

National Research Council
Pathways to Urban Sustainability
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Urban Sustainability

The Role of the Port of Long Beach



Port of
LONG BEACH
The Green Port

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Premier seaport

\$180 Billion in Trade

Leader in goods movement, environmental stewardship



Port of **LONG BEACH**
ENVIRONMENTAL
ACHIEVEMENT
2013

Green Port Policy

Air

**Water &
Sediments**

Wildlife

**Soil
Sustainability**

**Community
Engagement**

A low-angle, upward-looking photograph of several stacked shipping containers. The containers are in various colors, including green, yellow, and brown. The sky is a vibrant blue with scattered white clouds. The sun is visible in the upper center, creating a lens flare effect. The overall composition suggests a port or industrial setting.

Clean Air Action Plan

Air Quality

Decrease emissions from port operations

**Diesel
Particulate
Matter:**

Down **72%** 2014
77% 2023

**Nitrogen
Oxides:**

Down **22%** 2014
50% 2023

**Sulfur
Oxides:**

Down **93%** 2014
93% 2023

Clean Air Goals

2014 and 2023

**Diesel Particulate
Matter:
DOWN**

82%

**Nitrogen Oxides:
DOWN**

54%

**Sulfur Oxides:
DOWN**

90%

**Greenhouse Gases:
DOWN**

20%

0.3%

**TEUs
UP**

2013 Air Emissions Inventory



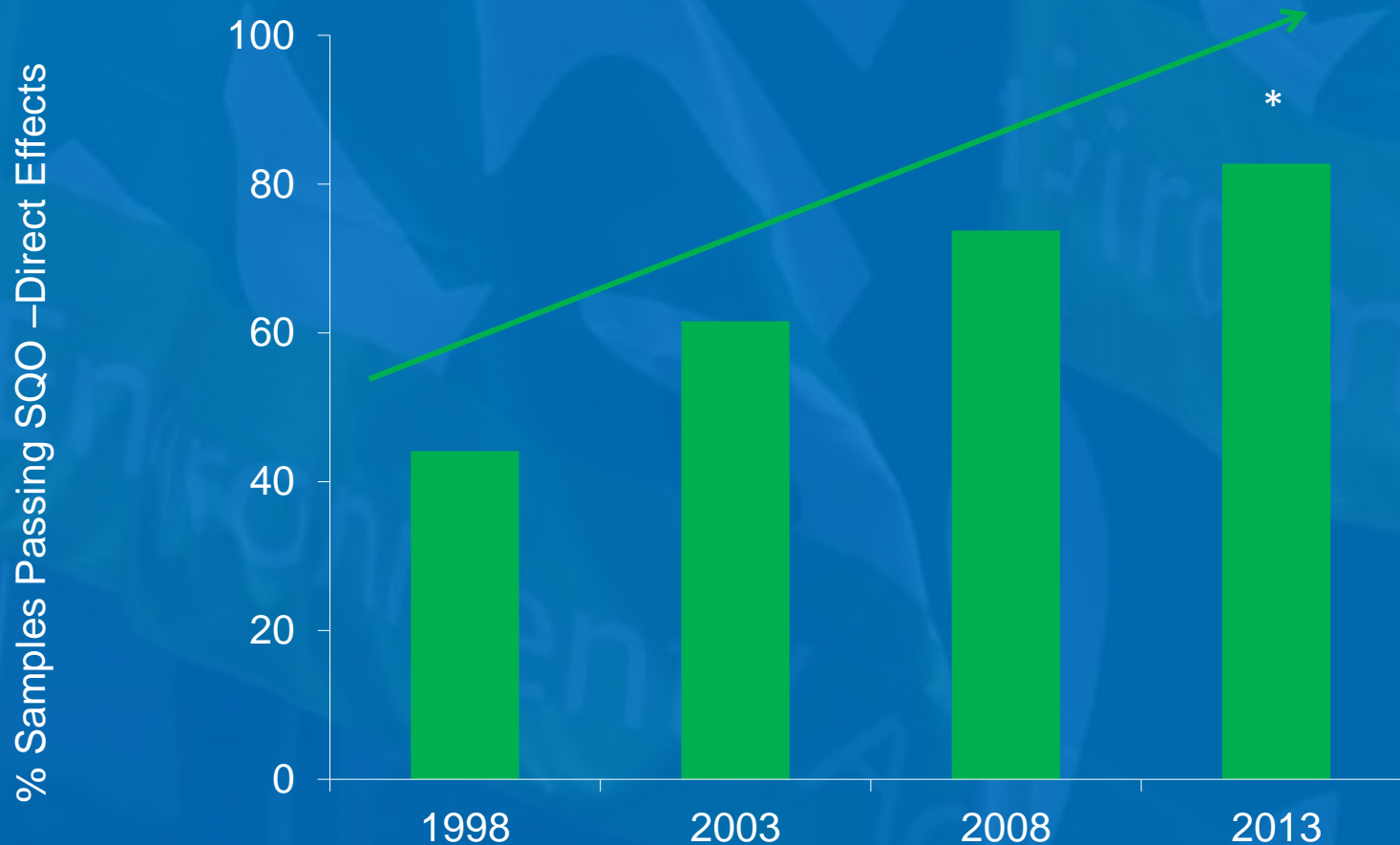
Water Resources Action Plan

Water & Sediment Quality

Improve water quality
Beneficially reuse sediments

Sediment Quality Objectives

Reduced Chemical Concentration, Toxicity, Benthic Impairment





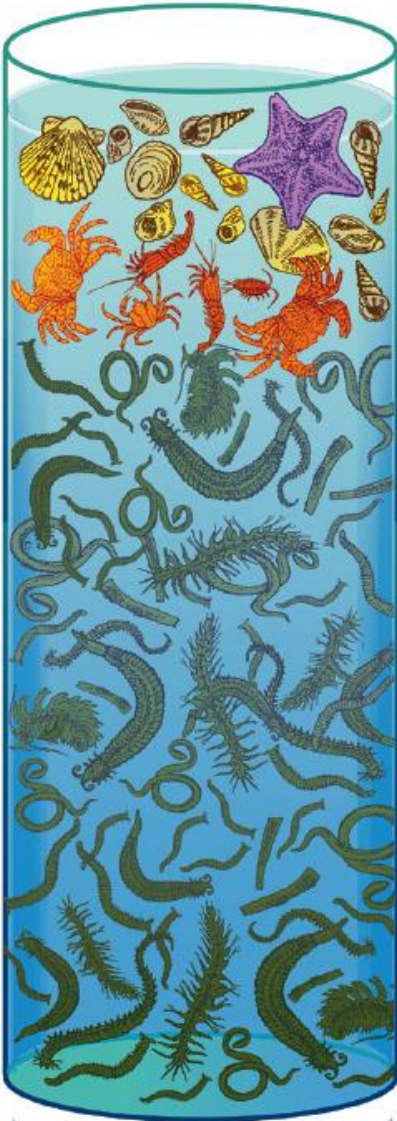
Wildlife

Increase diversity, population of species

San Pedro Bay Biological Survey

1988 SURVEY

Echinoderms
1%
Mollusks
9%
Crustaceans
5%
Polychaete
Worms
80%



2000 SURVEY

Echinoderms
1%
Mollusks
9%
Crustaceans
23%
Polychaete
Worms
65%



2008 SURVEY

Echinoderms
2%
Mollusks
19%
Crustaceans
30%
Polychaete
Worms
48%





Soils

Return land to productive use



Sustainability

Implement sustainable practices into terminal
design, development and operations

Port of LONG BEACH

A photograph of a community engagement event at the Port of Long Beach. In the foreground, a white pop-up tent with a green and blue border features the Port of Long Beach logo and the text 'The Green Port', 'Port of LONG BEACH', and 'www.POLB.com'. To the left, a tall, curved banner displays the same logo and the slogan 'Shaping a vibrant community'. The background is filled with palm trees and a clear sky. A group of people is gathered under the tent, engaged in conversation. A semi-transparent blue banner is overlaid across the middle of the image, containing the title and subtitle in white text.

Community Engagement

**Involve and educate the community
about the port**



Charging Forward

Continued Commitment

Evolution of the Green Port Policy

Port of LONG BEACH



Investing in the Port of the Future

Capital Improvements

Electrified Operations, Efficiencies, On-dock Rail



Real-World Demonstrations

Technology Advancement

Accelerate verification and commercial availability

An aerial photograph of a port at sunset. A large container ship is docked at a pier, and several cranes are visible. The city lights of Long Beach are visible in the background, and the sky is filled with colorful clouds.

Meeting Future Demand

Energy Programs

Cleaner Options, Support Port Operations

An aerial photograph of the Port of Long Beach, showing a large container terminal with numerous colorful shipping containers stacked in rows. Several large container ships are docked at the piers, with yellow gantry cranes positioned over them. The port is situated along a wide river or bay, with a city skyline visible in the background under a clear blue sky.

Climate Change

Adaptation & Resilience Planning

Assess, Develop Mitigation & Implement

Port of LONG BEACH