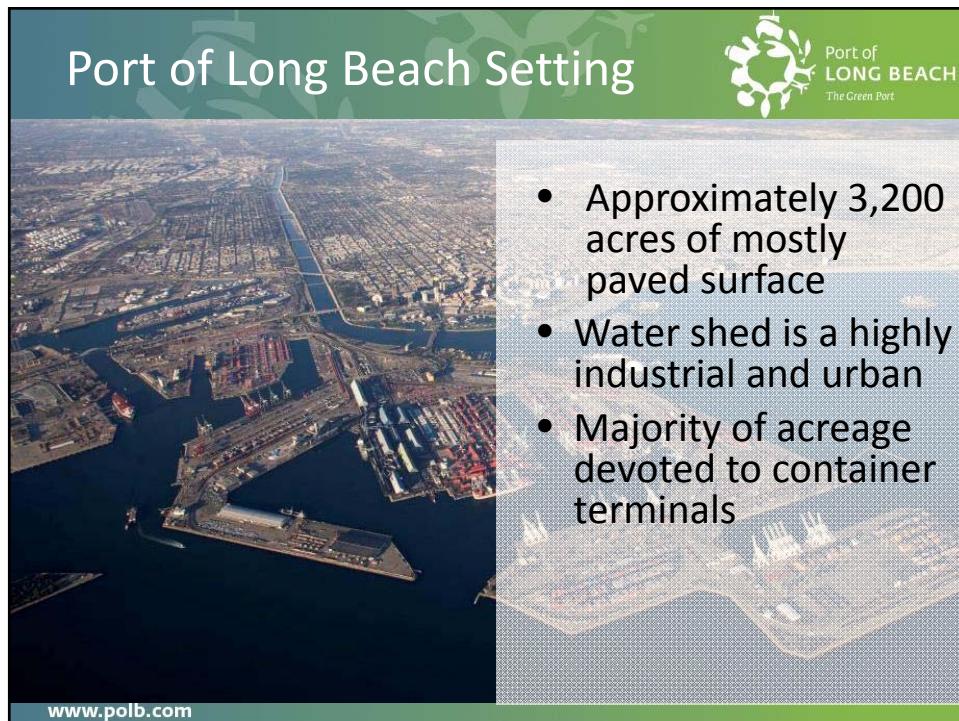




**Low Impact Development
at the
Port of Long Beach**

James Vernon
January 22, 2015

Port of LONG BEACH
The Green Port



Port of Long Beach Setting

Port of LONG BEACH
The Green Port

- Approximately 3,200 acres of mostly paved surface
- Water shed is a highly industrial and urban
- Majority of acreage devoted to container terminals

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City of Long Beach LID Ordinance



- In February 2013 COLB adopted the LID Ordinance
- Most projects in the City must incorporate LID
- Implement the COLB LID BMP Manual

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LID Challenges in a Port Setting



- POLB mostly constructed on fill
- Liquefaction issues



LID Challenges in a Port Setting



- High groundwater table
- As little as six feet BGS
- Tidally influenced

LID Challenges in a Port Setting



- Legacy contamination



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Port Specific Guidance Manual



• Despite challenges POLB committed to encouraging LID implementation

• City has amended the LID Ordinance

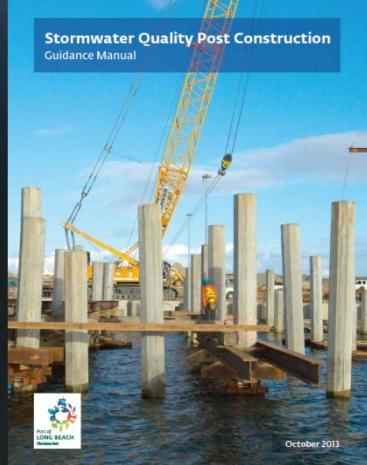
• In the HD the Port's manual shall be applied instead of COLB LID BMP Manual

• Provides flexibility and compliance alternatives

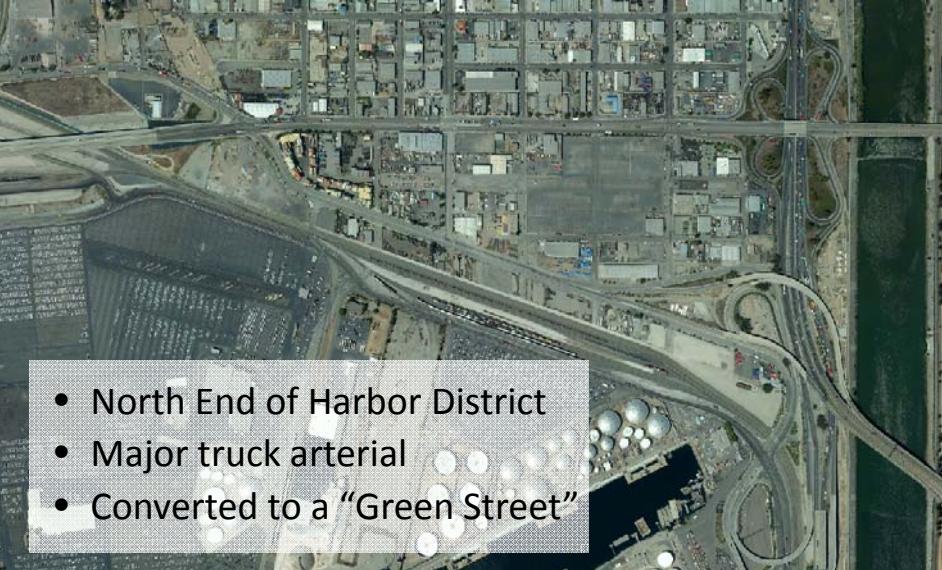
• Incorporate LID when feasible

- If not use conventional treatment BMPs

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Port LID Projects: Anaheim Street

• North End of Harbor District

• Major truck arterial

• Converted to a "Green Street"

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Anaheim Street Redevelopment



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Installed 3 Tree Box Filters

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Anaheim Street Redevelopment



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LONG BEACH
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- ConTech Urban Green Filter
- Flow through biofilter plus canister filters
- Western Redbud selected
- Possible for use in landscaped areas in other Port facilities

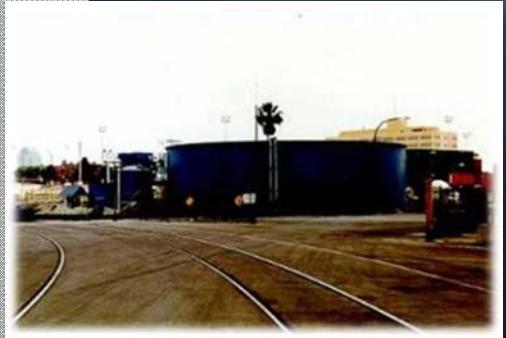


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LID at POLB: Rainwater Harvesting



• Two POLB facilities harvest rainwater
• Metal recycler and pet coke exporter
• Facilities are designed to collect stormwater
• 1,000,000 gallon tank
• Water used for dust control
• Oil facilities - injection



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LID at POLB



• Orphan sites program
• Demonstration projects
• LEED Building Policy



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Questions?



The image shows four pelicans swimming in a body of water. In the background, there are industrial buildings, a red crane, and several ships docked at a port. The water is calm, reflecting the sky and the surrounding structures.

Port of
LONG BEACH
The Green Port

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