V. HARBOR DEPTHS, CHANNEL DESIGN AND PROPOSED CONSTRUCTION AND DREDGING

A. DISCUSSION: For the most part, projects that involve dredging and construction require a comprehensive design and review process that can occur years before actual site operations commence. In order to identify and minimize navigational safety and coordinated vessel movement issues well ahead of time, the Operations/Navigation Safety Subcommittee will keep appraised of these types of projects (for up to three years). The Subcommittee will facilitate timely assessment of navigational safety concerns during the concept stages so that appropriate modifications, if any, can be made. Additionally, the Subcommittee will work with the Coast Guard to ensure navigational risks are appropriately addressed through project modification and/or operational mitigation measures. The Subcommittee will review all projects for impacts to navigational safety and will:

a. Collect more information if necessary;
b. Brief the full committee on "impacting" projects
c. Recommend follow-up action such as:

i. Further subcommittee review;
ii. Postpone action to later date (wait until project concept solidifies).

B. HARBOR DEPTHS:

1. Following are the current procedures and frequency of checking harbor and berth depths at the Port of Los Angeles (POLA) and the Port of Long Beach (POLB):

a. Procedures: POLA/POLB check harbor and berth depths with leadline sounding and fathometer sounding.

i. For leadline sounding, one lowers a weighted chain marked in one–foot increments into the water until it hits bottom. The number of marks counted on the chain at the water line indicates the depth, which one must then tide correct.

ii. For fathometer, one records, digitally and graphically, the time it takes a sound wave to travel from an instrument near the surface to the bottom and back. This information is then tide corrected.

iii. Both ports currently have an automated sounding process using the latest satellite technology and a Geographical Information System. Once the harbor and berth depth soundings are complete, both ports forward data (sounding charts) to the respective Port Pilots and Terminal Operators. The Coast Guard is working with both ports and NOAA to ensure that this data is available to update charts.

b. Frequency: Historically, reduced water depth due to silt settlement only minimally affects POLA and POLB. Therefore, the committee considers the current frequency of sounding checks adequate. With minor variations, both ports check depth with similar frequency. POLA and POLB currently check the available water depth and perform soundings at one to two year intervals for container and crude oil terminals. POLA and POLB check certain wharves with known shoaling problems more often, and check as available wharves that accommodate vessels needing lesser drafts. Divers inspect underwharf slope biannually and immediately advise of situations such as embankment sloughing under the wharves or out–of–place riprap. POLA continually inspects backland behind the wharves for settlement that may also indicate sloughing. Approximately annual fathometer soundings, taken parallel to the wharf and about 12' outboard of the pierhead line, verify the existing water depth. If POLA finds irregularities, it orders additional soundings to confirm the available water depth.

At POLA, the Harbor Department and the U. S. Army Corps of Engineers perform soundings at all berths, channels, anchorages, and harbor approaches. Soundings are done for all tankers and dry bulk berths once each year and all other berths once each three years.

POLB also performs anchorage and berth soundings as requested, and completed soundings for all outer harbor anchorages in August 2006.

POLA and POLB also receive sounding requests from port tenants, pilots, properties/operations staffs, engineering division staff, executive management and the Coast Guard.

The Army Corps of Engineers perform soundings at Weapons Support Facility Seal Beach as requested. The Corps may sound annually, but severity of winter drives sounding as changes in depth appear to result from tidal slough action in the National Wildlife Refuge aboard the Weapons Support Facility Seal Beach. The Corps completed its last dredging in 1999, and completed its last soundings in March 2008. The Anaheim Bay entrance channel is experiencing some shoaling and now has a 34' controlling depth. The corps is scheduled to perform a partial dredge at the jetty opening area to 38' in September/October 2008. The Corps is then scheduled to dredge the entrance channel, inner and outer harbors to a controlling depth of 39' in FY09.

2. Findings: The Committee finds the current procedures and frequency of checking harbor and berth depths sufficient.

C. CURRENT STATUS: POLA and POLB, deep-water constructed ports, do not have siltation problems like natural river ports. The only sediments deposited in the ports are carried by the Los Angeles River, Dominguez Channel, and several smaller local storm drains. Due to the dry local climate, these channels carry significant quantities of water only on rare occasions during the winter, and silt settles out near the inlet mouth. The ports need only dredge occasionally to maintain berth side design water depths.

The Harbors usually have very localized shoaling problems. They occur mainly in the immediate vicinity of the pierhead lines, when propeller or bow thruster action cause localized sloughing of the underwharf embankments. Soft bottom conditions mitigate the effect of shoaling and ongoing maintenance dredging restores design water depth.

Expanding commercial facilities and increasing ship sizes often reduce maneuvering room near marinas and other facilities. This reduces the mariner's margin of error, and can contribute to hazardous situations, damage claims and undesirable maneuvering constraints from wake and prop wash. Although options may be limited, those designing new berths and terminals should plan for future comparable marina spaces and similar facilities. Since this can create short-term misunderstandings, developers should designate specific areas for commercial and recreational activities in a manner that minimizes potential conflicts and dangers. This long-term benefit to property and safety should be considered an integral element of any significant design.

D. PORT OF LONG BEACH: All 77 deep-water berths lie within three miles of the open sea, reached via a -76' (23.2m) deep Main Channel. The Main Channel lets tankers up to 310,000-ton class (current maximum draft 64') discharge their shiploads of oil. Dredging outside the Long Beach breakwater Entrance Channel has deepened that area to -76' (23.2m).

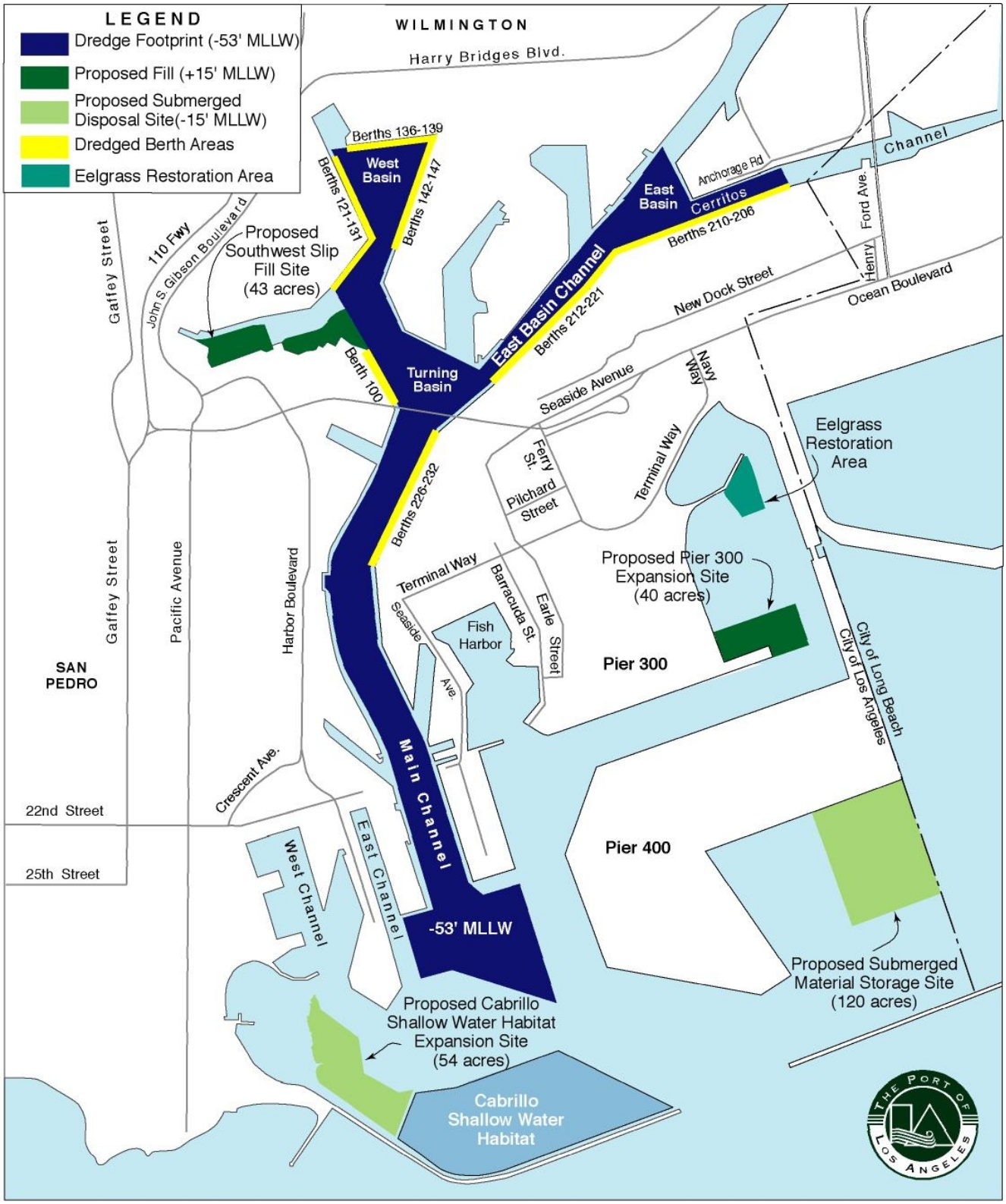
The Port of Long Beach has completed the first two phases of a new container terminal at Pier T on the north side of the West Basin. The terminal has a 5,000 foot wharf and a water depth of 55', MLLW at the berth. The northern portion of the West Basin has been deepened to -50' MLLW to provide an approach channel and turning basin.

The North Slip Fill project at Pier G in the Southeast Basin located between G229 and G233 is scheduled to begin February 2009. Over the next couple of years this proposed project will fill the northerly 1200 feet of the slip at Berth 231 to an elevation of 15 feet with material dredged from areas within the Long Beach harbor.

POLB will continue to dredge throughout the Harbor District to maintain berth and channel depths. Maintenance dredging maintains design depth and eliminates minor hazards caused by sediment deposition or vessel prop wash anomalies occurring on the bottom.

E. PORT OF LOS ANGELES: The U.S. Army Corps of Engineers commenced dredging to deepen the preexisting – 45' MLLW channels (Main Channel Turning Basin, East and West Basin, East Basin Channel, Cerritos Channel), to – 53' MLLW in January 2003. The project is completed, except for the East Basin Channel and the East Turning Basin. The remaining portions of the project will be completed at a yet to be determined date. Details of this project may be found in the USCG Captain of the Port Public Notice No. 01-001. Mariners are cautioned to closely monitor Notice to Mariners for changing information on this large project. Additionally, interested parties may contact the LA/LB USCG and request to be added to "FASTFAX" notification. The "FASTFAX" communicates daily navigation information to affected mariners. POLA performs maintenance dredging as required to maintain the depth of all of its berths.

Port of Los Angeles
Channel Deepening Project



F. CORPS OF ENGINEERS: The Corps of Engineers maintains the Federal Channels in Los Angeles/Long Beach Harbor. The channels and project depths are:

Los Angeles Harbor:

Main Channel	-53 feet
Turning Basin	-53 feet
West Basin	-53 feet
East Basin	-45 feet
North Channel (Pier 300/400)	-53 feet
North Turning Basin	-81 feet
Approach and Entrance Channels	-81 feet

Long Beach Harbor:

Federal Channels in the POLB

Long Beach Entrance Channel	-76 feet
Back Channel	-55 feet
Inner Harbor (Turning Basin)	-55 feet
Cerritos Channel	-50 feet
Channel 2	-37 feet – -55 feet
Channel 3	-36 feet – -45 feet

Some of the channels have been dredged deeper than the Federal project depth by the Port and are maintained by the Port.

Channels in the Los Angeles Harbor were last surveyed by the Corps in Spring of 2006.