



City of Huntington Beach Planning Department
STUDY SESSION REPORT

TO: Planning Commission
FROM: Scott Hess, AICP, Director of Planning
BY: Rami Talleh, Associate Planner
DATE: February 26, 2008

SUBJECT: CONDITIONAL USE PERMIT NO. 07-036 (HUNTINGTON BEACH WETLANDS RESTORATION)

LOCATION: 21900 Pacific Coast Highway, 92648 (North of Pacific Coast Highway between the Santa Ana River and AES Power Plant)

PROJECT REQUEST AND SPECIAL CONSIDERATIONS

Conditional Use Permit No. 07-036 represents a request to grade and dredge approximately 290,000 cubic yards (CY) of sediment in conjunction with the restoration of the Huntington Beach wetlands pursuant to Chapter 240, Zoning Approval, and Chapter 216, Coastal Conservation District, of the Huntington Beach Zoning and Subdivision Ordinance (HBZSO). The wetlands are bounded by Pacific Coast Highway to the south, AES Power Plant to the west, Huntington Beach and Talbert Channels to the north, and the Santa Ana River to the east. The proposed project will restore approximately 130 acres of the Talbert Marsh, Brookhurst Marsh, Magnolia Marsh, and Talbert Ocean Channel. The proposal also includes the maintenance dredging of Talbert Marsh and Ocean Channel a minimum two times after initial restoration. The project will also clear the Talbert Ocean Channel to its original condition and add a sediment trap within the channel, remove sand shoals, construct a sediment trap in Talbert Marsh, and introduce tidal flow to Brookhurst and Magnolia Marshes.

The dredging/excavating activities include beach sand from Talbert Ocean Channel and Talbert Marsh, mixed silt and sand from the Brookhurst and Magnolia Marshes, and a mix of sand, silt and gravel from the flood control levees. Approximately 151,000 CY of dredged/excavated materials will be placed in the near shore area with some of the mostly sandy materials placed on the State beach. Approximately 18,000 CY will be re-used on-site within the Talbert Marsh and a maximum of 121,000 CY will be disposed of at an off-site landfill.

The restoration will be implemented over a two year period with a one year break for habitat establishment, beginning in September 2008 and extending to May 2011. Restoration will only occur from September through March of each time period to avoid impacts to sensitive species. Talbert Ocean Channel, Talbert Marsh, and Brookhurst Marsh will be restored in the first year, and Magnolia Marsh will be restored in the third year. Magnolia Marsh will be delayed one year due to time constraints and to provide refuge habitat for displaced wetlands birds during the Talbert/Brookhurst restoration.

CURRENT LAND USE, HISTORY OF SITE, ZONING AND GENERAL PLAN DESIGNATIONS

| LOCATION | GENERAL PLAN | ZONING | LAND USE |
|--|--|---|---|
| Subject Property: | OS-C (Open Space – Conservation) | CC-CZ (Coastal Conservation /Coastal Zone) | Wetlands |
| North of Subject Property (across Huntington Beach Channel): | P (Public) and RL-7 (Residential Low Density – Maximum 7 units per acre) | PS (Public-Semipublic), RL (Residential Low Density), IL (Industrial Limited) | Storage tanks, single family residential, and Orange County Sanitation District Treatment Plant No. 2 |
| East of Subject Property: | Santa Ana River | Santa Ana River | Santa Ana River |
| South of Subject Property: (across PCH) | OS-S (Open Space – Shore) | OS-S (Open Space – Shoreline Subdistrict/Coastal Zone) | Pier/Beach |
| West of Subject Property: | P (Public) | PS-CZ (Public-Semipublic) | AES Power Plant |

APPLICATION PROCESS AND TIMELINES

DATE OF COMPLETE APPLICATION: **MANDATORY PROCESSING DATE(S):**

Conditional Use Permit: February 11, 2008 April 11, 2008

Conditional Use permit No. 07-036 was filed on October 1, 2007 and deemed complete February 11, 2008. The application is tentatively scheduled for the Planning Commission meeting of March 11, 2008.

CEQA ANALYSIS/REVIEW

The applicant has filed a Mitigated Negative Declaration (MND) with the County of Orange, because the project consists of work within County of Orange flood control channels. The County as the lead agency approved the MND on January 29, 2008 and adopted a Mitigation Monitoring and Reporting Program (Attachment No. 6). The Monitoring and Reporting Program contains seven mitigation measures pertaining to noise, biological resources, and cultural resources. The City as a responsible party commented on the adequacy of the MND during the public comment period. However it should be noted that the City cannot modify the County of Orange approved mitigation measures but may impose additional conditions of approval if the City determines that it is necessary to mitigate potential impacts. The approved MND was transmitted to the Planning Commission via mail on January 30, 2008 for informational purposes.

COMMENTS FROM CITY DEPARTMENTS AND OTHER PUBLIC AGENCIES

The Departments of Fire, Public Works, and Planning have reviewed the application and identified applicable code requirements. The Code Requirements letter was transmitted on November 28, 2007 and is attached for informational purposes only (Attachment No. 4). In addition, the Public Works Department recommended two conditions requiring an Ocean Water Pollution Prevention Plan (OWPPP) and FEMA certification (Attachment No. 2).

PUBLIC MEETINGS, COMMENTS AND CONCERNS

On January 23, 2008, staff and the applicant presented the project to the Planning Commission at a Study Session. After the presentation, discussion ensued regarding the number of truck trips needed to dispose of the excavated material. The applicant and staff explained that the proposed restoration for the first year proposes approximately 1,500 truck trips over the course of six months for Talbert Marsh and approximately 5,100 truck trips over the course of six months for Brookhurst Marsh. It is estimated that this would generate less than 50 truck trips per day. Project restoration for the second year proposes approximately 3,600 truck trips over the course of six months for the Magnolia Marsh. This would generate approximately 25 truck trips per day.

Prior to the Study Session meeting, the applicant held a neighborhood meeting regarding the proposed project on September 27, 2007. Approximately 40 people from the neighborhood and interested state and non-profit agencies attended the meeting. Several other meetings have been held in the past between the applicant and the neighborhood.

PLANNING ISSUES

The primary issues with the proposed wetlands restoration project are grading of the land, dredging for tidal influence, disposal of the excess material, and habitat restoration. In addition, the project will be reviewed for compliance with the Coastal Conservation and Coastal Zone zoning district requirements, consistency with the Coastal Element of the General Plan and the California Coastal Act.

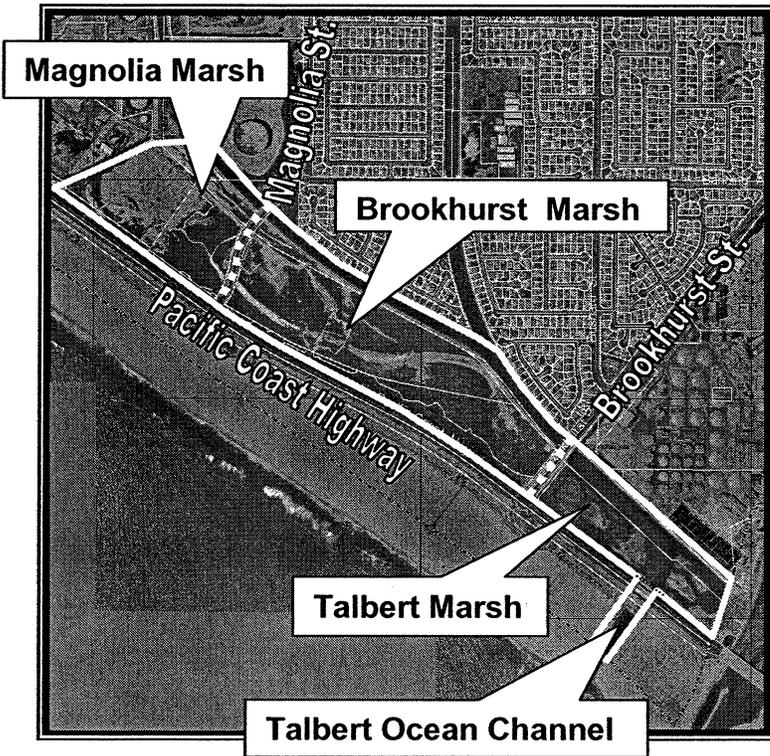
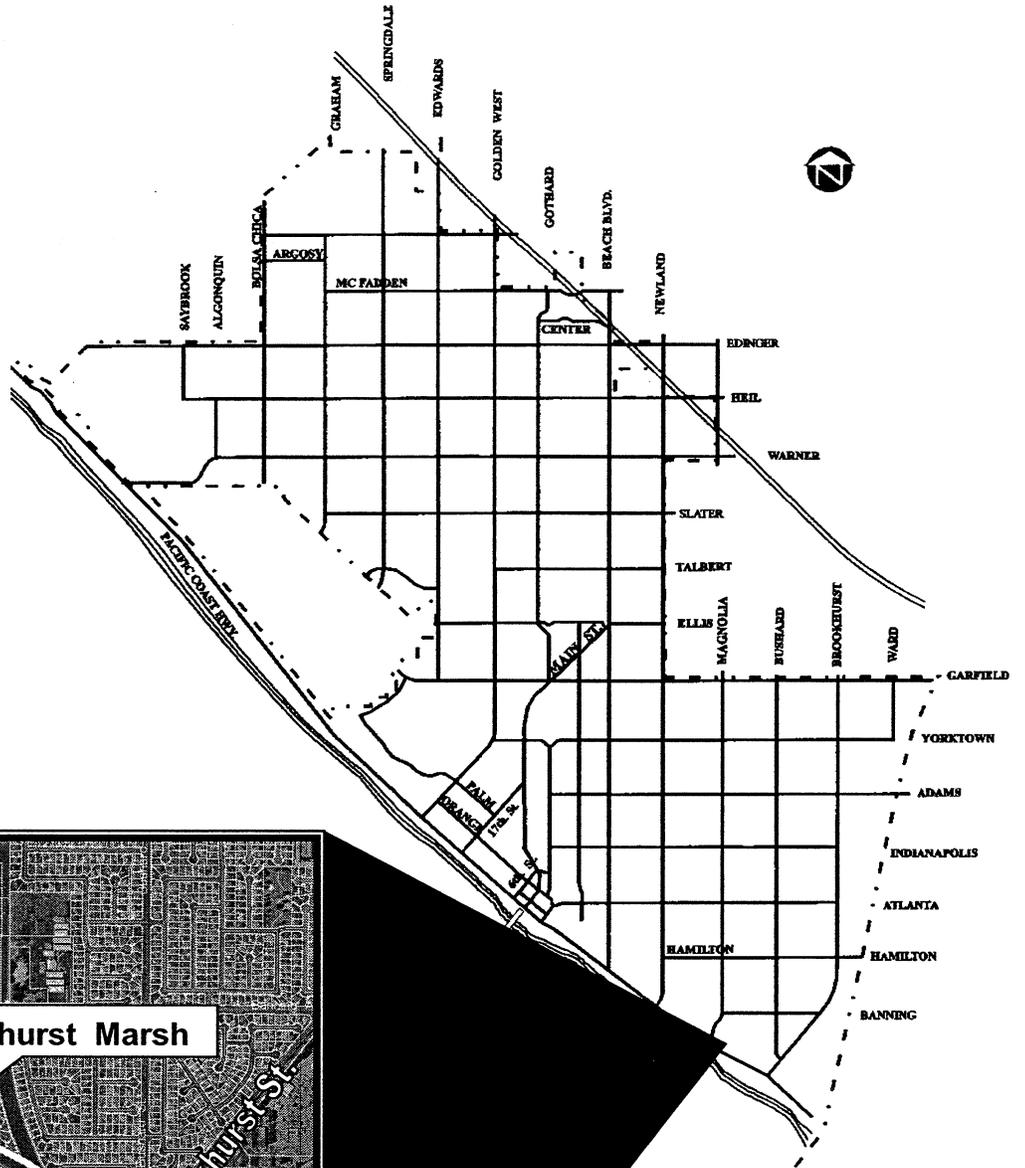
The Coastal Conservation zone, Coastal Zone Overlay district, and General Plan establish standards for the restoration of wetlands and environmentally sensitive habitat area. These standards pertain to the disposal of dredging and spoils, timing of construction, use of spoils for beach replenishment, and opening up areas to tidal action.

The California Coastal Act also contains requirements pertaining to dredging operations. Section 30233(B) of the Coastal Act states "Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable long shore current systems."

A preliminary review of the project with policies, standards and requirements indicate that the project is in substantial compliance with the aforementioned requirements. The dredging and excavating activities are proposed outside of nesting seasons to avoid impacts to sensitive species. The restoration project will cease for a minimum of one year to allow for refuge of displaced wetland birds. Excavated beach sand will be used for beach replenishment adjacent to the Talbert Ocean Inlet. Furthermore, the restoration project will open up areas to tidal action and improve tidal flushing.

ATTACHMENTS:

1. Vicinity Map
2. Public Works Department suggested conditions of approval dated November 8, 2007
3. Site plan received and dated October 1, 2007
4. Code Requirements Letter dated November 28, 2007 (for informational purposes only)
5. Project Narrative dated October 1, 2007
6. County approved Mitigation Monitoring and Reporting Program (for informational purposes only)
7. Letter received from Paul Cross dated February 19, 2008



VICINITY MAP
CONDITIONAL USE PERMIT NO. 07-036
(HUNTINGTON BEACH WETLANDS RESTORATION PROJECT)



**HUNTINGTON BEACH
PUBLIC WORKS DEPARTMENT
SUGGESTED CONDITIONS OF APPROVAL**

DATE: NOVEMBER 8, 2007
PROJECT NAME: HUNTINGTON BEACH WETLANDS RESTORATION
ENTITLEMENTS: CONDITIONAL USE PERMIT NO. 2007-036
PLNG APPLICATION NO: 2007-216
DATE OF PLANS: OCTOBER 1, 2007
PROJECT LOCATION: 21900 PACIFIC COAST HIGHWAY (BETWEEN BROOKHURST ST. AND AES POWER PLANT – BROOKHURST AND MAGNOLIA MARSH)
PROJECT PLANNER: RAMI TALLEH, ASSOCIATE PLANNER
TELEPHONE/E-MAIL: 714-374-1682 / RTALLEH@SURFCITY-HB.ORG
PLAN REVIEWER: STEVE BOGART, SENIOR CIVIL ENGINEER *SB*
TELEPHONE/E-MAIL: 714-374-1692 / SBOGART@SURFCITY-HB.ORG
PROJECT DESCRIPTION: TO PERMIT THE GRADING OF MATERIAL FOR THE HABITAT RESTORATION OF WETLANDS BY THE HUNTINGTON BEACH WETLANDS CONSERVANCY.

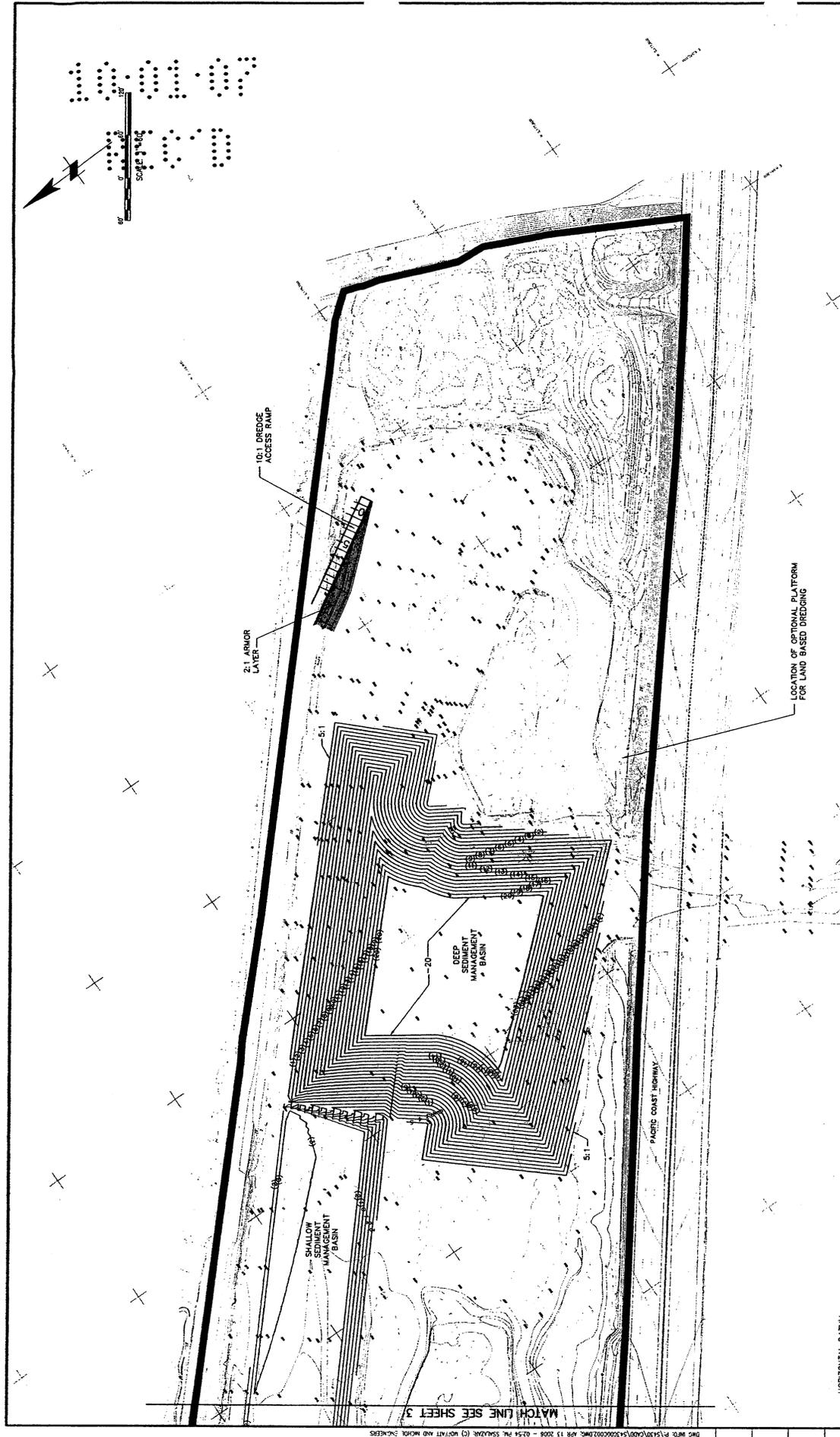
**THE FOLLOWING CONDITIONS ARE REQUIRED TO BE COMPLETED PRIOR TO
ISSUANCE OF A GRADING PERMIT:**

1. An Ocean Water Pollution Prevention Plan (OWPPP) shall be submitted to the Public Works Department for review and approval. The OWPPP shall (1) identify potential sources of pollutants associated with the restoration project (i.e. bacteria, oil/petroleum products, sediment; boat launch and construction debris) that may affect ocean water quality and (2) describe the Best Management Practices (BMPs), or mitigation measures, to be implemented to ensure that the potential pollutants are reduced, or eliminated prior to excavation which will not result in any exceedances of ocean water quality standards. The OWPPP shall include a detailed sediment monitoring and sampling plan to be performed prior to, during and following the excavation activities (number of samples to be taken per cubic yard removed); disposal option action levels, or target levels; potential sediment cleaning or "washing" BMPs; excavation plan including coordination with tidal action; other necessary actions to ensure ocean water quality is protected. The OWPPP shall be implemented at the appropriate level to protect water quality at all times throughout the life of the project.

ATTACHMENT NO. 2.1

THE FOLLOWING CONDITIONS ARE REQUIRED TO BE COMPLIED WITH DURING THE PROJECT'S CONSTRUCTION ACTIVITIES:

1. Any modification to flood control devices (existing and proposed berms) shall be certified by FEMA to meet 100-year floor protection. Any modifications shall not have a negative effect on drainage of Magnolia Street and Brookhurst Street.



C-2

DATE: 7/31/07
 SCALE: 1" = 50'
 PROJECT: 5430-01
 SHEET: 2

Huntington Beach Wetlands Preliminary Engineering
 Prepared For: The Huntington Beach Wetlands Conservancy

MOFFATT & NICHOL

DESIGNED BY: []
 CHECKED BY: []
 DRAWN BY: []

**GRADING PLAN
 TALBERT MARSH**

| NO. | REVISION | DATE | BY | DATE |
|-----|----------|------|----|------|
| | | | | |
| | | | | |
| | | | | |

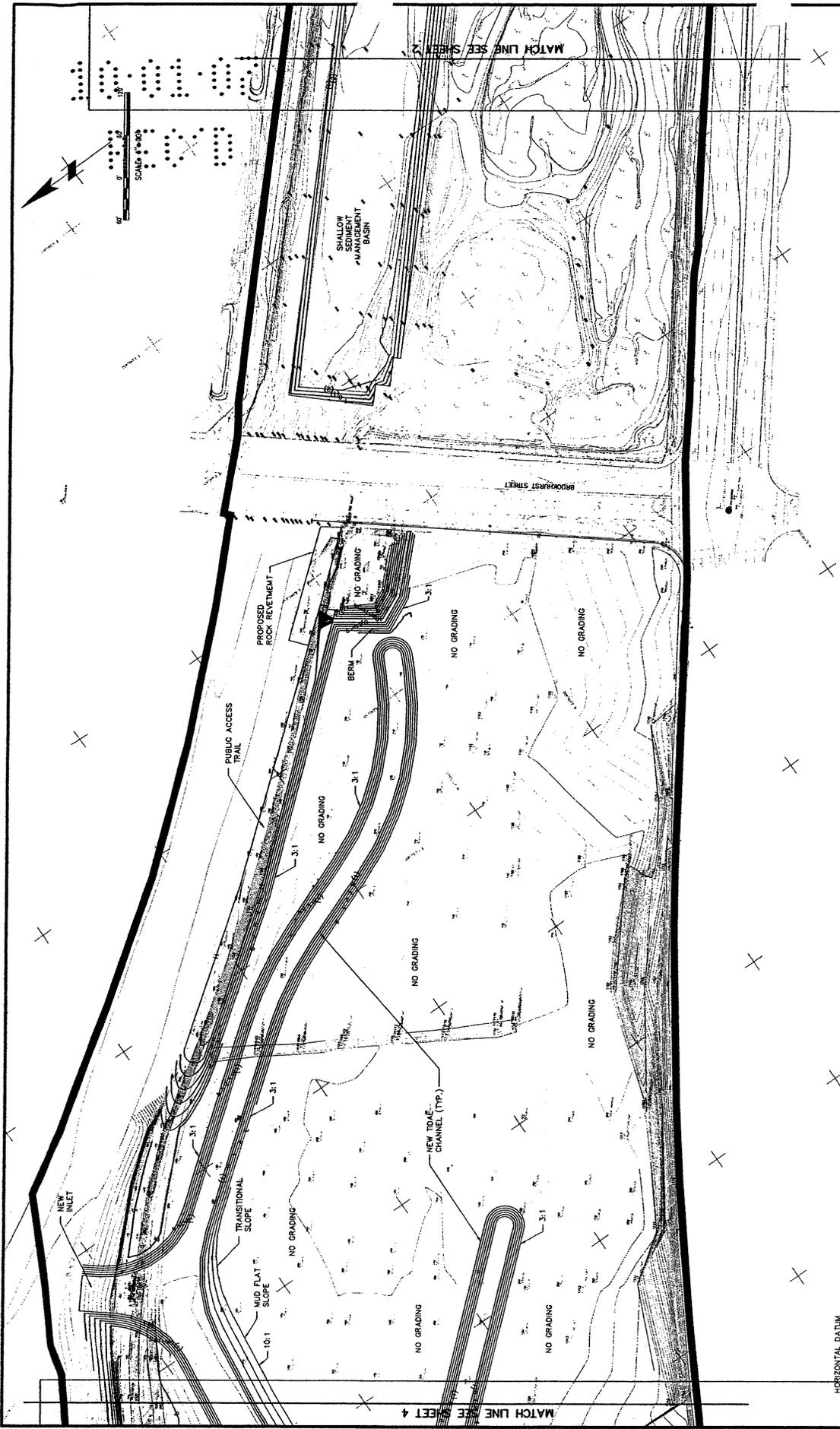
PRELIMINARY DESIGN

HORIZONTAL DATUM
 NAD83 SFC CA 6'
 1027.8702915 FT OPEN DATE: 1991.35
 1027.8702915 FT E603883.1511 FT

VERTICAL DATUM
 NAVD83 11-73-92
 OCS BM 15.228 FT (1995 ADJ)

MATCH LINE SEE SHEET 3

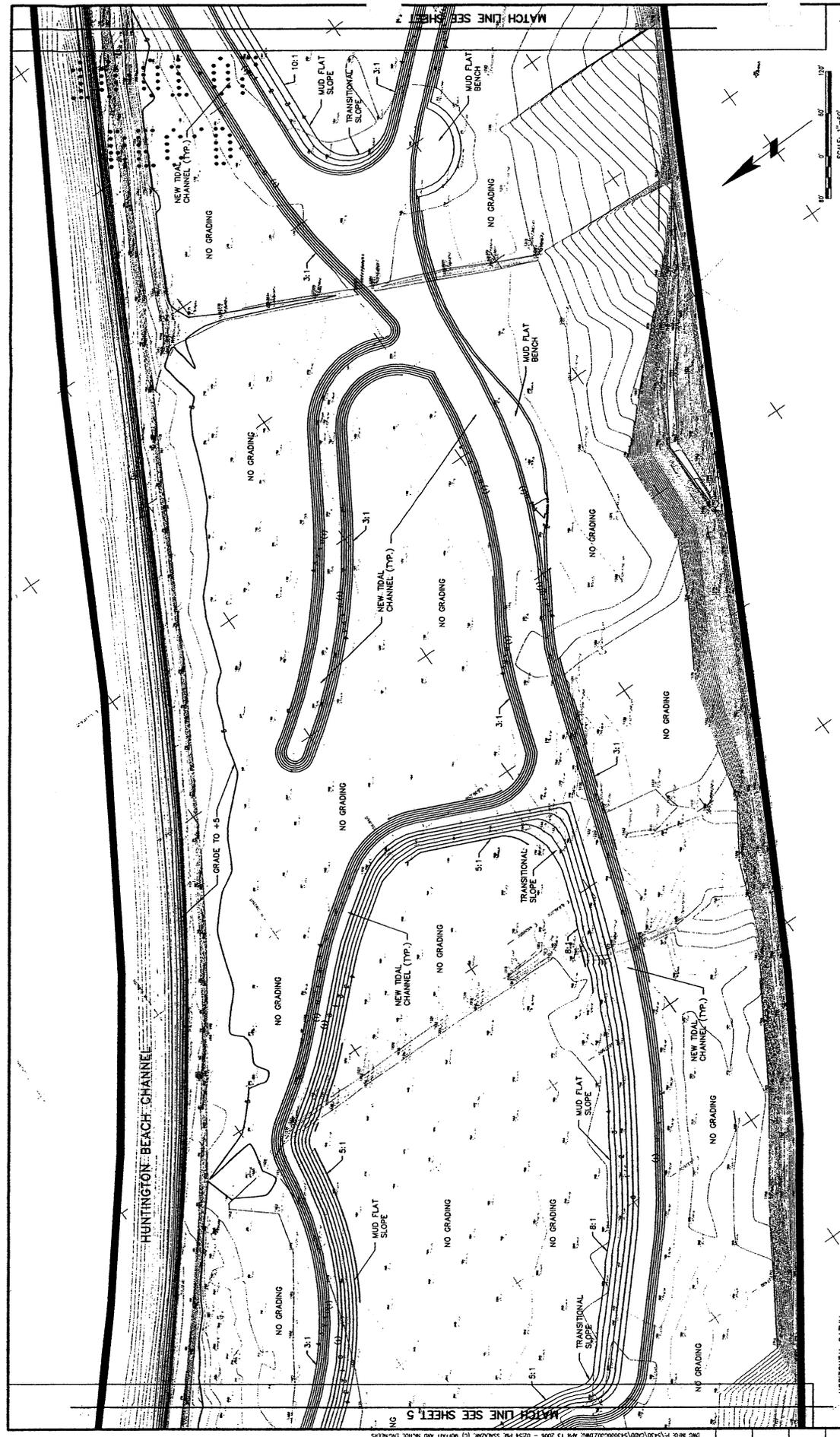
DWG INFO: P:\3107\0207\5430\0207\ENG_08_13_2008 - 02:54 PM: SSK/ANR (C) MOFFATT AND NICHOL ENGINEERS



| | |
|---|----------------------------|
| <p>C-3</p> <p>DATE: 7/31/07 SCALE: 1"=50' SHEET NO: 3 PROJECT: 04-00-01</p> | |
| <p>Huntington Beach Wetlands Preliminary Engineering Prepared For: The Huntington Beach Wetlands Conservancy</p> | |
| <p>GRADING PLAN BROOKHURST MARSH</p> | |
| <p>DESIGNED BY: [Blank]</p> | <p>CHECKED BY: [Blank]</p> |
| <p>MOFFATT & NICHOL</p> | |
| <p>PRELIMINARY DESIGN</p> | |
| <p>HORIZONTAL DATUM: NAD83, GCS NAD 83, EPOCH DATE = 1991.35 OCS BM 1541, EPOCH DATE = 1991.35 NAD83 BM 1541, EPOCH DATE = 1991.35 ELEV = 15.228 FT (1985 AD)</p> | |
| <p>VERTICAL DATUM: NAVD83 OCS BM 1541-92 ELEV = 15.228 FT (1985 AD)</p> | |

MATCH LINE SEE SHEET 4

MATCH LINE SEE SHEET 2



PRELIMINARY DESIGN

GRADING PLAN
BROOKHURST MARSH

MOFFATT & NICHOL

Huntington Beach Wetlands Preliminary Engineering
Prepared For: The Huntington Beach Wetlands Conservancy

DATE: 7/27/07
PROJECT: 0430-01

SCALE: 1"=60'

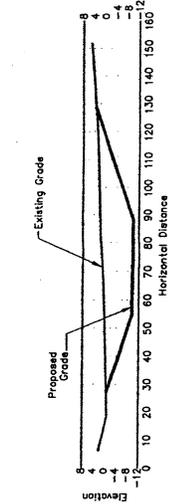
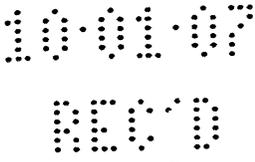
C-4

MATCH LINE SEE SHEET 4

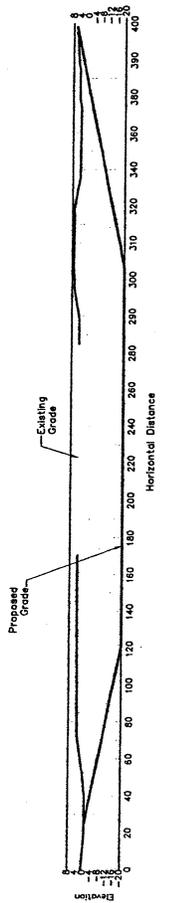
MATCH LINE SEE SHEET 5

HORIZONTAL DATUM
NAD83 SFC CA 6 BODY DATE = 1991.35
NAD83 3045 FT ELEVATION
NAD83 3045 FT ELEVATION

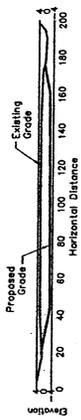
VERTICAL DATUM
NAVD83 13-73-92
ELEV = 15.328 FT (1985 ADJ)



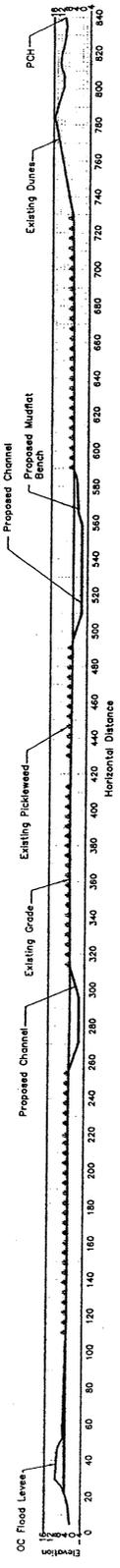
TALBERT OCEAN CHANNEL SEDIMENT TRAP



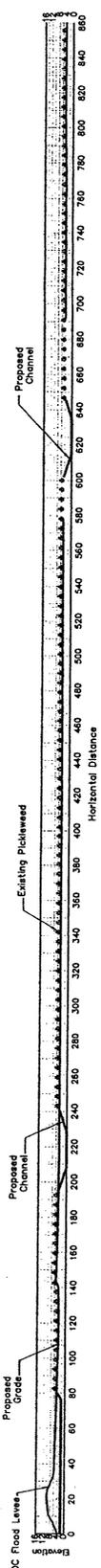
TALBERT MARSH DEEP SEDIMENT TRAP



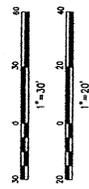
TALBERT MARSH SHALLOW SEDIMENT TRAP



BROOKHURST MARSH CROSS-SECTION



MAGNOLIA MARSH CROSS-SECTION



HORIZONTAL DATUM
 NAVD83 500 C-6
 CCS BM 154 EPOCH DATE = 1991.35
 N2179702.915 FT. E6039853.311 FT.
 VERTICAL DATUM
 NAVD83
 CCS BM 154-92
 ELEV = 6,326 FT (1995 ADJ)

PRELIMINARY DESIGN

MOFFATT & NICHOL

Huntington Beach Watershed Planning Engineering
 Prepared For The Huntington Beach Watershed Conservancy

GRADING PLAN
 TYPICAL CROSS-SECTIONS

| | |
|---------|----------|
| DATE | 7/31/07 |
| BY | WARS |
| SCALE | AS SHOWN |
| PROJECT | 54-30-01 |
| SHEET | 6 |
| OF | 8 |

| | | | |
|-----|----------|----|------|
| NO. | REVISION | BY | DATE |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

ENC. REF: P:\54-30-01\54000\54300003.DWG; 06/17/2007 - 02:54 PM; C:\PROGRA~1\MOFFATT & NICHOL\ENGINEERS



City of Huntington Beach



2000 MAIN STREET

CALIFORNIA 92648

DEPARTMENT OF PLANNING

Phone 536-5271
Fax 374-1540

November 28, 2007

Kim Garvey, Moffatt & Nichol
3780 Kilroy Airport Way, Ste. 600
Long Beach, CA 90806

**SUBJECT: CONDITIONAL USE PERMIT NO. 2007-036
PROJECT IMPLEMENTATION CODE REQUIREMENTS**

Dear Ms. Garvey,

In order to assist you with your development proposal, staff has reviewed the project and identified applicable city policies, standard plans, and development and use requirements, excerpted from the City of Huntington Beach Zoning & Subdivision Ordinance and Municipal Codes. This list is intended to help you through the permitting process and various stages of project implementation.

It should be noted that this requirement list is in addition to any "conditions of approval" adopted by the Planning Commission. Please note that if the design of your project or site conditions change, the list may also change.

The attached project implementation code requirements may be appealed to the Planning Commission as a matter separate from the associated entitlement(s) within ten calendar days of the approval of the project pursuant to the Huntington Beach Zoning and Subdivision Ordinance Section 248.24. The appeal fee is \$494.00.

If you would like a clarification of any of these requirements, an explanation of the Huntington Beach Zoning & Subdivision Ordinance and Municipal Codes, or believe some of the items listed do not apply to your project, and/or you would like to discuss them in further detail, please contact me at 714-374-1682 or at rtalleh@surfcity-hb.org and/or the respective source department (contact person below).

Sincerely,

Rami Talleh,
Associate Planner

Enclosure

cc: Gerald Caraig, Building and Safety Department – 714-374-1575
Lee Caldwell, Fire Department – 714-536-5531
Steve Bogart, Public Works – 714-536-1692
Herb Fauland, Principal Planner
Jason Kelley, Planning Department
Beach Wetlands Conservancy, 21900 Pacific Coast Highway, Huntington Beach, CA 92646
Project File

(g:\forms\planning\Code Requirements Letter - rev)

ATTACHMENT NO. 4.1



HUNTINGTON BEACH PLANNING DEPARTMENT

PROJECT IMPLEMENTATION CODE REQUIREMENTS

DATE: NOVEMBER 28, 2007

PROJECT NAME: HUNTINGTON BEACH WETLANDS RESTORATION

ENTITLEMENTS: PLANNING APPLICATION NO. 2007-216: CONDITIONAL USE
PERMIT NO. 2007-036

DATE OF PLANS: OCTOBER 1, 2007

PROJECT LOCATION: 21900 PACIFIC COAST HIGHWAY (BETWEEN BROOKHURST ST.
AND AES POWER PLANT – BROOKHURST AND MAGNOLIA
MARSH)

PLAN REVIEWER: RAMI TALLEH, ASSOCIATE PLANNER

TELEPHONE/E-MAIL: (714) 374-1682, rtalleh@surfcity-hb.org

PROJECT DESCRIPTION: TO PERMIT THE GRADING OF MATERIAL FOR THE HABITAT
RESTORATION OF WETLANDS BY THE HUNTINGTON BEACH
WETLANDS CONSERVANCY.

The following is a list of code requirements deemed applicable to the proposed project based on plans as stated above. The items below are to meet the City of Huntington Beach's Municipal Code (HBMC), Zoning and Subdivision Ordinance (ZSO), Department of Public Works Standard Plans (Civil, Water and Landscaping) and the American Public Works Association (APWA) Standards Specifications for Public Works Construction (Green Book), the Orange County Drainage Area management Plan (DAMP), and the City Arboricultural and Landscape Standards and Specifications. The list is intended to assist the applicant by identifying requirements which shall be satisfied during the various stages of project permitting, implementation and construction. If you have any questions regarding these requirements, please contact the Plan Reviewer.

CONDITIONAL USE PERMIT NO. 2007- 2007:

1. The site plan, floor plans, and elevations approved by the Planning Commission shall be the conceptually approved design.
2. At least 14 days prior to any grading activity, the applicant/developer shall provide notice in writing to property owners of record and tenants of properties within a 500-foot radius of the project site as noticed for the public hearing. The notice shall include a general description of planned grading activities and an estimated timeline for commencement and completion of work and a contact person name with phone number. Prior to issuance of the grading permit, a copy of the notice and list of recipients shall be submitted to the Planning Department.

3. During demolition, grading, site development, and/or construction, the following shall be adhered to:
 - a. Construction equipment shall be maintained in peak operating condition to reduce emissions.
 - b. Use low sulfur (0.5%) fuel by weight for construction equipment.
 - c. Truck idling shall be prohibited for periods longer than 10 minutes.
 - d. Attempt to phase and schedule activities to avoid high ozone days first stage smog alerts.
 - e. Discontinue operation during second stage smog alerts.
 - f. Ensure clearly visible signs are posted on the perimeter of the site identifying the name and phone number of a field supervisor to contact for information regarding the development and any construction/ grading activity.
 - g. All Huntington Beach Zoning and Subdivision Ordinance and Municipal Code requirements including the Noise Ordinance. All activities including truck deliveries associated with construction, grading, remodeling, or repair shall be limited to Monday - Saturday 7:00 AM to 8:00 PM. Such activities are prohibited Sundays and Federal holidays.
4. The Development Services Departments (Building & Safety, Fire, Planning and Public Works) shall be responsible for ensuring compliance with all applicable code requirements and conditions of approval. The Director of Planning may approve minor amendments to plans and/or conditions of approval as appropriate based on changed circumstances, new information or other relevant factors. Any proposed plan/project revisions shall be called out on the plan sets submitted for building permits. Permits shall not be issued until the Development Services Departments have reviewed and approved the proposed changes for conformance with the intent of the Planning Commission's action. If the proposed changes are of a substantial nature, an amendment to the original entitlement reviewed by the Planning Commission may be required pursuant to the provisions of HBZSO Section 241.18.
5. The applicant and/or applicant's representative shall be responsible for ensuring the accuracy of all plans and information submitted to the City for review and approval.
6. Conditional Use Permit No. 2007- 2007 shall not become effective until the ten calendar day appeal period from the date of Planning Commission approval of the entitlements has elapsed.
7. Conditional Use Permit No. 2007- 2007 shall become null and void unless exercised within one year of the date of final approval or such extension of time as may be granted by the Director pursuant to a written request submitted to the Planning Department a minimum 30 days prior to the expiration date.
8. The Planning Commission reserves the right to revoke Conditional Use Permit No. 2007- 2007 pursuant to a public hearing for revocation, if any violation of the conditions of approval, Huntington Beach Zoning and Subdivision Ordinance or Municipal Code occurs.
9. The project shall comply with all applicable requirements of the Municipal Code, Building & Safety Department and Fire Department, as well as applicable local, State and Federal Fire Codes, Ordinances, and standards, except as noted herein.
10. Construction shall be limited to Monday – Saturday 7:00 AM to 8:00 PM. Construction shall be prohibited Sundays and Federal holidays.
11. The applicant shall submit a check in the amount of \$50.00 for the posting of the Notice of Determination at the County of Orange Clerk's Office. The check shall be made out to the County of Orange and submitted to the Planning Department within two (2) days of the Planning Commission's approval of entitlements. If a Notice of Determination is required an additional check in the amount of

\$1,800 for California Department of Fish and Game shall be made out to County of Orange and submitted within two (2) days of the Planning Commission's action.

12. All landscaping shall be maintained in a neat and clean manner, and in conformance with the HBZSO. Prior to removing or replacing any landscaped areas, check with the Departments of Planning and Public Works for Code requirements. Substantial changes may require approval by the Planning Commission.
13. All permanent, temporary, or promotional signs shall conform to Chapter 233 of the HBZSO. Prior to installing any new signs, changing sign faces, or installing promotional signs, applicable permit(s) shall be obtained from the Planning Department. Violations of this ordinance requirement may result in permit revocation, recovery of code enforcement costs, and removal of installed signs.



HUNTINGTON BEACH FIRE DEPARTMENT

PROJECT IMPLEMENTATION CODE REQUIREMENTS

DATE: NOVEMBER 4, 2007

PROJECT NAME: HUNTINGTON BEACH WETLANDS RESTORATION PROJECT

ENTITLEMENTS: PLANNING APPLICATION # 2007-216; CUP# 207-036

PROJECT LOCATION: PCH, NEWLAND TO THE SANTA ANA RIVER

PLANNER: RAMI TALLEH, ASSOCIATE PLANNER

TELEPHONE/E-MAIL: (714) 374-1682 / rtalleh@surfcity-hb.org

PLAN REVIEWER-FIRE: LEE CALDWELL, FIRE DEVELOPMENT SPECIALIST

TELEPHONE/E-MAIL: (714) 536-5531/ lcaldwell@surfcity-hb.org

PROJECT DESCRIPTION: TO PERMIT THE GRADING OF MATERIAL FOR THE HABITAT RESTORATION OF WETLANDS BY THE HUNTINGTON BEACH WETLANDS CONSERVANCY.

The following is a list of code requirements deemed applicable to the proposed project based on plans received and dated October 12, 2007. The list is intended to assist the applicant by identifying requirements which must be satisfied during the various stages of project permitting and implementation. If you have any questions regarding these requirements, please contact the Plan Reviewer- Fire: LEE CALDWELL, FIRE DEVELOPMENT SPECIALIST.

METHANE MITIGATION DISTRICT. The proposed project is within the City of Huntington Beach Methane Mitigation District and within California Division of Oil, Gas & Geothermal Resources (DOGGR – 714-816-6847) jurisdiction.

NOTE: Abandoned oil wells are located on the proposed project property (as confirmed in the negative declaration. The California Division of Oil, Gas & Geothermal Resources (DOGGR – 714-816-6847) has the following requirement not addressed in the negative declaration:

- a. **DOGGR “CONSTRUCTION SITE REVIEW” is required.** A California Division of Oil, Gas & Geothermal Resources (DOGGR – 714-816-6847), *Site Plan Review* is required for this project. (See included application).

Identify the well name and well API number. Show the location of the abandoned oil well in question. Accurately locate with “x” and “y” parameters delineated. A completed DOGGR *Site Plan Review* must be on-file with the Fire Department prior to plan approval.

Wells identified in the Site Review not meeting current DOGGR requirements may require re-abandonment. If required, the following permits shall be obtained and submitted:

- From the Division of Oil, Gas & Geothermal Resources (DOGGR – (714) 816-6847), provide a *Permit to Conduct Well Operations* for all on-site active/abandoned oil wells.
- Obtain a Huntington Beach Fire Department *Permit to Abandon Oil Well* and follow the requirements of *City Specification #422, Oil Well Abandonment Permit Process*. Reference compliance with *City Specification #422, Oil Well Abandonment Permit Process* in the plan notes. **(FD)**

b. **SOIL IMPORT OR EXPORT CHARACTERIZATION.** Prior to material removal or importation, applicant should ensure that the material to be disturbed or excavated has been adequately tested and characterized according to sound industry practices. Proper handling and transportation practices shall be used dependant on the characteristics identified and shall be in compliance with all City, County, State, and Federal requirements. **(FD)**

Fire Department City Specifications may be obtained at:
Huntington Beach Fire Department Administrative Office
City Hall 2000 Main Street, 5th floor
Huntington Beach, CA 92648
or through the City's website at www.surfcity-hb.org

If you have any questions, please contact the Fire Prevention Division at (714) 536-5411.

S:\Prevention\1-Development\CUP's\2007 CUP's\PCH, Newland to SA River Wetlands Restoration Project PA# 2007-216 11-4-07.doc

NOV 08 2007



**HUNTINGTON BEACH
PUBLIC WORKS DEPARTMENT
PROJECT IMPLEMENTATION CODE REQUIREMENTS**

DATE: NOVEMBER 8, 2007
PROJECT NAME: HUNTINGTON BEACH WETLANDS RESTORATION
ENTITLEMENTS: CONDITIONAL USE PERMIT NO. 2007-036
PLNG APPLICATION NO: 2007-216
DATE OF PLANS: OCTOBER 1, 2007
PROJECT LOCATION: 21900 PACIFIC COAST HIGHWAY (BETWEEN BROOKHURST ST. AND AES POWER PLANT – BROOKHURST AND MAGNOLIA MARSH)
PROJECT PLANNER: RAMI TALLEH, ASSOCIATE PLANNER
TELEPHONE/E-MAIL: 714-374-1682 / RTALLEH@SURFCITY-HB.ORG
PLAN REVIEWER: STEVE BOGART, SENIOR CIVIL ENGINEER *HB*
TELEPHONE/E-MAIL: 714-374-1692 / SBOGART@SURFCITY-HB.ORG
PROJECT DESCRIPTION: TO PERMIT THE GRADING OF MATERIAL FOR THE HABITAT RESTORATION OF WETLANDS BY THE HUNTINGTON BEACH WETLANDS CONSERVANCY.

The following is a list of code requirements deemed applicable to the proposed project based on plans as stated above. The items below are to meet the City of Huntington Beach's Municipal Code (HBMC), Zoning and Subdivision Ordinance (ZSO), Department of Public Works Standard Plans (Civil, Water and Landscaping) and the American Public Works Association (APWA) Standards Specifications for Public Works Construction (Green Book), the Orange County Drainage Area management Plan (DAMP), and the City Arboricultural and Landscape Standards and Specifications. The list is intended to assist the applicant by identifying requirements which shall be satisfied during the various stages of project permitting, implementation and construction. If you have any questions regarding these requirements, please contact the Plan Reviewer or Project Planner.

**THE FOLLOWING DEVELOPMENT REQUIREMENTS SHALL BE COMPLETED PRIOR TO
ISSUANCE OF A GRADING PERMIT:**

1. A Precise Grading Plan, prepared by a Licensed Civil Engineer, shall be submitted to the Public Works Department for review and approval. (MC 17.05/ZSO 230.84) The plans shall comply with Public Works plan preparation guidelines.

2. A Storm Drain, Storm Water Pollution Prevention Plan (SWPPP), conforming to the current requirements of the State Water Quality Control Board's Statewide General Permit for Stormwater Discharges Associated with Construction Activities, prepared by a Licensed Civil Engineer, shall be submitted to the Department of Public Works for review and acceptance. (Drainage Area Management Plan, DAMP)
3. The SWPPP shall be updated as needed during the course of construction to satisfy the requirements of each phase of the development. The plan shall incorporate all necessary Best Management Practices (BMPs) and other City requirements to eliminate polluted runoff until all construction work for the project is completed. The SWPPP shall include treatment and disposal of all de-watering operation flows, and for nuisance flows during construction including the boat launch facility. (DAMP)
4. The applicant shall demonstrate that coverage has been obtained under California's General Permit for Stormwater Discharges Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number. (DAMP)
5. A soils report, prepared by a Licensed Engineer shall be submitted for reference only. (MC 17.05.150)
6. The applicant's grading/erosion control plan shall abide by the provisions of AQMD's Rule 403 as related to fugitive dust control. (AQMD Rule 403)
7. The name and phone number of an on-site field supervisor hired by the developer shall be submitted to the Planning and Public Works Departments. In addition, clearly visible signs shall be posted on the perimeter of the site every 250 feet indicating who shall be contacted for information regarding this development and any construction/grading-related concerns. This contact person shall be available immediately to address any concerns or issues raised by adjacent property owners during the construction activity. He/She will be responsible for ensuring compliance with the conditions herein, specifically, grading activities, truck routes, construction hours, noise, etc. Signs shall include the applicant's contact number, regarding grading and construction activities, and "1-800-CUTSMOG" in the event there are concerns regarding fugitive dust and compliance with AQMD Rule No. 403.
8. The applicant shall notify all property owners and tenants within 300 feet of the perimeter of the property of a tentative grading schedule at least 30 days prior to such grading.

THE FOLLOWING DEVELOPMENT REQUIREMENTS SHALL BE COMPLIED WITH DURING GRADING OPERATIONS:

1. An Encroachment Permit is required for all work within the City's right-of-way. (MC 12.38.010/MC 14.36.030)
2. An Encroachment Permit is required for all work within Caltrans' right-of-way. Figure 3-4 of the "Description of Project", received and dated October 1, 2007, indicates a construction access, staging and storage area. If said access area includes access to Pacific Coast Highway, authorization from Caltrans is required.
3. The developer shall coordinate the development of a truck haul route with the Department of Public Works if the import or export of material in excess of 5000 cubic yards is required. This plan shall include the approximate number of truck trips and the proposed truck haul routes. It shall specify the hours in which transport activities can occur and methods to mitigate

ATTACHMENT NO. 4.8

construction-related impacts to adjacent residents. These plans must be submitted for approval to the Department of Public Works. (MC 17.05.210)

4. Water trucks will be utilized on the site and shall be available to be used throughout the day during site grading to keep the soil damp enough to prevent dust being raised by the operations. (California Stormwater BMP Handbook, Construction Wind Erosion WE-1)
5. All haul trucks shall arrive at the site no earlier than 8:00 a.m. or leave the site no later than 5:00 p.m., and shall be limited to Monday through Friday only. (MC 17.05)
6. Wet down the areas that are to be graded or that is being graded, in the late morning and after work is completed for the day. (WE-1/MC 17.05)
7. The construction disturbance area shall be kept as small as possible. (California Stormwater BMP Handbook, Construction Erosion Control EC-1) (DAMP)
8. All haul trucks shall be covered or have water applied to the exposed surface prior to leaving the site to prevent dust from impacting the surrounding areas. (DAMP)
9. Prior to leaving the site, all haul trucks shall be washed off on-site on a gravel surface to prevent dirt and dust from leaving the site and impacting public streets. (DAMP)
10. Comply with appropriate sections of AQMD Rule 403, particularly to minimize fugitive dust and noise to surrounding areas. (AQMD Rule 403)
11. Wind barriers shall be installed along the perimeter of the site. (DAMP)
12. Remediation operations, if required, shall be performed in stages concentrating in single areas at a time to minimize the impact of fugitive dust and noise on the surrounding areas.
13. All construction materials, wastes, grading or demolition debris and stockpiles of soils, aggregates, soil amendments, etc. shall be properly covered, stored and secured to prevent transport into surface or ground waters by wind, rain, tracking, tidal erosion or dispersion. (DAMP)

**THE FOLLOWING DEVELOPMENT REQUIREMENTS SHALL BE COMPLETED PRIOR TO
ISSUANCE OF AN ENCROACHMENT PERMIT:**

1. Traffic Control Plans, prepared by a Licensed Civil or Traffic Engineer, shall be prepared in accordance with the latest edition of the City of Huntington Beach Construction Traffic Control Plan Preparation Guidelines and submitted for review and approval by the Public Works Department. (Construction Traffic Control Plan Preparation Guidelines)

**THE FOLLOWING DEVELOPMENT REQUIREMENTS SHALL BE COMPLETED PRIOR TO FINAL
INSPECTION:**

1. Complete all improvements as shown on the approved grading plan. (MC 17.05)
2. All applicable Public Works fees shall be paid at the current rate unless otherwise stated, per the Public Works Fee Schedule adopted by the City Council Resolutions 2007-58 and 2007-59. (ZSO 240.06/ZSO 250.16)

ATTACHMENT NO. 49

(a) Description of Project

1.0 Background

The Huntington Beach Wetlands are a relatively large area of relic salt marsh habitat associated with the Santa Ana River in south Huntington Beach, Orange County, California (Figure 1-1). The wetlands occupy approximately 188 acres and function as a home to the state-endangered Belding's savannah sparrow. The federal and state-endangered California least tern nests at the mouth of the Santa Ana River channel and forages in the limited portions of the wetland that are presently tidal.

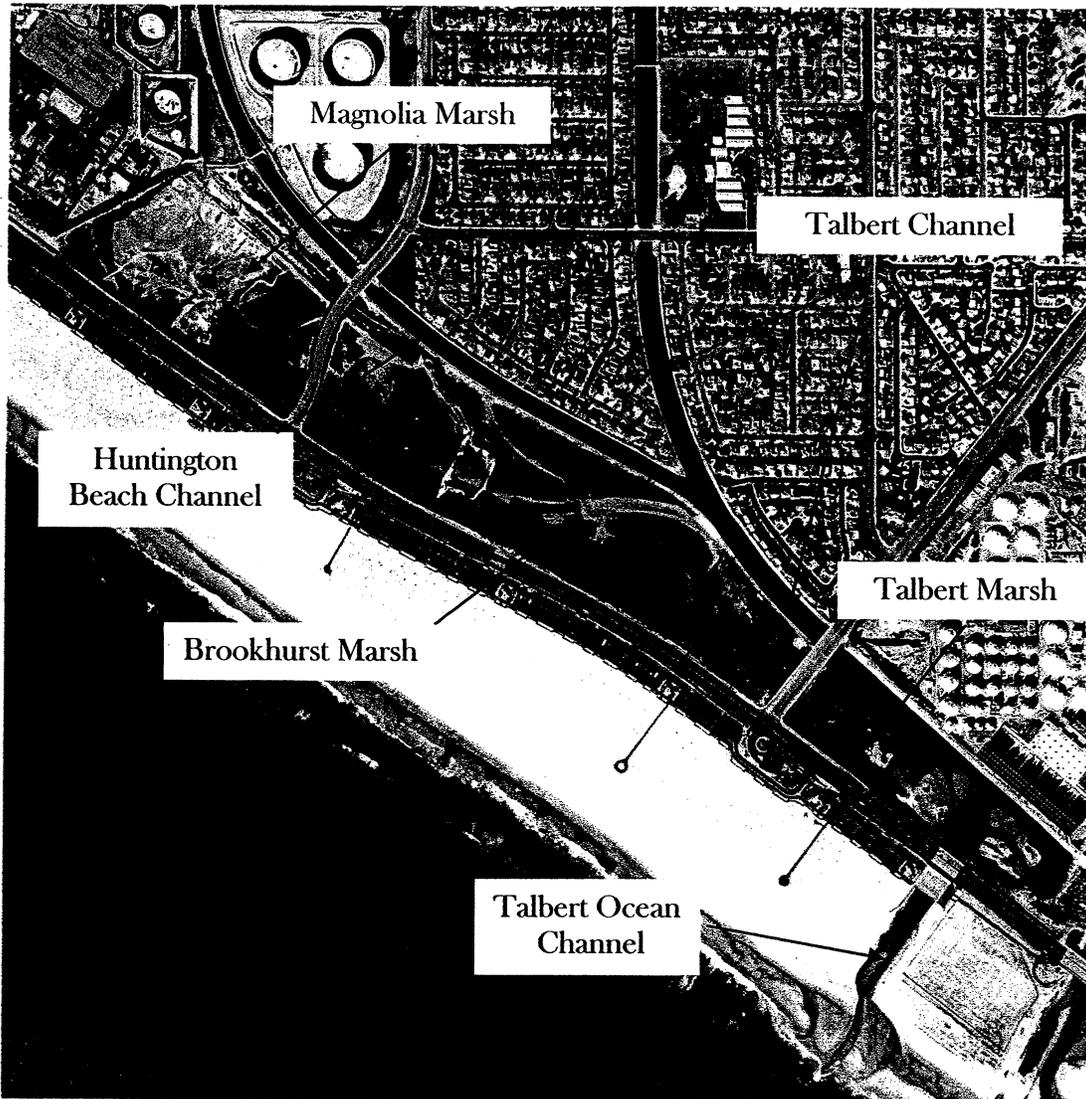
Figure 1-1 Project Location



The Huntington Beach Wetlands Conservancy (HBWC) and resource agencies have worked together in planning the restoration of the site. The wetlands have suffered substantial degradation over time as a result of isolation from tidal influence, historic channelization and filling, and damage from continuous unauthorized public access. Because of the presence of extensive historic marsh plains at or near desired elevations, there is considerable opportunity for tidal wetland restoration of the Huntington Beach Wetlands. The location of the wetlands within the high population center of Huntington Beach and the active involvement of the HBWC also provide considerable potential to develop controlled public access for interpretive and educational opportunities.

Huntington Beach Wetlands consist of Talbert Marsh, Brookhurst Marsh, Magnolia Marsh, and Newland Marsh, which are separated by roads and bounded by the Huntington Beach and Talbert flood control channels (Figure 1-2) and are connected to the ocean by the Talbert ocean entrance channel. The areas of each marsh are shown in Table 1-1.

Figure 1-2 Huntington Beach Wetlands (not including Newland Marsh)



**Table 1-1 Marshes of the Huntington Beach Wetlands
(Including the Dune Areas and Adjacent Flood Channels)**

| Marsh | Area (Acres) |
|---|---------------------|
| Talbert Marsh | 24 |
| Brookhurst Marsh and Adjacent Flood Channel | 67 |
| Magnolia Marsh (including the Upper Marsh) and Adjacent Flood Channel | 40 |
| Newland Marsh | 54 |
| Talbert Ocean Channel | 3 |
| Total | 188 |

Seawater propagates through the lower mile of Talbert Channel through Talbert Marsh. Talbert Marsh was restored in 1990 by the HBWC. That restoration effort succeeded in improving tidal flushing and circulation to the marsh, establishing sensitive salt marsh habitat, and improving flood control for the southern portion of Huntington Beach. Similar restoration and success is envisioned at the other marshes.

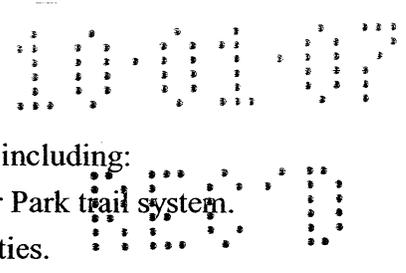
The proposed project includes restoration of Talbert Marsh, Brookhurst Marsh, Magnolia Marsh (not including Upper Marsh), and Talbert Ocean Channel for a total of approximately 130 acres. The Upper Magnolia Marsh is currently being restored as part of a mitigation project by the City of Huntington Beach and restoration of Newland Marsh is pending and dependent on HBWC acquisition of the property. The proposed project does not preclude the restoration of Upper Magnolia Marsh and Newland Marsh.

2.0 Purpose and Need

The purpose of this project is to restore wetland and aquatic functions to the Huntington Beach Wetlands through wetland restoration efforts and to perform certain maintenance actions such as periodic dredging after restoration. The project goal is to preserve, enhance and restore the fish and wildlife habitat of a tidally-influenced ecosystem, improve flood control, and provide for ancillary water quality improvements and public interpretive opportunities. The project is needed because the vast majority of tidal wetlands in California have been lost. Opportunities to restore tidal functions to wetlands are extremely limited in California because many historical wetlands have been converted to ports, harbors, and marinas, or filled for land development. The Huntington Beach Wetlands are one of the few remaining historic wetland areas that can be easily restored to tidal influence. Wetland habitat for fishes, birds, including endangered species, and other fauna and flora will be enhanced by the proposed project. Public recreation, education, and access opportunities will increase from the trail system envisioned for the wetlands.

Specific objectives of the Huntington Beach Wetlands Restoration Project are to:

1. Restore tidal influence throughout the site and improve tidal circulation.
2. Provide additional flood control volume for the Huntington Beach/Talbert Channel drainage basin.
3. Maximize saltmarsh/tidal habitats with no net harm to threatened and endangered species, such as the Belding's savannah sparrow, that exist on the site.
4. Increase saltwater-dependent ecosystem diversity and habitats for threatened and endangered species by:
 - Increasing areas of cordgrass;
 - Reinvigorating existing areas of pickleweed; and
 - Increasing areas of mudflat.
5. Rehabilitate the wetland/upland transition zone.
6. Maintain restored dune habitat along the Pacific Coast Highway.
7. Maintain, and to the extent feasible, improve water quality in the existing hydraulic system, including capturing floating debris.

- 
8. Provide public access consistent with project wildlife goals, including:
 - Integrating the project with the Orange County River Park trail system.
 - Providing public educational and outreach opportunities.
 9. Remove the Talbert Marsh sand bar and minimize its reformation to the extent feasible.
 10. Minimize costs and efforts for long-term wetland and ocean channel operation and maintenance by trapping sediment.
 11. Phase implementation to accommodate constraints, such as land-ownership, funding, and environmental conditions.
 12. Remediate or isolate any oil-related contaminants that may have ecological effects.
 13. Do not aggravate existing conditions of:
 - Vectors;
 - Ocean and channel water quality;
 - Site contamination;
 - Scour effects on the bridges; and
 - Flooding on adjacent properties.

3.0 Proposed Project

The proposed project is the restoration of 130 acres in Talbert Marsh, Brookhurst Marsh, Magnolia Marsh, and Talbert Ocean Channel, and maintenance dredging of Talbert Marsh and Ocean Channel two times after construction. The proposed project will clear Talbert Ocean Channel to its original constructed condition and add a sediment trap within the channel, remove sand shoals and construct a sediment trap in Talbert Marsh, and introduce tidal flow to Brookhurst and Magnolia Marshes.

The total volume of sediment to be moved for construction is approximately 290,000 cubic yards (CY). The quality of the material varies, but is documented to be beach sand within Talbert Ocean Channel, mostly sandy at Talbert Marsh, mixed silt and sand within Brookhurst and Magnolia Marshes, and a mix of sand, silt and gravel at the flood control levees. Approximately 151,000 CY of dredged/excavated material will be placed primarily in the nearshore area with some of the mostly sandy material also on the adjacent Huntington State Beach. Approximately 18,000 CY will be re-used on-site or disposed of on-site in a pit within Talbert Marsh. A maximum amount of 121,000 CY will be disposed at an off-site upland landfill. There may be the potential for other on-site re-use of additional material, but the proposed project herein assumes a worst case maximum amount of material that requires off-site landfill disposal. Table 3-1 summarizes the proposed dredge/excavation and disposal quantities and sites. Table 3-2 compares the area of existing habitats in the project area marshes to the area of habitats after project implementation.

Table 3-1 Dredge/Excavation/Disposal Quantities

| Dredge/Excavation Site | Dredge/Excavation Quantity (cy) | Disposal Site and Quantity (cy) | | | | | Off-Site Upland Disposal |
|--|---------------------------------|---|-------------------------|------------------------|--------------|-----------------------|--------------------------|
| | | Nearshore Disposal or Huntington State Beach* | On-Site Re-use/Disposal | | | Other On-Site Reuses* | |
| | | | Talbert Pit | Magnolia Street Levees | AES Levee | | |
| Talbert Marsh and Ocean Channel | | | | | | | |
| Talbert Marsh Main Sediment Trap | 105,000 | 105,000 | | | | | |
| Talbert Marsh Upstream End Trap | 17,000 | 17,000 | | | | | |
| Talbert Inlet Sediment Trap | 29,000 | 29,000 | | | | | |
| Brookhurst Marsh | | | | | | | |
| Basin/Main Channel Grading | 71,000 | | | | | | 71,000 |
| Levee Lowering and Inlet Creation | 14,000 | | 13,000 | 1,000 | | | 0 |
| Magnolia Marsh | | | | | | | |
| Basin/Main Channel Grading | 42,000 | | | | | | 42,000 |
| Levee Lowering | 12,000 | | | 1,000 | 3,000 | | 8,000 |
| | 290,000 | 151,000 | 13,000 | 2,000 | 3,000 | 0 | 121,000 |

* value shown is net disposal quantity (dredge/excavation quantity minus cap quantity that remains in pit)

The total quantity of material to be maintenance-dredged is estimated to be a maximum of 100,000 cubic yards done in two episodes at possibly 5 and 10 years after construction. This estimate is likely to be on the high end and conservative, but is a reasonable worst-case for CEQA. All of the material to be maintenance-dredged will either be hydraulically pumped to the nearshore and/or placed on the beach.

The project will be constructed during two years with one year in between for habitat establishment, beginning in September 2008 and extending to May 2011. Construction will only occur from September through March of each time period to avoid impacts to sensitive species. Talbert Ocean Channel, Talbert Marsh, and Brookhurst Marsh will be built in the first year, and Magnolia Marsh will be built in the third year. Magnolia Marsh will be delayed one year due to time constraints and the desire to provide refuge habitat for displaced wetland birds during the Talbert/Brookhurst construction.

A summary of the proposed restoration for each area is provided below. Conceptual grading plans, including representative cross-sections are provided in the attached plan set.

3.1 Talbert Ocean Channel

The proposed changes to Talbert Ocean Channel are to:

- Restore the channel capacity to its original constructed condition;
- Create a sediment trap south within the Talbert Ocean channel; and
- Maintain the construction channel capacity through periodic maintenance dredging actions in the future approximately at years 5 and 10 after construction.

The channel will be dredged down to -5 feet NAVD (North American Vertical Datum) and widened to the configuration of the original design. A sediment trap within the channel will be dredged to -10 feet NAVD between the ocean and the Pacific Coast Highway Bridge to catch sediment in the inlet channel before it reaches Talbert Marsh. This trap will be expected to be more efficient and have less environmental impacts from maintenance than the main Talbert Marsh sediment trap. With regular maintenance of the beach side sediment trap, the frequency of maintenance sediment removal necessary within Talbert Marsh will be dramatically reduced. The frequency of the Talbert Ocean Channel maintenance dredging program will also be reduced. The trap will be initially created by this project, and then will be maintained by the County of Orange as part of its regular maintenance clearing of Talbert Channel.

A summary of existing and proposed elevations and approximate material removal volumes are shown in Table 3-3.

3.2 Talbert Marsh

The proposed changes to Talbert Marsh are to:

- Create a sediment disposal area and trap just inside of the marsh;
- Remove sand shoals within the marsh; and
- Construct a private boat launch ramp to facilitate construction/maintenance; and
- Perform periodic maintenance dredging of the sand trap in the Marsh estimated to be at approximately 5 and 10 year intervals.

A main sediment trap will be located just inside the marsh to provide a disposal location for the finer sediments from Brookhurst Marsh and potentially Magnolia Marsh and to provide a trap for ocean sand entering into the marsh via the Talbert Ocean Channel. (Figure 3-1). It will help maintain the tidal prism and reduce the sediment transported within the flood channels to the Brookhurst and Magnolia marshes. It will be designed to be large enough to hold sufficient volume to allow deposition for five years or longer before requiring sediment removal under normal flow and sediment loading conditions. The trap will be excavated to an elevation of -20 feet NAVD with 5:1 (H:V) slopes. A smaller shoal removal area is proposed at the upstream end of Talbert Marsh just downstream of Brookhurst Bridge to clear the flood channel and maintain the tidal prism.

A summary of existing and proposed elevations and approximate material removal volumes are shown in Table 3-3.

Figure 3-1. Talbert Ocean Channel and Talbert Marsh Construction Activities

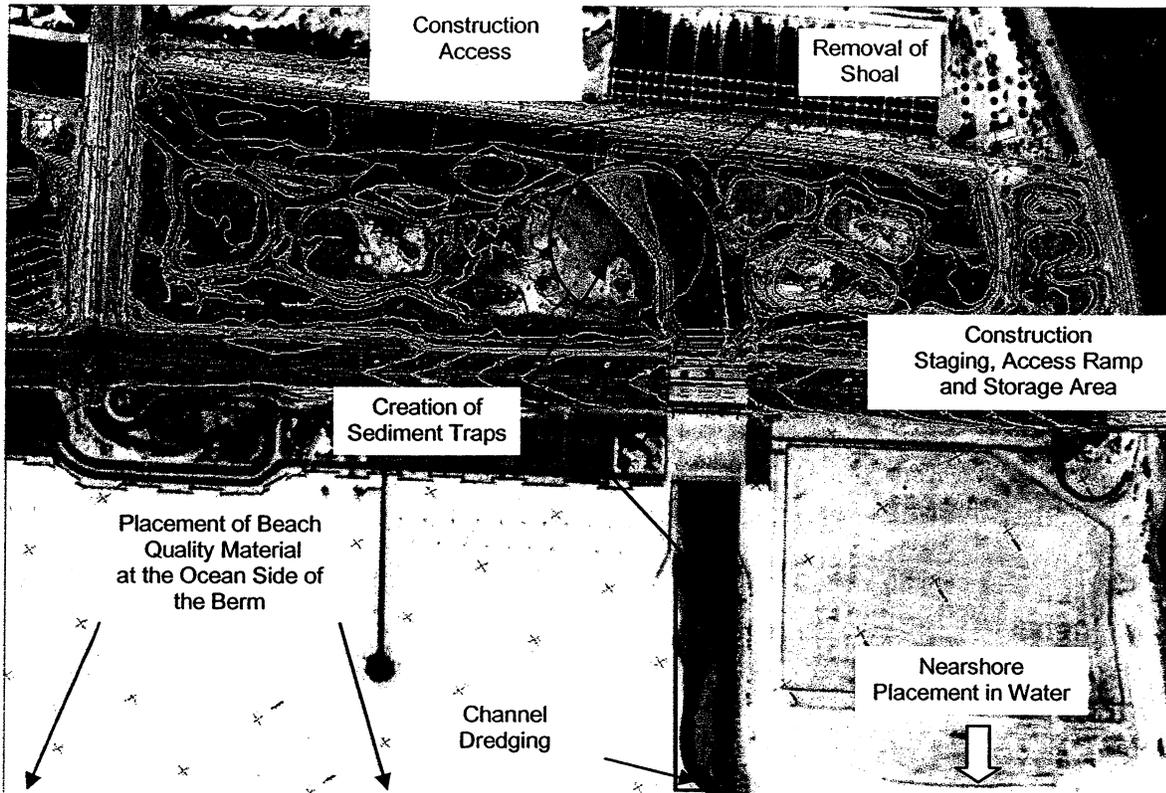


Table 3-3 Summary of Talbert Ocean Channel and Talbert Marsh Material Removal and Disposal

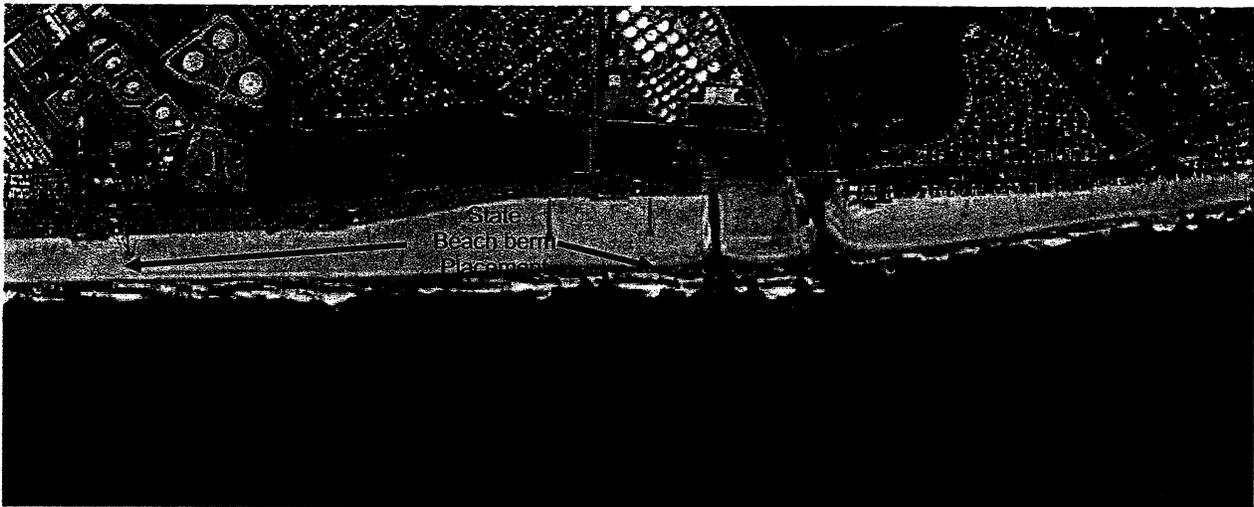
| Site | Project Component | Existing Elevations (ft, NAVD) | Proposed Elevations (ft, NAVD) | Approx. Dredge Volume (cy) | Proposed Disposal Location |
|-----------------------|----------------------|--------------------------------|--------------------------------|----------------------------|---|
| Talbert Marsh (TM) | Main Sediment Trap | +2 to +6 | -20 | 105,000 | Nearshore Disposal and Huntington State Beach |
| | TM Upstream-End Trap | +2 to +3 | -2 | 17,000 | |
| Talbert Ocean Channel | Inlet Sediment Trap | +1 | -5 and -10 | 29,000 | Nearshore Disposal and Huntington State Beach |

3.2.1 Talbert Ocean Channel and Talbert Marsh Construction and Maintenance Approach

The Talbert Ocean Channel and Marsh excavation will be accomplished with a combination of land and water based equipment, depending on weather, access to the site, local availability of construction and maintenance equipment, demand for beach nourishment material, and disposal options.

For the water-based work, the contractor will bring in a dredge with a hydraulic cutter/suction head and the material will be pumped directly to the nearshore disposal area, with some possibly being pumped directly to the State Beach if appropriate (Figure 3-2). The water-based equipment consists of the dredge, a generator, a transport boat, floating hydraulic pipe, and a floating booster pump (if required). Sediment pumped to the nearshore location will be done by the contractor floating the dredge pipes to the sites and pumping directly to the seafloor. If pumped to the beach, the sand and water slurry would be pumped toward the ocean side of the beach berm, typically behind a containment dike, and the pumped water would run off to the ocean after depositing the sand on the beach. General earthmoving equipment (one front-end loader, one bulldozer, two excavators, and one grader) would be used to place the material at its final grades.

Figure 3-2 Sand Disposal Options



The land-based operation will be similar to current County operations to clear the Talbert Ocean Channel. Long-arm excavators will be used to fill 10 to 14 CY capacity dump trucks (~1,500 truckloads) that will place the sand on the adjacent State beach to be pushed to final grade by graders and front-end loaders.

The construction and maintenance equipment will be stored and staged near the proposed boat ramp area shown in Figure 3-1. The permanent, private gravel boat ramp will be constructed to facilitate launching and retrieval of the water-based equipment. This boat ramp will remain to provide access for equipment for future maintenance dredging and removal of floating debris. Construction access to the site is through a locked gate at the opposite end of the marsh, as shown in Figure 3-1. There is an existing paved road connecting the gate and construction and maintenance staging area. Construction is anticipated to occur between mid-September 2008 and mid-March 2009. Construction operations are anticipated to occur for nine hours a day, five

days a week, during the entire construction period. Tide levels, current flow rates, and current directions will affect the balance of land versus water based work and the timing of excavation/deposition of the material. Maintenance actions are anticipated to likely occur between mid-September 2014 and mid-March 2015, and between mid-September 2020 and mid-March 2021. Maintenance operations are anticipated to occur for nine hours a day, five days a week, during the entire maintenance period. Tide levels, current flow rates, and current directions will affect the balance of land versus water based work and the timing of excavation/deposition of the material.

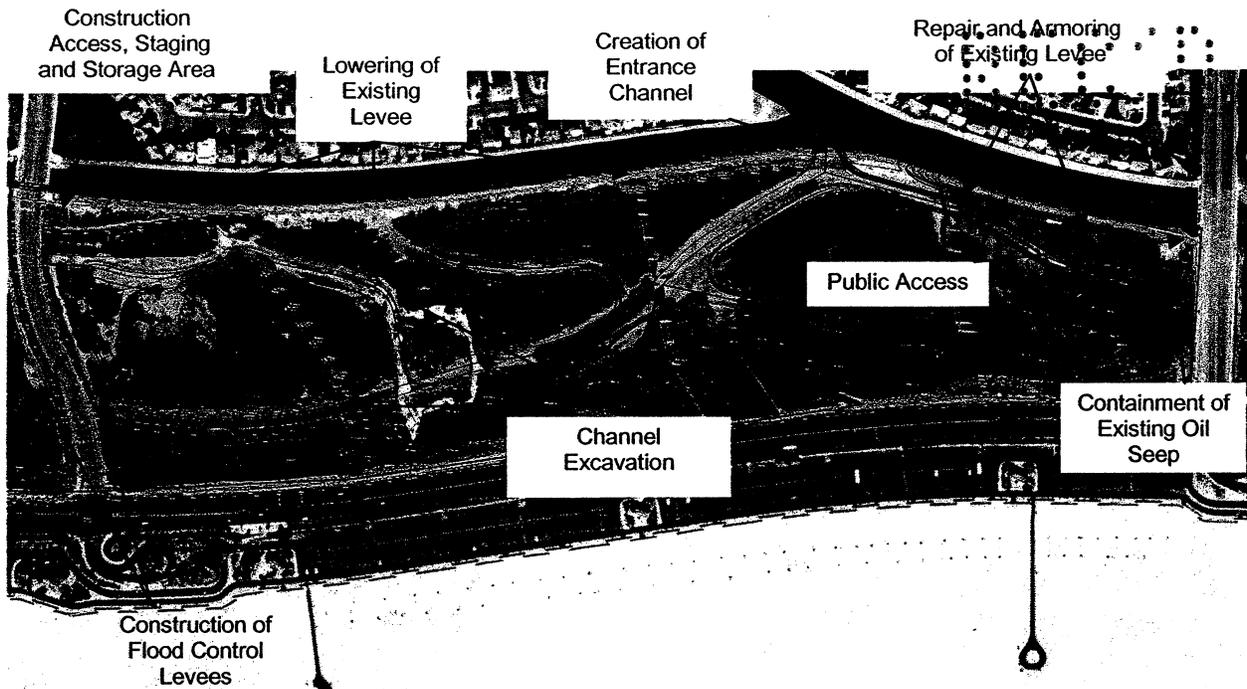
3.3 Brookhurst Marsh

The proposed modifications to Brookhurst Marsh are to:

- Clear and slightly enlarge the relict main channel to an elevation of -1 feet NAVD through the marsh to create sub-tidal habitat;
- Lower a portion of the banks along the relict main channel within the marsh to between +3.6 and +0.8 feet NAVD to create mudflat habitat;
- Lower the existing flood control levee along the HB Channel down to an elevation range of between +4.6 to +6.0 feet NAVD to create pickleweed habitat and supplement the tidal connection;
- Install an inlet through the flood levee down to -1.0 feet NAVD to connect the relict main channel to the HB/Talbert Channel;
- Construct a protective flood levee along Magnolia Street to an elevation of +11.0 feet NAVD;
- Repair and armor the remaining flood control levee from the Brookhurst bridge to the inlet;
- Install a storm drain with a flap gate on Magnolia Street to allow for stormwater flow to enter Magnolia Marsh. The flap gate will prevent backflow from the marsh going on to the road during floods or high water events (this work will be done in coordination with a City project along Magnolia Street to install curb, gutter and sidewalk along this reach of the street);
- Install an earthen dike around an oil seep area in the northeast corner near Brookhurst Street Bridge to contain the seep;
- Provide public access to the repaired Brookhurst Street levee.

Figure 3-3 shows the proposed construction activities in Brookhurst Marsh. A 55-foot-wide inlet to the Huntington Beach/Talbert Channel confluence will be established down to -1 feet NAVD, where the relic main marsh channel meets the existing flood channel. The footprint for the 50-foot-wide relic main channel already exists and will be cleared, expanded, and utilized for restoration. Four 25-foot-wide tributary channels branch off the main channel. The main channel's bank slopes will be designed to create mudflat area in several locations along the center of the marsh.

Figure 3-3 Brookhurst Marsh Construction Activities



The earthen Huntington Beach Channel levee (including the portion of the levee where Huntington Beach Channel meets Talbert Channel) will be lowered to the mid-marsh elevation (between +4.6 and +6 feet NAVD). This is the elevation that supports pickleweed growth, so only high tides can crest the levee and flow into the marsh plain.

The portion of the (earthen and rip-rap-lined) levee along Talbert Channel between the flood channel confluence and Brookhurst Street will remain to protect the marsh from high storm flows by isolating the marsh from the effective flow areas of the channel, and to prevent undermining of the south abutment at Brookhurst Bridge just downstream. This levee will be moved slightly south toward the marsh to align it with the south channel bank under Brookhurst Bridge. The face of the south levee along the channel will be replaced with rip rap to prevent erosion and to stabilize the levee.

A summary of existing and proposed elevations and cut/fill volumes are shown in Table 3-4.

Table 3-4 Summary of Brookhurst Marsh Material Removal and Disposal

| Site | Project Component | Existing Elevations (ft, NAVD) | Proposed Elevations (ft, NAVD) | Approx. Dredge Volume (cy) | Proposed Disposal Location |
|------------------|--|--------------------------------|--|----------------------------|--|
| Brookhurst Marsh | Basin / Main Channel Grading | +4 to +5 | -1 to +4 | 71,000 | Upland Disposal |
| | Levee Lowering and Inlet Creation | +9 to +11 | -1 to +5 West of New Inlet; +5 to +11 East of New Inlet | 14,000 | Magnolia Street Flood Control Levee, Brookhurst Levee Repairs, Talbert Pit |
| | <i>Building Flood Control Levee at Magnolia Street</i> | +4 to +11 | +11 | 1,000 (FILL) | <i>Recipient of Levee Material</i> |

3.3.1 Brookhurst Marsh Construction Approach

The excavation of the Brookhurst Marsh will be performed with typical land based excavation equipment (one front-end loader, one bulldozer, one backhoe, two excavators, and one grader). Some of the excavated material will be re-used within the marsh as new flood control levees, existing levee support material and other on-site uses if possible. Excess material will be: a) hauled via truck to the sediment trap at Talbert Marsh and capped (approximately 900 14-cy truck trips); and b) taken to an offsite upland disposal area using 10 to 14-cy capacity dump trucks (worst case of 5,100 14-cy truck trips if all excess basin material had to be disposed off-site). If sediment is deposited in the Talbert sediment trap, it will be capped with approximately a three-foot thick layer of excavated sand from Talbert Marsh to keep it permanently sequestered.

As indicated in Figure 3-3, there are construction access gates at each end of the existing levees, and a staging area. Construction is anticipated to occur between mid-September 2008 and mid-March 2009. Construction operations are anticipated to occur for nine hours a day, five days a week, during the entire construction period. Tide levels, current flow rates, and current directions will affect the balance of land vs. water based work and the timing of excavation/deposition of the material.

3.4 Magnolia Marsh

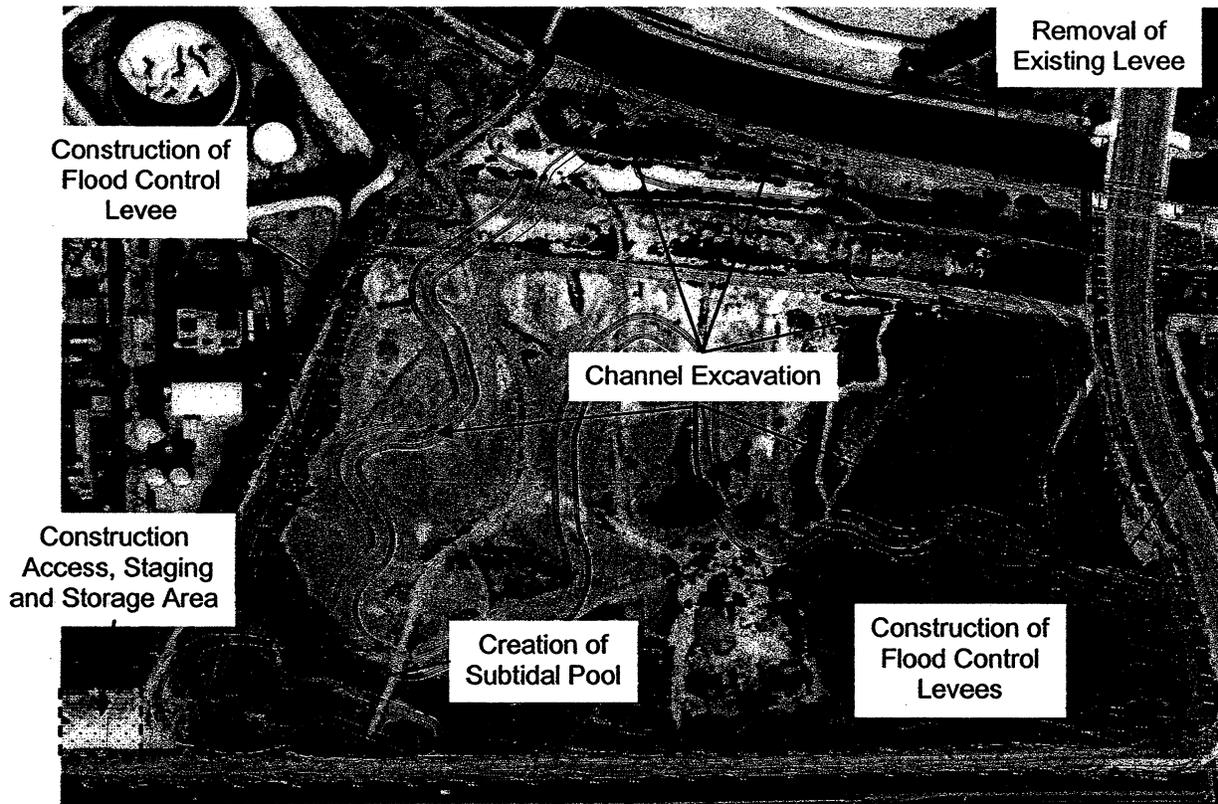
The proposed modifications to Magnolia Marsh are:

- Create one 20-foot-wide main channel to an elevation of 0 feet NAVD through the marsh, following relic channels and low points wherever possible;
- Lower the flood control levee along the HB Channel down to mudflat and mid-marsh elevations between +2 and +4 feet NAVD to supplement the tidal connection;
- Install a 100-foot-wide inlet breach through the flood levee at the main channel at elevation 0 feet NAVD to provide an unrestricted connection to the HB Channel;

- Construct a protective flood levee along the existing west perimeter access road, adjacent to the AES plant to +11 feet NAVD;
- Construct a protective levee along Magnolia Street at the lowest portion of the street to an elevation of +11 feet NAVD to prevent flooding, and install a storm drain line with a flap gate on the marsh end to allow Magnolia Street to drain without receiving high waters from the marsh.

Figure 3-4 shows Magnolia Marsh construction activities for the proposed project. A 100 foot wide inlet connection to the Huntington Beach Channel will be created at 0 feet NAVD at the very northernmost end of the property where wetland elevations are lowest. One 20 foot wide meandering main channel will convey seawater through the system. Additional excavation will occur within and along the main channel and banks to lower the site further to create mudflat area. A moderate-sized (approximate 72,330 SF/ 9,200 CY) subtidal pool is proposed near the west end of the site to provide subtidal habitat and maintenance access.

Figure 3-4 Magnolia Marsh Construction Activities



The earthen Huntington Beach Channel levee will be lowered to the elevation of mudflat (+4 to +2 feet NAVD) along the entire marsh. The levee will be significantly lowered to allow unrestricted infilling of the marsh with seawater to further supplement tidal penetration in the main channel.

Elevation changes of the proposed project include lowering internal channels from existing elevations of between +4 to +5 feet NAVD to 0 feet NAVD. Channel banks will be lowered to

between +4 feet and +2 feet NAVD to create mudflat. A subtidal pool will be created by lowering the surface from +5 feet to -2 feet NAVD. Flood control levees will be built along Magnolia Street and the AES to an elevation of +11 feet NAVD. A low dike to +1.1 feet NAVD is required along Magnolia Street to protect the existing low spots from flooding during winter storms. Storm drainage from Magnolia Street presently flows over the surface of the street and out into the marsh through an opening in the K-rail road edge barrier. The proposed project will not change drainage patterns, but drain lines with flap gates will be installed from the street through the earthen berm along the marsh perimeter to allow street drainage. The flap gates will be designed to prevent flood waters from the marsh flowing back on to the road. This work will be done in coordination with a City project along Magnolia Street to install curb, gutter and sidewalk along this reach of the street. A summary of existing and proposed elevations and cut/fill volumes are shown in Table 3-5.

Table 3-5. Summary of Magnolia Marsh Material Removal and Disposal

| Site | Project Component | Existing Elevations (ft, NAVD) | Proposed Elevations (ft, NAVD) | Approx. Dredge Volume (cy) | Proposed Disposal Location |
|----------------|--|--------------------------------|--------------------------------|----------------------------|---|
| Magnolia Marsh | Basin / Main Channel Grading | +4 to +5 | 0 to +4 | 42,000 | Upland Disposal |
| | Levee Lowering | +9 to +14 | 0 to +4 | 12,000 | Magnolia Street and AES Flood Control Levees, Upland Disposal |
| | <i>Building Flood Control Levee at Magnolia Street and Along the AES Plant</i> | +6 to +8 | +11 | 4,000 (FILL) | <i>Recipient of Levee Material</i> |

3.4.1 Magnolia Marsh Construction Approach

The excavation of the Magnolia Marsh will be performed with typical land based excavation equipment (one front-end loader, one backhoe, one excavator, and one grader). Some of the excavated material will be re-used within the marsh as new flood control levees, existing levee support material and other on-site uses if possible. Excess material will be taken to an offsite upland disposal area using 10 to 14-cy capacity dump trucks (worst case of approximately 3,600 14-cy truck trips if all excess material had to be disposed off-site). Sediment permanently deposited in the Talbert pit will be capped with approximately a three-foot thick layer of excavated sand from Talbert Marsh to keep it permanently sequestered.

As indicated in Figure 3-4, construction access and staging areas gates are located at the end of the Huntington Beach Wetland Conservancy area. Construction is anticipated to occur between mid-September 2010 and mid-March 2011. Construction operations are anticipated to occur for nine hours a day, five days a week, during the entire construction period. Tide levels, current flow rates, and current directions will affect the balance of land versus water based work and the timing of excavation/deposition of the material.



(b) Reason for Initiating This Application

This application is being submitted, in accordance with Huntington Beach Zoning and Subdivision Ordinance Sections 216.08 and 240.02, to obtain City approval of proposed changes in topography at the Huntington Beach Wetlands site, involving habitat restoration and grading of more than 25,000 cubic yards. The project is located in the Coastal Zone; a Coastal Development Permit application will be submitted to the California Coastal Commission. An Approval in Concept is required from the City for the Coastal Commission application.

(c) Description of Surrounding Uses

Immediately to the north of Magnolia and Brookhurst Marshes are the County's Huntington and Talbert flood control channels. On the northern side of the Talbert and Huntington Beach (HB) flood channels north of Brookhurst Marsh are private residences, and north of the HB channel north of Magnolia Marsh is industrial use (oil storage tanks for Pacific Energy). Immediately to the north of Talbert Marsh are a County flood control access levee and the Orange County Sanitation District's treatment plant.

To the south of the HB Wetlands are Pacific Coast Highway and Huntington State Beach.

To the west of Magnolia Marsh are the AES power plant and the Wetlands and Wildlife Care Center.

To the east of Magnolia Marsh is Magnolia Street. To the east of Brookhurst Marsh is Brookhurst Street. To the east of Talbert Marsh is the Santa Ana River.

(d) Description of Population Served by the Proposed Project

The project is to restore wetlands and the resultant project will serve a broad public. Public benefit is from multiple perspectives including habitat restoration and its resultant ecological benefits to fisheries and for mitigation, public education, passive recreation and interpretation, economic inducement through eco-tourism, and public enjoyment of the site.

The wetlands complex is located within an urban context and as such provides an excellent opportunity to serve its community with educational and passive recreational programs and access. It will serve the broader community interest by exposing large numbers of people to a critical ecosystem type, and to teach conservation principles in the best possible way, by immersing them in the living and breathing wetland. The specific access elements of the project are not included in the permit applications at this time.

MITIGATION MONITORING and REPORTING PROGRAM

In the following MMRP, each mitigation measure included in this Final IS/MND for the Huntington Beach Wetlands Restoration project is listed according to resource area. The project has incorporated these environmental protection measures as part of the project and shall be carried forward and implemented in accordance with project activities.

The time frame for implementation of each mitigation measure is listed. The agency or agencies responsible for monitoring the satisfactory implementation of mitigation measures also is identified. The timing and method of verification also is included.

| # | Mitigation Measure | Implementing Action | Method of Verification | Timing of Verification | Responsible Party |
|-------------------------------------|--|------------------------------------|--|--|---------------------------------------|
| NOISE | | | | | |
| 1 | All dredging, grading and maintenance equipment, both stationary and mobile, shall be equipped with properly operating and maintained muffling devices. | Review of Plans and Specifications | Onsite monitor to assure compliance with mitigation measure. | Prior to start of any dredging, grading, and maintenance activities. | Huntington Beach Wetlands Conservancy |
| 2 | All dredging, grading, and maintenance activities shall comply with the City of Huntington Beach Municipal Code related to construction noise, limiting activities to the hours of 7:00 A.M. to 8:00 P.M., Monday through Saturday. Noise generated from dredging, grading and maintenance activities on Sundays, federal holidays, and nighttime hours (8:01 P.M. to 6:59 A.M.) are prohibited. | Review of Plans and Specifications | Onsite monitor to assure compliance with mitigation measure. | Prior to start of any dredging, grading, and maintenance activities. | Huntington Beach Wetlands Conservancy |
| Biological Resources - Birds | | | | | |
| 1 | Before the start of any construction and maintenance activities | Review of Plans and Specifications | Monitoring shall be accomplished | Prior to start of breeding season of the | Huntington Beach Wetlands |

| # | Mitigation Measure | Implementing Action | Method of Verification | Timing of Verification | Responsible Party |
|--|--|------------------------------------|---|---|---------------------------------------|
| | on beach or marsh habitat, a qualified biologist shall survey the construction area for western snowy plover and Belding's savannah sparrows. If a protected bird species is foraging in or near the work area, construction and maintenance activities shall avoid the vicinity of the foraging birds until the birds have left the area. | | by a biological monitor approved by CCC and CDFG. Monitoring reports shall be submitted by the biological monitor to County of Orange. | Belding's savannah sparrows and western snowy plover. | Conservancy |
| Biological Resources - Vegetation | | | | | |
| 2 | The loss of eelgrass shall be mitigated by conducting an on-site eelgrass transplant program at a mitigation ratio of 1.2 to 1, as required by the Southern California Eelgrass Mitigation Policy (NMFS 1991). | Review of Plans and Specifications | Surveys shall be conducted by SCUBA divers approved by NOAA Fisheries, CCC, and CDFG. Monitoring reports shall be provided to the agencies following each survey. | Surveys shall be conducted during the growing season immediately prior to construction. | Huntington Beach Wetlands Conservancy |
| Cultural Resources | | | | | |
| 1 | If buried cultural materials are encountered during construction, work shall be halted in that area until a qualified archaeologist evaluates the nature and significance of the find. This may require an archaeological test | Review of Plans and Specifications | A qualified archaeologist shall monitor excavation activities during the project construction. The cultural materials shall be evaluated | Prior to start of any dredging, grading, and maintenance activities. | Huntington Beach Wetlands Conservancy |

| # | Mitigation Measure | Implementing Action | Method of Verification | Timing of Verification | Responsible Party |
|---|--|---|---|---|--|
| | <p>program. If the Project Archaeologist recommends a test program, he or she shall prepare and implement a test plan.</p> <p>If the cultural material is deemed eligible for inclusion, mitigation shall consist of avoidance and preservation, if feasible. If avoidance is not feasible, the Project Archaeologist shall prepare a data recovery plan that identifies how the data necessary to address scientifically consequential research topics shall be recovered. The data recovery plan will then be implemented.</p> | | <p>using CRHR eligibility criteria.</p> | | |
| 2 | <p>If paleontological resources are found during project construction, the construction contractor shall immediately stop work in the area. The County shall be notified immediately and work shall not resume until the County can retain a qualified paleontologist to determine the significance of the find.</p> | <p>Review of Plans and Specifications</p> | <p>A County approved monitor shall be present during dredging, grading, and maintenance activities. If significant paleontological resources are found, they shall be salvaged and collected in compliance with the</p> | <p>Prior to start of any dredging, grading, and maintenance activities.</p> | <p>Huntington Beach Wetlands Conservancy</p> |

| # | Mitigation Measure | Implementing Action | Method of Verification | Timing of Verification | Responsible Party |
|---|---|------------------------------------|--|--|---------------------------------------|
| | | | applicable regulations and sent to a designated museum. | | |
| 3 | If a bone is uncovered that appears to be human, the County Coroner shall be contacted to determine the origin. | Review of Plans and Specifications | A County approved monitor shall be present during dredging, grading, and maintenance activities. If the coroner determines that the bone most likely represents a Native American interment, the Native American Heritage Commission in Sacramento shall be contacted to identify the most likely descendants. | Prior to start of any dredging, grading, and maintenance activities. | Huntington Beach Wetlands Conservancy |

FEB 19 2008

SUBJECT: COMMENTS TO THE PLANNING COMMISSION RELATIVE TO PLANS OF THE HUNTINGTON BEACH WETLANDS CONSERVANCY FOR RESTORATION OF 140 ACRES OF MARSHLAND FACING PACIFIC COAST HIGHWAY BETWEEN THE SANTA ANA RIVER AND BEACH BOULEVARD

TO: CHAIRMAN JOHN SCANDURA; VICE CHAIRMAN TOM LIVENGOOD; AND COMMISSIONERS JOE SHAW, BLAIR FARLEY, DEVIN DWYER, FRED SPEAKER AND ELIZABETH SHER-BURNETT

FROM: PAUL CROSS, A RESIDENT OF HUNTINGTON BEACH

HONORABLE COMMISSION MEMBERS:

You have before you an application by the Huntington Beach Wetlands Conservancy for a conditional use permit allowing the Conservancy to move forward with plans to restore 180 acres of highly degraded wetlands which generally extend between the Santa Ana River and Beach Boulevard. The Conservancy is engaged in essential work and deserves high praise for its accomplishments. They have my thanks for what they have done and will do in the future.

That said, I am perplexed by the recent removal of bushes on the low berm adjacent to Pacific Coast Highway extending generally west from Magnolia Street for a distance of 100 or more yards in the direction of the AES power plant. The bushes, although not tall growing, did somewhat screen the view of three large oil tanks located on the westward side of Magnolia Street.

In this regard, I understand that the Conservancy takes a position favoring only native plants and positively abhors tall screening elements such as trees. The result is that because of our love of the environment, we are destined for continual unobstructed views of three huge eyesores, that is, the AES power plant, the tank farm now owned by a billionaire developer, and last but not least, the Orange County Sanitation Facility. Attached you will find a terse letter outlining the basic position of the Conservancy concerning screening of those facilities. The Conservancy is fearful of birds of prey and crows which might roost in trees used to block views of the eyesores.

Attached, you also will find a few expert commentaries concerning the California Least Tern and Belding's Sparrow which the Conservancy especially desires to protect. Please note that human disturbance forces terns to abandon their nests, and then tell me how exposing those birds directly to the rush of traffic on PCH is going to help them breed. As for the Sparrow, they breed best in habitat associated with tall, dense vegetation within large marsh fragments, not exactly what the Conservancy intends.

Also attached you will find a very informative e-mail letter from Charles Davis, a Landscape Architect and Certified Arborist for the city of Huntington Beach. He recounts the efforts of former Huntington Beach Mayors seeking to screen the Sanitation facility.

In my opinion, the subject is too important to dismiss with an instantaneous rejection. For

ATTACHMENT NO. 71

example, would not restoration of the recently dedicated 40 acre wetland site on Newland Street just north of the drainage canal serve as an excellent upland dry marsh suitable for the Belding's Sparrow? Conversely, is the relatively thin sandy spit between the sanitation facility and PCH, suitable for breeding terns? That area, which extends on the east from the Santa Ana River westerly in the direction of Brookhurst Street may well be a habitat for rodents and, certainly, there often is a large population of egg eating gulls in that location. Perhaps, as to preservation of the tern, a more focused effort can be made at other locations, such as the sandy fenced area on the ocean side of PCH next to the river, or the wetlands between Brookhurst and Newland, or at Bolsa Chica, or even at the vast wetlands located on the grounds of the Seal Beach Weapons Facility.

Of course, for the most part, I think that the Conservancy wins any argument if the sole alternative is a long row of tall trees lining the wetlands, but are there not other reasonable options? Must we be consigned to a forced perpetual view of three of the ugliest structural elements along the entire Pacific Coast? The power plant is tall and cannot be screened except to a modest degree. However, the sanitation facility is mostly low rise and the view of it can be filtered. The tank farm, as well, can be obscured by low rise plants on the PCH berm. Insofar as California native plants are concerned, we live in a so called Mediterranean climate, and there are several such climates around the globe. There are good transplants and some not so good. Why do we have to be entirely doctrinaire.

Thus, I opine that, any conditional use permit granted to the Conservancy should include a requirement for landscaping designed to filter the view of the three structural elements described above. Those elements may not be intrinsically ugly but they do not comport with the changing residential, wetland and tourist face of Huntington Beach. Therefore, lets get with the program.

Apart from the forgoing, I again commend the Conservancy for its steadfast dedication to the preservation of Huntington Beach wetlands.

As a few asides, directed to the Conservancy, should not the ASCON dump site on Magnolia, after its imperfect cleansing, become part of your mandate. Further, upon information and belief, the billionaire owner of the existing oil tanks on Magnolia hopes to establish on-shore holding tanks at that location for decompressed liquified petroleum gas off-loaded at sea adjacent to the AES power plant, and cooled off-shore by power plant water. As you know, pipes albeit for oil, but certainly an apt subject for refitting for gas, already extend from the tank farm on Magnolia to Long Beach where decompressed gas can enter into general commerce. I hope that when that plan is offered to Huntington Beach you will be ready with alternative plans. Further, I hope that your members will attend the upcoming Coastal Commission hearing on the Poseidon project and support those who seek responsible sea water desalinization not connected to the aging and obsolete power plant which sits astride your important wetland. Finally, although your current proposal before the Planning Commission does not deal with the former Action Boat site at PCH and Beach Boulevard and with the mobile home parks along PCH, I hope that you oppose new construction overtop those sites.

Cc. Huntington Beach Wetland Conservancy

ATTACHMENT NO. 7.2



Huntington Beach Wetlands Conservancy
P.O. Box 5903
Huntington Beach, CA 92615
(714) 536-0141
www.hbwc.org

December 14, 2007

Mr. Paul Cross
109 Huntington Street
Huntington Beach, CA 92648

Re: Your letter Dated December 7, 2007 re: landscaping

Dear Mr. Cross,

Thank you for your letter regarding a tree screen in front of the Orange County Sanitation District Facility adjacent to Talbert Marsh. We discussed your concerns at our recent board meeting.

The Huntington Beach Wetlands Conservancy is not opposed to screening the facility. When asked, we have indicated that we are in favor of native plant plantings that are specifically native to the wetlands and sand dune habitat present at Talbert Marsh. This type of habitat, however, does not include tall trees, it consists mostly of lower lying plants and shrubs.

As you note, taller trees in this areas could possibly increase the birds of prey and raptor population, including crows which are not native to the area. These types of birds tend to prey on the small birds and their nesting young that live near and in Talbert Marsh, including the Belding Savannah Sparrow and the Least Tern, both of which are endangered. We are not aware of any types of trees that birds of prey would not like, they tend to use any tall perch, including trees, utility poles, light poles, etc.

While I do not think we can provide the answer you are looking for, hopefully this provides some understanding of our request for native plants.

Sincerely,

The Huntington Beach Wetlands Conservancy

ATTACHMENT NO. 7.3

California Least Tern

By Bob Garrison

No animal offers wildlife viewers more striking beauty and delicate grace than the California least tern. With rapid wing-beats and effortless flight, this smallest member of the gull and tern family tirelessly hunts for fish along portions of the central and southern California coast where it breeds. Searching for anchovies, topsmelt and silversides, the terns hover high above the water before plunging head-first after their prey. Watching these forked tailed jewels also provides an important reminder of the value and threats to California's other 291 species of plants and animals officially listed as rare, threatened or endangered.

Despite incredible odds, the endangered California least tern is holding its own on some of the state's most expensive and sought-after real estate. In the spring, the terns return from their wintering grounds on the Central or South American coast to nest along California beaches. Competing with sun bathers and beach-side communities for a patch of sandy ground to nest, about 2,500 breeding pairs of least terns have been squeezed onto only 36 breeding sites between the San Francisco Bay and Mexican border. With many beaches overrun with swimmers, sunbathers, beachcombers and their pets, more than half of the terns now breed on landfills or other man-made surfaces with restricted public access, such as military reserves, airports, harbors, and ecological reserves.

The tern's needs are quite basic; an open stretch of bare ground to lay their two eggs, a nearby estuary to fish, and solitude. Least tern eggs and chicks are extremely vulnerable to attacks from other birds, cats, dogs and non-native eastern red foxes. Because the terns are now forced to breed on small areas of open beach, a few predators can destroy an entire colony of young. In addition, human disturbance will force the terns to abandon their nests so viewing these birds requires care and constraint.

Only view least terns as they hunt for fish along beaches or estuaries. Stay away from breeding colonies and report any over eager bird watchers to land managers. A few sites with bluff overlooks may offer long-distance views of breeding colonies so bring along your binoculars and spotting scopes. Enjoy watching this rare, beautiful bird and do your part as a wildlife viewer, conservationist and Californian to protect our state's threatened and endangered species.

Where to watch California least terns:

Follow wildlife viewing road signs or check the newly revised California Wildlife Viewing Guide for directions to the following areas:

- Lake Merritt -- Oakland
- Robert Crown Memorial State Beach -- Alameda
- McGrath State Beach -- Ventura
- Bolsa Chica Ecological Reserve -- Huntington Beach
- Upper Newport Bay Ecological Reserve -- Newport Beach
- Mission Bay Park -- San Diego
- Tijuana Slough National Estuarine Research Reserve -- Imperial Beach

Other sites include:

- Venice Beach -- Venice

You can purchase a California Wildlife Viewing Guide which provides detailed wildlife viewing information and directions to these and over 190 other wildlife viewing sites by visiting www.CAWatchableWildlife.org.

Reprinted courtesy of Outdoor California, California Department of Fish and Game (www.dfg.ca.gov)



www.naturetourismplanning.com.



Northern Prairie Wildlife Research Center

Reproductive Success of Belding's Savannah Sparrows in a Highly Fragmented Landscape

Discussion

Numbers of Belding's Savannah Sparrows increase with size of wetland area (see Herkert 1994 for similar results in migratory Savannah Sparrows), but only four extant wetlands in southern California are larger than 100 ha. Marshes smaller than 10 ha were less likely to support breeding sparrows.

Size and isolation of habitat of marshes in San Diego Bay appeared to be related to reproductive success, but our sample size warrants further study. Although F Street Marsh was larger in size than D Street Marsh, it was isolated from other marsh habitats and surrounded completely by an urban landscape. This small site supported breeding sparrows but produced no offspring during our study. In addition, no movements of banded birds were observed between F Street and other marshes in the area, indicating that immigration may be limited. Future investigations should examine reproductive success and dispersal across a broader landscape of remnant marshes than we studied.

Other species of salt marsh-nesting sparrows, such as the Seaside Sparrow (*Ammodramus maritimus*), suffer nest loss during high tides (Marshall and Reinert 1990). Nesting habitat in drier portions of the marsh often is not limited, unlike marshes in southern California. Belding's Savannah Sparrows established territories throughout salt marsh habitats, but were associated with drier sites that had tall, dense vegetation. High tides (> 1.9 m) inundated all of our study plots each month from April to August, but it was unknown whether any nests were lost during these events. The fact that Belding's Savannah Sparrows established territories even in wetter sites, however, suggested that habitat was limited.

In southern California, development surrounding coastal marshes has influenced the high-marsh habitat because it typically is dry most of the year and may not have been delineated as "wetland" prior to the establishment of recent guidelines. Thus, Belding's Savannah Sparrow habitat has been restricted not only in overall availability, but also

within the high-marsh. This creates a tradeoff for the sparrows. Nests that are located away from potential tidal inundation are closer to the wetland edge, where the effects of *predation and human disturbance* may be higher. The edges of most salt marsh remnants in this region are "hard", abutting urban landscape features such as roads, flood-control channels, airport runways, and residential lawns.

Reproductive success has not been linked to habitat characteristics in a convincing manner in migratory Savannah Sparrows (Ross 1980a, Bédard and LaPointe 1984, LaPointe and Bédard 1985, Wheelwright and Rising 1993). Although variation in reproductive success of Savannah Sparrows in northern climates has been attributed to variation in weather (Welsh 1975, Ross 1980a, Bédard and LaPointe 1985), no severe weather occurred during the breeding season in 1995, which is typical of the Mediterranean climate in southern California. Predation on adults, eggs, and young, however, may be related to habitat features, with dense vegetation providing more escape cover than do open areas (Ross 1980b, Bédard and LaPointe 1984, LaPointe and Bédard 1986, Watts 1991). Our study showed that high-success territories were associated with tall, dense vegetation within large marsh fragments.

[Previous Section -- Results](#)

[Return to Contents](#)

[Next Section -- Conservation Implications](#)

U.S. Department of the Interior | U.S. Geological Survey

URL: <http://www.npwrc.usgs.gov/resource/birds/belding/discuss.htm>

Page Contact Information: npwrc@usgs.gov

Page Last Modified: August 3, 2006

ATTACHMENT NO. 7.7

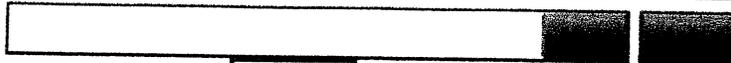
University of Phoenix
Thinking ahead.
- ONLINE PROGRAMS -

ASSOCIATE'S DEGREES
Associate of Arts in Business
Associate of Arts in Health Care Administration
Associate of Arts in Information Technology

BACHELOR'S DEGREES
Bachelor of Science in Business Management
Bachelor of Science in Criminal Justice Administration
Bachelor of Science in Management

MASTER'S DEGREES
Master of Business Administration
Master of Arts in Education
Master of Information Systems

Windows Live



2wildflo2@msn.c...

Home **Hotmail** Spaces OneCare

Sign out

Inbox

Junk

Drafts

Sent

Deleted

Penn Central

Penn-Central

Manage folders

Today

Mail

Contacts

Calendar

New Reply Reply all Forward Delete

Move to

Options

RE: Citizen Inquiry #07-2825 Mr. Paul Cross

From: **Paul Cross** (2wildflo2@msn.com)
 Sent: Wed 12/05/07 8:16 PM
 To: Davis, Chuck (cdavis@surfcity-hb.org)

Thank you Chuck:

Your response is greatly appreciated. Please, there is no need for a further reply. However, would you consider that since already there are a few trees and no significant bird of prey problem, unless you count the multitude of egg eating gulls, why not add a few more trees, and see what happens. Raptors may like some seclusion, and may largely avoid PCH and the adjacent waste facility, even with the presence of additional trees suitable for roosting. I urge you to keep trying, and that you offer to put in a pilot or test project (a few trees) at H. B. city expense. After all, even though there were no trees in olden times, there also was no sewer plant.

Paul Cross

Subject: Citizen Inquiry #07-2825 Mr. Paul Cross
 Date: Wed, 5 Dec 2007 15:45:40 -0800
 From: cdavis@surfcity-hb.org
 To: 2wildflo2@msn.com
 CC: CSingleton@surfcity-hb.org

December 5, 2007

Mr. Paul Cross

109 Huntington St.

Thanks for your interest in making this City more pleasing to experience.

Like yourself, there are many here in the City that have tried, for many years now, to get additional screening along PCH at the Orange County Sanitation Facility along Brookhurst and the power plant at Newland.

ATTACHMENT NO. 7.8

We have asked for the addition of materials along the property boundary of each facility and for additional taller materials adjacent to the taller units near the Santa Ana River.

Years ago, former Mayor Ralph Bauer, former Mayor Shirley Dettloff, I and others were invited to advance planning meetings with the County Sanitation District and their Landscape Architects and Planners, for the current projects at that time; we discussed trying to utilize taller trees adjacent to the property line for better screening.

The ideas we presented were discussed but were disallowed by the California Department of Fish and Game. Their reasoning was that there are protected species of birds and other living things that would be compromised by the addition of tall materials that would provide perching and nesting locations for birds of prey. Their concern was supported by the United States Fish and Wildlife Service and the Army Corps of Engineers.

The Huntington Beach Wetlands Conservancy is in the process of restoring the wetlands areas in front of these facilities, to what they would have been prior to the areas being developed. As I am sure you are aware, there were few, if any trees in this Santa Ana River flood-plain area. There were also very few large shrubs. The habitat that was here was sand dunes, riverbed, and wetlands. The H.B. Wetlands Conservancy is trying to recreate those elements and is vehemently opposed to having trees or other tall elements creating a raptor nesting or perching area adjacent to the wetlands. These are the same concerns as the other agencies.

We have also made the case for providing larger shrubs located closer to the PCH roadway. This approach would effectively cut off the view of the taller features by blocking the line of sight (commonly referred to as the cone of vision), from the vehicle passenger's eye height. This height is between 36" and 48" above the road grade. When looking up at a feature that is tall, it would take a shrub that is from 12' to 15' taller than the road grade to block the view of the taller feature.

The difficulty with this design approach is the space required horizontally to grow this size of a shrub and the concern that someone might misinterpret these large shrubs as being small trees too close to the wetlands. Cal Trans doesn't want this size of a shrub in their right-of-way, and there are native plantings within the wetlands that cannot be impacted by locating large shrubs there. The locations for this approach are limited and therefore are not used where the views need to be blocked. There are areas where this approach is used. One is located between the two facilities, and it is accomplished with a berm, but unfortunately it is not in front of the two view problems. Another difficulty is the grade change in some areas that drops away from the roadway. In those areas larger and taller shrubs would be required.

In all cases no trees would be allowed and therein lays the problem you have brought

ATTACHMENT NO. 7.9

up. I would like to tell you that we have a solution, but as I have explained we have not been able to get more than the palms that are in front of the tall towers along the Santa Ana Riverbed, the terraced planters adjacent to the Sanitation District facility that are between the wetlands and the sanitation facility just east of Brookhurst and the smaller trees along the Sanitation District property line parallel with PCH. We have been able to get taller growing trees behind the Wildlife Care Center and in front of the Power Plant facility along the property line that is parallel with PCH, but there cannot be any more trees any closer to the wetlands area.

In addition to the previous problems, there is a major problem with growing most trees in this first zone of ocean exposure. The winds that come off the ocean here bring with them a salt scum that becomes attached to the leaves and stems of the trees and shrubs, dries on them and in the sun, burns and kills the tender stems and leaves. This is in addition to the leaf shredding that occurs with the constant winds on most trees and shrubs. When making any tree selection we must take this fact into account and that severely limits the number of trees that will survive in this area. There are only three trees that have made it that we have found over the years. This does not include the Mexican Fan Palm that does not do much in the way of screening, but rather is a tall interest item. One of the trees, (*Lagunaria pattersonii*), has a filament in it's seed pod that acts as an irritant to those passing by who may get it on them, it is slow growing and the wind reshapes the form. Another is a tall conical growing tree, (*Araucaria heterophylla*), that usually is very open growing in nature, but very slow in growth. The third tree, (*Metrosideros excelsus*), is dense, slow growing and the wind makes it grow in a diagonal form that requires a lot of horizontal space.

The limitations of trees that will survive here is secondary to the criteria that is eliminating their use in the first place.

Thank you again for your concerns and thoughts. I hope this detailed response indicates to you that we are trying to get screening done, we just have severe limitations on how to accomplish it, and the environment for growing things is extreme and significantly slows down all plant growth.

Sincerely,

Charles L. Davis

Landscape Architect, RLA #1452

ISA Certified Arborist, WE 3816A

Want to race through your inbox even faster? Try the full version of Windows Live Hotmail. (It's free,

ATTACHMENT NO. 7.10