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Introduction
This is the third sustainability report that the City of Los Angeles Harbor Department (commonly referred to as the Port of Los Angeles or the Port) has published. The Port’s first report was released in 2011 and the second was prepared in 2013. These reports can be found on the Port’s website at www.portoflosangeles.org. This report focuses on progress made on sustainability initiatives over the 12-month reporting period from July 1, 2013 through June 30, 2014 (Fiscal Year [FY] 2013/14).

The Port complex is a major contributor to the local, regional, and national economy. As such, the Port provides many positive opportunities for job creation, community investment, and growth in international trade. With this significant economic strength comes a great deal of responsibility to balance the social and environmental impacts of goods movement in a sustainable manner. The Port’s long-term vision statement highlighted in this report and contained within the Strategic Plan establishes the Port’s leadership role and priorities for sustained growth. This annual report provides a summary of efforts made by the Port over FY 13/14 to meet this challenging balance.

This report begins with a letter from the Port’s Chief Sustainability Officer (CSO), Christopher Cannon, that highlights many of the Port’s recent sustainability initiatives and progress made over FY 13/14. The next two sections — “About the Port of Los Angeles” and “About this Report” — provide an overview of the Port’s scale and primary activities, and outline the programs and initiatives featured in this report. These initial sections are intended to give the reader a context within which to interpret the Port activities, roles in the maritime industry and community, and scale of operations. An acronym list is included near the end of the report.

The **Sustainability Performance** section comprises the bulk of this report and details the Port’s performance over the reporting period. This section is organized into five areas of emphasis: Community Investment, Land Use and Infrastructure, Public Health, Energy and Resource Conservation, and Financial Strength. This report concludes with a look at the Port’s sustainability plans for 2015 and beyond.
Letter from our Sustainability Officer

The Port is proud to be America’s largest container port. Our role as a leader in the maritime industry includes the responsibility to drive economic growth while maintaining a vibrant community and an enduring environment.
As CSO, I am pleased to help guide the organization to achieve the vision of our strategic plan, which outlines our economic, environmental, and social goals and provides the roadmap to achieving them. Our focus will be on developing and maintaining world-class infrastructure, improving supply chain efficiencies through industry partnerships, optimizing land and assets, and working with key stakeholders to increase success.

To demonstrate our commitment, the Port is in the midst of a $1.3 billion capital improvement program aimed at maintaining our competitive edge in the goods movement industry and speeding the flow of cargo to the nation. Meanwhile, our air quality programs have slashed Port-related emissions by nearly 80 percent since 2006. We undertook a comprehensive update to the Port Master Plan to guide and direct future development. Our neighboring communities enjoy greater access to the waterfront and a wider variety of activities than at any time in the Port’s recent history through our community investment programs.

In 2013, the Port completed the installation of alternative maritime power (AMP) at 24 berths throughout the Port. Our AMP infrastructure allows vessels to shut down their diesel engines and run on cleaner electrical power from the grid while at berth.

In 2013 we also saw the signing of a 50-year lease for the groundbreaking AltaSea project. This public-private partnership will redevelop the 100-year-old City Dock No. 1 into world-class oceanographic research space and learning opportunities at the Port. In addition, 2014 saw the opening of the Downtown Harbor project, a space that provides visitors another opportunity to enjoy the waterfront and views of the Port. The community continued to enjoy the wide variety of public events hosted in the Port each year with the annual Cars & Stripes Forever and Lobster Festival once again being two of the largest draws. Also in 2014, our Board approved the crucial Energy Management Action Plan (E-MAP) which identifies potential actions to improve the resiliency of the Port’s electrical grid while continuing to diversify the Port’s electricity profile.

Looking ahead, the Port will continue to be proactive in our pursuit of sustainability. This will mean engaging our stakeholders and making hard decisions that balance our role as an economic engine, incubator of innovation, and steward of the land and water entrusted to us by the people of the State of California.

The pages that follow detail progress on our most important programs and our ongoing efforts toward improving our economic, environmental, and social performance. I encourage you to use this report to learn what the Port is doing to meet its commitment as a sustainable leader in the maritime industry.

Christopher Cannon
Chief Sustainability Officer
Port of Los Angeles
OVERVIEW

As the leading seaport in North America by shipping container volume and cargo value, the Port is a global leader in facilitating cross-border trade and commerce. Located in San Pedro Bay, 26 miles south of downtown Los Angeles, the Port is a crucial economic engine for the nation, contributing roughly $260 billion a year to the national economy and is associated with the creation of approximately 3.6 million jobs.

As a landlord port, the Port leases property to customers who operate their own facilities. Though containerized cargo is the primary economic engine driving Port activities, the Port also hosts a variety of other uses including:

- Non-containerized cargo terminals (including break-bulk, dry bulk, liquid bulk and automobile)
- Cruise Terminals
- Fishing
- Railroads
- Recreational marinas
- Retail stores and restaurants
- Maritime museum and historic attractions
- Community parks

As a proprietary department of the City of Los Angeles that does not receive taxpayer dollars, the Port is responsible for port operation activities and derives its revenues from property leases and fees for dockage, wharfage, storage, royalties, and other port services.

The Port has been an engine of global trade for over a century. The Port provides access to multiple service providers in all parts of the logistics chain, and the highest frequency of intermodal access to 14 major freight hubs across the United States.
POLA AT-A-GLANCE

• Founded in 1907
• 7,500 acres of land and 43 miles of waterfront
• 1.8 billion square feet of industrial buildings including warehouse and distribution facilities
• 270 berths (including 24 AMP berths)
• 25 cargo and passenger terminals
• 16 marinas with a combined 3,800 recreational boat slips
Board of Harbor Commissioners
From left: Edward Renwick, Commissioner; David Arian, Vice President; Ambassador Vilma Martinez, President; Patricia Castellanos, Commissioner; and Anthony Pirozzi, Jr., Commissioner
Operational Structure

The Port is directed by a five-member Board of Harbor Commissioners (Board), whose members are appointed by the Mayor of Los Angeles and approved by the Los Angeles City Council. The Board is responsible for overseeing all aspects of the Port’s operations. Regular meetings of the Board provide a forum for the public to address the Board, and for Port employees to bring resolutions to the Board for adoption. Board operations are governed by the Brown Act of the State of California that generally requires Board deliberations be completed in a transparent manner such that the public can monitor and provide input on topics being considered. Further, Board members have a public mechanism of recusing themselves from deliberations where they have a conflict, or potential conflict of interest.

The Board appoints the Executive Director, who is responsible for the day-to-day operations of the Port. All orders, rules, and regulations adopted by the Board are implemented through the Executive Director. Five Deputy Executive Directors serve under the Executive Director and manage the Port’s main organizational functions: finance, development, operations, business development, and external relations.

The Environmental Management Division holds the primary responsibility for sustainability planning and reporting.

Nearly 170,000 automobiles were moved through the Port in 2013.
TIME PERIOD AND REPORTING BOUNDARIES

This report covers the Port’s sustainability performance and progress during the timeframe of July 1, 2013–June 30, 2014 (FY 2013/14). In some cases, data are not available for the FY 2013/14 time period. In these cases, the most current available data are included in the report. It is anticipated that data not included for this reporting period will be included in the next report.

Regarding the reporting boundaries, this report covers all facilities controlled by the Port for the operation of Port activities, and all staff employed at the Port. In addition, the Port takes on the responsibility of measuring, mitigating, and reporting on cumulative impacts from tenant activities where possible. Though tenant activities are not under the Port’s direct control, the Port has the ability to positively influence the sustainability of tenant activities through various mechanisms including lease agreements, outreach efforts, and incentive programs. In addition, many tenants have recognized the importance of incorporating sustainable business practices into their operations as an important part of being competitive in today’s market. Therefore, the performance data contained in this report represents a combination of Port and tenant activities. In summary, the Port takes the approach of extending the reporting boundaries beyond the Port’s direct operational control. Indeed, this report covers issues related to the Port area as a whole and sometimes the boundaries are further extended by covering aspects of the logistic chain. This is a more challenging way of looking at sustainability reporting, but provides a more complete picture of the Port.

For questions or comments regarding this report, please contact the Port’s Environmental Management Division at environmental@portla.org.
The Port's operations involve many diverse stakeholders locally, domestically, and globally. As a rule, the Port maintains ongoing communication on pertinent issues with its stakeholders. The avenues of this communication vary with the constituency and topic but include regularly scheduled public meetings, topic-specific community forums and events, international and domestic trade missions, press releases, newsletters, the Port website and social media. A diagram of key stakeholders with whom the Port maintains regular communication is provided below.

A robust and open dialog with all stakeholders is a cornerstone of the Port’s Strategic Plan. While the Port receives input from many areas, there are three stakeholder groups that have played a particularly active role in determining the content for this report, as detailed below.

**Customers**

As a landlord port, the majority of the property in the harbor is operated by the Port’s customer tenants. The Port does not directly control these customer operations. However, the Port has worked diligently over the years to foster strong relationships with customers, and share with them best practices for sustainably managing their operations. In some cases, the Port requires customers to adhere to specific practices and mitigation measures that are necessary to maintain the health of our local and global resources, including through Sustainable Lease Agreements and conditions contained in the Clean Truck Program. The Port also extends its sustainability philosophy to customers through programs designed to share best management practices, such as the Tenant Outreach Program (TOP) and customer site visits. Other programs provide incentives to customers who voluntarily mitigate environmental and community impacts, for example the Environmental Ship Index and the Vessel Speed Reduction Incentive Program.

The Port actively seeks input from customers to guide future planning decisions. As a landlord, the Port has a responsibility to help maintain and develop waterfront properties that meet the needs of existing and future goods movement customers. The Port’s Business Development and Development Bureaus stay in regular contact with tenants regarding the planning, design, construction, and operation of property at the Port.
REGULATORS

The Port is recognized among global ports for its collaborative relationship with regulators. Rather than reactively responding to environmental legislation, the Port actively works with regulators to conduct research and pilot solutions that will most effectively address the environmental and social issues related to Port activities. The Port developed its landmark Clean Air Action Plan and Water Resources Action Plan in collaboration with local, state, and federal air agencies. In addition, the Port has been instrumental in collaborating with legislators on sustainability-related legislation, including regulations to establish Total Maximum Daily Loads (TMDLs) for harbor waters and requirements for low sulfur fuel use by ocean-going vessels (OGVs).

LOCAL COMMUNITIES

The Port recognizes its responsibility to actively mitigate environmental and human health impacts associated with Port operations. The extensive environmental and social programs detailed in this report are designed to minimize these negative impacts so that communities surrounding the Port experience net positive benefits from Port activities, and that community needs and concerns are addressed. When considering or initiating new development projects, the Port conducts extensive community outreach through workshops, meetings, and hearings to provide community members with an opportunity to participate in key decisions and help guide the direction of Port activities.

The Port’s Public Relations division is specifically responsible for working directly with the public and government agencies. In this role the Port engages with non-governmental organizations (NGOs), lobbyists, industry associations, as well as individual citizens.

KEY SUSTAINABILITY MEMBERSHIPS AND ASSOCIATIONS

In addition to engaging directly with the stakeholder groups, the Port also actively participates in a variety of international and regional organizations dedicated to improving the sustainability of Port operations.

These include:

- International Association of Ports and Harbors
- World Ports Climate Initiative
- California Association of Port Authorities
- American Association of Port Authorities
- Pacific Ports Clean Air Collaborative
- West Coast Ports Sustainable Design and Construction Guidelines Technical Committee
- Permanent International Association of Navigation Congresses (PIANC) World Association for Waterborne Transport Infrastructure
- California Stormwater Quality Association
Material Issues

Through the stakeholder consultation process, the 2013 Sustainability Report identified five material issues that are most significant to Port stakeholders. These issues were defined through the Port’s ongoing outreach and interaction with stakeholder groups. These interactions are carried forward by staff from a number of Port divisions including, but not limited to: real estate, business development, environmental management, construction division, engineering division, public relations, senior management, and the Board of Harbor Commissioners. Based on the Port’s assessment of recent outreach, the five material issues from the 2013 report remain relevant and important and continue to be integrally tied to the Port Strategic Plan. As such, this report will maintain the same five material issues that were addressed in the previous sustainability report:

I. Community Investment  Building healthy and strong local and regional communities through economic and workforce development, provision of community benefits and public space amenities, and improving quality of life and mitigating environmental impacts.

II. Land Use and Infrastructure  Managing Port land for its highest and best use; developing and maintaining world-class infrastructure to meet the current and future needs of customers, community and environmental protection; and providing for the integration of industrial, commercial, recreational, and ecological spaces and facilities.

III. Public Health  Preventing and progressively reducing health-related impacts from Port operations to the greatest extent feasible.

IV. Energy and Resource Conservation  Conserving energy, water, and land-based resources to the greatest extent possible through responsible stewardship, adaptive planning, technology advancement and operational best practices; generating renewable energy for Port operations.

V. Financial Strength  Securing, managing, and deploying resources to meet financial performance goals in order to invest in, grow, and maintain a world-class sustainable Port.

This report has been structured such that performance information is aligned with the five material issues.
Sustainability Performance

The Port administers a wide range of programs and initiatives to address the five material issues. These programs have garnered multiple awards over the years. Below is a list of the sustainability-related awards that the Port received during the 2013/2014 reporting period.

Awards

- **Los Angeles Quality & Productivity Commission Award** – Trade Connect Program
- **NASBITE 2014 Program Excellence Award** – Trade Connect Program
- **NASBITE Advancing International Trade Awards** – Trade Connect Program
- **WTSLA 2014 Innovative Transportation Solutions** – TraPac Terminal
- **Waterfront Center Excellence on the Waterfront** – Ghost Fish Sculpture
- **2013 Urban Land Institute National Open Space Award Competition Finalist** – Wilmington Waterfront Park
- **2013 APWA’s B.E.S.T. Project of the Year** – Southern Pacific Slip Waterfront Plaza
- **ISO 14001 Recertification** – Construction and Maintenance Division
HIGHLIGHTS

Significant sustainability achievements in FY 2013/14 include:

• Continued reduction of air emissions including a 50-percent reduction in sulfur oxide (SOx) emissions in the last two years
• Implementation of AMP infrastructure at 24 berths
• Opening of the Downtown Harbor project
• Development of the E-MAP, a roadmap to bolster the reliability and efficiency of the electrical grid at the Port
• Completion of the first phases of the TraPac terminal modernization, the Port’s first automated container facility
• Establishment of the Community Grant Program
• More than 250,000 labor hours completed under the Port’s Project Labor Agreement
• 75 percent of contracted dollars awarded to Local Business Enterprises

The Port is on target to meet or exceed its 2014 air quality goals.
COMMUNITY INVESTMENT

As a global leader in containerized trade, the Port has influence across the world. However, the Port’s greatest influences are made in and around the harbor areas. As such, the Port invests heavily to protect the ecological resources of the Port and enhance the communities of surrounding neighborhoods. In addition, the Port takes a direct approach to supporting the education and professional development of local residents and its employees. This section describes the Port’s community investments in three significant areas:

- Community Development Projects
- Education Programs
- Port Employee Programs

Key progress in the reporting period includes:

- Establishment of Port-funded grants Community Investment Sponsorship Program
- Opening of Downtown Harbor project
- Beautification projects in both Wilmington and San Pedro communities

Community Development Projects

The Port’s Strategic Plan includes the expansion of benefits and opportunities that the Port can provide to the local community. This includes an expansion of recreational, commercial, and industrial space at the Port. In 2013/2014, the Port held two rounds of its new Community Investment Sponsorship Program grants. The first round, for a total of $50,000, was done as a pilot program. Based on the success of the pilot, the Port expanded the Program with a second round of grants totaling $1 million. The expanded grant program was targeted at small ($5,000 or less), medium ($5,001 to $99,999), and large ($100,000 and above) projects and events and will be funded through the Port’s 2014/2015 budget. The small and medium sponsorships were awarded in FY 2013/14 and totaled $395,000. The remainder of the $1 million (approximately $600,000) is planned to be awarded to large projects in FY 2014/15. A summary of grant applicants and awards for the pilot program and small/medium sponsorships can be found on the Port’s website:

www.portoflosangeles.org
LA Waterfront Project

The LA Waterfront Program consists of waterfront development and community enhancement projects in the Port’s Wilmington and San Pedro districts. Through ongoing development of the LA Waterfront, the Port aims to optimize waterfront resources, and to provide infrastructure and amenities to support healthy and vibrant local communities.

Downtown Harbor

Completed in 2014, the Downtown Harbor project is a centerpiece of the ongoing revitalization of the LA Waterfront in San Pedro. The Downtown Harbor opens up 1.2 acres (previously a parking lot) of waterfront between Fire Station 112 and the Los Angeles Maritime Museum. The space has been transformed with a new harbor inlet for recreational vessels to dock free of charge for up to 4 hours. Surrounding the inlet is a public plaza and pedestrian promenade that features trees and landscaping, decorative lighting, a picnic area, and an overlook pier. Artistic elements accent the public open space. Mirroring the illumination of downtown San Pedro, light-emitting diode (LED) lights are strung among the palm trees, identical street pole lights outline the plaza’s perimeter, and “Warner Grand” art deco pathway bollards dot the water’s edge. The area gives a nod to its historical, maritime roots, featuring 20 of the Maritime Museum’s outdoor artifacts, including anchors, propellers, and a World War II torpedo.

The official public art installation at Downtown Harbor, “The Ship Chandler” by artist Mark Dion, is an approximate 9-by-12-foot cabin comprised of salvaged materials that represent the Port during the 19th and 20th centuries. Designed to be viewed from the outside looking in, the structure is located in the plaza area near the Los Angeles Maritime Museum. Bench seating and wood tables by local San Pedro artist Harold Greene feature inlaid nautical flags that correspond to a letter in the alphabet. At each table corner, flags spell out P-O-L-A for Port of Los Angeles.

The Downtown Harbor was built under the Port’s new Project Labor Agreement (PLA), which was designed to ensure safe, quality development projects and job opportunities for local and disadvantaged residents. For more information on the PLA, see the Financial Strength section of this report.

Ports O’Call Redevelopment

Ports O’Call Village is an approximately 30-acre waterfront property on the Port’s Main Channel and adjacent to downtown San Pedro. The village was originally developed in the 1960s and has a rich history as a tourist destination for shopping and dining. In 2013, the Port began negotiations to revitalize 30 acres of waterfront that includes the Ports O’Call. The current redevelopment plan, submitted by LA Waterfront Alliance, includes retail space, restaurants, and a boutique hotel with conference center. The redevelopment plans also include open space that would be used for events. In 2014, the Port started preliminary design on the Sampson Way and 7th Street/Harbor Boulevard Intersection to improve the flow of traffic to the Ports O’Call property while maintaining the aesthetics of the LA Waterfront.

CRAFTED at the Port of Los Angeles

The creators of Bergamot Station Arts Center have transformed two 1940s-era warehouses into a bustling crafts marketplace called CRAFTED at the Port of Los Angeles (CRAFTED).

CRAFTED hosts a community of one-of-a-kind local artists, handmade goods, gourmet concessions, live music and entertainment within classic World War II-era waterside warehouses. The indoor venue boasts 140,000 square feet between both warehouses, with 500 vendor stalls, spacious aisles and natural lighting, plus a large outdoor courtyard. CRAFTED was created through the refurbishment of two out of use warehouses and is an example of the Port’s commitment to examine adapted reuse options for existing facilities.

The first phase of CRAFTED opened in June 2012. Since that time, CRAFTED has continued to grow with additional lease space being occupied. As of June 2014, CRAFTED has become a popular destination for those seeking fun, unique gifts and art. Along with the standing artists and vendors, CRAFTED is the home of nearly weekly public events where people learn crafting skills enjoy live music, or sample unique or seasonal foods.
Community Events

The Port is both a destination and a host for a wide range of community events throughout the calendar year. The 2013/2014 year was no exception. The annual car show, music, and fireworks of “Cars and Stripes Forever” was attended by 25,000 people in 2013. Meanwhile, the 2014 Lobster Festival continued its reign as the world’s largest lobster festival with 40,000 visitors enjoying lobster, music, and family fun. In addition to Port-planned events, Port property can be leased to outside entities to host special events. In the fall of 2013, the acrobatic troupe Cirque du Soleil TOTEM set up their big top for a six-week engagement at Berths 45 to 49.

The Port’s staff spends months planning these large community events. Many events are single occurrences to mark a specific occasion (such as a ground-breaking or ribbon-cutting). Other events are mainstays of the calendar and occur each year. These annual events can transition over time and either grow in popularity or slow down and eventually be replaced by other events. Navy Week is an example of an annual event that was drawn down over the past several years. As the 2013/2014 reporting year closed, Port staff was putting the finishing touches on the 2014 Tall Ships Parade that included the visit of the world’s largest rubber duck, which was expected to be one of its largest community events to date.

The Port maintains a full schedule of events for the current season online on the Port’s community calendar.

<table>
<thead>
<tr>
<th>COMMUNITY EVENTS</th>
<th>FISCAL YEAR ATTENDANCE</th>
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<tbody>
<tr>
<td></td>
<td>2011/2012</td>
</tr>
<tr>
<td>AltaSea Press Event</td>
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<tr>
<td>Annual Waterfront Update Meeting</td>
<td>225</td>
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<tr>
<td>APMT 10th Anniversary</td>
<td>--</td>
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<tr>
<td>Cars &amp; Stripes Forever!</td>
<td>17,500</td>
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<tr>
<td>Concert - San Pedro</td>
<td>--</td>
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<tr>
<td>Concert - Wilmington</td>
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<tr>
<td>Concerts at the LA Waterfront</td>
<td>3,000</td>
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<tr>
<td>Councilman Buscaino Swearing-In Event</td>
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<tr>
<td>Downtown Harbor Grand Opening</td>
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<tr>
<td>Downtown Harbor Groundbreaking</td>
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<tr>
<td>Fountain Holiday Event</td>
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<tr>
<td>Ghost Fish Opening</td>
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<tr>
<td>Happy Harbor Halloween</td>
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<tr>
<td>Holiday Afloat Parade</td>
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<tr>
<td>Holiday Fountain Event</td>
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<tr>
<td>IAPH Conference</td>
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<tr>
<td>ILWU Groundbreaking</td>
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<td>International Economic Summit</td>
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<td>Lighthouse Event</td>
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<tr>
<td>Lobster Festival</td>
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<tr>
<td>Movie Night – San Pedro</td>
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<tr>
<td>Movie Night – Wilmington</td>
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<tr>
<td>Navy Week</td>
<td>40,000</td>
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<tr>
<td>Pacific Ports Collaborative Conference</td>
<td>150</td>
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<td>Paper Yacht Challenge</td>
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<tr>
<td>Port Police Headquarters Groundbreaking</td>
<td>6,000</td>
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<tr>
<td>Red Car Birthday</td>
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<tr>
<td>Scout Day</td>
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<tr>
<td>Tall Ship Pallada Visit</td>
<td>3,500</td>
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<tr>
<td>Veterans Appreciation Day</td>
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<tr>
<td>Walkathon Positivo</td>
<td>2,500</td>
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<tr>
<td>Wilmington Winter Wonderland</td>
<td>2,500</td>
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<tr>
<td>World Trade Week Boat Tours</td>
<td>7,000</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>129,575</strong></td>
</tr>
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</table>
Community Mitigation Trust Fund

The Port of Los Angeles Community Mitigation Trust Fund (PCMTF) provides funding for community mitigation initiatives to be carried out in the communities of Wilmington and San Pedro following construction of specified Port development projects. In November 2011, a non-profit called the Harbor Community Benefit Foundation (HCBF) was created to manage the PCMTF of approximately $16 million. The mission of the HCBF is to carry out public benefit projects that assess, protect, and improve public health, quality of life, and the natural environment of the local communities. The formation of HCBF is a groundbreaking collaboration between the Port and the organized efforts of 17 environmental and community groups.

The Port has agreed to contribute additional funds to the PCMTF as specific future projects are approved by the Board. A list of the specific projects is included in a memorandum of understanding (MOU) between the Port and a number of environmental groups. Since the release of the Port’s previous sustainability report, significant progress has been made by the HCBF. The following includes HCBF progress that occurred during the 2013/2014 reporting period.

Health Care Grant Program The HCBF provides grants to health service providers to address health impacts from air pollution near the Port. In 2012, the Harbor Commission approved $350,000 in funding for four HCBF grantees. Projects included the opening of a respiratory clinic in the Wilmington Health Center, asthma education classes, exercise programs and a well-attended Wilmington Health Fair that will be held annually. In June 2013, the Board approved $450,000 for a second round of grants to support six San Pedro and Wilmington community health programs that will use the funds to reduce asthma, treat patients and educate residents about respiratory health.

Noise Abatement Program In August 2012, HCBF initiated a report to establish recommendations for HCBF’s Noise Abatement Program. This report was the first step toward the ongoing development of a school and residential sound insulation program.

Land Use Study In 2012, HCBF initiated an ongoing study to analyze off-port impacts on land use from Port operations on the communities of Wilmington and San Pedro. Once completed, this study will be used to inform future mitigation measures.

Air Filtration Program The PCMTF Trust fund will provide $6 million for the installation and maintenance of air filtration systems in several Wilmington and San Pedro Schools.

Community Aesthetics Mitigation Program A 2003 settlement with China Shipping resulted in the creation of the Community Aesthetics Mitigation Program. With the final deposit in May 2011, a total of $34,032,024 has been injected into the fund, which supports community-driven beautification, education and open-space projects in the San Pedro and Wilmington communities. Fourteen projects were selected to receive funding from the program: 10 in Wilmington, to which $13,697,741 in funding was allocated and 4 in San Pedro, to which $20,366,012 in funding was allocated. Many of the projects have been completed. This section details the status of the 14 approved Community Aesthetics projects.
Wilmington Projects

Banning Museum Transportation Exhibit This project was completed in August 2011. Approximately 1,000 visitors view the exhibit monthly.

Wilmington Chamber of Commerce LED Sign This upgraded LED message board was installed in September 2011 and continues to serve the community by providing up to date information from the Chamber.

Alameda St. and Harry Bridges Blvd. Landscaping Landscaping of the “E St. Gateway” located on E and Alameda Street was completed in June 2011.

L.A. Harbor Lighthouse Restoration Restoration of the historic Angel’s Gate Lighthouse was completed in May 2012. The Cabrillo Beach Boosters conduct tours of the lighthouse as fundraising for ongoing lighthouse maintenance.

Robert F. Kennedy Institute – Health Education Funding has been allocated to the Robert F. Kennedy Institute to support ongoing workshops and events on community health issues such as respiratory illnesses, cancer and heart health. They are in the fourth year of a five-year program.

Tall Ship Restoration for Youth Program Expansion The LA Maritime Institute is restoring the Swift of Ipswich (Swift), a 70-year-old wooden Square Topsail Schooner. The Swift will be used to provide sailing trips for students after restoration is complete. Two years of dockside programs will be funded for Wilmington students through this program.

Wilmington Marina Parkway This landscaping project along Anchorage and Shore Roads was completed and unveiled in March 2014. It includes a concrete pathway, picnic tables, landscaping, lighting, and parking spaces, and will foster a more livable community for Marina users. The new parkway is adjacent to the planned location of the Wilmington Youth Sailing Center.

YMCA Aquatic Center Funding has been allocated to install a pool in the YMCA on Avalon Blvd. Construction began in late summer 2013 and a grand opening was held in the fall of 2014.

Wilmington Youth Sailing Center A sailing center, to be used by local and inner-city youth sailing programs has a need identified for funding. Engineering design of this project has been put on hold pending further definition of the need and use for the facility. The schedule for the design and project construction is not known at the time of this report.

Elementary Storm Water Education Program Launched in fall 2012, this program enables educators to visit local primary and high schools to teach students about the importance of keeping pollutants out of storm drains. Ongoing community litter cleanups are also carried out as a component of the program.
San Pedro Projects

Northwest San Pedro Beautification (Phase I and II)  Phase I, along North Gaffey from Westmont Avenue to Gatun Street, was completed in June 2009. The Phase II design is underway.

Plaza Park  The grand opening of Phases I and II occurred on July 1, 2013 and provides new lighting, an enhanced park path, and improved views of the harbor. Phase III is expected to be complete in fall 2016.

Hey Rookie Pool Renovation  This project will restore the Gaffey Street pool and grandstand to its original condition and name, Hey Rookie Pool. The pool will be available for public recreational use and will also provide a beautiful and unique venue to host special events. Design for the pool has been well received by the public and groundbreaking ceremony was held in early 2015.

Front Street Beautification  Funding has been made available to beautify the west side of Front Street in San Pedro. There are three improvement areas: Pacific Avenue lot (at the corner of Pacific and Front Street), the entire base of Knoll Hill, and North Front Street (under the bridge). The design for this project is nearly complete. Construction is expected to begin in 2016.

Air Quality Mitigation Incentive Program

Established in 2003 through the China Shipping Settlement Agreement with the communities of San Pedro and Wilmington, the Air Quality Mitigation Incentive Program (AQMIP) provides financial incentives to spur development and implementation of air pollution reduction projects.

The projects approved under the AQMIP have resulted in emission benefits within the communities of San Pedro and Wilmington. To date, the projects approved since 2004 have resulted in the reduction of 558 tons of nitrogen oxide (NOx) and 18.70 tons of diesel particulate matter annually.
The Port of Los Angeles International Trade Academy helps to meet the workforce needs of a growing industry, while providing invaluable educational opportunities to Banning High School students.

**Education Programs**

Educating stakeholders on the goods movement process is an important priority for the Port. Educational programming is provided through public boat tours and the Port’s relationship with the local charter high school.

**Port Boat Tours**

The Port provides several hundred tours annually to Port stakeholders. Approximately 4,000 visitors annually take part in regularly scheduled tours, with several thousand more participating in free tours over World Trade Week. The Port is committed to increasing the number of boat tours available to the public and has set a goal of increasing the number of boat tours from 25 to 40 in 2014.

**Charter High School**

The Port of Los Angeles High School (POLAHS) is an independent, college preparatory charter high school located in San Pedro. POLAHS is one block from the largest port complex in the United States, enabling educators to integrate San Pedro’s port activity into an education plan that highlights the social, environmental, and technological components of our global economy.

Since the school’s opening in 2006, the Port has contributed in various ways to POLAHS including dedicating a classroom, and renting and lending Port-owned office space for school use. Port staff provides periodic guidance to POLAHS students through educational tours, presentations, and by judging student research projects. POLAHS students have also contributed to the Port by serving as volunteers at Port events.

The Port has provided a yearly sponsorship for POLAHS’s Summer Maritime Institute Program, which educates teachers and administrators on the maritime industry. Since 2011, the Port has sponsored the Port of Los Angeles Harbor Community and Maritime Service Scholarship.
to assist students in pursuing post-high school education and training with the goal of obtaining a career in a maritime-related field. In 2013, the Port awarded a $5,000 Community Investment grant to aid in the development of a Port history program. In 2014, the Port has designated POLAHS as the recipient of a $45,000 grant to support the International Business and Maritime Studies Program.

International Trade Education Programs

The International Trade Academy receives major funding support from the Port, and is the first program in a series of academic clusters designed, developed, and implemented by International Trade Education Program (ITEP), a nonprofit organization. Nearly 200 Banning High School students are involved in the Port of Los Angeles International Trade Academy.

All classes and programs are designed to introduce students to the many careers in international trade. The Port of Los Angeles International Trade Academy helps to meet the workforce needs of a growing industry, while providing invaluable educational opportunities to Banning High School students.

Harbor Department Employee Programs

Employee Statistics

The Port’s employees are a critical member of the Port community. A sustainable Port operation depends on a diversity of healthy, vibrant employees to implement the Port’s strategies and programs. The City of Los Angeles, including the Port, is committed to a fair and transparent process of evaluating and hiring new employees. Among other statistics, the Port tracks gender and age of its employees and new hires. Employee gender and age are recognized by the City as a fundamental metric for an organization and, therefore, reported here. Currently, 943 employees are directly employed at the Port, out of 994 authorized positions. Of these, 932 are full-time with an additional 11 part-time employees. Ninety-nine percent of the Port’s employees (all but the nine most senior leadership positions) are covered by collective bargaining. The tables on the following page provide information on the Port’s current employees, new hires, and employees who left the Port during the past year.

Most striking in the data is the disparity in the percentage of women working at the Port as compared to male employees. There are more than twice as many male as female Port employees. This trend remains consistent when examining new hires and terminations (the disparity does not appear to be lessening based on data from the last few years). The Port’s Strategic Plan calls for the Port to be the “employer of choice.” This goal extends, without discrimination, to all current and potential employees. The Port, as part of the City of Los Angeles, strives for a fair and transparent system to find and hire new employees. It is possible, although not proven, that the gender gap is in part due to a similar traditional disparity in the goods movement industry. This traditional disparity could be impacting the candidate pool that applies for job openings at the Port. Additional research is needed to determine the source of the gender disparity at the Port. Furthermore, the Port is exploring ways to ensure that women are aware of, and applying for, job opportunities with the Port.

Employee Communication and Recognition

In recent years, the Port has placed significant emphasis on improving internal communications. The employee communications program was bolstered significantly to increase employee awareness of Port news, project activity, and progress regarding the 2012-2017 Port of Los Angeles Strategic Plan. An employee relations program was implemented that includes outreach, training, and recognition opportunities for staff.

In FY 2013/14, the Port implemented an Employees of the Quarter recognition program. Every quarter, nominations are accepted for outstanding employees. The nominations are reviewed by the Port’s management team and the selected employee(s) are recognized at a management team meeting, awarded a certificate of commendation, and featured in the Port’s newsletter “What's New, Crew?” As of June 30, 2014, seven employees have been recognized.
### EMPLOYEE COMMUTING

The Port owns or leases 19 commuter vans that transport approximately 158 people to and from the Port daily. The vanpool has been a very successful program for the Port. As of June 30, 2014, approximately 17 percent of the Port’s workforce was participating in vanpools. The Port regularly evaluates the possibility of adding another van to respond to high demand for the commuter program.

The Port has successfully supported the introduction of electric and plug-in hybrid vehicles. The Port’s main administration building has six electric vehicle charging stations that are available to Port employees. In addition two more charging stations, operated by ChargePoint, are available to Port staff in an auxiliary administrative building. Demand for the charging stations is quite high. The Port will continue to monitor station usage and work to add additional charging capacity as necessary to promote further adoption of these low emission vehicles.

### EMPLOYMENT STATISTICS

<table>
<thead>
<tr>
<th>Employee Type</th>
<th>Total</th>
<th>Male/Female</th>
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<tr>
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<td>646/286</td>
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<td>Part-Time</td>
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### NEW HIRES

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<th>Hire Rate Under Age 30</th>
<th># of Hires Aged 30-49</th>
<th>Hire Rate Aged 30-49</th>
<th># of Hires Aged 50+</th>
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### TERMINATIONS

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<th>Termination Rate Under Age 30</th>
<th># of Terminations Aged 30-49</th>
<th>Termination Rate Aged 30-49</th>
<th># of Terminations Aged 50+</th>
<th>Termination Rate Age 50+</th>
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<tr>
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<td>12</td>
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<td>17</td>
<td>1.8%</td>
<td>21</td>
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<td>0.0%</td>
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</table>
**Employee Training**

**Tuition Reimbursement Program**  
The Tuition Reimbursement Program supports ongoing training and education for Port employees in order to increase their job proficiency, prepare them for promotional opportunities within the Civil Service system, and improve the overall level of service the Port provides to its stakeholders. Approximately 80 employees were participating in the tuition reimbursement program as of the end of the 2013/2014 reporting period.

**POLA Leadership Academy**  
The POLA Leadership Academy was created to provide skill development opportunities for Port employees and create better alignment among Port staff to facilitate the implementation of initiatives in the strategic plan. In FY 2013/14, the focus of the POLA Leadership Academy has been on employee professional development in the area of project management. Fifteen engineers from the Engineering Division received their Certificate in Project Management from UCLA Extension. The courses were held at the Port’s Maritime Law Enforcement Training Center in Wilmington. In addition, the Port partnered with California State University – Dominguez Hills to offer a business-focused Project Management certificate program. Twenty employees from various Port divisions including Planning & Economic Development, Real Estate, Internal Audits, and Information Technology completed this course.
Employee Health and Wellness

The Port’s commitment to community wellbeing is inclusive of its employees. Providing a healthy and positive workplace is a fundamental step to being a sustainable organization. The Port’s Wellness Program was developed to improve employee health awareness and self-care practices. Ongoing events include:

**Employee Health Fair**  Held annually in the month of September, this event promotes healthy lifestyles for Port employees. On average, more than half of the Port’s employees attend this annual event.

**Workplace Wellness Day**  Held quarterly, Workplace Wellness Day offers fun and rewarding activities such as free chair massages, dental kit giveaways, health screenings, and group walks. Each event draws an average attendance of 50 employees.

In January 2015, the Port will host the first annual Live Healthy Week, an entire week of activities dedicated to employee health and wellbeing.

**Employee Assistance Program**  The Port offers an externally operated Employee Assistance Program to assist employees to balance work and life. Personalized and confidential services available to employees through this program include elder care, legal assistance, and mental health programs.

**Harbor Department Employees Club**  In 1981, The Harbor Department Employees’ Club (HDEC) was established to keep employee morale high and foster a strong sense of identification with the Department. This group puts together fun and entertaining events for employees and their families, including bingo nights, bowling tournaments and movie screenings. This employee club receives a budget from the Harbor Department to subsidize the cost of their activities to employees.
Student Employment Programs

For more than 40 years, the Port has been opening its doors to local student workers through the Student Internship program. Year-round, approximately 60 interns are employed on a part-time basis in various Port positions while they continue their education. In addition, every summer the Port employs approximately 40 Banning High School students and 50 college and university students during the Summer Internship Program.
The Port places a very high priority on ensuring that Port lands are put to their highest and best use and on building and maintaining world-class infrastructure for its tenants. In this reporting period, the Port continued its aggressive Capital Improvement Program, as well as moving forward with crucial infrastructure planning efforts.

- Developed the E-MAP
- Grand opening of the Downtown Harbor
- Completion of AMP infrastructure
- Initiation of 50-year lease for the AltaSea Marine Research Facility

**CAPITAL IMPROVEMENT PROGRAM**

As a landlord port, ongoing infrastructure improvements are a critical component of the Port’s service to its tenant customers. The Port’s five-year Capital Improvement Program budgets $1.35 billion for improvements to Port infrastructure over the next five years, including $728 million for terminal improvements, $323 million for transportation, $259 million for community and environmental projects, and $40 million for security enhancements.
Major construction projects under the Capital Improvement Program that are active or have been completed during the reporting period include:

- Completion of AMP capability at the Port’s container and cruise terminals
- Construction of West Basin Railyard
- Completion of Phases 1 & 2 of the TraPac terminal
- Grand opening of the Downtown Harbor community space
ENERGY MANAGEMENT ACTION PLAN

In 2014, the Port developed its Energy Management Action Plan (E-MAP). The E-MAP provides a pathway to improve efficiency and resiliency for the electrical grid at the Port. The Port’s ongoing efforts to move away from diesel-powered operations and toward cleaner electric-powered equipment has created both a larger electrical demand within the Port but also an even greater necessity for reliable electric power. The E-MAP focuses on five key areas:

• Availability
• Resiliency
• Reliability
• Efficiency
• Sustainability

Under the E-MAP, Port staff will work with Port customers to identify and implement opportunities for improved efficiency, onsite electricity generation, and improved electrical system infrastructure. The Port will look to improve electrical performance at Port-controlled facilities, as well as leased (customer) facilities. The development of the E-MAP is a crucial step forward toward the Port’s sustainability operations. In FY 2014/15 and beyond, the E-MAP will serve as a roadmap to specific energy project deployment across the Port.

PORT MASTER PLAN UPDATE

The Port Master Plan (Plan) serves as a long-range plan to develop policies and guidelines for future balanced and sustainable development within the coastal zone boundary of the Port.

The original Plan became effective in April 1980. An updated Plan was approved by the Board of Harbor Commissioners in August 2013. The 2013 Plan represents the first comprehensive review and update to the Plan since its original certification. Through the update process, the Plan was streamlined and reorganized, and planned commitments codified in one consolidated document. The Plan was drafted for consistency with the California Coastal Act and includes the following overarching goals:

• Optimize Land Use
• Increase Cargo Terminal Efficiency
• Accommodate Diverse Cargoes
• Increase Public Access to the Waterfront
• Protect Historic Resources

In late 2013, the California Coastal Commission released guidelines that require agencies such as the Port to adopt sea level rise implementation plans. In response to these guidelines, the Plan was reopened in November 2013 to allow the Board to consider this additional input from the Coastal Commission. The Coastal Commission certified the Port Master Plan Update in March 2014 and it was adopted by the Board in April 2014.
BUILT ENVIRONMENT HISTORIC, ARCHITECTURAL AND CULTURAL RESOURCE POLICY

The built environment of the Port provides an opportunity to appreciate and honor the historic role of the Port in shaping the region and economy. In April 2013, the Port developed a Built Environment Historic, Architectural and Cultural Resource Policy, providing a comprehensive and proactive framework for the ongoing identification of historical resources and consideration for their preservation and reuse.

Principal elements of the policy include:

• Preparing and maintaining an inventory of historical, cultural and architectural resources of the Port
• Completing a comprehensive survey to evaluate Port historical resources
• Establishing priorities for preservation and adaptive reuse of historical buildings, structures, districts and other sites owned by or located on property owned by the Harbor Department

The first stage of this policy, an inventory of historical, cultural, and architectural resources, was completed in July 2014. The inventory identifies Port structures and resources that have the potential to be eligible for listing as Historic.

FRIENDLY CUSTOMER SITE VISITS

Since 2008, Port staff has been conducting friendly customer site visits to review current pollution prevention practices and offer recommendations for best management practices. Practices reviewed during these site visits may include hazardous and universal waste storage, fueling, litter, recycling, grounds maintenance, stormwater best management practices, and employee training.

CLIMATE ADAPTATION STUDY

In 2011, the RAND Institute, in partnership with the Port, conducted a study to create a decision-making model to improve the resiliency of the port infrastructure and identify potential impacts to Port activities resulting from climate change.

The study and model results indicate a low risk of impacts from sea level rise through 2050. However, the model can be revisited in future years to assess risk as more information becomes available. The model can also be adapted for other entities to use. The study is available for public review at the California Energy Commission website at http://www.energy.ca.gov/2012publications/CEC-500-2012-056/CEC-500-2012-056.pdf.
WEST COAST TECHNICAL COMMITTEE: SUSTAINABLE DESIGN AND CONSTRUCTION GUIDELINES

The Joint West Coast Ports Technical Committee is an innovative collaborative of West Coast seaports of the United States with a shared goal of jointly developing tools to integrate sustainability into the planning, design, construction and operation of marine industrial development projects.

Representatives from seven West Coast ports in collaboration with the International Institute for Sustainable Seaports (I2S2) recognized the need to incorporate the sustainable concepts that go into port planning, design, and construction. Therefore, the Joint West Coast Ports Technical Committee was formed by the Ports of Los Angeles, Long Beach, Portland, Seattle, Vancouver US, and San Diego, to develop sustainable design and construction guidelines limited to marine and industrial development. The guidelines are intended to be specific enough to apply to West Coast ports, but flexible enough to be used by other ports in other regions/countries. The sustainable design and construction guidelines will also help build upon the sharing of best practices, keys to success, and lessons learned for implementation, identify options and opportunities to implement sustainable attributes that are considered “beyond compliance,” establish common language that is understood by internal and external port stakeholders, and enhance environmental performance of each port without disadvantage or limitation to the other ports.

The guidelines were released in May 2014 in a format that ports can use for major infrastructure projects. The Port has committed to use the guidelines to evaluate select projects during FY 2014/15. In addition, the Port will use the guidelines to assess several recently completed projects to help better understand the extent to which the guidelines are already incorporated in the Port’s design efforts.

More info can be found at: http://www.getf.org/2014/05/12/i2s2-and-joint-west-coast-ports-technical-committee-release-sustainable-design-and-construction-guidelines/

ALTASEA MARINE RESEARCH CENTER

In June 2013, the Port announced a bold vision to transform City Dock No. 1, a 100-year-old pier on the LA Waterfront in San Pedro, into a world-class urban marine research and innovation center.

The 35-acre site, called AltaSea, will be developed through a public-private partnership between the Port, Rockefeller Philanthropy Advisors, and a host of regional public and private universities. On December 17, 2013, the Los Angeles City Council unanimously approved a 50-year lease for the project.

The planned facility will feature circulating seawater labs, offices, classrooms, lecture halls, support facilities, an interpretive center, and the world’s largest seawater wave tank for studying tsunamis and rogue waves. The anchor tenant of Phase I will be the Southern California Marine Institute, a strategic alliance of 11 major universities in Southern California that have marine science academic and research programs.

With the AltaSea Marine Research Center, the Port aims to create a preeminent center for marine-related research, education, and business development. The Port has committed to $57 million in site-related capital investments. This commitment along with a $25 million gift from Annenberg Foundation brings the current level of backing for the project to $82 million. Phase I is currently estimated to cost $185 million with a targeted completion in 2019. Once operational, the center will be a major economic engine, generating hundreds of jobs and millions of dollars in annual wages and taxes.
Once operational, AltaSea will be a major economic engine, generating hundreds of jobs and millions of dollars in annual wages and taxes.
The Port is committed to preventing and progressively reducing health-related impacts from Port operations. Over the years, the Port has accommodated increasing levels of trade while reducing cumulative air emissions. Given that the Port is located in an air basin that has consistently not met all federal air quality standards, air emissions is an area of great importance to the Port and its stakeholders. Reduction of Port-related air emissions has consistently been the highest priority for organizations representing the Port’s neighboring communities.

The Port has developed a number of programs and initiatives to address health risk reduction. The San Pedro Bay Ports Clean Air Action Plan (CAAP), initially adopted in 2006, serves as the Port’s overarching guide to air emissions prevention and mitigation. The Port continued its progress toward improved public health during the reporting period including:

- Port-wide reductions in diesel particulate matter (DPM), NOx, and SOx and greenhouse gas (GHG)
- Continued reduction in health risk from Port operations
With the adoption of the CAAP, the Ports of Los Angeles and Long Beach initiated a historic partnership for health risk reduction and environmental impact mitigation. The CAAP sets air quality goals and details the Ports’ strategy for reducing emissions from trucks, ships, harbor craft, locomotives, and cargo-handling equipment associated with Port activities.

The CAAP, the most comprehensive strategy to cut air pollution and reduce health risks ever produced for a global seaport complex, has served as a model for other ports around the world. The CAAP outlines best practices for emissions inventories, incentive programs, mitigation strategies and the advancement of green technologies.

The 2006 plan was updated in 2010 with even more aggressive targets and additional mitigation measures. The 2006 CAAP and the 2010 update are both available from the CAAP website: www.cleanairactionplan.org.

**Emissions Reduction Standards**

Port-related activities generate three major air pollutants: DPM, NOx, and SOx. These emissions result from the burning of diesel fuel in vessels, vehicles, and equipment utilized for goods movement and other port operations.

The 2006 CAAP set the goal of reducing air pollution by 45 percent over 2005 levels by 2012, which was reached three years ahead of schedule in 2009. The current air emission reduction goals, as specified in the 2010 CAAP Update and compared to a 2005 baseline, are:

- By 2014, reduce emissions by 72 percent for DPM, 22 percent for NOx, and 93 percent for SOx, compared to 2005.
- By 2023, reduce emissions by 77 percent for DPM, 59 percent for NOx, and 93 percent for SOx, compared to 2005.

**Health Risk Reduction Standard**

In addition to air emissions targets, the Ports have also developed a standard for reducing overall port-related health risk impacts, relative to 2005 conditions. By 2020, the Ports have committed to reducing the population-weighted cancer risk of ports-related DPM emissions by 85 percent in highly impacted communities located proximate to port sources and throughout the residential areas in the region around ports.

The sections below provide detail on progress toward these reduction targets, and current measures the Port employs to achieve emissions and health risk reductions.

**Emissions Inventory**

Each year, Port employees conduct an air emissions inventory to track sources of air pollutants, estimate emissions levels, and track progress toward goals. The 2005 Emissions Inventory serves as the baseline. The most recent emissions inventory was completed for 2013 and is available on the Port’s website.

The following five air emissions sources are inventoried annually:

<table>
<thead>
<tr>
<th>Source Category</th>
<th>Equipment Inventoried</th>
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</thead>
<tbody>
<tr>
<td>Harbor Craft</td>
<td>234 Commercial Harbor Craft</td>
</tr>
<tr>
<td>Cargo Handling Equipment</td>
<td>2,149 Pieces of Equipment</td>
</tr>
<tr>
<td>Ocean Going Vessels</td>
<td>2,033 Incoming Vessel Trips</td>
</tr>
<tr>
<td>Locomotives</td>
<td>6,408 train trips</td>
</tr>
<tr>
<td></td>
<td>3,251 inbound trains</td>
</tr>
<tr>
<td>Heavy Duty Trucks</td>
<td>13,439 Unique Trucks</td>
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</tbody>
</table>
In addition, emissions of the following pollutants are estimated:

- Particulate matter (PM10, PM2.5)
- Diesel particulate matter (DPM)
- Oxides of nitrogen (NOx)
- Oxides of sulfur (SOx)
- Hydrocarbons (HC)
- Carbon monoxide (CO)
- GHG, measured as carbon dioxide equivalents (CO2e)

Air emissions calculations are based on source-specific data for equipment within each source category: OGVs, cargo handling equipment, harbor craft, rail, and heavy-duty vehicles. Emissions estimates are developed for each source category in a manner consistent with the latest estimating methodologies agreed upon by the Port and participating regulatory agencies. Details on the methodology including data collection, landside and over-water boundaries, assumptions, and calculations are available in the Port’s annual Emission Inventory report on the Port’s website at http://www.portoflosangeles.org/pdf/2013_Air_Emissions_Inventory_Full_Report.pdf.
Results from the annual air emissions inventory are used to create an annual “Air Quality Report Card”; an at-a-glance update of the Port’s progress toward reducing air emissions. The most recent Air Quality Report Card was published in 2014, covering the period of 2005-2013, and can be found on the Port’s website at http://www.portofla.org/pdf/2013_Air_Quality_Report_Card.pdf.

Since the launch of the CAAP, air pollution control measures have yielded substantial air emissions reductions. The Port is on track to meet the 2014 and 2023 air quality goals articulated in the 2010 CAAP update for DPM, NOx, and SOx. Upon achievement of the 2014 goals, the Port will comply with all air quality thresholds of the Clean Air Act (CAA). As one can see from the table below, “Port-Wide Emissions by Year,” the most current emission data available are from calendar year 2013. In 2013, emission reduction standards for DPM and NOx were met ahead of schedule with 81 and 59 percent reductions, respectively. The 2014 emission reduction standard for SOx was not met ahead of schedule in 2013; however, the Port does anticipate meeting the reduction standard by the 2014 deadline. The Port continues to post annual Air Quality Report Cards on its website.

The following table provides total estimated tons of air emissions for the past 9 years.

<table>
<thead>
<tr>
<th>Year</th>
<th>PM10 tpy</th>
<th>PM2.5 tpy</th>
<th>DPM tpy</th>
<th>NOx tpy</th>
<th>SOx tpy</th>
<th>CO tpy</th>
<th>HC tpy</th>
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<tbody>
<tr>
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<td>972</td>
<td>829</td>
<td>886</td>
<td>16278</td>
<td>5186</td>
<td>3657</td>
<td>766</td>
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<td>2006</td>
<td>1044</td>
<td>893</td>
<td>945</td>
<td>18483</td>
<td>5611</td>
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<td>727</td>
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<td>633</td>
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<td>656</td>
<td>696</td>
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<td>6967</td>
<td>542</td>
<td>2056</td>
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<tr>
<td>Previous Year</td>
<td>-7%</td>
<td>-8%</td>
<td>-7%</td>
<td>-7%</td>
<td>-8%</td>
<td>1%</td>
<td>1%</td>
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<tr>
<td>CAAP Progress (2005 to 2013)</td>
<td>-80%</td>
<td>-79%</td>
<td>-80%</td>
<td>-57%</td>
<td>-90%</td>
<td>-44%</td>
<td>-40%</td>
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Despite the significant success in reducing air emissions at the port complex, Port-related emissions continue to be a major concern for the Port, the Port’s neighbors, and the region. The South Coast Air Quality Management District (SCAQMD) recently adopted a “backstop” rule that would go into effect if the Port failed to meet the emission reduction targets identified in the CAAP. Additionally, stakeholder groups continue to critique the Port’s proposed development projects due to their concerns that such development will increase air emissions.

The following graphs and sections further detail progress toward the emissions and health risk reduction goals set forth in the CAAP.
**NOX EMISSION REDUCTIONS**

In 2013, the Port continued to meet the 2014 NOx emission reduction standard and is more than 95 percent of the way towards meeting the 2023 standard.

**DPM EMISSION REDUCTIONS**

As shown, by 2013, the Port had already achieved both the 2014 and 2023 DPM emission reduction standards.
As of 2013, the Port is more than 90 percent of the way towards meeting the 2014 and 2023 SOx emission reduction standard. The Port has reduced the total SOx emission by half in the last 2 years. These emission reductions have been calculated using conservative estimates of SOx emissions. Enhancements in the methodology used to determine SOx emissions have been established for the Port’s emission inventories. Going forward, these more accurate assessments, along with continued emission reductions, are expected to reduce calculated SOx emissions below the 2014 target level.

As of 2013 the Port is well over three quarters (81 percent) of the way towards meeting the 2020 Health Risk Reduction Standard (85 percent).
AIR POLLUTANTS BY SOURCE CATEGORY

As illustrated in the chart below, OGVs are the single largest source of air emissions from Southern California goods movement. Emissions from this one source make up approximately half of all port-related air emissions.
EMISSION CONTROL MEASURES

The Port achieves air emissions reductions through a variety of different control measures for each source category, as detailed below.

AIR EMISSIONS SOURCE CONTROL MEASURES: OCEAN-GOING VESSELS

Because OGVs are the single-largest source of air pollution from port-related activities, addressing this emissions source is essential for achieving current and future air quality targets. Over the past decade, the Port has been very active in developing innovative programs and partnerships to reduce OGV emissions.

Since the release of the Port’s first sustainability report, significant progress has been realized on pre-existing OGV emissions reduction programs, such as the Vessel Speed Reduction Incentive Program, use of low-sulfur fuel, and use of AMP. Perhaps most significant, however, the Port has been instrumental in launching a landmark clean technology incentive program for OGVs, the Environmental Ship Index (ESI).
Environmental Ship Index

In May 2012, the Port became the first seaport in North America and the Pacific Rim to adopt the ESI as part of an incentive program to reward ocean carriers for bringing their newest and cleanest vessels to the Port.

The ESI is a web-based tool developed by the World Ports Climate Initiative (WPCI), a project of the International Association of Ports and Harbors (IAPH). The ESI program offers immediate and significant clean air benefits by rewarding vessel operators for voluntary engine, fuel, and technology enhancements that reduce ship emissions. Operators whose vessels call at the Port can earn an incentive ranging from $750 to $5,250 per ship call by meeting one or all of the following three requirements:

1. Scoring 30 or more ESI points based on a vessel’s engine specifications and emissions certification; use of low sulfur fuel, and plug-in ready on-board shore power technology
2. Deploying ships with the cleanest engines (IMO Tier II or Tier III) to the Port
3. Participating in a demonstration program to test and improve vessel emission reduction technology through the San Pedro Bay Ports Technology Advancement Program (TAP).

Since the program began on July 1, 2012:
- 28 carriers have enrolled
- 1,479 vessel calls received ESI incentives
- The Port has delivered a total of $539,500 in incentives to qualifying vessel calls.

Currently, Port staff is working to expand participation in the ESI by encouraging more operators to enroll. Further, the Port is actively engaged with the IAPH and WPCI to further improve and expand ESI as an international vessel-rating tool.

Vessel Speed Reduction Program

Reducing the speed at which OGVs travel reduces their fuel consumption and reduces air emissions. The Vessel Speed Reduction Program (VSRP) was established in 2001 as a voluntary program. Since 2008, the VSRP has provided financial incentives to vessels that comply with a 12-knot speed limit within 20 nautical miles (nm) of the Port. In 2009, the Port extended the VSRP to 40nm. No more extensions have been added.

The compliance within 20nm of the Port was 97 percent in 2013 and 95 percent in 2012. The compliance rate at 40nm was 83 percent in 2013, up from 77 percent in 2012. In 2013, these actions reduced approximately 70 tons of DPM emissions, 783 tons of SOx emissions, and 990 tons of NOx emissions.

Each year, the Port recognizes its top performing shipping and cruise line customers for their support of the VSRP. Lists of these VSRP honorees are available on the Port’s public news releases and on the Port’s website.
Alternative Maritime Power

Reducing reliance on diesel fuel is an integral component of the Port’s overall air pollution reduction strategy. AMP technology is a major development to reduce diesel usage in the Port. AMP infrastructure allows ships to “plug-in” to shore power while at berth, instead of running on diesel generators. Plugging into shore-side electricity reduces engine emissions of DPM, NOx and SOx by up to 95 percent per vessel call.

To date, high-voltage shore-to-ship connections for AMP have been installed at twenty-four (24) berths. Beginning January 1, 2014, regulations require 50 percent of vessel calls at container and cruise terminals to use AMP, 70 percent in 2017, and 80 percent of vessel calls by 2020, and to reduce their emissions by the same percentages. New terminal leases such as the Eagle Marine Services Container Terminal at Berths 302-306 have higher AMP compliance requirements than the percentages required by regulation. As of July 2014, 370 vessel calls had plugged into AMP infrastructure at the Port. This is below the 50 percent standard required by regulation. Continued conversion of vessels to make them AMP-capable is expected to increase the AMP usage in the next reporting period.

In 2014, the Port signed an “EcoPartnership” with the Port of Shanghai to accelerate the adoption of AMP technology internationally. Under the agreement, the Port will share its technical expertise and lessons learned with the Port of Shanghai to assist the Chinese port to implement AMP. Each Port will benefit as AMP becomes more widely adopted. The partnership will also ensure that compatible technology is used at each Port, thus smoothing the path for AMP adoption for vessel operators. Communities neighboring the Port and the Port of Shanghai will benefit from even greater emission reductions. The Eco Partnership is an example of the Port’s commitment to help lead the Port industry toward more sustainable operations.

AMP is currently deployed at all major container and cruise terminals in the Port. Bulk terminals and other terminals serviced by ‘non-regulated’ vessels are not viable candidates for AMP due to their infrequent calls at the Port. Therefore, the Port continues to support efforts to develop alternatives to AMP that could be used to treat at-berth emissions from these vessels. Details of one such technology are provided in the Technology Advancement Program section.
Clean Truck Program

Initiated in 2005, the landmark Clean Truck Program (CTP) has focused on improving air quality at the Port by replacing older polluting drayage trucks (trucks used to transport goods from the Port) with cleaner trucks, through a progressive ban on older technologies.

The final phase of the CTP ban was completed in 2012. As of January 1, 2012, all trucks that do not meet the 2007 Federal Clean Truck Emissions Standards are banned from the Port.

About the Fleet

- Approximately 1,000 Licensed Motor Carriers currently participating as concessionaires
- 12,000 trucks registered in the Port Drayage Truck Registry (as of June 2013; up from 11,395 in 2011 and 10,000 in 2010)
- 902 natural gas trucks (representing over 7 percent of container trips) and 1 propane truck

As described in the Strategic Plan, the Port has set a goal to increase zero emissions trucks to 50 percent of the drayage fleet or to 100 percent of the trucks calling at the near dock rail yards by the end of FY 2019/20.

Progress

The CTP set a goal for 80 percent emissions reductions from drayage operations by 2012. This goal was met in 2009, three years ahead of schedule. Ninety-eight (98) percent of truck trips now meet or exceed the 2007 on-road standard for both ports. The CTP has been responsible for substantial emissions reductions from heavy-duty trucks, as illustrated in the graphs.

The 2010 on-road standards require significant reductions in NOx emissions as compared to the 2007 standard. Heavy duty vehicle (HDV) emissions, in particular NOx, are expected to continue to decrease as trucks meeting the 2010 on-road standards become more prevalent in the fleet serving the Port.
Future Goals for the Clean Truck Program

Following the successful implementation of the final progressive ban in January 2012, the CTP is fully implemented, having achieved its mission of phasing out older, polluting truck technologies for drayage. Ongoing program enforcement will continue to be of paramount importance. On this front, the Port signed an MOU with the California Air Resources Board (CARB) in March 2012. Since then, the two parties have been working together to enforce compliance with CTP requirements and state drayage truck regulations inside and outside of the Port.

As a result of a June 2013 Supreme Court decision, the Port will no longer enforce three provisions of the CTP: the placard provision, the parking provision, and the employee driver hiring provision (which the Port previously announced it would refrain from enforcing under an earlier court ruling). In September 2014, a new Concession agreement, based on the 2013 Supreme Court decision, will be required for trucking companies serving in the Port. The streamlined Concession agreement will continue to emphasize the key parameters of the CTP, namely emission reductions and operational safety.

The Port is currently preparing a comprehensive study of zero emission truck technology. The report, commissioned by the Los Angeles City Council, will examine the current viability of zero emission truck technology and strategies for further integrating zero emission trucks into the drayage fleet. Preparation of the zero emission truck report is an important step for the Port as it works to continue reducing emissions associated with drayage operations at the Port. The report was released in 2015 and is available on the Port’s website.

Air Emissions Source Control Measures: Cargo Handling Equipment

To address emissions from cargo handling equipment, the Port drafted performance standards (detailed in the CAAP) calling for the progressive replacement of older cargo handling equipment with equipment that meets cleaner engine standards. The Port implements these measures through lease conditions and collaborative pursuits of grant funding with its tenants.

In addition to the Port’s efforts, CARB has a rule aimed at reducing cargo handling equipment emissions. The CARB Cargo Handling Equipment Regulation establishes timelines and thresholds within which equipment owners must replace older more polluting equipment. Per the Rule by the end of 2013, non-yard tractors subject to CARB’s cargo handling equipment regulation must be in compliance. Along with newer cleaner diesel equipment, 2013 also saw the introduction of electric and hybrid electric rubber tired gantry cranes (RTGs) in to operation at the Port.

The CARB Rule, as well as voluntary efforts by the Port’s customers, resulted in emission reductions for 2013. Meanwhile, increased automation, such as that deployed at the modernized TraPac terminal, is reducing the need for cargo handling equipment altogether.
Air Emissions Source Control Measures: Harbor Craft

CAAP performance standards for harbor craft establish goals for early replacement of harbor craft engines with engines meeting cleaner standards. The Port provides assistance for securing grant funding for engine repower.

Over the past three years, implementation of CARB’s Commercial Harbor Craft Regulation, along with funding incentives, resulted in continued replacement of existing older vessels and engines with cleaner, lower emission units. In 2013, harbor crafts contributed to 15 percent of DPM and 19 percent of CO emissions for port-related emissions. The ports plan to continue and accelerate harbor craft emission reduction through emerging technologies such as the hybrid tug, new more-efficient engine configurations, and alternative fuels through incentives or voluntary measures.

In July 2013, Harley Marine Services took delivery of a new modern tug to serve the Port complex. The tug Robert Franco features efficient and cleaner burning Tier III engines, as well as the additional ability to plug into AMP while at berth. This latest addition to the tug fleet is consistent with the Port’s mission of delivering safe, modern goods movement services with reduced environmental impact.

Marina Engine Exchange Program

The Marina Engine Exchange Program launched in summer 2012. Under this program, the Port reimburses boat owners who use the Port’s marinas 75 percent of the cost and labor up to $2,000, to replace older two-stroke outboard motors with new motors rated as 3-Star engines by CARB, or up to $3,000 to replace these older engines with zero-emission electric motors. The program is open to boat owners in each of the Port’s 17 marinas. To date, the Port has provided over $135,000, allowing for the replacement of 88 outboard motors and resulting in the reduction of approximately 6,330 pounds of hydrocarbons and oxides of nitrogen annually. The Port launched a second phase of the program in 2014.

Air Emissions Source Control Measures: Rail Locomotives

Locomotives are a significant source of emissions in the Port and are targeted in the CAAP for emissions reductions. The Ports of Los Angeles and Long Beach now boast one of the cleanest locomotive fleets in the nation. Pacific Harbor Line (PHL) provides rail transportation, maintenance, and dispatching services to the Ports of Los Angeles and Long Beach. Most switching within the Port is conducted by PHL.

The Ports of Los Angeles and Long Beach facilitated the turnover of the PHL locomotive fleet by entering into agreements with PHL that made it possible for the railroad company to commit to the long-term use of ultra-low emission locomotives. PHL has 23 locomotives servicing the ports complex. In early 2012, 16 of the oldest locomotives were retrofitted to meet Tier 2 engine standards. Six additional gen-set locomotives that meet stringent Tier 3 standards have also been added to PHL’s switching fleet. These new ultra-low-emission “Tier 3-plus” engines emit 85 percent less diesel particulate matter and 38 percent less NOx than the previous generation engines they are replacing. With the latest upgrades to its fleet, PHL boasts one of the cleanest locomotive fleets in the country.

The longer-term Tier 4 emission standards that are based on the application of high-efficiency catalytic after-treatment technologies for NOx and DPM will become effective for new locomotives in 2015 and will achieve about 80 percent reduction in NOx and DPM compared to Tier 2 standards. Additional improvements to the PHL fleet aimed at bringing the Tier 4 locomotives to the Port will be implemented through any new or redeveloped rail yard projects.
CAAP Air Quality Excellence Awards

Since 2008, the CAAP Air Quality Excellence Awards (CAAP Awards) Program has provided the Ports of Los Angeles and Long Beach with a mechanism to recognize outstanding efforts by Port customers to reduce air emissions. Tenants and other organizations that serve the ports are eligible to be nominated.

Since 2008, 36 CAAP Awards have been given to companies that have shown leadership and vision in their efforts to reduce air emissions. Beginning in 2013, CAAP Awards have been moved to a bi-annual schedule, where tenants and/or organizations will be awarded once every 2 years. The next round of CAAP Award recipients will be recognized in 2015.

Pacific Ports Clean Air Collaborative

Along with the Port of Shanghai, the US Environmental Protection Agency (USEPA), and the US Maritime Administration (MARAD), the Port is one of the four founding members of the Pacific Ports Clean Air Collaborative (PPCAC), a voluntary group of international participants from ports, private industries, and environmental agencies throughout the Americas and Pacific Rim countries. The goal of the PPCAC is to collaborate on environmental issues of common concern, share best practices, and work jointly to develop port policies and mitigation measures. Historically, the group has focused primarily on air quality issues, but recent activity has expanded its focus to acknowledge broader sustainability challenges faced by the maritime industry. To date, the group has convened three international conferences, with a 4th conference to be held in 2015. The Port will continue to play an active role in PPCAC as a venue for collaboration on environmental issues of common concern to the goods movement industry.

Climate Change Mitigation

The City of Los Angeles (City) has established goals to reduce GHG emissions by 35 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. As a department of the City, the Port takes an active approach toward helping the City meet these goals. As presented in a 2014 report to City Council, Port-wide GHG emissions have been reduced by 15 percent since 1990, already exceeding the CARB goal for 2020. In addition to reducing emissions from Port-related activities, the Port is also committed to collaborating with international ports on climate change mitigation strategies.

Scope 1 and 2 GHG emissions are inventoried annually as a part of the Port’s membership in The Climate Registry and Scope 3 GHG emissions are measured annually as part of the Emissions Inventory procedure. The Port’s Scope 1 and 2 third-party verified emissions reports are available for download from the Climate Registry. GHG emissions data from the most recent year available (2012 for Scope 1 and 2, and 2013 for Scope 3) are provided below. The Port tracks three main categories (or scopes) of GHG emissions:

**Scope 1** GHG emissions from sources that are under the direct control of the Port (e.g. Municipal Harbor Department vehicles and equipment).

**Scope 2** GHG emissions generated by the production of electricity, heat, and steam purchased by the Harbor Department.

**Scope 3** GHG emissions from sources not directly influenced by the Port but related to maritime activities at the port (all Port tenant emissions).
Scope 1 and 2 GHG Emissions

For sources controlled by the Harbor Department, GHG emissions decreased by nearly 500 metric tons, from 9,793 MTCO2e, CO2 equivalent, in 2010 to 9,300 MTCO2e in 2011. In 2012, the Port reported 3,476 tons of CO2e from Scope 1 emissions and 6,627 tons from Scope 2 emissions for a total of 10.103 MTCO2e. This represents nearly a nine percent increase as compared to 2011. The increase was due to a rise in Scope 2 emissions associated with the purchase of electricity. Scope 2 emissions increased despite the general trend toward lower GHG intensity electricity from the Los Angeles Department of Water and Power (LADWP).

<table>
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<tr>
<th>2012 SCOPE 1 GREENHOUSE GAS EMISSIONS</th>
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<tr>
<td><strong>Direct Emissions</strong> (metric tons)</td>
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<tr>
<td>---------------------------------------</td>
</tr>
<tr>
<td>Stationary Combustion - Scope 1</td>
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<td>Mobile Combustion - Scope 1</td>
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<td>Process - Scope 1</td>
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<td>Fugitive - Scope 1</td>
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<td><strong>Total Direct Emissions</strong></td>
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<th>2012 SCOPE 2 GREENHOUSE GAS EMISSIONS</th>
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<tr>
<td><strong>Indirect Emissions</strong> (metric tons)</td>
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<tr>
<td>Purchased Electricity - Scope 2</td>
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<tr>
<td>Purchased Heating - Scope 2</td>
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<td>Purchased Cooling - Scope 2</td>
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<td>Purchased Steam - Scope 2</td>
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<tr>
<td><strong>Total Direct Emissions</strong></td>
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*Calculated using the Climate Registry’s General Reporting Protocol v. 1.1 (May 2008) and associated updates and clarifications.
Scope 3 GHG Emissions
For tenant sources, GHG emissions decreased by four percent between 2012 and 2013. Since 2005, there has been a 23 percent reduction in GHG emissions from tenant sources. This reduction is mainly due to the transition from diesel engines to equipment that runs on electricity generated in more efficient manners, improved ship efficiency, and increased participation in the vessel speed reduction incentive program.

Port CO2e Emissions Trend

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<th>Year</th>
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<tr>
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<tr>
<td>2012</td>
<td>200</td>
</tr>
<tr>
<td>2013</td>
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WORLD PORTS CLIMATE INITIATIVE CARBON CALCULATOR

Working collaboratively with technical experts from a handful of other ports worldwide through the WPCI, the Port developed a free Carbon Calculator that ports around the world can use to quantify carbon dioxide (CO2) emissions from sources associated with their operations. The calculator, which was released to the public in November 2011, is tailored specifically for use by other ports, allowing them to estimate emissions from port-specific sources such as cargo handling equipment and harbor craft. Participating ports include: Port of Amsterdam, Antwerp, Finnish Port Association, International Association of Ports and Harbors, Port of Houston Authority, Port of Long Beach, Port Authority of New York/New Jersey, Port of Oakland, Port of Oslo, Port of Rotterdam Authority, and Port of Seattle.

The Port hopes that ports across the globe will take advantage of the calculator’s Reduced Emissions Scenarios feature, which allows users to explore strategies for reducing their carbon footprint. Since launching in late 2011, ports in Singapore, Columbia, Spain and other countries have used the tool to estimate emissions from their ports. The calculator and guidance document can be accessed from the WPCI website at http://wpci.iaphworldports.org/.

SUSTAINABLE LEASE AGREEMENTS

Lease agreements are one of the key mechanisms the Port can use to encourage more sustainable operations from tenants. The Port Leasing Policy, established on February 1, 2006, requires that all new and renewed leases include applicable Port environmental requirements. Sustainability-related lease provisions differ for each tenant, depending on the nature and scale of their operations; however, all new leases and renewed leases under this policy allow for substantial environmental mitigation, job creation, and community benefits. An updated leasing policy has been generated that stipulates the requirement for tenants to adhere to the Ports numerous sustainability policies. This policy took effect in 2013.

The 2013 policy requires provisions to prevent and minimize environmental impacts, evaluate performance of leases annually based on financial viability, minimize environmental impacts and maintain the facility. This policy follows guiding principles that are designed to serve as a bridge between the Port’s purpose, goals, and regulatory environment and the Port’s management and leasing actions.
**MITIGATION MONITORING AND REPORTING PROGRAM**

The Port’s Environmental Management Division (EMD) is responsible for maintaining documentation and reporting on compliance with mitigation measures in approved environmental documents. EMD utilizes a database to track compliance with the Mitigation Monitoring and Reporting Plans (MMRP) for the construction and operation of new development projects. The database has the ability to report project compliance with construction and operational mitigation measures.

The EMD monitors and tracks compliance with operational mitigation measures throughout project operation, primarily by collecting and analyzing tenant activity data acquired during the Port’s annual emissions inventory process and by working directly with tenants to obtain verification documentation and correct deficiencies as needed. Responsibility for tracking construction-related mitigation measures during construction falls with the Port’s Construction Division. Construction contractors are required to include a designated mitigation monitor as part of their team. Once construction is complete, compliance verification documentation is transferred to EMD for storage and compliance reporting. EMD also retains the right to spot-check compliance and documentation with construction-related mitigation measures during construction.

**ISO 14001 CERTIFICATION**

The Port’s Construction and Maintenance Division maintains an Environmental Management System (EMS) based on one of the most widely used standards, i.e. the International Organization for Standardization (ISO) 14001 certification. ISO 14001 involves the training of personnel in environmental processes and procedures, monitoring and auditing of the Port’s environmental performance, and annual reporting of data.

In November 2013, the Port received recertification under the ISO protocol. This certificate marks the third time the Port has earned this independent certification, having first secured certification in 2007 and then again in 2010. Recertification is required every three years. The Port is the only port on the West Coast that is ISO 14001-certified and one of only a handful worldwide to achieve such status.
ENERGY AND RESOURCE CONSERVATION
The Port places paramount importance on maintaining efficient operations and preventing environmental degradation. The Port operates a number of programs to protect water-based resources, to monitor and foster healthy wildlife populations, to conserve energy and shift to renewable alternatives, and to promote the adoption of cleaner technologies and practices for Port operations.

Key progress in the reporting period includes the following fields: water, biological resources, energy, green technology advancement and programs for sustainable design and operations.
WATER

Water and sediment quality in San Pedro Bay has improved greatly over the last 40 years through more aggressive state and federal regulation, increased monitoring, better pollution source control and removal of accumulated contaminants in harbor sediment. However, to maintain healthy water resources the Port must continue to mitigate for historic sediment contamination, flow of pollutants into the harbor from Port land, and pollution from upstream sources beyond Port boundaries.

The Port has taken a collaborative approach to managing water resources. The Port has been actively involved in the establishment of TMDLs for the Los Angeles and Long Beach harbors, which measure the amount of pollutants that can be present in a water body without compromising its beneficial uses. TMDLs thus serve as important benchmarks to guide the Port’s pollutant monitoring and mitigation efforts.

The Water Resources Action Plan (WRAP), developed jointly by the Ports of Los Angeles and Long Beach and approved in 2009, serves as the overarching guide to ensuring that water and sediment quality is preserved in the San Pedro Bay. Although the WRAP does not specifically address the recently adopted TMDLs for the Los Angeles Harbor, implementation of the WRAP is an important step toward meeting these new water quality standards.

Under the WRAP, the ports are focusing efforts on implementing programs and control measures that clean up legacy sediment contamination and reduce pollution from the three major sources under their control: landside runoff, in-water and on-water sources.

Recent progress on WRAP programs and control measures is provided below.

Tenant Outreach Program

The Tenant Outreach Program (TOP) provides stormwater management guidance to Port customers in order to help them comply with the National Pollutant Discharge Elimination System (NPDES) requirements and address potential sources of water pollution.

The Port outreaches to customers to provide assistance with navigating the permits and to assess their level of compliance. The Port then produces a report for tenants with operational recommendations for stormwater management practices. Approximately 110 facilities annually receive outreach letters and approximately 80 are visited under this program.

The Port has developed a TOP database to assist in planning, executing, and reporting for the Program. The database allows Port staff to review past performance and target inspections and follow up to those properties and operations that present the greatest risk to water quality. The database has been steadily evolving and improving since 2009.
The system has been customized to tailor inspections toward the particular operation. This allows Port staff to focus on critical areas and adjust their inspection approach based on each facility type in the Port. In addition the TOP utilizes electronic methods of recording site visits and compliance-related data, which allows for greater efficiency and reduces paper use.

The Port aims to perform voluntary site visits for its tenants at least once every two years (approximately 75 site visits per year). Although not every tenant is visited each year, those with the most potential to pollute are visited annually. The Port has visited 98 percent of its tenants in the most recent two year cycle.

**Cabrillo Beach Water Quality Improvement Study**

Inner Cabrillo Beach is the only recreational beach within a west coast major industrial port complex. A long sloping shoreline provides for calm waters and a shallow swimming area.

However, the beach has experienced a persistent problem with elevated indicator bacterial concentrations. Over the past 14 years, the Port has worked proactively to implement corrective measures and best management practices to reduce sources of bacteria.

From July 1, 2013 to June 30, 2014, the Port has spent approximately $300,000 on continued studies to improve the water quality. These studies are coordinated closely with the Los Angeles Regional Water Quality Control Board (LARWQCB). Continued studies include molecular marker studies, extensive bacterial source tracking, and ID studies to ensure that there are no human-related bacteria in the water and to provide evidence for natural source exclusion, respectively. To date, the Port has spent approximately $22 million on studies and mitigation measures such as: improving beach management practices (e.g. beach grooming, trash removal), upgrading sanitary sewer systems, capping abandoned outfalls, diverting storm drains, conducting stormwater sampling, replacing all the sand on the main beach face, removing a rock groin to improve water circulation, conducting trials of various induced circulation pump systems, conducting extensive bacterial source tracking and ID studies, and building and expanding a bird exclusion structure. Despite the great expense and sustained effort to improve Cabrillo Beach’s water quality, indicator bacteria levels remain elevated. To date, scientific evidence indicates that the majority of the bacteria comes from birds and no human-related signal has been detected.

**Understanding Bacterial Concentrations, Sources, and Localized Circulation**

Previous bacterial monitoring had revealed that the bacterial exceedances at Cabrillo Beach were localized to areas just offshore from the beach. Hydrodynamic modeling indicated that natural conditions (low circulation in the shallow areas) are preventing bacteria from flushing out into open water. In addition, there is a lush and biologically productive eelgrass habitat close to shore. Bacterial studies have indicated that indicator bacteria may regrow in the eelgrass.

These natural conditions impose inherent limits on the Port’s ability to affect water quality through mitigation measures. Despite these limitations, however, the Port has continued to implement mitigation measures and conduct scientific studies in the reporting period.

**Improving Water Quality**

Surveys have shown that a large percentage of indicator bacteria originates from birds. A redesigned bird exclusion structure (consisting of poles and wires) was constructed in 2010. Monitoring showed that birds avoid the area under the wires and move to other areas. The initial structure consisted of two rows of poles and wires, with the seaward row at the high tide line. Birds were observed resting and foraging near the waterline and it was decided to add a third row of poles extending into the intertidal zone. The extension of the structure into the intertidal zone was completed in August 2013 and monitoring continues in order to assess its effectiveness.
Additional WRAP Control Measures

The WRAP contains many other control measures intended to improve water and sediment quality and prevent water pollution. Key progress made during the reporting period is detailed below.

- A draft Design Guidance Manual, containing best practices for water resources management, is being modified to reflect new regulatory and permitting requirements.

- A list of stormwater and dust control improvement projects has been generated, and several recent renovations have incorporated features to reduce sediment movement offsite (for example, Beach House in Plaza Park).

- A pilot program with three trash skimmers (one in each of three marinas) was launched in 2012. Evaluation of the effectiveness of the skimmers is ongoing. The Port recently acquired two additional litter skimmers with Harbor Department funds and placed them in the Port’s Construction and Maintenance (C&M) yard and at the new Downtown Harbor.

- A Vessel Guidance Manual has been updated to reflect regulatory changes and has been distributed to shipping lines and vessel captains.

- The Port’s Operations Sediment Management Plan is currently being revised to reflect a new strategy for water quality monitoring during dredging operations and will be completed later in 2016.

- Since the adoption of the Toxics TMDL in March 2012, the Port has worked actively with other responsible parties to address the requirements of the TMDL and to design a monitoring plan for the greater harbor waters. Sediment sampling has been conducted and samples are currently being analyzed.

Future Plans for the WRAP

The Port decided that an update to the WRAP was not warranted in 2013. There has been progress on WRAP projects that will help ensure that the ports’ water management strategy continues to reflect current regulations, as well as the most current scientific knowledge and best industry practices. The Port updated and posted on their website the Vessel Discharge Rules and Regulations, as a public outreach component of the WRAP.

Clean Marina Program

The Clean Marina Program was developed to guide and educate the boating community about environmentally sound boating practices with the ultimate goal of protecting the Los Angeles Harbor from pollution. Unlike most port programs that are focused on large commercial vehicles and vessels, the Clean Marina Program focuses on small recreational vessels that utilize the Port.

Through this program, the Port’s marinas have received valuable guidance related to water resources management. To date, 13 of the Port’s 17 marinas have received certification through the Clean Marina Program. The Port continues to encourage all marinas at the Port to achieve Clean Marina certification.

Biological Resources

The Los Angeles-Long Beach Harbor is home to a large variety of marine life and birds. The Port, therefore, plays an important role as caretaker of the harbor environment and its wildlife. Pollution from regional runoff, vessel activity, and legacy sediment contamination still threaten water quality, and non-native species continue to enter the waters of Southern California.

The Ports of Los Angeles and Long Beach, regulatory agencies, and industry partners have been working to meet these challenges with improved control programs and new regulations. Recent progress on biological resource protection initiatives is detailed below.

Biological Surveys

The Ports of Los Angeles and Long Beach cooperate to conduct periodic, harbor-wide surveys of the marine life within the Los Angeles Long Beach Harbors and to monitor the condition of the harbor habitats. The first comprehensive survey of the harbor was conducted in the early 1970s and additional surveys have been conducted periodically in the years since.

The port-wide survey in 2008 showed continued improvement in the conditions of the harbor habitat. The most notable change was that the inner harbor areas resembled the outer harbor even more closely than they had in 2000. This steady improvement, despite greater port activity resulting from increasing cargo volumes, shows the effectiveness of the many pollution control efforts that the ports and other entities have undertaken to improve ecosystem health in the harbor area.
The latest surveys were conducted in 2013 and 2014 and data from these surveys is currently being analyzed.

California Least Tern Site Program

The California least tern is a federally listed endangered bird subspecies that breeds primarily in Southern California. Least tern populations have been declining in port areas over the last 4 years. In 2011, the Port renewed an MOU with the U.S. Fish & Wildlife Service (USFWS), the California Department of Fish & Wildlife (CDFW), and the U.S. Army Corps of Engineers (USACE) to provide viable habitat for California least terns. The Port maintains, monitors, and protects 15 acres of land for least terns to nest.

The Port continues to initiate mitigation measures to foster suitable habitat for least terns. A new weed control method was refined in 2013 from the 2012 method. As the result, there is much less regrowth during the season and much less weed control needed prior to the season. The weeds that have been particularly dangerous to the least terns; Russian thistle, and coastal bur, have been greatly reduced. The new weed control requires less effort on the part of Construction and Maintenance (C&M) employees to control weeds during the start of the season. Last year, the Port had the greatest per nest fledgling survival rate in California. In the most recent nesting period, there were 211 nest attempts and 35 fledglings. This increase may be attributed to increased predator control. During the nesting period, monitoring occurs approximately 4 days per week. After the nesting season, the biologists, EMD and C&M evaluate the effectiveness of that year's site management.

Habitat Restoration Projects

The Port mitigates any losses resulting from Port development projects and over the years has completed a number of habitat restoration projects. Details are provided in the chart below.

<table>
<thead>
<tr>
<th>Habitat</th>
<th>Location</th>
<th>Size of Habitat</th>
<th>Partners</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cabrillo Saltwater Marsh</td>
<td>Harbor (near Cabrillo Marine Aquarium)</td>
<td>3.25 acres</td>
<td>N/A</td>
<td>If required as mitigation to mudflat impacts from the San Pedro Waterfront Project, the marsh will be enhanced to add more mudflat habitat. This initiative and the timeline is dependent on if and when development occurs.</td>
</tr>
<tr>
<td>Cabrillo Shallow Water Habitat</td>
<td>Outer Harbor</td>
<td>365 acres</td>
<td>N/A</td>
<td>Phase 4 (an addition of 50 acres of shallow water habitat for fish and foraging space for birds) was completed in 2013. Ongoing monitoring will be performed for the habitat.</td>
</tr>
<tr>
<td>Bolsa Chica Wetlands</td>
<td>Orange County</td>
<td>300 acres</td>
<td>CDFG, CA State Lands Commission, NMFS, USFWS, USACE, USEPA, Coastal Conservancy, Resource Agency, Port of Long Beach</td>
<td>Restoration complete</td>
</tr>
<tr>
<td>Batiquitos Wetlands</td>
<td>North San Diego County</td>
<td>380 acres</td>
<td>City of Carlsbad, CDFG, CA State Lands Commission, NMFS, USFWS</td>
<td>Restoration complete</td>
</tr>
<tr>
<td>Least Tern Habitat</td>
<td>Pier 400</td>
<td>15 acres</td>
<td>US Fish &amp; Wildlife Service, California Department of Fish &amp; Game, and U.S. Army Corps of Engineers</td>
<td>Ongoing Monitoring</td>
</tr>
</tbody>
</table>
ENERGY

The recent increase in electrical demand at the Port has placed an increased focus on managing energy use and planning for future energy needs. The importance of a robust energy policy is demonstrated in the recently released E-MAP.

The Port staff currently tracks energy usage at facilities owned and controlled by the Harbor Department (e.g. administrative and maintenance buildings, certain attractions and scientific monitoring stations). In 2012, the most recent year for which data are available, the Harbor Department energy consumption figures were as follows:

<table>
<thead>
<tr>
<th>ENERGY CONSUMPTION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional Energy</td>
<td>10,940 MWh</td>
</tr>
<tr>
<td>Purchased Green Energy</td>
<td>3,205 MWh</td>
</tr>
</tbody>
</table>

The Port does not currently track tenant electricity; however, increasing collaboration with tenants on energy-related matters is an important priority of the new E-MAP.

ENERGY MANAGEMENT ACTION PLAN

In June 2013, the Port announced the development of an E-MAP. This plan will serve as the Port’s blueprint to identify, develop and implement programs to improve energy efficiency, reliability, quality, cost and resiliency while keeping up with the accelerating electrification and energy demand at the Port. In June 2014, the E-MAP was completed and a presentation was provided to the Harbor Commission on July 10, 2014.

To prepare the E-MAP, staff began to evaluate existing and future Port power needs and availability. This evaluation is ongoing and expected to be completed by the end of 2014. With an increasing energy demand as a backdrop the Port is pushing forward aggressively on enhancing the electricity capacity in the Harbor. Collaboration with tenants and utilities will be key to implementing the energy improvement initiatives identified through E-MAP.

ALTERNATIVE ENERGY PROGRAM

The Port has a comprehensive Alternative Energy Program (AEP) that is aimed at increasing the amount of renewable energy produced in the harbor area. The AEP was devised as a means of expediting the installation of greenhouse gas reducing technologies, such as fuel cells and wind power along with energy efficiency projects. The Port has set a goal of installing 10 megawatts (MW) of alternative electricity production within the harbor complex.
Over the past few years, the Port has moved forward with its goal to install 10 MW of photovoltaic (PV) solar power within the port or land controlled by the Port. To date, 1.6 MW of PV solar power have been installed within the Port boundary. This PV solar power consists of a combination of Port, customer, and City of Los Angeles Department of Water & Power (LADWP) PV solar power systems (PV Systems). The Port has installed 1.1 MW of PV solar power through three capital improvement program projects with approximately 70 kilowatts (kW) more scheduled in 2016. A Port customer installed a 7.7 kW system as a means of testing solar panels in a marine environment. Lastly, LADWP installed approximately 480 kW through an agreement with the Port with an additional 250 kW to be installed in 2015.

Going forward, the Port will install 12.3 MW of PV solar power at 12 sites throughout the Port. The projects are positioned to take advantage of the LADWP’s 100 MW Feed-in Tariff (FIT) Set Pricing Program. The FIT Program provides financial support and pricing incentives to encourage installation of PV Systems by LADWP customers. Successful completion of the projects included in the RFP will allow the Port to exceed its goal of 10 MW of PV solar power within the Port.

Fuel Cell

In early 2014, the Harbor Department issued an RFP to install a 300 kW Solid Oxide Fuel Cell System (SOFC) at the Harbor Administration Building. The SOFC is sized to provide the building’s base load demand. Solid oxide technology was chosen for its high efficiency, low waste heat, and ultra-low emissions. The RFP required that the SOFC be fueled with natural gas. Collectively these characteristics will allow the SOFC to generate electricity at a lower cost than the utility electrical grid for a term of 20 years. Bloom Energy was the sole bidder and is expected to have the SOFC operational in 2015. The project is on target for receiving a substantial incentive from the California Public Utilities Commission approved Self Generation Incentive Program through Southern California Gas Company.

Wind

The Port was in the process of conducting a wind power feasibility study. The study would have provided direction for potential future wind power installations at the Port. During the process of environmental review for a 100-meter self-supporting meteorological tower at Pier 400, the Port received substantial pushback from both state and federal resource agencies over concerns for the California least tern, an endangered bird species with a nesting site on Pier 400. The Port must balance the benefit of its sustainable energy initiatives with other environmental priorities. As a result, the project has been placed on indefinite hold. Due to the concerns with wind generation within the harbor, the Port is maintaining its focus on PV Systems to reach the 10 MW goal of clean energy. Short wind turbine projects may be considered for the Port at a future date.
EFFICIENCY

Along with increasing alternative electricity production, the Port is also making strides to reduce energy demand through efficiency improvements. As part of the Harbor Administration Building SOFC project, the high pressure sodium (HPS) lighting in the building’s two parking levels will be replaced with LED fixtures. The energy savings will be substantial while providing a higher-quality light. In addition, the Port is investigating the replacement of all HPS fixtures located on the numerous high mast light poles located throughout the harbor complex. The result will be a substantial savings in electricity and lower electrical bills for the Port’s customers.

Additionally the Port is looking into replacing heating, ventilating, and air conditioning (HVAC) systems with newer more efficient systems in the Port’s buildings. The HVAC system in the Maritime Museum building was recently upgraded and the Harbor Administration Building is in the design phase for replacing its HVAC system. The Port will apply for incentives offered by LADWP for these lighting and HVAC upgrades.

GREEN TECHNOLOGY ADVANCEMENT

Promoting and demonstrating zero-emissions technologies is a cornerstone of the Port’s overall sustainability strategy. Green technology advancement is accomplished through a number of Port programs and collaborative initiatives, described below.

Zero Emissions Roadmap

In August 2011, the Ports of Los Angeles and Long Beach released a report that establishes a framework for future identification, development, and testing of non-polluting technologies for moving cargo.

The “Roadmap for Moving Forward with Zero Emissions Technologies at the Ports of Long Beach and Los Angeles – Technical Report” is focused on three segments of Port operations where technically feasible and economically viable solutions are most likely to develop: on-road container drayage, in-terminal container handling, and railroad locomotives. The roadmap identifies near-term and long-term actions that together have the potential to dramatically improve air quality throughout the region. The roadmap can be accessed through the Port’s CAAP website at http://www.cleanairactionplan.org/reports/default.asp. The roadmap is continually evaluated and kept up through program funding.

The Port is also committed to collaborating at the local, regional, and state level to help bring about the infrastructure and services required to support a zero emissions goods movement industry. A prime example of this commitment is the Port’s ongoing participation in the West Coast Collaborative, a public-private partnership to reduce diesel emissions.
Technology Advancement Program

The TAP is designed to facilitate the development and demonstration of clean air technologies in the port environment. This collaborative effort between the ports and private industry aims to bring cleaner air and green jobs to California.

The TAP has brought the world two major innovations in clean transport: the world’s first hybrid tugboat, completed in 2010, and the world’s first zero-emission drayage truck.

**The World’s First Zero-Emission Hydrogen-Electric Drayage Truck** In July 2011, Vision Industries delivered the world’s first zero-emission hydrogen fuel cell-electric drayage truck to a national trucking company that is currently testing the vehicle in the Ports of Los Angeles and Long Beach.

The vehicle is an electric truck with a battery recharged by a hydrogen fuel cell that generates electricity from a reaction of hydrogen and oxygen, with pure water as the only by-product. This technology currently has a range of 200 miles. An extended range (400 miles) vehicle demonstration is also planned. Should testing prove successful, this technology offers significant promise for reducing emissions in and around the Port.

**OGV Alternative Maritime Power Alternatives** Alternative Maritime Power enables ships at berth to receive shore side electrical power while its main and auxiliary engines are turned off. As some ships and terminals are not able to accommodate AMP, the Port is working with industry and terminal operators to develop technology alternatives to AMP that achieve emissions reductions for ships at berth.

The final phase of testing for a promising system that captures and treats auxiliary generator exhaust from a container vessel at-berth has been completed. Initial studies suggest that this system may yield reductions of DPM and NOx as great as 90 percent; however, these results are still preliminary. The system is currently in the process of rigorous testing to confirm the viability and durability of the treatment process in the marine environment. If successful, this treatment technology could be deployed at Port terminals where AMP is not a practical option.

Other Green Technology Projects

In addition to projects funded through the TAP, the Port also fosters green technologies by providing grant funding and by collaborating with the lead agencies developing the technologies. Information about other green technology projects the Port has supported during the reporting period are provided below.

**Electric Drayage Trucks** The Port is currently participating in the development of several electric on-road, heavy-duty trucks. The Port expects in the next couple of years to demonstrate 20 Zero Emission Trucks. The companies developing the various trucks are Balqon, Vision, TransPower, US Hybrid, and International Rectifier.

Seven trucks are in the midst of a 12-month demonstration period that is being carried out by Port drayage truck operators. The seven zero-emission trucks will demonstrate the TransPower ElecTruck drive system. The system integrates an on-board battery charger into the battery management system, and power inverters, eliminating the need for an external stand-alone battery charger. Under normal operating conditions, the drive system is expected to provide 100 to 150 miles of range.

**Electric Tractors** In 2013, the Port demonstrated electric off-road cargo handling equipment (yard tractors) manufactured by Balqon at two container terminals (Seaside Transportation Services and APM). Additionally, in March 2013, the Ports of Los Angeles and Long Beach were selected by CARB to receive grant funding for the development of two electric yard tractors to be developed by TransPower and demonstrated at the Port’s APL terminal. This grant award is for a two-year project, with an expected completion in 2015.
PortTechLA is a non-profit technology commercialization center and incubator operated by a coalition comprised of the Port, San Pedro and Wilmington Chambers of Commerce, and the City of Los Angeles. It is designed to accelerate the growth of companies offering clean technologies through assistance with the development, testing, commercialization, manufacture and marketing. PortTechLA currently has 14 clients.

PortTechLA provides several crucial services to technology companies including management consulting, pitch development, discounted office space and access to funding. Entrepreneurs are connected with investors, company leaders and business opportunities through networking events including regular PortTechForum networking events and the annual PortTechEXPO. In addition to connecting technology companies with business prospects, this year’s event is expanding to also feature clean technology demonstrations, interactive displays and the best technology advancements for ports and beyond.

The PortTechLA expo was held on September 11, 2013, at the CRAFTED location. There were more than 600 entrepreneurs, investors, business partners, maritime industry leaders, and students interested in science, technology, engineering, and mathematics (STEM) careers in attendance. Some notable speakers included: Federal Maritime Commission Chairman Maria Cordero, California State Controller John Chiang, and Mayor Eric Garcetti. The Mayor’s speech emphasized “the crucial business role entrepreneurs play in Los Angeles, the economic and community benefits of clean ports and the value of having PortTechLA advance clean technologies by helping startups.” More information can be found at http://www.portoflosangeles.org/latitude/article.php?a=228&p=/December_2013/articles/Incubating_the_Future

Hybrid Tour Boat

In February 2012, the Port received final approval from the U.S. Coast Guard to install a hybrid propulsion system on its 42-year-old harbor tour boat, the Angelena II. The Angelena II provides a logical demonstration project for this technology, as the vessel serves an important role in educating guests about the role of ports and to highlight the Port’s capabilities, strategic initiatives, and development.

The Angelena II would be the first harbor craft of its kind retrofitted with a hybrid propulsion system. This system promises to reduce emissions and fuel usage by more than 95 percent. Retrofit work has been completed on the Angelena II. Testing and certification will need to be completed before the vessel could be returned to regular service in the Harbor. This testing has been put on hold due to concerns over cost and viability of the project. The Port is currently evaluating the overall value of the project and its consistency with the Port’s strategic goals and commitments to stakeholders.
Programs for Sustainable Design and Operations

Though many of the Port’s sustainability efforts are focused on generating sustainable transportation solutions, the Port has also created a number of policies to facilitate more sustainable design, construction and operation of Port-related facilities.

Green Building Policy

The Port’s Green Building Policy (Policy) has been in place since 2008. Designed to promote responsible growth, the Policy sets forth the Port’s intentions to pursue certification under the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED™) program for new and existing buildings, and to incorporate best available technologies in all Port facilities to the maximum feasible extent.

In March 2012, the Port received its first ever gold-level certification under the LEED™ rating system for its new Los Angeles Port Police Headquarters building. Other LEED-registered buildings include the Port Administration Building, the Los Angeles City Fire Station No. 36 in San Pedro, and Los Angeles Harbor College’s Northeast Academic Hall and Student Services in Wilmington.

No new LEED buildings were certified at the Port during the current reporting period; however, the Port will continue to pursue LEED certification as new building and remodel opportunities become available.

Technology Review Lease Measure

Whenever the Port enters into a new long-term agreement with a tenant, it incorporates the periodic technology lease review measure. This measure requires tenants to check in with Port staff every 2 to 7 years to review the newer, cleaner technologies that have developed in that timeframe that could be incorporated into their operations. Implementation occurs if and when both parties agree that new technologies are feasible, which includes considerations of technical, financial, and operational feasibility. This serves as a mechanism for Harbor Department staff to encourage the use of the best, least polluting technologies at the Port and allow for the implementation of these new technologies throughout the life of a lease.

Waste Diversion Initiative

Over the past decade, the Port has made great strides in the efficient use of materials and the diversion of waste from landfills. Currently, the Port more than exceeds the state’s compliance rate of 50 percent waste diversion, as shown in the table below. When construction materials and demolition from Port construction projects are included the waste diversion rate is greater than 90 percent. In 2013, an approximately 15 percent drop in waste diversion from Port activities was observed. The Port was still able to exceed the compliance standard of 50 percent diversion. Interestingly, the diversion rate in 2013 including construction and demolition was the highest in the previous three years at 96.6 percent. This high-diversion percentage is attributable to the large amount of ongoing construction that is generally conducive to material recovery and reuse.

<table>
<thead>
<tr>
<th>WASTE DIVERSION</th>
<th>CY 2011*</th>
<th>CY 2012*</th>
<th>CY 2013*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port of Los Angeles</td>
<td>75%</td>
<td>79.10%</td>
<td>61.15%</td>
</tr>
<tr>
<td>Port of Los Angeles +</td>
<td>91.75%</td>
<td>91.90%</td>
<td>96.58%</td>
</tr>
<tr>
<td>Construction &amp; Demolition</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Calculated according to AB 939 methodology
The Port is America’s largest port in terms of container volume and cargo value. As such, the Port plays an important role in the regional and national economy. The responsibility to the economic health of the region and nation is captured in the Port’s 2012-2017 Strategic Plan that outlines the Port’s major goals and initiatives for strengthening financial performance. The section below contains an overview of key programs designed to increase financial strength, and highlights of the Port’s economic performance during the reporting period.

Key progress in the reporting period includes:

• 75 percent of awarded contracts were issued to local business enterprises under the Port LBE Program.

• Nearly 25 percent of contract dollars were awarded to small business enterprises.

• Value of cargo moved through the Port rose one percent to $285.4 billion in CY 2013.
**Financial Performance**

**Quick Facts and Statistics**

- Provided $6 billion in tax revenue throughout California; $23 billion throughout the U.S.
- Generated $63 billion in trade value throughout California and $260 billion in the U.S.
- Maintains an “AA” bond rating – the highest of any U.S. port without taxing authority
- FY 2012/13 Operating Margin of 48.3%
- Top five trading partners by cargo volume (CY 2013):
  - China/Hong Kong – $138 billion
  - Japan – $40 billion
  - South Korea – $16 billion
  - Taiwan – $12 billion
  - Vietnam – $11 billion

**Cargo Volumes**

Total annual cargo volumes, including empty containers, fell approximately 2 percent from 8.1 million in CY 2012 to 7.9 million in CY 2013. Although container volumes fell slightly, the value of cargo moved rose approximately 1 percent to $285.4 billion in CY 2013. Meanwhile, the import of automobiles fell 18 percent from 206,865 in CY 2012 to 169,107 in CY 2013.

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**FINANCIAL PERFORMANCE**

<table>
<thead>
<tr>
<th></th>
<th>FY 2012/13</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td>$397,368</td>
<td></td>
</tr>
<tr>
<td><strong>Operating Costs</strong></td>
<td>$205,169</td>
<td>includes $109.4M in Salaries &amp; Benefits (net of capitalization)</td>
</tr>
<tr>
<td><strong>Employee Wages &amp; Benefits</strong></td>
<td>$129,837</td>
<td>Before capitalization</td>
</tr>
<tr>
<td><strong>Payments to Providers of Capital</strong></td>
<td>$40,300</td>
<td></td>
</tr>
<tr>
<td><strong>Community Investments</strong></td>
<td>$53,906</td>
<td>No longer includes Capital Improvement Projects that have been reclassified as non-direct/ancillary community investment.</td>
</tr>
<tr>
<td><strong>Payments to Government</strong></td>
<td>$ --</td>
<td>The Harbor Department is a governmental entity and does not pay taxes</td>
</tr>
</tbody>
</table>

All figures in thousands. Sourced from audited financial statements (Comprehensive Annual Financial Report) for FY 2012/2013.
TRADE CONNECT PROGRAM

In 2007, the Port initiated this pioneering trade development program for small and medium-sized enterprises. Through Trade Connect, the Port provides educational workshops to assist local business interested in expanding their operations to export internationally.

The intent of all Trade Connect workshops is to cover the costs, risks and steps involved in exporting. Offered in cooperation with governmental agencies and local officials, these workshops connect businesses with the entities that can provide participating businesses with the experts, resources and services they need to begin exporting goods internationally.

Over the past year, the program has been expanded to include several advanced levels of engagement (e.g., 201, 301, 401 and 501). The Trade Connect program has been extremely popular among local businesses. The Program already has surpassed the goal detailed in the Strategic Plan of increasing the number of Trade Connect events in the next five years to 24 in 2016.

Total trade development-related outreach efforts for FY 2013/14 are presented in the chart below.

Program staff is currently developing web-based video content for web-based broadcasting of Trade Connect events. The first Trade Connect Series (301) was taped for future broadcasting, as was the Mandarin and Spanish Language versions of Trade Connect. Other notable achievements in the reporting period include:

- Trade Connect received a Presidential E Star Award for Export Service
- The program has been accredited by the National Customs Brokers & Forwarders Association of America, Inc. (NCBFAA) to provide continuing education and industry certification for the Certified Customs Specialist (CCS) Certification Program

<table>
<thead>
<tr>
<th>Engagement Type</th>
<th>Number of Engagements</th>
<th>Number of Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Trade Connect 101</td>
<td>5</td>
<td>244</td>
</tr>
<tr>
<td>Trade Connect Topic Specific 201</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Trade Connect Series 301</td>
<td>21</td>
<td>524</td>
</tr>
<tr>
<td>Emerging Markets 401</td>
<td>5</td>
<td>584</td>
</tr>
<tr>
<td>Commodity Specific 501</td>
<td>3</td>
<td>144</td>
</tr>
<tr>
<td>Trade Shows</td>
<td>1</td>
<td>520</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>7</td>
<td>513</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>42</strong></td>
<td><strong>2529</strong></td>
</tr>
</tbody>
</table>
**Strategic Sourcing Policies**

**Local Business Preference Program**

In early 2012, the Port established a Local Business Preference Program (LBPP). Similar to the LBPP adopted by the City in October 2011, this program augments the Harbor Department’s efforts to increase local jobs and spending to benefit the businesses and residents surrounding the Port.

Recognizing that the cost of doing business in the City is more than 10 percent higher than other cities nationally, the LBPP was designed so that local businesses get an equal opportunity to compete for City business. The LBPP allows for local businesses to receive an 8 percent preference for any contract opportunity that is competitively awarded. The local preference is applicable to all procurement, professional services, and construction contracts greater than $150,000. Further details are available through the Port’s Contracts and Purchasing Division. The LBPP has been an immense success with 75 percent of awarded contract amounts going to businesses meeting the LBPP criteria in the FY 2013/14.

**Small and Very Small Business Enterprise Program**

In 2007, the Port adopted the Small Business Enterprise (SBE) Program to augment the Harbor Department’s efforts to increase the participation of small businesses in Port contracts.

Based on the success rate of continually exceeding the Harbor Department’s goal of 25 percent SBE participation, a Very Small Business Enterprise (VSBE) component was added to this program in December 2010. The new goal for this program is 25 percent SBE participation, including 5 percent VSBE participation, for all construction and professional service contract awards.

During FY 2013/14, approximately $439 million in professional service agreements and construction contracts were awarded, as shown below. Of this amount, approximately $107 million or 24.4 percent was awarded to SBEs, and $45 million or 10.2 percent was awarded to VSBEs.

<table>
<thead>
<tr>
<th>SUMMARY OF CONTRACTS AWARDED JULY 1, 2013 – JUNE 30, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
</tr>
<tr>
<td>LBE</td>
</tr>
<tr>
<td>SBE</td>
</tr>
<tr>
<td>VSBE</td>
</tr>
<tr>
<td>MBE</td>
</tr>
<tr>
<td>WBE</td>
</tr>
<tr>
<td>DVBE</td>
</tr>
</tbody>
</table>
**Job Creation**

The Port generates approximately 896,000 regional jobs and $39.1 billion in annual wages and tax revenues. One in every eight Southern California jobs is linked to the Port.

Over the Port’s first hundred years, the variety of jobs were related to fishing, canneries, military, cargo operations, shipbuilding, recreation and tourism. Currently the Port’s jobs are focused primarily on containerized cargo, fishing, and recreation and tourism.

The Port aims to foster a more diversified job cluster focused not only on cargo handling, but on other activities such as clean technology development, academic research, commercial fishing, recreation and tourism. Efforts such as the LA Waterfront Program, Port Tech LA, Technology Advancement Program, and the AltaSea Marine Research Institute are helping the Port to achieve this goal.

**Regional Employment Programs**

The Port places a priority on creating quality employment opportunities for local residents. Significant progress was recently achieved on this front with the launch of the groundbreaking Project Labor Agreement.
Project Labor Agreement

In March 2011, the City of Los Angeles Harbor Department negotiated a five-year Port-wide Project Labor Agreement (PLA) with the building and trade unions affiliated with the Los Angeles and Orange Counties Building and Construction Trade Council. This agreement is intended to promote efficiency of construction operations during the construction of various projects within the Harbor Department’s Capital Improvement Program.

The Port-wide PLA seeks to address unemployment and underemployment in concentrated poverty neighborhoods, particularly in communities surrounding the Port, and also seeks to advance the skills of the local labor pool. To this end, the Port-wide PLA requires a hiring minimum of local resident workers and disadvantaged workers (those with specific low-income thresholds or with certain defined barriers to employment in particular LA zip codes).

On capital development projects included in the five-year Capital Improvement Project List, local residents will perform at least 30 percent of the total work hours, and disadvantaged workers will perform at least 10 percent of the total work hours. Additionally, apprentices will perform at least 20 percent of total work hours on each upcoming project, and residents in the targeted city areas will perform at least 50 percent of these apprenticeship hours.

A number of construction projects commenced under the PLA over the reporting period. Employment figures are provided in the chart here.

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**FULL-TIME EQUIVALENT (FTE) JOBS CREATED JULY 2013 – JULY 2014**

<table>
<thead>
<tr>
<th>Project Name and Specification #</th>
<th>Local Hire Work Hours</th>
<th>FTE*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berth 100 Wharf South Extension &amp; Backland Development / Spec #2626</td>
<td>20,816</td>
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<td>Berth 200 Rail Yard / Spec #2724</td>
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<td>Berth 121-126 &amp; Berth 212-216 / Spec #2732</td>
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<td>LA Waterfront Downtown Harbor Landside &amp; Rail Improvements / Spec #2739</td>
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<td>Rear Berth 136-139 Terminal Building &amp; Main Gate / Spec #2663</td>
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<td>South Wilmington Grade Separation / Spec #2690A</td>
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<td>John S. Gibson Blvd. / 110 FWY Access Ramp Improvements / Spec #2734</td>
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<td>Berth 200 Rail Yard Track Connections / Spec #2745</td>
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<td>Berths 142-143 Backland Improvements / Spec #2756</td>
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<td>2014 - 2016 Site Improvements / Spec #2757</td>
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<td>Berths 142-147 ICTF / Spec #2752</td>
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<td><strong>Total</strong></td>
<td><strong>252,302</strong></td>
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* Full Time Equivalent employee is 1 FTE worker = 2,080 manhours per year
2015 & BEYOND
Sustainability is a key component of the Port’s Strategic Plan and is a crucial element for the Port’s continued leadership in the decades to come. Although the Port has made great strides in reducing its environmental footprint and engaging its stakeholders, there is still much work to be done to achieve a lasting balance between economic, community, and environmental priorities. The Port will continue to work with its tenants and stakeholders to further sustainability within its operations.

The Port also shares a commitment to its home city. In early 2015 the City of Los Angeles released a comprehensive plan to advance the City environmentally, economically, and equitably. As a department of the City, the Port will play an important role in helping achieve the City’s sustainability goals. The City-wide Plan identifies specific measures that the Port, and other City departments, will implement to ensure Los Angeles continues to be a sustainability leader throughout the 21st century. These measures are defined in terms of measurable goals and a schedule for achievement of each goal.

The Port will continue to report its sustainability efforts and progress through the City’s metrics system. The Port expects that demonstrating adherence to its long range sustainability goals will necessitate further advances in the Port’s ability to track and report on its operations. Additionally, as a leader in the ports and goods movement industry, the Port is committed to engage with other stakeholders to further refine the sustainability best management practices for ports and the goods movement industry.
The Port will continue to be proactive in its pursuit of sustainability.
<table>
<thead>
<tr>
<th><strong>Acronyms</strong></th>
<th><strong>AEP</strong></th>
<th><strong>High Pressure Sodium</strong></th>
<th><strong>HPS</strong></th>
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<td>Pacific Harbor Line</td>
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<td>Permanent International Association of Navigation Congresses</td>
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