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SECTION 1: Introduction

The Water Resources Action Plan (WRAP) developed by the Port of Los Angeles (POLA) and Port of Long Beach (POLB) represents a collaborative effort by the two ports to address water and sediment quality issues within their respective port districts. The Port of Los Angeles and the Port of Long Beach adopted the WRAP at a joint meeting of the two Boards of Harbor Commissioners in August of 2009. The ports’ stated goals for the WRAP are: (1) to support the attainment of full beneficial uses of harbor waters and sediments by addressing the impacts of past, present, and future port operations; and (2) to prevent port operations from degrading existing water and sediment quality.

The WRAP has two main driving forces: (1) the ports’ need to achieve their broad mission to protect and improve water and sediment quality, and (2) the imminent promulgation by the Los Angeles Regional Water Quality Control Board (LA-RWQCB) and the U.S. Environmental Protection Agency (EPA) of Total Maximum Daily Loads (TMDLs) for harbor waters, and the associated Clean Water Act (CWA) permits. The WRAP’s purpose is to put in place the programs and mechanisms for the ports to achieve the goals and targets that will be established in the relevant TMDLs and to comply with the Industrial Activities, Construction Activities, and Municipal Separate Storm Sewer System (MS4) permits issued to the ports and their respective cities and tenants through the National Pollutant Discharge Elimination System (NPDES) program. Throughout the process of implementing the WRAP, the ports will be guided by the basic principle of promoting science-based studies and methods in the integration of regulatory requirements with water and sediment management programs.

1.1 WRAP Development, Review, and Adoption

The ports developed the WRAP with the guidance and participation of the EPA, the LA-RWQCB, and the WRAP Plan Advisory Committee (PAC), a public stakeholder group composed of regulatory agencies, non-governmental organizations, and community representatives. Development of the WRAP included a comprehensive analysis of potential pollutant sources and contaminants of concern, identification of key issues associated with water and sediment quality, examination of existing programs, analysis of key issues in water and sediment quality, and evaluation of what additional control measures were needed to achieve the mission of the ports with respect to water and sediment resources. Throughout the process the input of the EPA, the LA-RWQCB, and the PAC was solicited, evaluated, and incorporated into the WRAP; information on the WRAP and its development, including the PAC meeting minutes, is available on the two ports’ websites (www.portoflosangeles.org; www.polb.com). The WRAP outline and the schedule for developing the document were presented to the PAC in September 2008, a list of the proposed control measures was presented to the PAC at the November 2008 meeting, and a draft of Section 4, containing the control measure write-ups, was provided to the PAC in March 2009. The comments of PAC members, EPA, and the LA-RWQCB
on the draft measures and WRAP text prompted a number of refinements to the document, including the addition of two control measures (LU-8 and S-2) that were not originally envisioned.
SECTION 2: Annual Progress Reports

The WRAP is a living document in the sense that the ports expect to modify it over time as circumstances warrant. Periodic review of the WRAP by the ports will determine the need for updates. Updates could be warranted by regulatory changes such as issuance of TMDLs and/or substantially modified NPDES permits, by technological advances in pollution control, or by the addition of new control measures. Rather than produce annual updates to the WRAP, the ports identified that annual reports identifying the progress of the various control measures, would be developed and presented to their Boards, with document updates occurring on an as-needed basis only.

The first progress report was completed and released in October 2010. The report focused on each individual control measure and included a summary and status update for each port. Milestones for each control measure were noted, including the current status of each control measure and future plans. The 2010 Progress Report is available on each port’s website (http://www.polb.com/environment/water_quality/wrap.asp and http://www.portoflosangeles.org/environment/wrap.asp).

2.1 Permitting and Regulatory Update

2.1.1 Total Maximum Daily Loads

As discussed in Section 2.4.5 of the WRAP, specific water bodies within each port’s (POLB and POLA) jurisdiction are identified as impaired for several pollutants on the 303(d) list of impaired water bodies. For the impaired water bodies, TMDLs are being developed to identify pollutant load reductions for each listed pollutant. Since 2005, the ports have been supporting the LA-RWQCB and EPA on the development of the Draft TMDL for Toxic Pollutants in the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters (Draft TMDL) by collecting and providing significant amounts of data, reviewing work product, and providing technical input and resources. The WRAP hydrodynamic model was used extensively to analyze data and provide pollutant fate and transport scenarios.

On December 17, 2010, the LA-RWQCB and the EPA released the Draft TMDL for public review. In response to environmental impairments identified for sediment, fish tissue, and biota, the TMDL set numeric water quality targets for 303(d) listed pollutants based on the State’s water quality objectives. The TMDL would require responsible parties to achieve the final waste load allocations and demonstrate attainment of the water quality objectives in the impaired water bodies within 20 years. The ports submitted over 200 specific technical comments with over 5000 pages of supporting material on the Draft TMDL in an attempt to ensure the TMDL would be technically sound, based on accurate data, and would not cause additional adverse environmental impacts.

The LA-RWQCB incorporated some of the ports’ comments into the Draft Final TMDL, and on March 5, 2011, the Final TMDL was adopted. The Final TMDL is expected to be
forwarded to the State Water Board and EPA for final approval no later than March 2012. The ports will continue to participate and make comments throughout the adoption process.

2.1.2 NPDES Permits

Along with TMDLs, the ports must comply with NPDES permits that cover stormwater discharges from both industrial and construction-related activities in the ports. The LA-RWQCB held a preliminary meeting with each port to discuss potential permitting structures. Both ports have been independently moving forward with implementation and compliance for the construction NPDES permit. The first annual report for construction projects covered under the construction stormwater NPDES permits were due to the LA-RWQCB by September 1, 2011. Similarly, both ports are continuing to implement their respective stormwater programs for the industrial and municipal NPDES permits. POLA annual facility inspections began in August 2011 and will be completed prior to the start of the rainy season. The POLB completed facility spot inspections throughout the first two quarters of 2011 and began annual facility inspection in August 2011, which will be completed by late-September. Both ports are also in discussion with LA-RWQCB regarding the NPDES permit structure governing the port areas, which is subject to change as NPDES permits continue to evolve in the Los Angeles region.

On January 28, 2011, the State Water Board released a draft NPDES permit for industrial discharges. This draft permit, if finalized, would replace General Permit Order 97-03-DWQ which currently covers stormwater discharges for general industrial facilities. Among the proposed changes, the draft permit included effluent benchmarks for facility stormwater discharges. The POLB reviewed the permit and provided comments. These comments, as well as comments submitted by other stakeholders, can be found on the State Water Board’s website at the following link: http://www.swrcb.ca.gov/water_issues/programs/stormwater/igp_cmmnts042911.shtml.

The POLA and POLB each hosted a workshop (March 2011) for their respective tenants on the draft permit. The workshops included a presentation on the draft industrial permit and provided an opportunity for tenants to discuss the proposed permit with port staff. The input received from the tenants helped to inform the ports’ comment letters.
SECTION 3: Control Measure Summary and Update

The ports, with assistance from regulatory staff and stakeholders, identified 14 control measures in the WRAP aimed at fulfilling each port’s water resources mission. Four basic types of sources are addressed by the WRAP through existing and proposed control measures: land-use discharges (LU in the table below), on-water discharges (OW), sediments (S), and watershed discharges (WS). While both ports are committed to developing and implementing programs and policies for each of the 14 control measures, some control measures contain different goals and implementation timelines for each port, based on their respective existing programs and overall priorities. The following section describes each of the 14 control measures, followed by a brief summary of each port’s current status. The final documents related to the various control measures will be posted on the ports’ respective websites (http://www.portoflosangeles.org/environment/wrap.asp and http://www.polb.com/environment/water_quality/wrap.asp).

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<thead>
<tr>
<th>CONTROL MEASURE</th>
<th>SUMMARY</th>
<th>WRAP SCHEDULE</th>
<th>CURRENT STATUS</th>
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<tbody>
<tr>
<td>LU-3: Structural BMPs</td>
<td>Evaluate the need for structural BMPs for key discharges and targeted pollutants at existing facilities and install where necessary to ensure compliance.</td>
<td>POLA: Develop and initiate inspection strategy by end of 2009; identify new measures by end of 2010. POLB: Identified through annual inspections.</td>
<td>POLA: Strategy complete. Program ongoing. POLB: Continued implementation of existing program through annual inspections.</td>
</tr>
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### Control Measure Summary

<table>
<thead>
<tr>
<th>Control Measure</th>
<th>Summary</th>
<th>Wrap Schedule</th>
<th>Current Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>LU-5: Litter Control Program</td>
<td>Enhance and expand litter control programs and implement relevant elements of those programs in specific sources.</td>
<td>POLA: End of 2010. POLB: Mid-2010.</td>
<td>POLA: Program ongoing. POLB: Program ongoing, with expanded efforts in development and expected to launch in late-2011.</td>
</tr>
<tr>
<td>LU-8: Remote Sites Stormwater Compliance</td>
<td>Evaluate port-owned properties within the watershed but outside the harbor districts, and ensure permit compliance as necessary.</td>
<td>Program implementation by end of 2010.</td>
<td>POLA/POLB: Complete. Continuing as required.</td>
</tr>
<tr>
<td>OW-3: BMPs &amp; Standards for Cathodic Protection</td>
<td>Develop BMPs and port standards for zinc-based cathodic protection of port structures and vessels.</td>
<td>Standards developed by end of 2010.</td>
<td>POLA/POLB: Standards developed and in place.</td>
</tr>
<tr>
<td>CONTROL MEASURE</td>
<td>SUMMARY</td>
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<td>CURRENT STATUS</td>
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<tr>
<td>S-2: Legacy/Hotspot Management Plan</td>
<td>Develop a sediment management policy establishing priorities for management of areas of legacy contaminated sediments and hotspots.</td>
<td>Subject to completion of the TMDL process.</td>
<td>POLA/POLB: Draft implementation plan developed; will be finalized through the TMDL process. POLB: Dredging at IR Site 7 was completed in February 2011.</td>
</tr>
<tr>
<td>WS-1: Support Pollutant Loading Reduction Efforts</td>
<td>Employ all available means to support efforts to reduce upstream pollutant loadings that adversely affect harbor water and sediment quality.</td>
<td>Ongoing.</td>
<td>POLA/POLB: Participation in watershed activities is ongoing.</td>
</tr>
</tbody>
</table>
3.1 Control Measure Updates

Land-Use Discharge Control Measures
Land-use control measures are focused on discharges from the various land uses in the ports, including industrial uses such as cargo and passenger terminals, port-related industrial facilities, roads and rail lines; related activities such as equipment maintenance; and non-industrial uses such as shops and restaurants, fishing piers, beaches, and marinas.

POLA: In 2010 under LU-1 and LU-3, POLA fully implemented its stormwater Tenant Outreach Program (TOP), visiting 90 tenants, recognizing good procedures, and providing suggestions on additional BMPs to implement. POLA has continued to improve the TOP, coordinating with the City of Los Angeles’ Watershed Protection Division and LA-RWQCB staff. Under LU-2, the port is coordinating with the city’s Watershed Protection Division regarding measures to comply with the city’s Low Impact Development Ordinance, which is still being finalized and needs to be included in the port’s Design Guidance Manual, along with Standard Urban Stormwater Mitigation Plan (SUSMP) measures. Under LU-4, orphan sites most at risk for dust creation and sediment erosion have been identified and solutions will be applied before the start of the 2011 rainy season in October. POLA staff continue to implement programs under LU-5, LU-6, LU-7, and LU-8.

POLB: All control measures focused on land-use discharges have been completed in accordance with the initial WRAP schedule. The POLB’s Master Storm Water Program has been in place since the early-1990s. The program was designed to assist participating facilities/tenants with NPDES permit compliance. In many cases, implementation of the WRAP control measures included enhancements to existing stormwater programs. POLB staff will continue to update stormwater programs under LU-1, LU-3, LU-5, and LU-7 to ensure compliance and improved environmental protection within the port. For LU-2, a draft Design Guidance Manual was completed and vetted internally by Environmental Planning and Engineering staff. The Design Guidance Manual is expected to be presented to the Regional Water Board for review as part of future NPDES permitting discussions.

On-Water Discharge Control Measures
Control measures for on-water discharges focused on vessel discharges such as bilge water, black water, and gray water as well as leaching from bottom paint and corrosion, among others.

POLA: In July of 2010, the ports completed the Vessel Discharge Rules and Regulations document, a guidance manual summarizing the various regulations pertaining to vessel discharges and maintenance activities. POLA continues to guide activities for small vessel discharge and maintenance through its Clean Marina Program. As of July 2011, eleven marinas in L.A. Harbor had received Clean Marinas Program certification, and POLA developed and distributed a boat maintenance policy for
recreational vessels. POLA has also developed and is implementing a Pile Evaluation Program.

**POLB:** As stated above, in July of 2010, the ports completed the Vessel Discharge Rules and Regulations document, a guidance manual summarizing the various regulations pertaining to vessel discharges and maintenance activities. In February of 2011, the POLB developed a similar rules and regulations document focused on small vessel discharge and maintenance activities. The documents were provided to POLB staff and tenants, and are available on the WRAP website. Cathodic protection BMPs were completed and provided to the POLB Engineering Division. Several alternative pile pilot projects are currently in place within the port and are being evaluated for performance. POLB will continue to monitor the various alternative piling types to determine what would be acceptable for long-term use within the POLB environment. Revised BMPs for the storage, installation, and removal of treated piles have been developed and are being followed.

**Sediment Control Measures**
As mentioned in the WRAP, harbor sediments have been subjected to pollutant inputs for many decades. Through dredging and other remediation programs, portions of the contaminated sediments have been removed from the harbors. However, legacy contaminants still remain. Most of the control measures developed for land-use, on-water, and watershed discharges will, in the long term, benefit sediment quality by reducing the influx of pollutants that could make their way into the sediments.

**POLA:** A draft Sediment Management Guidance document (S-1) was completed in 2010 and is currently being finalized. The final document will also contain the port’s strategy for managing legacy contamination/hot spots (S-2) which is consistent with the strategy outlined in the Harbor Toxics TMDL recently approved by the LA-RWQCB. Implementation of the S-2 strategy will be done through the port’s TMDL compliance activities.

**POLB:** A draft Operations Sediment Management Plan (S-1) was completed in 2010. The plan is currently being finalized. The final Operations Sediment Management Plan will also contain a draft legacy/hotspot management plan that is consistent with the framework outlined in the Final TMDL. The final legacy/hotspot management plan will be completed as part of the TMDL process.

**Watershed Control Measure**
Watershed discharges originate outside the harbors (and beyond the jurisdiction of the ports), and are conveyed into the harbors by larger inputs, such as the Dominguez Channel and the Los Angeles River, and by storm drains that drain areas outside the harbors and discharge into the harbors.
POLA and POLB: Participation in watershed activities is ongoing. Staff attends Dominguez Watershed Advisory Committee meetings and periodically updates the attendees on WRAP activities. POLA is also participating as a stakeholder in discussions regarding the upcoming new Los Angeles County municipal NPDES permit. See Section 2.1.1 for a discussion of the ports’ involvement in the TMDL.

3.2 Technology Advancement Program

The WRAP’s Technology Advancement Program (TAP) is intended to evaluate, demonstrate, and incorporate new technologies into the suite of control measures by which the ports will advance towards their goal of protecting and improving water and sediment quality in the harbor complex.

For emerging technologies that appear to warrant testing in the port environment, the ports and other stakeholders will work together to identify funding opportunities, secure field testing locations, establish testing protocols, and pursue the actual demonstration projects.

POLA: The POLA is developing a formalized TAP program to implement a pending available budget. Funding for fiscal year 2012/2013 will be requested. Identified technologies to install, pending budget approval, include in-water trash skimmers and trucker trash cans.

POLB: The POLB established a number of pilot projects through the WRAP TAP, starting in 2009. These pilot projects included automatic retractable screens which were installed on more than 40 catch basins within the port, the continued development of trucker trash cans as part of POLB’s litter control program, the installation of three fiberglass reinforced plastic piles, in-water trash skimmers, and solar powered trash cans that provide on-site compaction to reduce waste buildup.
SECTION 4: NEXT STEPS

Staff at both ports have determined that a formal update of the WRAP document is not necessary at this time. As control measures continue to be developed and implemented, staff of the two ports will report to their Boards on progress, recommended actions, and on any other relevant information. Annual progress reports will continue to be provided to stakeholders and the Boards.