the environment because of several processes collectively referred to as "environmental weathering." The weathered multicomponent mixtures might have significant differences compared with Aroclor standards; the degree and position of chlorine substitution not only influences the physical and chemical properties of the PCB congeners but also

their toxic effects. Weathering is a result of the combined effects of such processes as differential volatilization, solubility, sorption, anaerobic dechlorination, and metabolism, and results in changes in the composition of the PCB mixture over time and between trophic levels (Froese et al. 1998). **Less-chlorinated PCBs are often lost rapidly due to volatilization and metabolism, whereas more-chlorinated PCBs are often resistant to degradation and volatilization and sorb more strongly to particulate matter**.

Oh, and as DTSC screws up and the PCBs from its Mandalay PCB Landfill aka SCA enter the environment--- **"Bioaccumulation in the tissues of animals is greater for more-chlorinated PCBs than for less-chlorinated PCBs; therefore, more-chlorinated PCBs are more likely to biomagnify in food webs."** In other words, small releases can have larger effects over time--- "PCBs are taken up into the bodies of small organisms and fish in water. They are also taken up by other animals that eat these aquatic animals as food. PCBs especially accumulate in fish and marine mammals (such as seals and whales) reaching levels that may be many thousands of times higher than in water. PCB levels are highest in animals high up in the food chain."

FINANCIAL ASSURANCE

H&SC § 25355.2 specifies that "the department or the regional board shall require any responsible party who is required to comply with operation and maintenance requirements as part of a response action, to demonstrate and to maintain financial assurance in accordance with this section. The responsible party shall demonstrate financial assurance prior to the time that operation and maintenance activities are initiated and shall maintain it throughout the period necessary to complete all required operation and maintenance activities."

Operation and maintenance (O&M) activities that the draft RP mumbles about for DTSC's Mandalay PCB Landfill aka Soil Consolidation Area (SCA) are relatively minor---minimal monitoring, apparently no well replacement, maybe some weeding on the cover, no this and no that. This is inadequate. A real O&M effort will take money. Given that in 2008 according to the U.S.EPA and the Willamette Group that half-life of some of the longer-lived PCB congeners could be anywhere from 495 years to infinity, this financial assurance could be a large amount. **Besides its normal "kicking the can down the road", does DTSC have a reasonable plan to cover long-term care for its very own PCB-landfill?**

When the response action at a cleanup or corrective action site includes **operation and maintenance (O&M) activities** the responsible party must demonstrate and maintain financial assurance for **completion** of the response action. Applies to all sites being cleaned up under Chapter 6.8 that will require O&M. The DTSC Mandalay PCB Landfill aka SCAs require O&M----in point of fact more than DTSC presently acknowledges. For cleanup sites, the cost estimate must be **updated** as part of the five-year review. The H&SC Chapter 6.8 **Definition of Operation and Maintenance cites that**

"CA HSC Chapter 6.8 §25318.5 "Operation and maintenance" means those activities initiated or continued at a hazardous substance release site following completion of a response action that are deemed necessary by the department or regional board in order to protect public health or safety or the environment, to maintain the effectiveness of the response action at the site, or to achieve or maintain the response action standards and objectives established by the final remedial action plan or final removal action work plan applicable to the site."

(Amended by Stats. 2000, Ch. 912, Sec. 7. Effective September 29, 2000.)

"(a) Except as provided in subdivision (c), the department or the regional board shall require any responsible party who is required to comply with operation and maintenance requirements as part of a response action, to demonstrate and to maintain financial assurance in accordance with this section. **The responsible party shall demonstrate financial assurance prior to the time that operation and maintenance activities are initiated** and **shall maintain it throughout the period necessary to complete all required operation and maintenance activities."**

The statute reads the financial assurance needs to be demonstrated **prior** to the time that O&M activities are initiated. O&M has in fact been being performed for years. DTSC clearly failed to implement the statute. I know DTSC's bogus argument that an O&M Plan has not been approved yet. **SO WHAT? Prior** to O&M being implemented does not mean **after** an O&M Plan has been approved. O&M at this site includes such things as complying with the MRP maintaining the permeable soil cover over the "Landfill", etc. That has been on-going maintenance. Get the Financial Assurance today not after all the lots have been sold or through ridiculous agreement to have all the hundreds of homeowners chip in later. That is utter insanity, DTSC has one responsible party now--- not hundreds---that responsible party needs to put the money up—now. No stupid guff about a homeowner's association either---it is still hundreds of people However MLP wants to recover the Financial Assurance from the hundreds of buyers or a homeowner's association is their business not DTSC's. Let them hold "paper" on this property ----not DTSC. Failing to describe the Financial Assurance angles to the Public in this draft RP ranks as fraud by DTSC. **Please explain in the draft RP how DTSC going to comply with the actual statutory mandate.** DTSC's stated policy is that the responsible party ---in this case MLP---must demonstrate and maintain financial assurance to ensure the State will be able to access funds that are sufficient to complete the O&M if the responsible party is unable or unwilling to do so. Again, note that O&M will probably take over 495 years. **If DTSC has a rationale to avoid a realistic O&M period, why is it afraid to provide that as part of the draft RP and get it before the Public?**

In closing, I ask that DTSC not approve this draft RP in its present form. I also urge DTSC to reopen a public comment period after adequately addressing the matters raised here in a revised draft RP and properly addressing its EJ/TA responsibilities if no specific outreach was made the Wishtoyo Foundation and its Ventura Coastkeeper. By

way of disclosure, I work in DTSC's Brownfields and Environmental Restoration Program (BERP) at Chatsworth. However, this letter is written as a member of the concerned public not as a State of California employee. Thank you for your consideration.

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The Honorable Monique Limón
Assembly Member (District 35)
State Capitol
P.O. Box 942849
Sacramento, CA 94249-0037
c/o [hillary.blackerby@asm.ca.gov]

Ms. Barbara A. Lee, Director
Department of Toxic Substances Control
Headquarters
1001 I Street
P.O. Box 806
Sacramento, California 95812-0806
[blee@dtsc.ca.gov]

Wishtoyo Foundation
11182 Azahar Street
Ventura, CA 93004
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Ventura Coastkeeper (Wishtoyo Foundation)
9452 Telephone Road, #432
Ventura, CA 93004

jweiner.venturacoastkeeper@wishtoyo.org

APPENDIX C
NOTICE OF DETERMINATION

CALIFORNIA ENVIRONMENTAL QUALITY ACT
NOTICE OF DETERMINATION

To: Office of Planning and Research
State Clearinghouse
P.O. Box 3044, 1400 Tenth Street, Room 212
Sacramento, CA 95812-3044

From: Department of Toxic Substances Control
Site Mitigation and Restoration Program
9211 Oakdale Avenue
Chatsworth, CA 91311

Subject: FILING OF NOTICE OF DETERMINATION IN COMPLIANCE WITH SECTION 21108 OF THE PUBLIC RESOURCES CODE

Project Title: North Shore at Mandalay Bay Response Plan

State Clearinghouse No.: 1997061004

Project Location: 198 South Harbor Boulevard, Oxnard, 93035

County: Ventura

Project Description:

DTSC approved the Response Plan submitted pursuant to CLRRA which 1) outlined the implementation of completed and future response actions expressly authorized by the Feasibility Study/Remedial Action Plan (FS/RAP), as modified by the Partial Remedial Action Completion Report (PRACR); and 2) incorporated the vapor intrusion mitigation systems into the Residential Project.

The selected remedy for the Residential Project will include Vapor Intrusion Mitigation (VIM). The process to install the VIM includes the development of a design and the installation of the VIM Systems that incorporates both passive and active VIM technologies. The VIM Systems slightly modify the building foundations to create a vented layer beneath the foundation slab which is depressurized with a small fan that prevents vapors from the sub-slab from entering the residences within the Residential Project. In addition to the small depressurizing fan, either a highly permeable or low permeable barrier is used to diminish the potential for resident exposure.

All residences will have VIM Systems constructed as active mitigation systems that include typical radon-type exhaust fans to reduce sub-slab pressures. These exhaust fans also collect and transport vapors from the sub-slab zones through extraction piping and discharge these vapors through roof vents. Remote electrical monitoring and surveillance systems will be used in all VIM Systems to notify MPL in the event of exhaust fan malfunction to initiate appropriate repairs. These monitoring and repair efforts are intended to minimize exhaust fan downtime. Two different VIM Systems are specified in order to provide future homebuilders of the Residential Project some latitude to select the most appropriate system:

1. The first vapor barrier and venting system option consists of a low permeability membrane (LPM) placed directly beneath the post-tension slab. In addition, beneath the LPM, a 6-inch layer of washed uniform gravel with 4-inch-diameter vent piping will be placed to create a permeable layer in which lower pressure would be created by the exhaust fan. The exhaust fan would be connected to the permeable layer vent piping and discharged to the atmosphere above the roof line.

2. The second VIM System option would utilize an aerated slab. This VIM System creates a sub-slab open void space of about 1 foot, with the slab elevated on concrete pedestals created by specialized recycled plastic forms. Instead of an impermeable barrier, this VIM System creates a more easily vented layer to effectively vacate vapors and transmit pressure reductions. The exhaust fan would vent the sub-slab void space to above the roof line, similar to the LPM and gravel system.

Both options include identical electronic monitoring and communication systems that notify MPL of the operational status of the exhaust fans in order to remotely verify exhaust fan operation and the pressure differential between the sub-slab and living area.

As ☐ Lead Agency ☒ a Responsible Agency under the California Environmental Quality Act (CEQA), DTSC approved the above-described project on December 17, 2018 and has made the following determinations:

1. The project ☐ will ☒ will not have a significant effect on the environment.
2. An ☐ Negative Declaration ☐ Mitigated Negative Declaration ☒ Addendum was prepared for this project pursuant to the provisions of CEQA.

3. Mitigation measures ☒ were ☐ were not made a condition of project approval.
4. A Statement of Overriding Considerations ☐ was ☒ was not adopted for this project.
5. Findings ☐ were ☒ were not made pursuant to the provisions of CEQA.

This is to certify that the final environmental document, comments and responses, and the record of project approval are available to the public at the following location:

Department of Toxic Substances Control
Site Mitigation and Restoration Program
9211 Oakdale Avenue
Chatsworth, CA 91311

Sara Vela	Project Manager	(818) 717 - 6618
Contact Person Name	Contact Person Title	Phone #
Branch Chief Signature		12/21/2018
		Date
Haissam Y. Salloum, P.E.	Branch Chief, Chatsworth Site Mitigation and Restoration	(818)717-6538
Branch Chief Name	Branch Chief Title	Phone #

TO BE COMPLETED BY OPR ONLY

Date Received for Filing and Posting at OPR:

APPENDIX D
ADMINISTRATIVE RECORD

DEPARTMENT OF TOXIC SUBSTANCES CONTROL
ENVIROSTOR

NORTH SHORE AT MANDALAY BAY (19000021)

SIGN UP FOR EMAIL ALERTS

(NO NUMBER) HARBOR BLVD. WEST 5TH ST.
OXNARD, CA 93035
VENTURA COUNTY
SITE TYPE: VOLUNTARY CLEANUP

PROJECT MANAGER:	SARA VELA
SUPERVISOR:	JAVIER HINOJOSA
OFFICE:	CLEANUP CHATSWORTH
PUBLIC PARTICIPATION SPECIALIST:	MICHELLE BANKS-ORDONE
CENSUS TRACT:	6111002905
CALENVIROSCREEN PERCENTILE SCORE:	86-90%

Summary | Activities | Community Involvement | Site/Facility Docs | Map | Related Sites | CalEnviroScreen

DOCUMENT DATE RANGE: TO Filter

Completed Activities

HIDE DOCUMENTS > 1 YEAR OLD

TITLE/DESCRIPTION	DOCUMENT TYPE	DATE COMPLETED
Notice of Determination	CEQA - Responsible Agency Review	12/21/2018
Fourth Addendum to the Environmental Impact Report (EIR)	CEQA - Initial Study/ Environmental Impact Report	12/17/2018
Response to Public Comments	Other Report	12/17/2018
Response Plan	AB 389 Response Plan	12/17/2018
Groundwater MNA Report and Projections CSM	Site Characterization Report	6/20/2018
PPP	Public Participation Plan / Community Relations Plan	5/29/2018
California's Land Reuse and Revitalization Act (CLRRA) Agreement	California Land Reuse and Revitalization Agreement	4/17/2018
Community Update #2	Fact Sheets	4/11/2018
Public Notice	Public Notice	4/11/2018
Community Survey.	Community Profile	1/4/2018
VCAPCD SVE Emissions and Operating Log	Other Report	12/12/2017
Annual DTSC Cost Oversight	Annual Oversight Cost Estimate	9/29/2017
Mandalay Bay_ VCAPCD Soil Vapor Extraction Emissions Monitoring Log_081017	Other Report	8/25/2017
Phase 1 Environmental Assessment Report	Phase 1	8/18/2017
VCACPD SVE Emissions and Operation Log	Other Report	8/9/2017
WDR Monitoring Report - Second Quarter 2017	Monitoring Report	7/28/2017
Technical Memorandum—Work Plan for Well Installation and Abandonment	Well Decommissioning Workplan	5/18/2017
SVE Start Up Report	Design/Implementation Workplan	5/12/2017
WDR Monitoring Report - First Quarter 2017	Monitoring Report	4/21/2017
North Shore at Mandalay Bay—Soil Vapor Extraction System	Site Characterization Report	1/24/2017
Field visit and sampling results of trench at sump #2	Fieldwork	11/28/2016
RWQCB SEMIANNUAL MONITORING REPORT JANUARY 2016—JUNE 2016 - (MRP)	Other Report	7/19/2016
SVE Pilot Test and (Preliminary) Design Report	Remedial Design - Preliminary/Intermediate	5/23/2016
Technical Memorandum-Work Plan for Groundwater Treatment Using Enhanced Natural Attenuation	Technical Workplan	1/25/2016

North Shore at Mandalay Bay RP Groundwater Status Legal Letter	Correspondence	12/18/2015
MRP PLan	Monitoring Report	9/22/2015
Cost estimate for 2015-2016 fiscal year sent with letter to Mandalay Bay.	Annual Oversight Cost Estimate	9/21/2015
Waterboard-Requirements for WDR Renewal Letter	Correspondence	8/20/2015
RELEVANT CONSIDERATIONS TO ISSUES DISCUSSED AT AUGUST 3, 2015 REGULATORY	Correspondence	8/17/2015
Agreements Reached for Developer-Selected Foundations and the Extent and Nature of Active Soil Vapor Extraction for Remedial Design and Costing Documents	Correspondence	7/31/2015
SVE Pilot Study and Design Report	Pilot/Treatability Study Report	7/31/2015
Supplemental Site Investigation - Soil Gas and Groundwater	Site Characterization Report	7/14/2015
June 2015 GW Sampling Event Plan (w/TOC)	Technical Workplan	5/29/2015
Baseline Soil Gas Investigation Workplan	Site Characterization Workplan	5/27/2015
2014 Annual Summary Report, Groundwater	Monitoring Report	5/1/2015
2014 Fourth quarter monitoring report for the SCA monitoring wells	Monitoring Report	3/24/2015
Work Plan for Additional Sampling	Technical Workplan	3/10/2015
SSI GW and Soil Gas Investigation Workplan	Site Characterization Workplan	3/6/2015
SCA/RPA Fill Material Characterization Report	Site Characterization Report	3/4/2015
Burrito characterization Report/SCA-RPA Fill Material Characterization Report	Site Characterization Report	3/3/2015
RPA Soil Sampling and Movement Work Plan	Technical Workplan	12/5/2014
McGrath Soil Characterization Report	Site Characterization Report	10/4/2014
2014-2015 Oversight Cost Estimate Letter	Annual Oversight Cost Estimate	9/18/2014
SCA Monitoring Well WP	Technical Workplan	7/21/2014
Semi-Annual GWMR 2014	Monitoring Report	7/16/2014
SVE Design/Pilot Study Work Plan	Pilot Study/Treatability Workplan	6/30/2014
McGrath Soil Sampling and Movement workplan	Site Characterization Workplan	6/30/2014
Ex-situ Treated Soil Burrito Characterization Workplan	Technical Workplan	4/22/2014
Voluntary Cleanup Agreement	Voluntary Cleanup Agreement	12/30/2013
Semi-Annual GWMR, JAN-JUNE 2013	Monitoring Report	11/7/2013
Partial Remedial Action Completion Report	Remedial Action Completion Report	3/26/2013
HHRA October 2012	Risk Assessment Report	2/22/2013
Site Condition Report	Site Characterization Report	2/22/2013
Consultative Services Agreement - Buyer	Consultative Service Agreement	1/23/2013
EPA extention to execute LUC at Mandalay Bay Site	Other Report	11/30/2012
Tri-Monthly Monitoring Report dated May 2012 through July 2012	Monitoring Report	10/9/2012
LARWQCB Approval Letter for revisions to monitoring and reporting program (WDR)	Other Report	6/11/2012
Tri-Monthly Monitoring Report	Monitoring Report	5/15/2012
PCB Affected Soil Repository Maintenance- Biannual Monitoring Reporting to EPA	Other Report	4/10/2012
Annual Summary Report (for year 2011)	Monitoring Report	3/1/2012
Tri-Monthly Monitoring Report	Monitoring Report	2/14/2012
Tri-Monthly Monitoring Report	Monitoring Report	11/15/2011
Tri-Monthly Monitoring Report	Monitoring Report	8/13/2011
EPA extention to execute LUC at Mandalay Bay Site	Other Report	6/14/2011
Tri-Monthly Monitoring Report	Monitoring Report	5/13/2011
Tri-Monthly Monitoring Report	Monitoring Report	2/14/2011
Tri-Monthly Monitoring Report	Monitoring Report	11/12/2010
Tri-Monthly Monitoring Report	Monitoring Report	8/13/2010
Tri-Monthly Monitoring Report	Monitoring Report	5/12/2010
Tri-Monthly Monitoring Report	Monitoring Report	2/12/2010
Tri-Monthly Monitoring Report	Monitoring Report	11/30/2009
Tri-Monthly Monitoring Report	Monitoring Report	8/30/2009
Tri-Monthly Monitoring Report (WDR)	Monitoring Report	5/14/2009
Tri-Monthly Monitoring Report	Monitoring Report	2/12/2009
Description of North Shore at Mandalay Bay Foundation Vapor Barrier Elements	Design/Implementation Workplan	10/10/2008
LARWQCB In-Situ Daramend Letter	Correspondence	10/24/2007

Phase 3 :VOC Affected Soil Treatment Design	Design/Implementation Workplan	7/13/2007
Remedial Design and Implementation Plan (Include Phase 4:Ground Water Extraction & Treatment)	Design/Implementation Workplan	7/11/2007
McGrath Parcel Soil Import to Mandalay Bay (Investigation Report)	Site Characterization Report	3/19/2007
Supplemental Investigation Report (July 06 - Jan 07 Data)	Remedial Investigation Report	2/1/2007
Phase2:Onsite Soil Excavation and Consolidation (Excluding VOC impacted area)	Remedial Design - Preliminary/Intermediate	12/18/2006
Phase 1:Non RCRA Hazardous Soil Excavation and Disposal	Design/Implementation Workplan	12/18/2006
Grubbing & Cleaning Plan	Remedial Design - Preliminary/Intermediate	12/6/2006
Notice of Determination (NOD) :Confirmation of Filing	CEQA - Responsible Agency Review	10/17/2006
Statement of Findings	CEQA - Responsible Agency Review	10/17/2006
Notice of Determination (NOD)	CEQA - Responsible Agency Review	10/17/2006
Feasiblity Study/Remedial Action Plan	Remedial Action Plan	8/31/2006
RI Report	Remedial Investigation Report	10/20/2005
VCA	Voluntary Cleanup Agreement	7/22/2004

Community Involvement Documents

HIDE DOCUMENTS > 1 YEAR OLD

DRAFT DOCUMENTS FOR REVIEW

TITLE/DESCRIPTION	DOCUMENT TYPE	DOCUMENT DATE
Notice of Determination	CEQA	12/21/2018
EIR Fourth Adendum Summary (English & Spanish)	CEQA	4/23/2018
North Shore at Mandalay Bay Response Plan Executive Summary-English & Spanish	Proposed Plan	4/23/2018
EIR Draft Fourth Addendum	CEQA	4/12/2018
Mandalay Bay Draft Response Plan	Proposed Plan	4/11/2018
APP FS_E.pdf	Remedial Action Plan	10/21/2005
Appendix FS-A (TSCA Plan).pdf	Remedial Action Plan	10/21/2005
Appendix FS-D Oil Pipeline Relocation.pdf	Remedial Action Plan	10/21/2005
Appendix FS-F.pdf	Remedial Action Plan	10/21/2005
FS-G.pdf	Remedial Action Plan	10/21/2005
FS/RAP (FIGURES)	Remedial Action Plan	10/21/2005
FS/RAP (TABLES)	Remedial Action Plan	10/21/2005
FS/RAP(TABLES)	Remedial Action Plan	10/21/2005
FS_B.pdf	Remedial Action Plan	10/21/2005
FS_C.pdf	Remedial Action Plan	10/21/2005
Feasibility Study/ Remedial Action plan, North Shore at Mandaly Bay	Remedial Action Plan	10/21/2005

FACT SHEETS

TITLE/DESCRIPTION	DOCUMENT TYPE	DOCUMENT DATE
Community Update #2	Fact Sheet	4/11/2018

UPDATES AND INFORMATION

TITLE/DESCRIPTION	DOCUMENT TYPE	DOCUMENT DATE
Public Notice - Extension of Public Comment Period	Project Status Update	4/25/2018
Public Notice	Public Meeting Notice	4/12/2018
Public Notice - Spanish	Public Meeting Notice	4/12/2018
Public Notice	Public Notice	4/11/2018
Mandalay Bay English and Spanish Community Survey	Public Survey	1/3/2018
North Shore at Mandalay Bay Community Update	Project Status Update	1/3/2018
Project Update July 9 2007	Project Status Update	7/9/2007
Project Update June 18 2007	Project Status Update	6/18/2007
Project Update June 11 2007	Project Status Update	6/11/2007
Project Update June 4 2007	Project Status Update	6/4/2007
Project Update May 28 2007	Project Status Update	5/28/2007
Project Update May 14 2007	Project Status Update	5/14/2007

Project Update May 7 2007	Project Status Update	5/7/2007
Project Update April 30 2007	Project Status Update	4/30/2007
Project Update April 23 2007	Project Status Update	4/23/2007
Project Update April 16 2007	Project Status Update	4/16/2007
Project Status Update	Project Status Update	4/9/2007
Project Status Update April 2 2007	Project Status Update	4/2/2007
Project Status Update March 26 2007	Project Status Update	3/26/2007
Project Status Update March 19 2007	Project Status Update	3/19/2007
Project Status Update March 12 2007	Project Status Update	3/12/2007
Project Update March 5 2007	Project Status Update	3/5/2007
Project Update February 26 2007	Project Status Update	2/26/2007
Project Update February 19 2007	Project Status Update	2/19/2007
Project Update January 29 2007	Project Status Update	1/29/2007
Project Update January 23 2007	Project Status Update	1/23/2007
Project Update January 15 2007	Project Status Update	1/15/2007
Project Update January 8 2007	Project Status Update	1/8/2007
Project Update January 2 2007	Project Status Update	1/2/2007
Project Update December 18 2006	Project Status Update	12/18/2006
Project Update December 11 2006	Project Status Update	12/11/2006
Mandalay Bay, Meeting Notice - December 5, 2006	Meeting Notice	12/6/2006
Project Update December 4 2006	Project Status Update	12/4/2006
Project Update November 27 2006	Project Status Update	11/27/2006
Project Update November 20 2006	Project Status Update	11/20/2006
Project Update November 13 2006	Project Status Update	11/13/2006
Meeting Notice & Project Update October 30 2006	Project Status Update	10/30/2006
Project Update October 16 2006	Project Status Update	10/16/2006
Project Update August 4 2006	Project Status Update	8/4/2006

PROJECT RELATED DOCUMENTS

TITLE/DESCRIPTION	DOCUMENT TYPE	DOCUMENT DATE
PPP	Public Participation Plan	5/29/2018
North Shore at Mandalay Bay Community Meeting and Public Hearing Powerpoint in Spanish	Other	4/26/2018
North Shore at Mandalay Bay Community Meeting and Public Hearing Power Point	Other	4/25/2018
North Shore at Mandalay Bay Response Plan Executive Summary-English & Spanish	Letter / Memo	4/23/2018
Repository Cover Letter	Letter / Memo	4/11/2018
Community Survey.	Community Profile	1/4/2018
Response to Comments- Public Meeting November 17 2005	Letter / Memo	12/18/2006
RDIP Approval Letter for :1) Hazardous Soil Excavation and Disposal, 2) Onsite soil excavation and consolidation (Excluding VOC Impacted Area)	Letter / Memo	12/7/2006
RDIP :Grubbing and Clearing Approval Letter	Letter / Memo	11/6/2006
Feasibility Study/ Remedial Action Plan Approval Letter	Letter / Memo	8/31/2006
EPA APPROVAL LETTER	Letter / Memo	8/25/2006
WDR PERMITS	Other	8/8/2006

DTSC Home

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