



# SAN PEDRO BAY PORTS CLEAN AIR ACTION PLAN

## Clean Truck Fund Rate

Joint Meeting of the  
Port of Long Beach Harbor Commission &  
Port of Los Angeles Harbor Commission

March 9, 2020



# Proposed Action

## Today's Board Action:

- Consideration of Joint Port of Los Angeles/Port of Long Beach Resolution
  - Identifies Clean Truck Fund (CTF) Rate and exemptions
  - No authority to collect CTF Rate until future Board actions

## Future Board Actions:

- Consideration of contract with the CTF Rate collection mechanism vendor
- Consideration of Tariff Amendments to implement the CTF Rate
  - To be presented to the Boards after California Air Resources Board (CARB) adopts a heavy-duty low nitrogen oxides (NOx) engine manufacturing standard
- Consideration of structure for allocating incentive funds



# Clean Trucks Program

CAAP Goal of 100% Zero Emission Trucks by 2035

## Objectives:

- Reduce emissions to improve community health, meet criteria pollutant and greenhouse gas reduction goals
- Minimize economic impacts and disruption
- Utilize Port's authority within our jurisdiction





## Guiding Principles from the 2017 CAAP Update

- Expediently reduce our fair share of air emissions and associated health risk from port-related operations
- Remain economically competitive and maintain our market position
- Support our vibrant workforce
- Continue to develop and foster strong partnerships with all stakeholders in order to achieve and sustain successful outcomes for all
- Assure that the CAAP implementation process is transparent and responsive to stakeholder input





# Then Versus Now

## 2008

CARB In-Use Regulations

Small technology transition

Small cost differential for new trucks and available used market

Short term program (4 years)

Many trucks financed by LMCs

## 2020

No applicable CARB In-Use Requirements

Requires a significant technology change to emerging technologies with limited infrastructure

Large cost differential for new technologies

Long term program (15+ years)

Financing for drivers uncertain



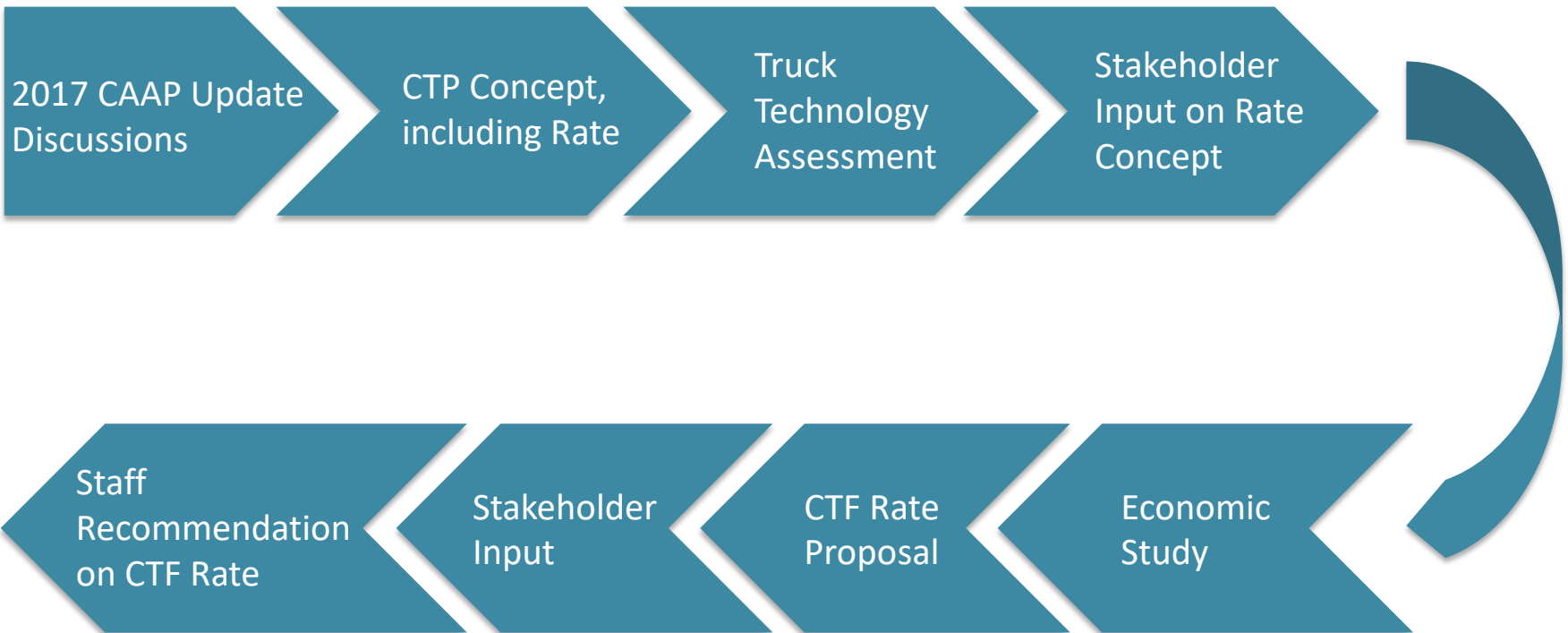
# Joint Ports' CTP Today

- 18,421 trucks are in the Port Drayage Truck Registry (PDTR)
- 4,339 2014+ trucks registered in the PDTR since October 1, 2018
- 10,881 trucks in the PDTR with engines meeting 2010 EPA standards
- 41% trucks in the PDTR are 2007 EPA Compliant
- 58% of the moves are being done by trucks with 2010 EPA engines
- 687 LNG/CNG trucks are in the PDTR
- 4% of the moves are being done by LNG/CNG trucks
- ~130 trucks with the natural gas fueled 0.02g/bhp-hr NOx engines are in the PDTR
- >9 ZE trucks in the PDTR





# Approach for the CTF Rate Development





## CTF Rate as described in the 2017 CAAP Update

**Beginning in 2020**, a Clean Truck Fund (CTF) Rate will be charged to the beneficial cargo owners that move loaded containers in and out of port terminals with trucks that do not have CARB-certified low NOx engines or better

- Contingent on:
  - Truck Feasibility Assessment, including evaluation of availability of trucks – **Completed**
  - Clean Truck Rate Economic Study – **Completed**
  - Establishment of rate collection mechanism - **Underway**
  - CARB adoption of low NOx manufacturing standard – **Anticipated June 2020**





# Truck Feasibility Assessment

- Snapshot in time, 2018-2021
- Assessed for technical viability, commercial availability, operational feasibility, infrastructure availability, economic workability
- Ultra-low NOx natural gas trucks technically and operationally feasible, and available today
- Battery-electric trucks in demonstration and not available today; could be feasible in the next several years
- Availability is different than anticipated when CAAP was adopted in late-2017



# Economic Study for the CTF Rate

- Approach to the evaluation:
  - Review of previous studies and analyses
  - Modeling to estimate potential diversion and truck turnover for a range of potential rates
  - Evaluation of the current port industry competitive environment
  - Input from stakeholders





# Key Findings of the Economic Study

- Range of rates studied (\$5 - \$70/TEU) not sufficient to force the transition to cleaner trucks given the high cost differential for those trucks
  - Generating a fund and providing incentives will be the key to promote truck turnover
- Concludes that diversion for local cargo may be low/moderate in the near term, but if the rate increases, potential for diversion of local cargo and discretionary cargo increases in the medium and long term
  - Factors other than cost and time have an influence on diversion



# Key Findings of the Economic Study

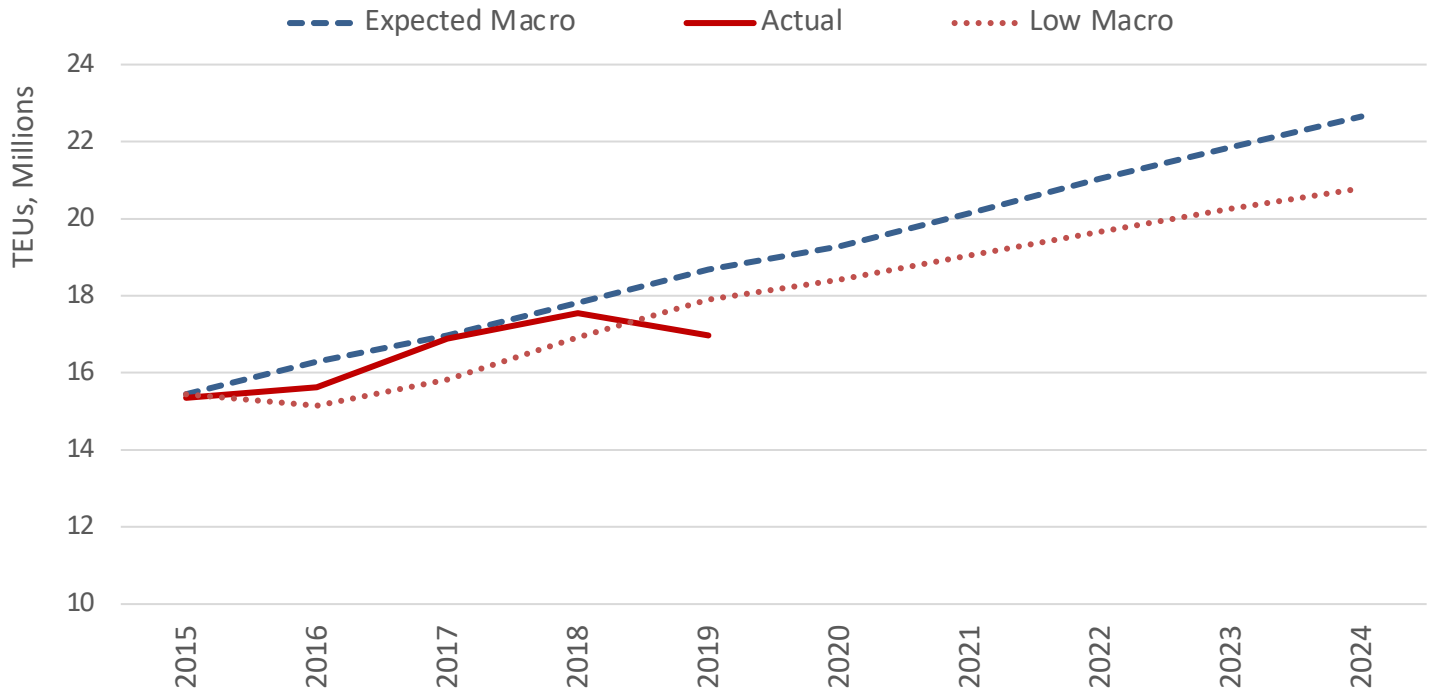
- Identifies steady losses (especially in recent years) in LA/LB market share of containerized imports from Asia
- Recommends the Ports should exercise caution in setting a rate, starting at a lower CTF Rate to try to limit diversion while still generating a substantial grant fund





# Actual Cargo Volumes Versus Forecast

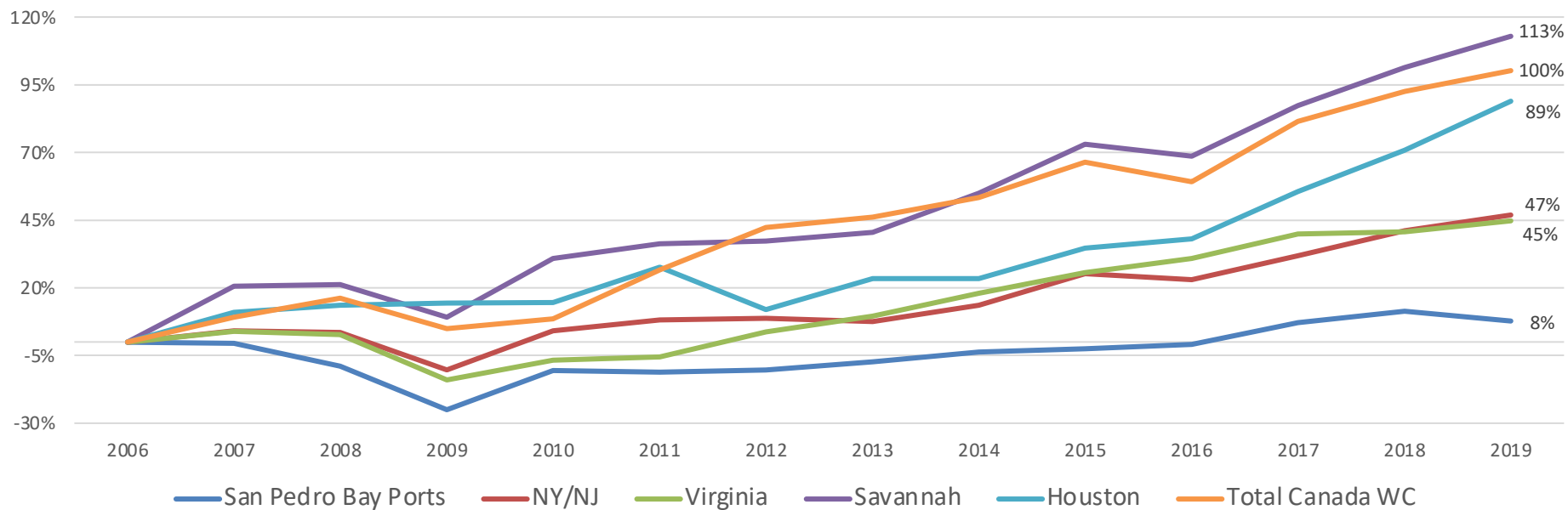
Expected and Low Growth Macro Forecast Scenarios vs. Actual TEUs





# Market Share Trends

Port Cargo Growth (2006-2019)  
Selected Gateways





# CTF Rate Proposed for Public Discussion

- \$10 per loaded TEU or \$20 per loaded FEU
  - Charged to BCOs for loaded containers hauled by truck
  - Specified exemptions if hauled by a zero emission truck or a low NOx truck
- Potential to generate approximately \$90 million per year initially





# CTF Rate Public Engagement Process

- Numerous small group meetings and discussions
- August 1, 2019 - First Public Workshop
  - To receive initial comments on CTF Rate concept and process
- December 18, 2019 - Second Public Workshop
- January 15, 2020 - Third Public Workshop
  - Second and third workshops held to receive input on Draft Rate Study and Proposed CTF Rate
- Ports received more than 40 written comments



# Comments on the Proposed CTF Rate

- Ports should pick a different rate amount (too low/too high)
- Now is not the right time
- Economic study was flawed
- Federal pre-emption issues
- Exemptions for low-NOx trucks should be different (end sooner/end later)
- Timeline is too aggressive because there aren't enough trucks available today
- Rate can't be paid by the truckers



# Comments on the Proposed CTF Rate

- Truckers can't afford the high cost for the new trucks
- Use the optional low-NOx engine standard
- Wait for the federal engine standard
- Accelerate funding for low-NOx trucks
- Only provide funding for ZE trucks
- Proposed CTF Rate won't achieve CAAP goals
- Not enough detail on how the generated revenues will be used
- Diversion will lead to greater Greenhouse Gas emissions



**Why is \$10 per TEU being recommended?**



# Why is \$10/TEU being recommended?

- Current market conditions:
  - Global trade policy and tariffs appear to be leading to further cargo volume declines in 2020
  - Coronavirus adds uncertainty with an unknown timeline
  - Export market even more sensitive to cost
  - Movement of cargo to other gateways may be hard to recapture



# Why is \$10/TEU being recommended?

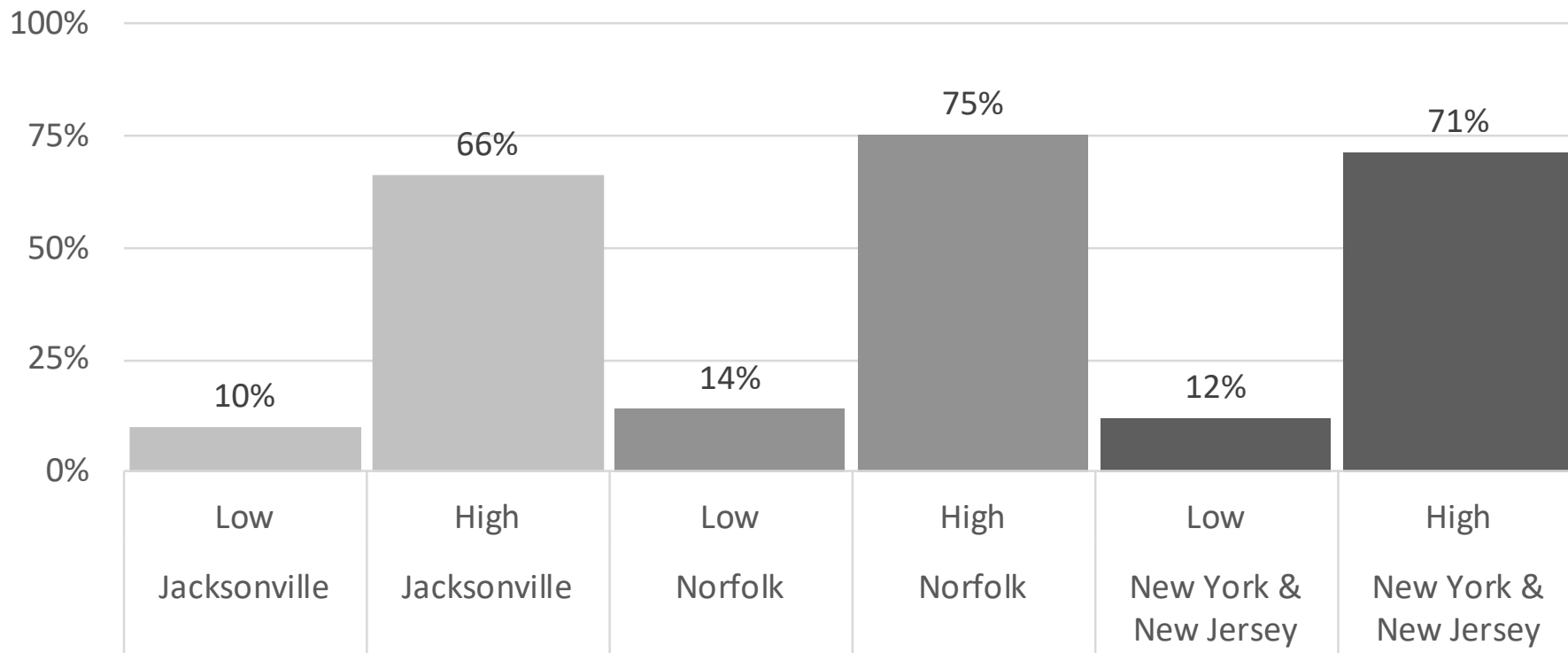
- Proceed cautiously given current market conditions and potential impacts associated with cargo loss
- Limited availability of new technology trucks and potential to expend funds
- Monitor, evaluate and adjust as warranted





# GHG Impacts of Cargo Diversion

Shanghai to Chicago - Ranges of increased CO<sub>2</sub>e emissions from diversion



**How will the funds be used?**



# How will the funds be used?

- Details to be developed with stakeholders over the coming months
- Incentives to support transition to low NOx and ZE trucks
  - Must be in port drayage service and remove a truck in the PDTR
  - Identify priorities and opportunities for early action
  - Anticipate initial funding for low NOx and ZE trucks; anticipate transition after 2023 to only incentivize ZE trucks, pending Feasibility Assessment review
- Small amount to cover administrative expenses
  - Anticipate third party administrator of incentive program



**How with the rate help to achieve  
the goals of the CAAP?**



## Combination of Efforts to Achieve the CTP Goals

- CTF Rate, Exemptions, and Incentives
- Technology Advancement
- Industry Investment
- State and Federal Incentive Funding
- Port Registration Requirements
- Engine Standards and In-Use Regulation
- Regional Infrastructure Planning and Implementation



## Collaborative Approach Outlined in the 2017 CAAP Update

- “The Ports will need a long-term vision and a coordinated, collaborative effort with both the industry and the regulatory agencies to realize the needed emission reductions from the maritime goods movement-related sources.” p.27
- “The CAAP cannot be successful, and the industry cannot remain economically competitive, without the significant financial support of the state and federal government.” p.31
- “Substantial funding support by state and federal agencies will be critical to build upon the efforts of the Ports’ CTP strategies to meet the ultimate goal of 100% zero-emissions trucks by 2035.” p.45



**Why proceed with the resolution  
to establish the rate now?**



# Why proceed with resolution now?

- Proceed on schedule as committed in the 2017 CAAP Update
- Provide certainty to industry about who pays and how much
- Supports discussions with stakeholders on how to structure and prioritize the incentives
- Provide information to support the emission reduction estimates in coordination with air agencies



# CTF Rate Next Steps

- Following Board action, continued stakeholder discussions related to structure and priorities of incentive programs
- Determination about administration of the incentive funds
- Contract approval for Rate Collection Mechanism
- Implementation tariff for CTF Rate anticipated to be considered later in 2020, following CARB approval of the low-NOx Standard
- Initiate CTF Rate and launch incentive program
- Annual reporting to Board to monitor progress and revisit the CTF Rate as needed





# Recommended Action

- Approve a Joint Resolution to adopt the CTF Rate
  - Sets the CTF Rate at \$10 per loaded TEU or \$20 per loaded FEU for loaded containers hauled by trucks that enter or exit port terminals
  - Exemption if hauled by a zero emission truck
  - Exemption if hauled by a low NOx truck from rate initiation through end of 2031

An aerial photograph of a large city harbor, likely Seattle, showing a dense urban area, a large marina filled with boats, and a deep blue body of water. A semi-transparent teal banner is overlaid across the center of the image, containing the text "Thank you!".

**Thank you!**



An aerial photograph of a large port and city area. The image shows a complex network of waterways, docks, and industrial facilities. In the foreground, there is a large marina filled with numerous boats. The city extends into the background, with a dense urban landscape. A teal semi-transparent banner is overlaid across the center of the image, containing the text "Extra Slides" in white, bold, sans-serif font.

# Extra Slides

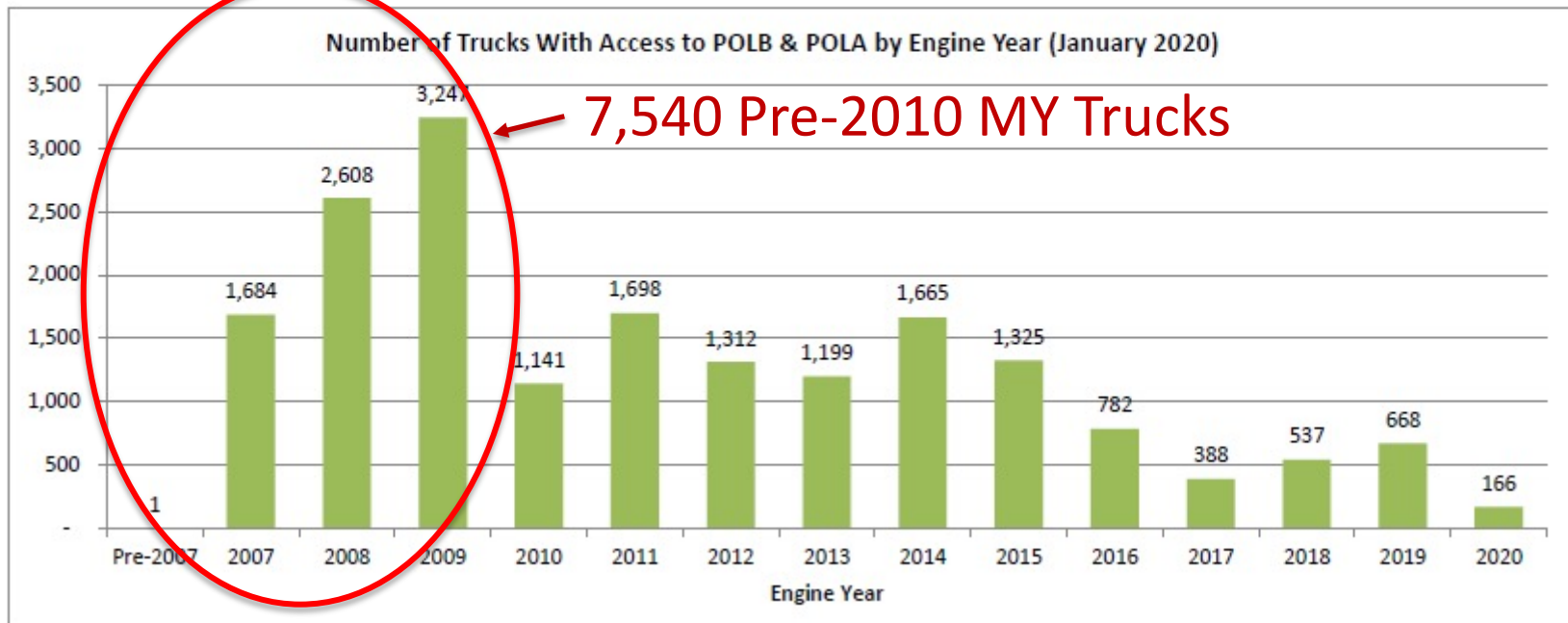




# Trucks in PDTR by Model Year

## Port of Long Beach - Clean Trucks Program

### POLB & POLA Truck Move Data Analysis





# CTP Timeline as Described in the 2017 CAAP Update

