FINAL ENVIRONMENTAL IMPACT REPORT

Lake Merritt Channel Wetlands and Widening Project

Prepared for:
City of Oakland
250 Frank Ogawa Plaza
Oakland, CA 94612

Prepared by:
CirclePoint
135 Main Street, Suite 1600
San Francisco, CA 94105

June 2006

Table of Contents

1.0 Introduction

An Environmental Impact Report (EIR) is an informational document prepared by a Lead Agency (in this case, the City of Oakland) that contains environmental analysis for public review and for agency decision-makers to use in their consideration of development proposals. The City of Oakland issued the Draft EIR (DEIR) for the Lake Merritt Channel Wetlands and Widening Project in April, 2006. During the 45-day comment period that followed, four public agencies (the Public Utilities Commission, East Bay Municipal Utility District, California Department of Transportation, and the State Clearinghouse) and four community members submitted written comment letters on the DEIR.

The City Planning Commission also held a public hearing on May 17, 2006, during the 45-day review period, to provide members of the public an opportunity for oral testimony regarding the DEIR. Two members of the public gave oral testimony at the hearing: David Mix and John Wilson. A third commenter, Caryen King, was also present but ceded her time to David Mix.

This Final Environmental Impact Report (FEIR) and Response to Comments document contains responses to the written comments received on the DEIR. The DEIR for the Lake Merritt Channel Wetlands and Widening Project together with this document constitute the FEIR for the proposed Project. The FEIR will be considered by the Oakland Planning Commission and City Council before they take action on the proposed Project.

Before the Lead Agency may approve the Project, it must certify that the FEIR adequately discloses the environmental effects of the proposed Project, that the FEIR has been completed in conformance with the California Environmental Quality Act (CEQA), and that the decision-making body of the Lead Agency independently reviewed and considered the information contained in the FEIR. Certification of the FEIR would not mean that the City is approving the proposed Project or any of the alternatives described in the DEIR. Rather, certification of the FEIR would indicate the City's determination that the FEIR adequately evaluates the environmental impacts that could be associated with the proposed Project.

CEQA Guidelines specify that the FEIR shall consist of:

- The Draft Environmental Impact Report (DEIR) or a revision of that Draft;

- Comments and recommendations received on the DEIR;
- A list of persons, organizations, and public agencies commenting on the DEIR;
- The response of the Lead Agency to significant environmental issues raised in the review and consultation process;
- Changes to the Draft EIR based on public comment and any additional analysis conducted as a result of public comments.
- Any other information added by the Lead Agency.

2.0 Response to Comment Letters

2.1 LIST OF PEOPLE AND ORGANIZATIONS COMMENTING ON THE DEIR IN WRITING

Letter 1 Kevin Boles, California Public Utilities Commission, April 26, 2006

Letter 2 William R. Kirkpatrick, East Bay Municipal Utility District, May 31, 2006

Letter 3 Cayren M. King, Resident, June 2, 2006

Letter 4 David E. Mix, Resident, June 2, 2006

Letter 5 John Wilson, Resident, June 2, 2006

Letter 6 Lisa M. Carvalho, Attorney for Union Pacific Railroad, June 2, 2006

Letter 7 Timothy C. Sable, California Department of Transportation, June 1, 2006

Letter 8 California State Clearinghouse, June 2, 2006

2.2 WRITTEN COMMENT LETTERS

A copy of each of the comment letters is included on the following pages. Each individual comment is called out and given a number (comment 1, 2, 3 etc.). Responses to comments are presented in Section 2.3, after the comment letters.

STATE OF CALIFORNIA ARNOLD SCHWARZENEGGER, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

April 26, 2006

Markley Bavinger
City of Oakland
250 Frank Ogawa Plaza
Oakland, CA 94612

Dear Mr. Bavinger:

Re: SCH# 2005102080; Lake Merritt Channel Improvement Project

As the state agency responsible for rail safety within California, we recommend that any development projects planned adjacent to or near the rail corridor in the County be planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at at-grade highway-rail crossings. This includes considering pedestrian circulation patterns/destinations with respect to railroad right-of-way. 1.1

Safety factors to consider include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade highway-rail crossings due to increase in traffic volumes and appropriate fencing to limit the access of trespassers onto the railroad right-of-way.

The above-mentioned safety improvements should be considered when approval is sought for the new development. Working with Commission staff early in the conceptual design phase will help improve the safety to motorists and pedestrians in the County.

If you have any questions in this matter, please call me at (415) 703-2795.

Very truly yours,

Kevin Boles
Utilities Engineer
Rail Crossings Engineering Section
Consumer Protection and Safety Division

cc: Pat Kerr, UP
Carol Harris, UP

EAST BAY MUNICIPAL UTILITY DISTRICT

Post-it® Fax Note 7671	Date 6/2/06	# of pages ▶ 3
To MARKLEY BAVINGER	From W. L. KIRKPATRICK	
Co./Dept. ENV. SER. DIV	Co. EBMUD	
Phone #	Phone # (510) 287-1301	
Fax # (510) 238-7286	Fax # (510) 287-0790	

May 31, 2006

Markley Bavinger
City of Oakland, Public Works Agency
Environmental Services Division
250 Frank H. Ogawa Plaza, Suite 5301
Oakland, CA 94612

Re: Draft Environmental Impact Report – Lake Merritt Channel Wetlands and Widening Project (ER050015) - Oakland

Dear Ms. Bavinger:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Draft Environmental Impact Report (EIR) for the Lake Merritt Channel Wetlands and Widening Project in the City of Oakland. EBMUD has the following comments.

WATER SERVICE

EBMUD owns and operates distribution pipelines in public streets and EBMUD right-of-ways which traverse the Lake Merritt Channel Wetlands and Widening Project area. These pipelines provide continuous service to EBMUD customers in the area. The integrity of these pipelines needs to be maintained at all times. Any proposed construction activity in the public street and/or EBMUD right-of-ways would need to be coordinated with EBMUD. Any proposed construction activity in EBMUD right-of-ways would be subject to the terms and conditions determined by EBMUD including relocation of the water mains and/or right-of-ways. 2.1

WASTEWATER SERVICE

EBMUD's Main Wastewater Treatment Plant is anticipated to have adequate dry weather capacity to treat the proposed wastewater flow from this project, provided this wastewater meets the standards of EBMUD's Environmental Services Division. However, the City of Oakland's Infiltration/Inflow (I/I) Correction Program sets a maximum allowable peak wastewater flow from each subbasin within the City and EBMUD agreed to design and construct wet weather conveyance and treatment facilities to accommodate these flows. EBMUD prohibits discharge of wastewater flows above the allocated peak flow for a subbasin because conveyance and treatment capacity for wet weather flows may be adversely impacted by flows above this agreed limit. While park restrooms are unlikely to generate large flows, the City of Oakland needs to confirm that there is available capacity within the subbasin flow allocation and that it has not been allocated to other developments. The projected peak wet weather wastewater flows from this project need 2.2

to be determined to assess the available capacity within the subbasin and confirmation included in the environmental documentation. Suggested language to include in the environmental documentation is as follows: The City of Oakland Public Works Department has confirmed that there is available wastewater capacity within Subbasin (*insert subbasin number here*) that is reserved for this project." 2.2 Con't.

In general, the project should address the replacement or rehabilitation of the existing sanitary sewer collection system to prevent an increase in I/I. Please include a provision to control or reduce the amount of I/I in the environmental documentation for this project. The main concern is the increase in total wet weather flows, which could have an adverse impact if the flows are greater than the maximum allowable flows from this subbasin. 2.3

It should also be noted that the southern edge of the project boundaries is located near EBMUD's San Antonio Creek (SAC) Wet Weather Facility, South Interceptor and SAC discharge line. The two pipelines run along Embarcadero. Any proposed construction activity near these facilities would need to be coordinated with EBMUD. 2.4

WATER RECYCLING

EBMUD's Policy 8.01 requires that customers use non-potable water for non-domestic purposes when it is of adequate quality and quantity, available at reasonable cost, not detrimental to public health and not injurious to plant life, fish and wildlife to offset demand on EBMUD's limited water supply.

In March 2002, the City of Oakland adopted a dual plumbing ordinance, requiring new developments within the City to use recycled water provided by EBMUD and install separate plumbing systems for appropriate recycled water uses if recycled water will be available. The City's proposed improvement project is located within the service area boundary of EBMUD's East Bayshore Recycled Water Project. EBMUD anticipates recycled water delivery to the project area by early 2007 and recommends that the City coordinate and consult with EBMUD regarding the installation of separate plumbing systems for use of recycled water for landscaping irrigation throughout the project area. 2.5

EMBUD will be installing a recycled water pipeline along 10th Street within the project area and will continue coordinating construction activities with the City's 12th Street Reconstruction Project, of which the proposed project is a component.

WATER CONSERVATION

The proposed project presents an opportunity to incorporate water conservation measures. EBMUD would request that the City of Oakland include in its conditions of approval a requirement that the project sponsor comply with the Landscape Water Conservation Section, Article 10 of Chapter 7 of the Oakland Municipal Code. 2.6

If you have any questions concerning this response, please contact David J. Rehnstrom, Senior Civil Engineer, Water Service Planning at (510) 287-1365.

Sincerely,

William R. Kirkpatrick
Manager of Water Distribution Planning

WRK:TNS:sb
sb06_142.doc

MARKLEY DAVINGER'S Copy

I-3

CAYREN MAY KING
CHARLES H. KING III
1727 CLEMENS RD
OAKLAND, CA 94602

2006 JUN -2 PM 1:15

JUNE 2, 2006

HAND DELIVERED TO PUBLIC WORKS DEPT

Response To:
CASE No. ER050015
MARKLEY DAVINGER - ENVIROMENTAL SERVICES DIV. PUBLIC WORKS
City of OAKLAND - 250 FRANK H. OGAWA Plaza, Suite 5301

THE project site is located IN AND adjacent to the LAKE MERRITT Channel, between 12th Street and INTERSTATE I-880.

DESCRIPTION of PROJECT: The Project would implement improvements to the southern LAKE MERRITT area AND Channel as part of the 12 Street, 10th Street and 7th Street Projects. Project components include Channel widening, shoreline improvements, including the creation of a tidal MARSH, Slope stabilization, AND Replanting with Regionally Appropriate Native Species (see enclosure signed by Claudia Cappio April 14 2006)

SAN ANTONIO

The project is located the EASTLAKE - ChinaTown AREA that will Require properly used TRAFFIC LANES for AC TRANSIT BUSES, Emergency and Police Cars, Private and Public passenger AS well as delivery CARS - TRUCKS Also! Finding a traffic study for 2006 IN THE EAST LAKE District that adresses the direct IMPACTS during Construction period IS NOT easy TO FIND. IT is NOT Addressed - A TIME period failed to be addressed IN this Report. ALSO TIME period AND TRAFFIC study is Needed. 3.1

IN Addition to the Above, the MAINTANCE Dept of P. Works FOR PARK LANDS Reports That The MARSH TERRACE will be a big problem for the gardeners, Unless WESley Estes, City of Oakland Public Works (510) 238-7431 will provide Maintance funds. 3.2

(Continued)

2-3

CAYREN MAY KING
CHARLES H. KING III
1727 CLEMENS RD
OAKLAND, CA 94602

Flood Control problems need to be Addressed. An explanation of the MARSH LAND AND flood controls Impact on the PERALTA Community College District's LANEY CAMPUS Property if the MARSH LAND floods. Student use the PARK LAND AS WELL AS CAMPUS LAND. 3.3

Will the contractor hired to complete the EIR projects be bonded for flood damage if it occurs? The environmental department AND LESLIE ESTE lack many engineering skills. BEWARE of West Nile Mosquitos in MARSH LAND pools of Water. 3.4

Yours truly—
CAYREN M. KING Cayren M. King
1727 CLEMENS ROAD
OAKLAND, CA-94602-1802
TAXPAYER AND Property Owner
IN OAKLAND LANDSCAPE
AND Lighting District
(The District is RUNNING OUT of Money)

P.S. BASELINE ENVIROMENTAL CONSULTING 59 Hollis Street Suite D EMERYVILLE Ca. 94608 (510) 420-8686 Reports to me That A Report dated Feb. 20th WAS Sent to CASTLE POINT, 135 MAIN STREET - Suite 1600 SAN FRANCISCO, CA 94105 — NOT IN 7.0 References. Why? 3.5

C.C. To U.S. CORPS & Army Engineer, San Francisco

Oakland
All-America City
1993

CITY OF OAKLAND

B-23

DALZIEL BUILDING • 250 FRANK H. OGAWA PLAZA, SUITE 5301 • OAKLAND, CALIFORNIA 94612-2034

Public Works Agency
Environmental Services

FAX (510) 238-7286
TDD (510) 238-7644

COMBINED NOTICE OF RELEASE AND AVAILABILITY OF THE DRAFT ENVIRONMENTAL IMPACT REPORT AND NOTICE OF PUBLIC HEARING ON THE LAKE MERRITT CHANNEL WETLANDS AND WIDENING PROJECT

PROJECT TITLE: Lake Merritt Channel Wetlands and Widening Project

CASE NO.: ER050015

PROJECT SPONSOR: City of Oakland

PROJECT LOCATION: The project site is located in and adjacent to the Lake Merritt Channel, between 12th Street and Interstate I-880.

DESCRIPTION OF PROJECT: The Project would implement improvements to the southern Lake Merritt area and Channel as part of the 12th Street, 10th Street, and 7th Street Projects. Project components include channel widening, shoreline improvements including the creation of a tidal marsh, slope stabilization, and replanting with regionally appropriate native species.

ENVIRONMENTAL REVIEW: Based on an Initial Study, it was determined that the project may have significant environmental impacts. A Draft Environmental Impact Report (DEIR) has been prepared for the project pursuant to the requirements of the California Environmental Quality Act (CEQA). The DEIR analyzes potentially significant environmental impacts in the following environmental categories: Biological Resources, Geologic resources, Hydrologic Resources, and Hazardous and Toxic Substances. The DEIR does not identify any significant unavoidable environmental impacts. Copies of the DEIR are available for review or distribution to interested parties at no charge at the Community and Economic Development Agency, Planning and Zoning Division, 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, CA 94612, Monday through Friday, 8:30 a.m. to 5:00 p.m.

PUBLIC HEARING: The City Planning Commission will conduct a public hearing on the project on Wednesday, May 17, 2006, at 6:30p.m. in Hearing Room 1, City Hall, 1 Frank H. Ogawa Plaza.

The City of Oakland is hereby releasing this DEIR, finding it to be accurate and complete and ready for public review. Members of the public are invited to comment on the DEIR. There is no fee for commenting, and all comments received will be considered by the City prior to finalizing the EIR and making a decision on the project. Comments on the DEIR should focus on the sufficiency of the EIR in discussing possible impacts on the environment, ways in which adverse effects might be minimized, and alternatives to the project in light of the EIR's purpose to provide useful and accurate information about such factors. Comments may be made at the public hearing described above or in writing. Please address all written comments to Markley Bavinger, City of Oakland, Public Works Agency, Environmental Services Division, 250 Frank H. Ogawa Plaza, Suite 5301, Oakland, CA 94612. Comments should be received no later than 4:00 p.m. on **June 2, 2006**. If you challenge the environmental document in court, you may be limited to raising only those issues raised at the Planning Commission public hearing described above, or in written correspondence received by the Public Works Agency on or prior to 4:00 p.m. on **June 2, 2006**. After all comments are received, a Final EIR will be prepared and the Planning Commission will consider certification of the Final EIR for the project at a later meeting date to be scheduled. If you have any questions, please telephone Markley Bavinger at (510) 238-6266.

CLAUDIA CAPPIO
Director of Planning, Building and Major Development Projects

Date: April 14, 2006

1727 Siemens Rd.
Oakland Ca. 94602
June 2, 2006

Response Hand Delivered To Markley Bavinger - City of Oakland
Public Works Agency - Environmental Services Division,
250 Frank H. Ogawa Plaza, Suite 5301, Oakland Ca. 94612

C. Jo. Kirk

6. ER 7

Project Name:	**Lake Merritt Channel Wetland and Widening Project**
Location:	Lake Merritt Channel between Lake Merritt and 7th Street
Assessors Parcel Numbers:	000O-0450-001; 000O-0450-002; 000O-0455-008-05; 000O-0455-0013; 000O-0455-001-01; 000O-0455-001-03; 000O-0455-001-07; 000O-0455-012; 000O-0455-015-02
Proposal:	Public Hearing on the Draft Environmental Impact Report for the channel improvements proposed along the Lake Merritt Channel in association with the 12th Street Reconstruction Project, 10th Street Bridge Project, and Lake Merritt Channel Improvement Project at the 7th Street Flood Control Station.
Applicant:	City of Oakland
Contact Person/Phone Number:	Lesley Estes, City of Oakland Public Works, (510) 238-7431
Owners:	City of Oakland
Case File Numbers:	**ER050015**
Planning Permits Required:	Administrative Planning Permits will be processed and noticed separately.
General Plan:	Park and Urban Open Space, Central Business District, Institutional, Urban Residential
Zoning:	OS (LP), OS (LP)/S-4, OS (RCA)/S-4, S-2/S-4/S-17, S-2/S-4, R-80/S-4
Environmental Determination:	A Draft Environmental Impact Report (EIR) was published for a 45-day review period (April 14, 2006 to June 2, 2006).
Historic Status:	None; There are historic buildings located within the immediate vicinity.
Service Delivery District:	1, 3
City Council District:	2
Action to be Taken:	Public hearing to obtain comments concerning the Draft EIR and proposed project; no decision will be made on the project at this hearing.
For further information:	Contact **Markley Bavinger**, Watershed Improvement Specialist, Environmental Services Division, at **(510) 238-6266** or by e-mail at **mbavinger@oaklandnet.com.**

7.

Location:	**Terminus of Tidewater Avenue (APN 034 -2300-013-04; -010-04) (3/22/06)**
Proposal:	The project consists of construction of two new boathouse structures, a new dock, and associated parking and landscaping.
Applicant:	Siegel and Strain Architects
Contact Person/Phone Number:	Nancy Malone of Siegel and Strain Architects (510)547-2604
Owner:	East Bay Regional Park District
Case File Number:	**CM06-134/CP06-0078**
Planning Permits Required:	Major Conditional Use Permit for an extensive impact civic facility located on a property greater than 1 acre in size and a Creek Protection Permit for construction of boat dock facilities in the estuary.
Estuary Plan:	Parks
Zoning:	M-40 heavy Industrial Zone
Environmental Determination:	Exempt, Section 15332 of the State CEQA Guidelines; infill development.
Historic Status:	No historic rating, vacant land
Service Delivery District:	5
City Council District:	5
Status:	Pending
Action to be Taken:	Contained in staff report
Finality of Decision:	*Appealable to City Council*
For Further Information:	Contact **Robert D. Merkamp** at **(510) 238-6283** or by email: **rmerkamp@oaklandnet.com**

June 2, 2006

2006 JUN -2 PM 3:41

City of Oakland
Public Works Agency
Atten. Markley Baviniger
250 Frank Ogawa Plaza, Suite 5301
Oakland, CA 94612

Re: DEIR, Lake Merritt Channel Wetlands and Widening Project

This is to be considered an objection to the above report in its entirety. My objections are are based on the following but not limited thereto. Overall the report is sorely inadequate. It is grossly lacking in all areas and has no basis in fact. It is no more than a blanket proclamation that there will be no adverse environmental impacts produced by the project.

First of all the project is not clearly defined. As the report states, the improvements differ from what was original proposed and analyzed in the 202 Measure DD Addendum. Additionally, there are no plans or drawings of what the project entails (aside from an artists concept) and the entire project is estimated to be 30% or more over budged which will inevitably lead to additional major changes or portions of the work being totally abandoned. It is not possible to gauge what environmental impact a project may have without having a clearer picture of what the project entails. 4.1

The report is onerous is several aspects and degrees:

1) It is deemed to be a focused report limited generally to the channel but in consideration of other material but the other material or findings are not a part of this report.

Understanding the function of the channel and its direct relationship to Lake Merritt ant the surrounding areas, creeks, watershed, etc., it is not conceivable a report can be limited or not inclusive of all that is or will be directly effected by the proposed alterations or work in the channel. In short, the control of flow in the channel (gravitational or pumped) will, without question, have an impact on the Lake. 4.2

2) On this same note, the channel flow and lake flushing is controlled by several factors, not the least of which is tidal action. Gravity, lake head pressure (elevation), channel slope, resistance, channel depth, sub surface restrictions (BART and other) creating weirs, the 7th street pump station, and many others, all have a direct effect on the anticipated flushing action of the Lake and the assumed recreational use of the Lake and Channel. 4.3

None of the above has been adequately addressed in the EIR. For starters, PWA, of which Circle Point relies (section 4.4) for its report, has made major miscalculations in their material (Wet Weather MIKE11 Model, but not limited thereto). Subsequently, everything that relies on their analysis is necessarily flawed -

garbage in, garbage out. 4.3 Con't.

Additionally, the controlling agencies, primarily the Port of Oakland and the City of Oakland, are not on the same page regarding "elevations", which are assumed to have the greatest effect on the channel and lake rate of flow or flushing. There is better than a 6 foot differential between the City's datum and the Ports datum (see attached (3) sheets) Surprisingly, sea level isn't sea level and zero isn't zero.

In other words, and more importantly, how deep is the lake. how deep is the estuary and how deep is the channel?. 4.4

With a less restrictive channel will the lake go bottoms up at low tide and result in smelly mud flats as it did in the mid 1800's before Dr. Samuel Merritt damned it. Least we forget Lake Merritt is not a natural pristine fresh water lake - that is why Merritt damned it, to convert it from an unattractive unusable tidal slough. In opening up the channel will this occur or to what degree will it occur, none of which is addressed by the DEIR.

3) The report fails to reflect any conditions below Hy 880 (there are numerous impediments) which absolutely will have an effect on all of the work anticipated up stream as well as the effect the work will have on the estuary itself. 4.5

4) The report fails to address any of the perceived issues (there are many) with The Alameda County Flood Control District which owns and operates the 7th Street flood/pump station. 4.6

5) The report fails to address any of the flood issues resulting from the proposed alterations of the flood control station.

6) The report fails to address any of the issues resulting from the creation of an open navigable water way or control there of - coast guard, homeland security or whomever. 4.7

7) The report fails to address maintenance and operation of any of the facilities or improvements anticipated. The operation of the flood control facility is an absolute must and inadequate operation will most certainly result in a disastrous environmental impact. Yet the City proposes to reconstruct what it doesn't even own or control, operation. 4.8

8) Likewise with any of the proposed park facilities, the lack of maintenance (none planned or anticipated) will, without question have a detrimental effect on the environment - this issue is not addressed in the report. 4.9

9) The planned and anticipated high-rise condos on the east bank of the channel, the 10k plot created with the realignment of 12 St., and future development of the Peralta College parcels, all having a direct impact (acute shadows, traffic, decreased open space etc.) on this project but are not addressed in the report. 4.10

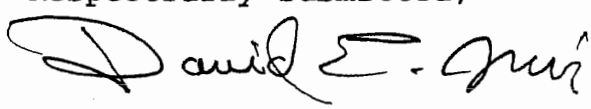
10) The tree issue is is not adequately addressed by the report, simply put, the tree removal is prompted by a not needed or wanted nor voted for project, the tidal basin and the parking lot. both of which can be worked around as required by the tree ordinance or simply done without. The tidal basin, according to park officials, will be a disaster if not maintained which they do not presently have the budget to do nor do they ever expect to (See the present Channel Park, Laney College Lake and tidal basin for a prime example of lack of maintenance) 4.11

11) Lastly, the report fails to address the trasffic issues created with the narrowing of Lakeshore, the closing of the south end of Lakeshore to create, not more park space, but a parking lot and it fails to address 12th street or any of the other problematic, self created (City) traffic problems (removal of various pork chops, etc.)

The traffic reports provided for the projects in question are a lot of guess work, inaccurate, not verified, based on old and out-dated material, But foremost, they are not based on mechanical or electronic counts. The DEIR fails to address any of the traffic issues or negative impacts of increased traffic conjestion or of overflows of traffic to alternate streets especially around the college and the Chinatown areas nor does it address the anticipated increases due to present and future development of the Laney campus and studentbody. It even fails to address the presently planned Oak to 9th Housing project and its anticipated increased traffic flows in the general area, not to mention what tampering with the channel flows might do to an all ready flood prone area at 5th and the Embarcadero.. 4.12

The above is not to be considered as all of the complaints or comments that may be raised and the right to expound on any of the above or additional issues not yet brought to light or made aware of are requested to be reserved for future comment and considera-tion.

Respectfully submitted,



David E. Mix

1133 Glencourt Drive
Oakland, CA 94611

Ph 339 1519

Attachments (3)

Port *of* Oakland

Geomatics Group

QUALITY ASSURANCE

Bulletin No. 7

From the office of the PORT LAND SURVEYOR

September, 2001
Clarification

Information Management- Control Systems

Port of Oakland
Vertical Control Datum

Definition: Port of Oakland Datum is 3.20 feet below N.G.V.D. '29

N.G.V.D.'29 is the abbreviation for the National Geodetic Vertical Datum of 1929, which is also known as the Sea Level Datum of 1929.

Since the Sea Level Datum of 1929 represents the mean of all of the individual tide stations up and down both coasts that were then projected across the continental United States as of 1929, many people still incorrectly refer to this datum as Mean Sea Level, although it was certainly true through the 1930's and 40's.

Today, on the other hand, Mean Sea Level is actually a site-specific datum that differs in actual elevation from one location to another. This is also true in San Francisco Bay. It takes 18.6 years for the Earth-Moon system to come back to the same mode, or start point in the solar orbit, from an orbital mechanics standpoint. This is known as the Metonic Cycle. This time cycle generates the total length of time, or duration, over which a tide gage has to be read at regular intervals in order to establish a particular tidal datum in any one location. Every 19 years (or there abouts), the National Geodetic Survey (N.G.S.) re-adjusts and re-publishes tidal data for all of the recording tide gage stations that are maintained by the National Ocean Survey (N.O.S.).

These adjustments have occurred three times since 1929. Each individual tide gage station has a specific published tidal datum relative to N.G.V.D.'29. Although N.G.V.D.'29 remains constant, the datum has not been readjusted since 1929. So Mean Sea Level has been steadily rising since 1929 and now MLLW is up to 0.42 feet higher than Port of Oakland Datum, which was Mean Lower Low Water back in 1929, but not anymore. Nor is N.G.V.D.'29 correctly referred to as Mean Sea Level either. Not just a question of poor practice, the reference is actually a blunder.

We think that N.G.S. will publish new adjustments soon, but they have already abandoned the N.G.V.D.'29 Datum in favor of the North American Vertical Datum of 1988 (N.A.V.D.'88). We are working on a conversion, but we will not be ready to present any credible evidence to the organization this year. There is a sense of urgency, but not a real dramatic one. Senior Engineering Management will make the decision to adopt the new datum or keep the old one. We expect that process to play out in 2002, which is when we expect to present our conversion data.

If Senior Engineering Management elects to adopt the new datum, we will then define Port of Oakland datum in terms of N.A.V.D.'88, instead of N.G.V.D.'29. If or when that happens, we will publish a new Bulletin.

Additional References:

Biennial Vertical Control Report, Harbor Areas *1998*

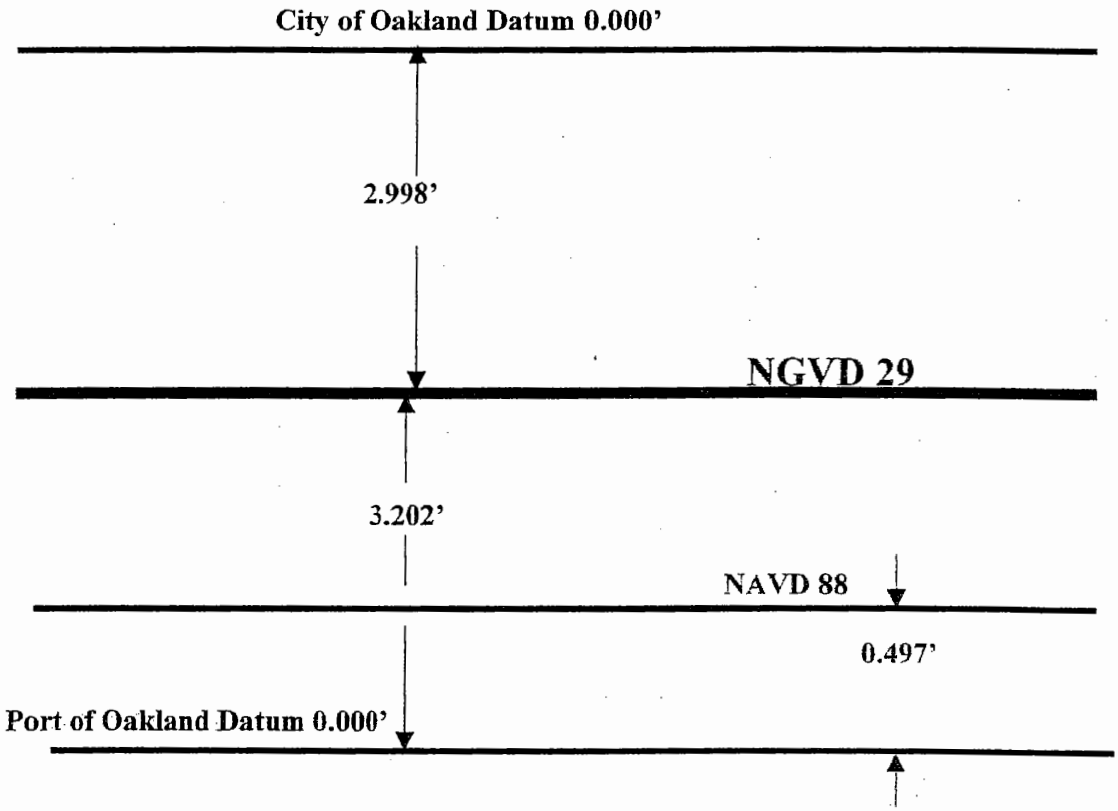
Related Bulletins:

Bulletin No. 6

For general questions regarding Vertical Control issues, contact Daniel Walker at 627-1613.

VERTICAL DATUM DIAGRAM[1]

Local Agency sponsored datum of the City of Oakland and the Port of Oakland To the old NGVD'29 and to the modern NAVD'88



[1] Units are in U.S. Survey Feet

06-02-06

2006 JUN -2 PM 3:39

I Apose The
LAke Merritt
Environmental
Impact
Report in its
Entirity.

I am especially
concerned about
The Flooding of
The oAkland Flood
Plane. Also with
The Preservation of
The oldest designated
wildLife sanctuary
in North America.

5.5

5.6

John Wilson
438 Lester
oAkland CA
94606

John

LETTER 6

STEEFEL, LEVITT & WEISS
A Professional Corporation

Author's Direct Dial: (415) 403-3316
E-Mail: lcarvalho@steefel.com

June 2, 2006

19869.1

VIA EMAIL, FACSIMILE AND U.S. MAIL

City of Oakland
Public Works Agency
Attn: Ms. Markley Bavinger
250 Frank Ogawa Plaza, Suite 5301
Oakland, CA 94612

Re: Lake Merritt Channel Wetlands and Widening Project
Union Pacific Railroad Company's Comments on Draft EIR

Dear Ms. Bavinger:

We represent Union Pacific Railroad Company ("UP"). Last month, UP became aware of the City of Oakland's Lake Merritt Channel Wetlands and Widening Project ("LMC Project") by copy of a letter sent to UP by Kevin Schumacher at the California Public Utilities Commission, by which the PUC had provided comments to the City in response to the draft Environmental Impact Report generated for the LMC Project in April 2006. By this letter, UP presents its own comments on the draft EIR.

As a preliminary matter, of great concern to UP is the fact that UP was not identified by the City as a party interested in, or affected by, the LMC Project. The LMC Project's southern boundary lies immediately north of I-880 and of two of UP's bridges over Lake Merritt Channel. While the physical boundaries of the LMC Project do not literally encompass UP's railroad right-of-way or bridge structures, the physical proximity of the LMC Project thereto, combined with the draft EIR's identification of recreational, pedestrian, bicycle and motor traffic project objectives, together drive the conclusion that UP should be considered a party to which notice should be given regarding the LMC Project, and from which comments should be sought in connection therewith. Going forward, we urge the City to consider UP an interested party, and to consult it on a prospective basis, both specifically with respect to the LMC Project, and also as to any project that may have any tendency to bring pedestrians, bicycles and/or vehicles to the vicinity of the right-of-way, and/or that may have an impact on UP's bridges and structures. 6.1

With specific reference to the matters set forth in the draft EIR for the LMC Project, UP hereby brings to the City's attention safety issues and concerns that must be taken into account in preparing the final EIR and proceeding with work on the project.

We note that five of the six Project Objectives stated in Section 3.3 of the draft EIR implicate increased recreational, pedestrian, bicycle and/or vehicular traffic in the Lake Merritt Channel area:

Section 3.3 -- Project Objectives

The objectives of the Project include:

- Enhance the connection between Lake Merritt, the Lake Merritt Channel, and the Oakland Estuary; and
- Improve water quality and habitat for fish and wildlife.
- Connect the isolated southern shoreline of Lake Merritt with surrounding cultural, civic and urban districts; 6.2
- Improve traffic circulation and street design;
- Improve bicycle and pedestrian safety and circulation; and
- Create a recreational park and open space.

These Project Objectives make clear that the City hopes that the LMC Project will make the Lake Merritt Channel more useful and attractive for pedestrians, bicyclists and other recreational users. If successful, the LMC Project presumably will result in increased use of the area by such users. A natural consequence of this increased use will be an increase in pedestrian, bicycle, and other traffic in the area immediately to the north of UP's bridge structures and right-of-way. Particularly combined with the ongoing development of the area to the south of UP's right-of-way near the Oakland Estuary, this increased traffic will bring with it the risk that pedestrians, bicyclists and other recreational users of the area will attempt to move from north to south across UP's right-of-way, creating the potential for collisions between trains and pedestrians, bicyclists and others. UP urges the City to take into consideration as part of the LMC Project the issue of safety around the tracks, to undertake a study of the likely impact of the LMC Project on improper use and/or crossings of the right-of-way, and to determine appropriate safety measures to be included as part of the project.

In this regard, UP wishes to make clear that under no circumstances will UP consent to any traffic management approach, or any other aspect of a project plan, that involves the installation of an at-grade crossing over the right-of-way. We understand from 6.3

Mr. Schumacher at the PUC that Jose Martinez (CIP Coordinator, Public Works Agency), who is in charge of the transportation improvement project in the area, has been notified of UP's interests and concerns regarding the LMC Project, and has noted the City's consideration of a grade-separated pedestrian crossing over UP's right-of-way at the Lake Merritt Channel. UP welcomes such approaches to move pedestrians and recreational traffic away from its right-of-way, and will be happy to receive notice and inquiry from the City as this concept develops. In the interim, at a minimum, UP urges the City to include provisions in the development plans for the LMC Project for comprehensive fencing of the right-of-way, as well as warning signage. This would be in addition to, and not a substitute for, the study requested above regarding the likely impact of the LMC Project on improper use and/or crossings of the right-of-way, and a determination of the appropriate safety measures to be included as part of the project. 6.3 Con't.

Finally, to the extent that any change in the water flow through Lake Merritt Channel may impact UP's right-of-way near, and bridge crossing structures over, the Lake Merritt Channel, it is imperative that the potential for such changes, and their effects on the waterway south of the LMC Project, be studied and considered as part of the LMC Project. UP's approval should be sought for any water flow change that will impact UP's right-of-way and bridge structures. 6.4

Please give notice to UP of all future developments with respect to the LMC Project and transportation improvements in the vicinity as follows:

Mr. Patrick A. Kerr
Manager of Industry and Public Projects
Union Pacific Railroad Company
10031 Foothills Boulevard
Roseville, California 95747-7101

With a Copy to:

Lisa M. Carvalho, Esq.
Steefel, Levitt & Weiss
One Embarcadero Center, 30th Floor
San Francisco, California 94111

STEEFEL, LEVITT & WEISS

UP appreciates the City's consideration of the above concerns. Please do not hesitate to contact our office if you have any questions or comments.

Sincerely,

Lisa M. Carvalho

cc: Mr. Patrick Kerr (via email)
Union Pacific Railroad Company
Mr. Kevin Schumacher (via email)
CA Public Utilities Commission
Mr. Jose Martinez (via email)
CIP Coordinator, Public Works Agency

19869:6511141.1

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5505
FAX (510) 286-5513
TTY (800) 735-2929

Flex your power!
Be energy efficient!

June 1, 2006

ALA880656
SCH#2005102080

Ms. Claudia Cappio
City of Oakland
250 Frank H. Ogawa Plaza, Second Floor
Oakland, CA 94612

Dear Ms. Cappio:

Lake Merritt Channel Wetlands and Widening Project – Draft Environmental Impact Report

Thank you for including the California Department of Transportation (Department) in the environmental review process for the Lake Merritt Channel Wetlands and Widening Project. The following comment is based on the Draft Environmental Impact Report. Further comments will be provided during the encroachment permit process.

The U.S. Army Corps of Engineers will be issuing a Section 404 permit for this project, therefore, it is subject to compliance with the National Historic Preservation Act. There is a known prehistoric site that may be within or adjacent to State right-of-way (ROW). Prior to any construction activities within State ROW, the Department's District 4 Office of Cultural Resources will need a copy of the Section 106 cultural resource compliance studies and documentation prior to the issuance of an encroachment permit. 7.1

Encroachment Permit
Work that encroaches onto the State ROW requires an encroachment permit that is issued by the Department. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans clearly indicating State ROW must be submitted to the address below. Traffic-related mitigation measures should be incorporated into the construction plans during the encroachment permit process. See the website link below for more information. http://www.dot.ca.gov/hq/traffops/developserv/permits/

Office of Permits
California DOT, District 4
P.O. Box 23660
Oakland, CA 94623-0660

"Caltrans improves mobility across California"

Should you require further information or have any questions regarding this letter, please call Lisa Carboni of my staff at (510) 622-5491.

Sincerely,

TIMOTHY C. SABLE
District Branch Chief
IGR/CEQA

c: State Clearinghouse

LETTER 8

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Sean Walsh
Director

June 2, 2006

Markley Bavinger
City of Oakland
250 Frank H. Ogawa Plaza
Oakland, CA 94612

Subject: Lake Merritt Channel Improvement Project
SCH#: 2005102080

Dear Markley Bavinger:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on June 1, 2006, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# 2005102080
Project Title Lake Merritt Channel Improvement Project
Lead Agency Oakland, City of

Type EIR Draft EIR

Description The project includes the removal of culverts and widening of the Lake Merritt Channel to improve tidal flow and flushing, creation of a tidal marsh along the edges of Lake Merritt channel and the introduction of native plant species to restore native habitats along the channel and adjoining areas.

Lead Agency Contact

Name Markley Bavinger
Agency City of Oakland
Phone (510) 238-6266 **Fax**
email
Address 250 Frank H. Ogawa Plaza
City Oakland **State** CA **Zip** 94612

Project Location

County Alameda
City
Region
Cross Streets Lake Merritt Channel from 7th Street - Lake Merritt Shore
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways I-880, I-580, I-980
Airports
Railways BART
Waterways Lake Merritt, Oakland Inner Harbor, San Francisco Bay
Schools Laney College
Land Use Urban Open Space and Estuary Plan Area Open Space / City and Neighborhood Park, Special Industrial and General Industrial / Mixed use

Project Issues Cumulative Effects; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Growth Inducing; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife

Reviewing Agencies Resources Agency; Regional Water Quality Control Board, Region 2; Department of Parks and Recreation; Native American Heritage Commission; Public Utilities Commission; Reclamation Board; Department of Fish and Game, Region 3; Department of Water Resources; California Highway Patrol; Caltrans, District 4; State Lands Commission; San Francisco Bay Conservation and Development Commission

Date Received 04/18/2006 **Start of Review** 04/18/2006 **End of Review** 06/01/2006

Note: Blanks in data fields result from insufficient information provided by lead agency.

2.3 RESPONSES

Letter 1 – Kevin Boles, California Public Utilities Commission

1.1 The project area extends from Lake Merritt at the northern end to I-880 at the southern end, and does not include any existing rail lines.

Currently, there are no developed plans to extend the pedestrian pathways to the estuary. While the overall goals and objectives of the City's General Plan include better connections between Lake Merritt and the estuary, as envisioned in the Estuary Plan Element and the Open Space and Conservation Element, no improvements are being considered at this time.

The design of a future pathway across the UPRR property would be coordinated with Union Pacific Railway and the California Public Utility Commission to ensure that the design meets all applicable requirements, including grade separation and/or other safety improvements.

Letter 2 – William R. Kirkpatrick, East Bay Municipal Utility District

2.1 Comment noted. EBMUD is preparing to upgrade water infrastructure in the project area in coordination with the City's construction and staging for the 12th street project. By conducting this work simultaneously, the City and EBMUD can substantially reduce construction-period disruption to the local community. The City has already started coordination with EBMUD on this process.

2.2 Comment noted. The City of Oakland has confirmed that there is available wastewater capacity within Subbasin 64 that is reserved for this project and its proposed public restrooms.

2.3 The Project does not include the replacement or rehabilitation of any existing waste lines other than some adjustments to manhole covers. There are very few existing waste water lines in the project area, reducing the potential for future increases in infiltration/inflow.

2.4 Comment noted. The southern project limits end at I-880 and do not extend to the Embarcadero. The Project would not therefore affect the operation of the SAC facility.

2.5 The project has been designed to exclusively utilize non-potable water for irrigation.

2.6 Comment noted. The project incorporates regionally native drought tolerant species and the use of non-potable water for irrigation. All Lake Merritt projects

will utilize sophisticated irrigation systems that integrate smart irrigation controllers to minimize usage and consumption. These controllers can be programmed or pre-programmed to deliver water in relation to the appropriate evapo-transpiration rates. Additionally, a computerized system will shut down the irrigation if excessive flow indicates a break in the system. A water manager will be assigned to the system. Reclaimed water and the native plants are other conservation measures to note.

Letter 3 – Cayren King

3.1 The Lake Merritt Channel Improvements Project, the subject of this EIR, only involves the improvement of habitats and hydrology along the channel.

However, the traffic impacts associated with the 12th Street Project were considered in the Addendum prepared for Measure DD projects, and the conclusions were confirmed by the traffic study prepared by TJKM to ensure that the stated levels of service could still be maintained based on current and projected future conditions. The Measure DD Addendum included the following text related to construction period impacts:

> "Project C.1 will change the nature of 12th Street in the vicinity of Lake Merritt from a through street to a major arterial with four new intersections. This change will increase pedestrian safety by offering more controlled crossings to Lake Merritt." "These changes have been schematically and programmatically reviewed using traffic counts and projections based on actual traffic patterns and growth projections from the City's General Plan and ABAG. None of the existing or anticipated traffic demand will be detrimentally impacted by these changes. As also noted in the project descriptions, these projects encompass the preparation of a detailed engineering study with elements such as detours, construction staging and management, transit accommodations, demolition plan, and other requirements in compliance with the City's standards, conditions and policies, thereby minimizing temporary impacts during construction."

Construction period impacts were therefore considered and were used to design the proposed construction staging plan, such that a sufficient number of travel lanes would remain open throughout the construction period to maintain acceptable levels of service.

The Project description in the Draft EIR notes that construction would take place between July 2006 and February 2008, coinciding with the construction period for the 12th Street project. Due to a delay in the release of construction bid documents and selection of a contractor, the construction period will also be delayed, with the anticipated end date occurring during the winter of 2008/2009.

3.2 The marsh terrace being created on the west side of the channel will be vegetated with natural wetland plants. It is designed as a self-sustaining wetland and will not require landscape maintenance. The project, including marsh areas, was reviewed by City landscape maintenance staff. A two-year plant establishment period is also written into the contract documents to ensure that the habitat is established as planned. The contractor will be responsible for maintenance and replanting as required, during this two-year period.

3.3 The marsh terrace adjacent to the channel is designed to be innundated periodically during the normal tide cycle. Tidal innundation will be limited to the marsh areas and will not impact surrounding land or Laney College.

The selected construction contractor will have liability insurance to cover claims occurring during the construction period. Once the City issues final clearance after construction is complete, the City would then be held liable for any future damages for which it is responsible. The City has reviewed all construction planning documents throughout the design of the project and concurs that the project will not result in flooding to adjacent properties.

3.4 The marsh terrace will not contain "pools of water." It is designed with a gentle slope toward the channel so that the water that covers the marsh during high tide will run off into the channel when the tide goes out.

3.5 As discussed in the Draft EIR on pages 4.3-1 and 4.3-2 Baseline Environmental Consulting conducted a Phase I environmental site assessment (ESA) to determine whether historic uses in the vicinity of the project site warranted further investigation. Based on the Phase I ESA, Baseline recommended that soil samples be taken in certain areas to determine whether existing concentrations of pollutants would require excavation and offsite disposal. This is known as a Phase II assessment. As stated on Page 4.3-2:

> "*None of the samples taken in the channel Project area contained elevated concentrations of lead or other contaminants and no further testing in this area is required.* Further soil testing adjacent to roadways is currently underway to determine whether the soils can be reused during construction or must be disposed of offsite." *[emphasis added]*

Since no further sampling was required in the project area, the Draft EIR did not report the results of the additional sampling conducted outside the project area along 12th Street and Lakeshore Avenue. The additional sampling conducted for the 12th Street Project was completed and a report submitted to the city in February 2006. Based on the results of the report, the City concluded that no off site disposal of soil would be necessary.

Letter 4 – David Mix

4.1 The project is adequately described in Chapter 3,0 Project Description, and involves creation of a tidal marsh along the western shoreline of the channel and additional plantings along the length of the channel to provide more suitable regionally native habitat and improve the hydrology along the channel.

4.2 The hydraulic analysis used to evaluate project impacts takes into account many factors that affect channel hydraulics, including but not limited to Lake levels, stormwater inputs, hydraulic structures (including the 7th St pump station), and Bay tides. Project impacts on both the lake and the channel were evaluated. The project will result in an expanded tide range in the lake, which is expected to improve Lake water quality. A summary of the hydraulic analysis is provided in Appendix A.

4.3 The hydraulic analysis used to evaluate project impacts takes into account many factors that affect channel hydraulics, including but not limited to Lake levels, stormwater inputs, hydraulic structures (including the 7th St pump station), and Bay tides. The analysis was performed using accepted analytical methods and internal peer review procedures. A summary of the hydraulic analysis is provided in Appendix A.

4.4 Regarding the identification of elevations, the City and port use different "datums" but the range of elevation analyzed using each datum remains consistent. A vertical datum is a reference point from which vertical elevations are measured. There are many different vertical datums in use and it is common practice to convert elevation data among vertical datums depending on the source and use of the data. NGVD (National Geodetic Vertical Datum) was established by the USGS in 1929 to be the standard national datum. It represented mean sea level at that time. More recently, the USGS has begun replacing NGVD with NAVD 88, and it now represents the standard national datum used on USGS topo maps and most state, county and local standards. Both the Port of Oakland and the City of Oakland have each established their own datums and each requires a different conversion to allow for comparison of elevations with other datums. The 12th Street project team has used the City of Oakland's fixed vertical datum for all project design and analysis work (per City standard), converting elevations from other datums as required so that all project elevations are reported relative to the same vertical datum. Further discussion of the datum issue is provided in Appendix B.

4.5 The hydraulic analysis used to evaluate project impacts takes into account many factors that affect channel hydraulics, including but not limited to channel

conditions along the entire length of the channel between Lake Merritt and the Oakland estuary. A summary of the hydraulic analysis is provided in Appendix A.

4.6 Alameda County Flood Control District (ACFCD) staff reviewed the hydraulic analyses used in the EIR and received a copy of the EIR for review and comment. In addition, ACFCD staff has had an ongoing role in project planning and review, and will continue to have a role particularly for the 7th Street Project.

4.7 The bypass channel for the 7th Street pump station has not yet been designed and is therefore not covered under this analysis. The Lake Merritt Channel Improvements project includes enhancements to habitat along the channel shoreline. The potential impacts of a bypass channel will be studied under CEQA once the design and construction limits of such a structure are known.

The design of any future bypass channel will contain a flood gate so that flood protection will not be reduced below current levels. The increase in flow capacity between the Lake and 7th Street will allow the flood control station operators to more quickly lower the Lake level preceding storms, and to release water out of the Lake faster during storms, resulting in improved flood protection.

4.8 The 7th Street pump station will not be reconstructed under this project. The Lake Merritt Channel Improvements project includes enhancements to habitat along the channel shoreline. The planned improvements to the 7th Street pump station have not yet been designed, and will be evaluated under CEQA once the plans have been completed. Alameda County Flood Control District will be directly involved in the review of any proposed reconstruction and plans for operation and maintenance of this facility.

4.9 The marsh terrace being created on the west side of the channel will be vegetated with natural wetland plants. It is designed as a self-sustaining wetland and will not require landscape maintenance. The project, including marsh areas, was reviewed by City landscape maintenance staff. A two-year plant establishment period is also written into the contract documents to ensure that the habitat is established as planned. The contractor will be responsible for maintenance and replanting as required, during this two-year period.

4.10 Applications for the projects highlighted by the commenter have not yet been submitted and are therefore speculative in terms of their design, height, and massing. Furthermore, the Lake Merritt Channel Improvements project would not have a detrimental effect on these future projects. On the contrary, the project would provide benefits through the provision of enhanced open space, parks, pathways, and natural habitat for the enjoyment of all citizens.

The effect of these future projects upon the channel area will be evaluated as the commenter notes through an analysis of shadow effects, and any potential impacts would be disclosed and mitigation measures or design changes would be incorporated where required.

4.11 The planned removal of trees to create the tidal marsh is discussed in Section 4.1 of the Draft EIR. As discussed, much of the existing landscaping has a very low habitat value and does not provide appropriate foraging habitat for riparian species. The project includes replacement planting with regionally appropriate species that would provide a higher habitat value.

The marsh terrace being created on the west side of the channel will be vegetated with natural wetland plants. It is designed as a self-sustaining wetland and will not require landscape maintenance. The project, including marsh areas, was reviewed by City landscape maintenance staff. A two-year plant establishment period is also written into the contract documents to ensure that the habitat is established as planned. The contractor will be responsible for maintenance and replanting as required, during this two-year period.

4.12 The project involves the enhancement of habitat along the Lake Merritt Channel; the proposed improvements to 12th Street were covered by the CEQA Addendum prepared for all Measure DD projects in 2002.

The traffic report prepared for the 12th Street Project is titled "Traffic Modeling Methodology and Operation Study for the 12th Street Improvement Project" by TJKM, dated February 22, 2005. The Study Area for detailed analysis consisted of 57 intersections (four are only future intersections, with the remaining as 53 existing intersections). All of these intersections were incorporated into the forecasting model, and 22 intersections were analyzed with detailed traffic operations techniques including the interaction of signals using micro-simulation models.

Counts made with mechanical counters, and manual turn counts were made at study intersections with electronic count boards. In many cases, because of the extensive and ongoing traffic study work in the vicinity, count data were already available for 2003 or 2004 conditions. Where gaps in the count data were found, TJKM made manual turn counts in mid-2004 to complete the existing volume data as the basis for calibrating the forecasting model to current year conditions.

Once all the traffic volume data were compiled, it was entered into the Alameda County Congestion Management Agency (ACCMA) countywide traffic-forecasting model. Because traffic volumes naturally vary from day to day, specialized

techniques were completed to "balance" the counts, so that volumes sent and received between two adjacent intersections were consistent.

The land use data for the forecasts is based upon the official land use information in the ACCMA model for 2004, 2010 and 2025, excepting four traffic analysis zones. These zones were added to the ACCMA model to account for specific planned changed in land use intensity in downtown Oakland near the project, including Laney College. The ACCMA model does show increases in land use intensity from 2004 through 2010 and 2025.

Because both the traffic volume and land use data were current as of October 2004, we cannot agree that the analysis is based upon inaccurate and outdated material. The analysis is explicitly based upon 2003 and 2004 mechanical and manual counts at all 53 study intersections. Segment volumes between intersections were derived by adding approach and departure volumes on each approach to an intersection. TJKM then added extensive detail to the ACCMA model, and completed a model calibration that resulted in very close estimates of actual volumes from the model, including turning volumes. All modeling steps are consistent with best practices and the latest forecasting techniques used throughout the nation. This is not guesswork, but rather, a detailed, objective and analytical approach to estimating traffic conditions.

Once existing conditions were accurately estimated at the study intersections and on segments between intersections in the model, TJKM then was able to estimate future traffic demands with no changes in the current street network (i.e., without any 12th Street Reconstruction Project).

The statement that the studies did not address likely overflows of traffic to other routes is without basis. One of the main reasons models are used for the analysis of alternative traffic improvements is precisely to estimate likely shifts in traffic due to changes in the capacity and routes from existing conditions. The traffic report includes figures showing changes in volumes due to alternative plans (see page 32, Figures 17 and 18, for example).

The traffic engineering staff of the City of Oakland and traffic consultants for AC Transit extensively reviewed and commented on all aspects of the traffic study.

Letter 5– John Wilson

5.1 The project was evaluated for potential impacts on water levels in both Lake Merritt and the Lake Merritt channel. The results of the modeling conducted for the design of the Lake Merritt Channel Improvements project confirm that the project will not increase flood risk in either the lake or the channel.

5.2 The wildlife sanctuary located within Lake Merritt will not be impacted by the project. The project will increase the tide range in Lake Merritt, which will improve water quality and enhance habitat value.

Letter 6– Lisa Carvalho, Steefel, Levitt & Weiss

6.1 Comment noted. The City will keep Union Pacific apprised of future planning in the channel area and environmental review of future projects.

6.2 The Lake Merritt Channel Improvements Project does not include any extension of the existing pathways across UPRR right-of-way. However, the City does support through its goals and policies the improvement of connections between the Lake and the estuary, including the extension of pedestrian trails under I-880 and across UPRR right-of-way. The City agrees that a grade separation would be necessary, and that the design and construction of such a facility would be coordinated with Union Pacific Railroad and the California Public Utility Commission to ensure that a grade separation meets all applicable requirements.

6.3 The results of the modeling conducted for the design of the Lake Merritt Channel Improvements project show no difference in peak water surface elevation at the UPRR bridge with the implementation of the project. Water levels at the UPRR bridge are controlled primarily by the tide level in the Bay, which will not be affected by the project.

The project will increase the amount of tidal exchange between the lake and the estuary during normal tide cycles. The increased tidal flow could lead to localized changes in sedimentation and scour patterns throughout the channel but are not expected to cause significant sedimentation or scour in any one location.

Letter 7– Timothy C. Sable, California Department of Transportation

7.1 Comment noted. The City's plans for construction of habitat improvements as part of the 10th Street and 7th Street projects do not extend into the State right-of-way; all planned construction will occur to the north of Caltrans right-of-way.

William Self Associates conducted a *Records and Literature Search of Cultural Resources* for the 12th, 10th, and 7th Street projects via the California Historical Resources Information System (WSA 2004). The search encompassed all of the lands along the Channel from Lake Merritt to I-880, and did not identify any known resources.

If encroachment into the Caltrans right-of-way becomes necessary, either through the currently planned habitat enhancements, or through future extension of pedestrian pathways to the estuary, the City will submit required applications to Caltrans and will comply with all applicable encroachment permit requirements.

Letter 8– California State Clearinghouse

This is a cover letter transmitting the letter from the California Department of Transportation. This letter does not contain any comments on the DEIR.

3.0 Response to Verbal Comments

3.1 LIST OF PEOPLE SUBMITTING VERBAL COMMENTS

- Commissioner Michael Lighty
- John Wilson
- David Mix

3.2 INDIVIDUAL VERBAL COMMENTS AND RESPONSES

Commissioner Michael Lighty

Commissioner Lighty stated that he and others on the Planning Commission received an email from Ms. Nancy Reiser [spelling unclear]. Ms. Reiser's email was not received by Markley Bavinger, the City of Oakland contact listed in the DEIR; nor was it received by Lesley Estes, the presenter of the DEIR at the May 17th Planning Commission meeting, nor Circle Point, the consultant that generated the DEIR. This response is based solely on the references to the email provided by Commissioner Lighty.

According to Mr. Lighty, Ms. Reiser is concerned about potential impacts on existing gas mains, the BART tunnel, and general navigation of the estuary. Commission Lighty also mentioned that Ms. Reiser questioned what the Coast Guard's responsibility will be once the Project is completed, and noted that none of these issues are addressed in the DEIR.

Response to Commissioner Michael Lighty

The gas mains are located in the estuary itself, outside of the Project area, and therefore this issue is not mentioned in the DEIR.

The BART tunnel passes under the channel between 7th Street and 10th Street. BART has been consulted regarding the project and a BART permit will be obtained for construction activities in the vicinity of the tunnel. However the project does not include any grading or construction that would directly impact the BART tunnel. The tunnel is designed in such a way that potential localized sedimentation or scour that may be associated with the

increased tidal circulation that expected as a result of the project will not impact the tunnel.

General navigation in the estuary (as opposed to the channel) would not be affected by the proposed project. The project only covers the channel widening and habitat enhancements between the Lake and 7th Street and the tidal marsh area at 12th Street. The removal of culverts at 12th Street and 10th Street and channel widening would allow small craft from Lake Merritt—such as gondolas, canoes, and kayaks—to have access between the Lake and 7th Street. The existing pump station at 7th Street would remain, and the presence of the pump station would prevent any increase in navigability from the estuary.

The proposed bypass channel at the 7th Street crossing has not yet been designed, although the intention is that small, non-motorized craft would eventually be able to navigate from the Lake to the estuary. Kayakers and other small craft currently utilize the estuary and would be able to expand their access if a bypass channel is constructed as planned. The potential effect of this increase in small craft access will be evaluated based on the eventual design of the bypass channel and its capacity to accommodate small craft. The City does not plan to create access through the bypass channel for any motorized craft.

John Wilson

Mr. Wilson is a resident of the City of Oakland. Mr. Wilson encourages the City to consider the effects the Project might have on migratory birds. Mr. Wilson is concerned about the construction of the school property near the Project site with the potential that migratory birds could crash into new buildings. Mr. Wilson also urges the City to take into consideration the BART tunnel, the East Bay Municipal Utilities District (EBMUD) sewage trunk line and any dams that are located in close proximity to the Project, none of which are mentioned in the DEIR. Another concern raised by Mr. Wilson is the possible flooding of the City of Oakland, noting that the Project is located on a floodplain and there is the potential of compromising the 7th Street flood gates.

Response to John Wilson

The channel improvements proposed as part of this project would not have an adverse effect on migratory birds.

The analysis of potential impacts of projects on adjacent sites is outside the scope of this EIR. The effect of any future project on the School District property upon migratory birds would be evaluated as part of the CEQA analysis prepared for that project once an application has been submitted. Any potential impacts would be disclosed and mitigation measures or design changes would be incorporated where required.

The BART tunnel passes under the channel between 7th Street and 10th Street. BART has been consulted regarding the project and a BART permit will be obtained for construction activities in the vicinity of the tunnel. However the project does not include any grading or construction that would directly impact the BART tunnel. The tunnel is designed in such a way that potential localized sedimentation or scour that may be associated with the increased tidal circulation that expected as a result of the project will not impact the tunnel.

Regarding the EBMUD trunk line, the discharge lines for the San Antonio Creek (SAC) Wet Weather Facility run along the Embarcadero. The Embarcadero is well outside the boundaries of this project and the proposed activities would not therefore have any adverse effect to these lines.

Regarding the potential for flooding, the project was evaluated for potential impacts on water levels in both Lake Merritt and the Lake Merritt channel. The results of the modeling conducted for the design of the Lake Merritt Channel Improvements project confirm that the project will not increase flood risk in either the lake or the channel. The technical memo prepared by Philip Williams Associates related to this issue is included as Appendix A of this Final EIR

David Mix

David Mix is a resident of the City of Oakland. Mr. Mix stated that Cayren King had also signed up to speak and wishes to be informed if any discussions occur between the State Land Commission and the Army Corps of Engineers. Mr. Mix considers the DEIR to be inadequate in addressing the Project's effect on other items found in the vicinity, such as the BART tunnel and EBMUD sewage trunk line.

Response to David Mix

The comments made on behalf of Ms. King are noted.

The BART tunnel passes under the channel between 7th Street and 10th Street. BART has been consulted regarding the project and a BART permit will be obtained for construction activities in the vicinity of the tunnel. However the project does not include any grading or construction that would directly impact the BART tunnel. The tunnel is designed in such a way that potential localized sedimentation or scour that may be associated with the increased tidal circulation that expected as a result of the project will not impact the tunnel.

Regarding the EBMUD trunk line, the discharge lines for the San Antonio Creek (SAC) Wet Weather Facility run along the Embarcadero. The Embarcadero is well outside the

boundaries of this project and the proposed activities would not therefore have any adverse effect to these lines.

Appendix A
Summary of Hydrological Model Results Using the Mike 11 Model

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M E M O R A N D U M

DATE: January 27, 2005

TO: Bala Rajappan

COMPANY: RAJAPPAN & MEYER CONSULTING ENGINEERS

FROM: Christie Beeman

COPY TO: Jeff Haltiner, Jorgen Blomberg

RE: MIKE 11 model results

PWA Ref. #: 1726 12th Street Reconstruction Project - Oakland, California

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PWA used the MIKE11 model of the Lake Merritt channel developed by URS to evaluate the hydrology and hydraulics of Lake Merritt and the Lake Merritt channel under existing and proposed conditions. This memo describes the model and summarizes results.

URS Model

The URS model was set up for both a "dry weather" and "wet weather" scenario. The dry weather scenario represents normal tidal conditions with no storm water input to the lake. URS used four days of 6-minute tidal data, 18-24 July 2001, from the Alameda gaging station as the tidal boundary conditions for hydrodynamic modeling. Documentation from URS indicates that they selected the tidal time series because it includes the historical mean higher high (MHHW) and mean lower low (MLLW) tide levels (URS, 7/7/04); however, the time series includes tides that are higher than the historical MHHW and lower than the historical MLLW. The dry weather scenario assumes that the 7th Street pump station would not be operating. The wet weather scenario includes a 25-year storm water input hydrograph at Lake Merritt. It uses the same tidal time series as the dry weather scenario, but assumes that the pump station gates/channel would be closed during high tides and opened during low tides to allow storm water to drain out of the lake. URS selected the 25-year event as the design flood for planning and design purposes, based on guidance from the Alameda County Flood Control and Water Conservation District (Rohin Saleh, pers. comm. 2004)

URS ran the model for existing conditions ("Alternative 0") and four alternatives representing various scenarios for channel improvements between Lake Merritt and the bay. The project team determined that Alternatives 1 and 2 were the most likely to be implemented in the future, so PWA's analyses focused on those alternatives. Alternative 1 includes replacing 12th Street and10th Street culverts with a 100-foot wide rectangular channel section, removing pier obstructions at I-880, and replacing the Embarcadero bridge. Alternative 2 includes all of the changes assumed for Alternative 1, plus a bypass channel at 7th Street (URS, 7/7/04).

URS model inputs and results were reported in the NAVD 88 vertical datum.

PWA Modifications

PWA made some minor modifications to the URS model to allow it to run on the version of MIKE11 that we had in-house (documented elsewhere). In addition, PWA modified the dry weather MIKE11 model to utilize 6-minute tidal data for the entire month of July 2001, rather than only the four day time series in the original model. This time series was chosen for the PWA simulations for two reasons: 1) The data reflect the full range of tides at Alameda, in that the tidal datums for July 2001 closely resemble the most recent tidal epoch datums calculated for Alameda (1983-2001); 2) the time series includes the data that were used in all previous simulations done by PWA and URS.

The URS model assumed a 100-foot wide, rectangular cross-section at the 12th Street bridge for future scenarios (Alternatives 1-4). PWA modified the 12th Street bridge cross-section to test the hydraulic effect of various channel widths, but the final model runs assume a 100-foot wide rectangular as agreed by the project team.

PWA results are reported in the City of Oakland vertical datum (COO ft).

Model Results

In order to evaluate the water surface elevations predicted by the MIKE11 model, PWA calculated tidal datums for Alameda, Lake Merritt and the Lake Merritt channel between 12th Street and 10th Street from the model results (Table 1). Model results for Alameda from the MIKE11 simulation using July 2001 tidal data were compared to the Alameda gage tidal epoch data for model verification. Table 1 also shows tidal datums for the channel and lake under existing and future conditions, based on model results.

Table 1.Tidal Datums (COO ft)					
Simulation/Location	**MLLW (ft)**	**MLW (ft)**	**MTL (ft)**	**MHW (ft)**	**MHHW (ft)**
Tidal Epoch-Alameda	-5.9	-4.8	-2.4	0.0	0.7
Model Alameda	-6.1	-4.7	-2.4	0.0	0.8
Model Existing-Lake	-2.2	-2.1	-1.7	-1.6	-0.9
Model Existing-Channel	-3.1	-2.6	-1.7	-1.2	0.0
Model Alt1-Channel&Lake	-3.3	-2.6	-1.9	-1.6	0.0
Model Alt2-Channel&Lake	-3.3	-2.6	-1.9	-1.6	0.0

Figures 1, 2 and 3 show the results of the dry weather simulations. Figure 1 shows Lake Merritt water levels for Alternative 0 and Alternative 1 as compared to the tide levels at Alameda. Figures 2 and 3 show the modeled velocity and discharge, respectively, at 12th Street for Alternative 0 and Alternative 1. Figures 4, 5 and 6 show wet weather (design storm) model results. Figure 4 shows Lake Merritt water

levels for Alternatives 0, 1, and 2. Figures 5 and 6 show modeled channel velocity and channel discharge for Alternative 1, as compared to the dry weather results.

Table 2 summarizes some of the wet weather results illustrated in Figures 3 - 6.

Table 2. Selected Wet Weather results		
	Existing Conditions	**Alternative 1**
Peak water surface elevation (lake)	1.9 COO ft	1.3 COO ft
Peak water surface elevation (channel)	1.7 COO ft	1.3 COO ft
Peak velocity (channel)	2.7 ft/s	3.2 ft/s
Peak discharge (channel)	973 cfs	1919 cfs

References:

URS, 7/7/04. *Lake Merritt Channel Hydraulic Modeling: Draft Sections from Alternatives Analysis Memorandum*. For City of Oakland.

Appendix B
Vertical Datums/Tidal Parameters

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M E M O R A N D U M

DATE: June 6, 2005

TO: Joel Peter

COMPANY: CITY OF OAKLAND

FROM: PWA: Jorgen Blomberg, Christie Beeman, Jeff Haltiner

COPY TO: Rajappan & Meyer

RE: Oakland 12th Street - Vertical Datums/Tidal Parameters

PWA Ref. #: 1726.00

This memo provides detail on the vertical datums used in establishing elevations, topographic maps etc. for the Project area. It also discusses the key parameters of tidal water surface elevations at various locations in Lake Merritt, the channel and the Oakland estuary.

Fixed Vertical Datums

Three vertical datums have been used by various organizations to establish elevations. NGVD (National Geodetic Vertical Datum) was established by the USGS in 1929 to be the standard national datum. It represented mean sea level (approximately) at that time. More recently, the USGS has begun replacing NGVD with NAVD 88, and it now represents the standard national datum used on USGS topo maps and most state, county and local standards. The City of Oakland established its own datum many years ago that is 3 feet different from NGVD. PWA and the 12th Street project team have used the City of Oakland's fixed vertical datum for all project design and analysis work. We have used the conversions summarized in Table 1 to convert data reported using other datums to City of Oakland datum (COO ft).

Table 1. Fixed Vertical Datum Conversions in Feet

From:	City of Oakland datum	NGVD 29	NAVD 88
To City datum	0.0	-3.0	-5.7
To NGVD 29	3.0	0.0	-2.7
To NAVD 88	5.7	2.7	0.0

NGVD29 to City Datum = (-3.00 ft) (Gary Faught, City Surveyor 2004)
NAVD88 to NGVD29 at NOAA Station 9414750 (Alameda) = (-2.71 ft) (www.noaa.gov)

Tidal Datums and Parameters

Under natural conditions, Lake Merritt was a fully tidal wetland, connected to the Bay with a very wide (about 400-ft) channel. Tidal elevations in the lake and channel would have been nearly identical to those in the Bay. With the development of the City, the tidal signal at Lake Merritt and along the channel has

been significantly affected by structures, constrictions and reduced channel capacity, as compared to the tides in San Francisco Bay. Unlike the vertical survey datums discussed above (that are exactly the same anyway in the US), tidal datums are relative to the local conditions, tidal circulation etc. Therefore there is not a direct conversion between tidal datums (such as MLLW) recorded and calculated by National Oceanic and Atmospheric Administration (NOAA) in the Bay and those at Lake Merritt.

PWA used the MIKE11 hydrodynamic model developed by URS to estimate the normal tidal datums for Lake Merritt for the 12th Street project (documented elsewhere). The table below summarizes the results of the MIKE 11 model run for tidal only (dry season) conditions, which assumes 1) no stormwater input to the Lake and 2) 7th Street pumps not operating. PWA used tidal data from the NOAA gage at Alameda (Station i.d. 9414750) in the MIKE 11 model as the tidal boundary condition at the mouth of the Lake Merritt channel. Table 2 shows tidal datums for the channel and lake under existing and future conditions, based on model results.

Table 2.Tidal Datums – In City of Oakland Datum (COO ft)

COO ft	**Mean Lower Low Water**	**Mean Low Water**	**Mean Tide Level**	**Mean High Water**	**Mean Higher High Water**
Simulation/Location	**MLLW**	**MLW**	**MTL**	**MHW**	**MHHW**
Tidal Epoch-Alameda(SF Bay)	-5.9	-4.8	-2.4	0.0	0.7
Model Alameda (SF Bay)	-6.1	-4.7	-2.4	0.0	0.8
Model Existing-Lake	-2.2	-2.1	-1.7	-1.6	-0.9
Model Existing-Channel	-3.1	-2.6	-1.7	-1.2	0.0
Model Future-Channel/Lake	-3.3	-2.6	-1.9	-1.6	0.0

As shown in the table, the average tidal range in the Lake will increase from 1.3 ft at present (-2.2 ft to -0.9ft) to about 3.3 ft. (0 to -3.3ft) in the future. The future conditions refer to the channel and Lake upstream of 7th St. Below 7th St, the tidal range will be similar to that in SF Bay.

Model results for Alameda from the MIKE11 simulation were compared to the Alameda gage tidal epoch data for model verification. NOAA calculates tidal datums for each station from observations made over the National Tidal Datum Epoch (NTDE), a specific 19-year period that that accounts for all significant variations in the moon and sun that cause slowly varying changes in the range of tide. The current NTDE covers 1983-2001. NOS updates the nation's tidal datums approximately every 20-25 years to reflect changes in mean sea level (http://co-ops.nos.noaa.gov/datum_update.shtml). NOAA typically reports tidal datums relative to mean lower low water (MLLW) at each station – here they are converted to COO ft for comparison purposes.