File #: 2021-0379, **Version:** 1

DATE: November 9, 2021

SUBJECT:

PRESENTATION AND ADDITIONAL DIRECTION TO STAFF ON THE MARITIME CLEAN AIR STRATEGY'S HEAVY-DUTY TRUCK TRANSITION PLAN INCLUDING:

A. PREPARATION OF A ZERO EMISSIONS HEAVY-DUTY TRUCK TRANSITION PLAN WITH A CONSULTANT TO SERVE AS A ROADMAP TO ACHIEVE THE BOARD APPROVED MARITIME CLEAN AIR STRATEGY'S ZERO EMISSION TRUCK GOALS AND BENCHMARKS, INCLUDING 40 PERCENT ZERO EMISSION TRUCK TRIPS IN 2026 AND 100 PERCENT ZERO EMISSION TRUCK TRIPS IN 2030;

B. REQUEST TO EXPAND THE SCOPE OF THE HEAVY-DUTY TRUCK TRANSITION PLAN TO IDENTIFY AND ANALYZE MULITPLE PATHWAYS, INCLUDING A COMBINATION OF ZERO AND NEAR-ZERO EMISSION TRUCK TRIPS TO ACHIEVE EQUIVALENT EMISSIONS REDUCTION BY 2026; AND

C. REQUEST FOR ADDITIONAL TIME TO ADEQUATELY SCOPE AND COMPLETE A HEAVY-DUTY TRUCK TRANSITION PLAN WITH A CONSULTANT.

EXECUTIVE SUMMARY:

The Maritime Clean Air Strategy (MCAS) includes a vision of "Health Equity for All" and specific goals and objectives to reduce pollution from maritime-related activities and industries. In support of this vision, the MCAS aims to achieve 100 percent zero emission heavy-duty truck trips to the District's marine cargo terminals in 2030 and targets attaining 40 percent zero emission truck trips in 2026 as a near-term objective. At the October 12, 2021 Board meeting, the Board of Port Commissioners (Board) directed staff to initiate a Heavy-Duty Zero Emission Truck Transition Plan to serve as roadmap to achieve these targets. In addition, the Board directed staff to compile a list foreseeable tasks and timelines for multiple objectives in the MCAS which support the transition of heavy-duty trucks to zero emission technologies by January 2022.

Staff is seeking additional direction on a zero emissions heavy-duty truck transition plan, including feedback on the preliminary outline to gather information to meet the 2026 and 2030 zero emission truck benchmarks, as well as staff's request to hire a qualified consultant to perform data collection and to help develop the transition plan. Staff is also recommending expanding the scope to include an additional 2026 scenario that incorporates a combination of zero and near-zero emission technologies to achieve equivalent or better emission reductions. Finally, staff is requesting additional time to incorporate today's feedback from the Board to hire a consultant to collect additional truck information and to help prepare the plan. Based on preliminary conversations with a short-list of

qualified consulting firms, staff estimates this work will take approximately six months longer than previously directed.
Staff recommends an iterative process to complete this work, which would include:

1. Issue a task authorization with an on-call consultant later this month to enable truck data collection to begin in December 2021.
2. In January 2022, provide the Board with a status update on truck data collection and a list of all foreseeable tasks and timelines to advance charging infrastructure, a Short-haul Zero Emissions Truck Program, and a truck registry.
3. In March 2022, provide the Board with a preliminary report and framework including fleet and operational characteristics to be included in the Zero Emission Heavy-Duty Truck Transition Plan, including preliminary pathways to reach 40 percent ZE trucks by 2026 and 100 percent ZE trucks by 2030.
4. In June 2022, deliver a final Heavy-Duty Zero Emission Truck Transition Plan to the Board.

RECOMMENDATION:

Receive staff's presentation and provide additional direction on the Heavy-Duty Zero Emission Truck Transition Plan, including: (A) preparation of a zero emissions heavy-duty truck transition plan with a consultant to serve as a roadmap to achieve the Board approved Maritime Clean Air Strategy's zero emission truck goals and benchmarks, including 40 percent zero emission truck trips in 2026 and 10 percent zero emission truck trips in 2030; (B) request to expand the scope of the heavy-duty truck transition plan to identify and analyze multiple pathways, including a zero and near-zero emission scenario that achieves equivalent emission reductions by 2026; and (C) request for additional time to adequately scope and complete the transition plan with a qualified consultant.

FISCAL IMPACT:

Funds associated with the preparation of District plans and projects referenced in this item are budgeted primarily with Professional Services expense account (#620100). Funds required for future fiscal years associated with this topic will be budgeted for in the appropriate year subject to Board approval upon adoption of each fiscal year's budget.

COMPASS STRATEGIC GOALS:

This agenda item supports the following Strategic Goal(s).

- A Port that the public understands and trusts.
- A thriving and modern maritime seaport.
- A Port with a healthy and sustainable bay and its environment.
- A Port with a comprehensive vision for Port land and water uses integrated to regional plans.
- A Port that is a safe place to visit, work and play.
- A Port with an innovative and motivated workforce.
- A financially sustainable Port that drives job creation and regional economic vitality.

DISCUSSION:

On October 12, 2021, the Board of Port Commissioners adopted the Maritime Clean Air Strategy (MCAS), with amendments. The MCAS includes an overall vision of "Health Equity for All" and identifies 100 percent Zero Emission Trucks and Cargo Handling Equipment by 2030 as a long-term goal. Among other items, the Board voted to amend Near-term Truck Objective 1A to establish a benchmark of 40% of annual truck trips that call to the marine cargo terminals to be zero emissions by June 30, 2026. The Board directed District staff to develop a heavy-duty truck transition plan to serve as a roadmap to achieve these zero emission benchmarks by January 2022.

Zero Emission Heavy -Duty Truck Transition Plan

District staff recommend hiring a qualified consultant with expertise in preparing zero emission heavy -duty truck transition plans. The transition plan will provide a roadmap for achieving 40 percent zero emission truck trips by 2026 and 100 percent zero emission truck trips by 2030. While staff recognize that 100 percent zero emission truck trips is the ultimate goal by 2030, there may be opportunities to accelerate emission reduction in the near-term beyond the 40 percent zero emission truck trips by 2026. As a best practice, staff recommends the transition plan include a couple of different pathways to reach the near-term objective and longer-term goal of 100 percent zero emissions by 2030. These pathways will showcase the percent increase in zero emission vehicles year over year, the type of fuel or energy source to which existing trucks are converted, and annual emission reductions based on the distribution of vehicles. Since fleets may choose to convert their trucks to near-zero emission vehicles in cases where zero emission vehicles cannot meet the operating demands of the fleet or due to State regulatory exemptions, staff recommends including at least one transition pathway that includes a combination of zero and near-zero emission vehicles.

District staff have determined that additional truck data collection is necessary to prepare a truck transition plan. Understanding the make, model, year, and current mileage of the individual trucks that call to the marine terminals needs to be known so the District can identify which trucks are approaching the end of their useful life and which trucks may be good candidates for zero-emission truck upgrades. More specifically, this information is necessary to identify how 40 percent of zero emission truck trips can be achieved by June 30, 2026, as well as pathways for achieving 100 percent zero emission truck trips by 2030. Critical to the transition plan will be the collection of data to ascertain the number of individual trucks which transport freight to and from both the Tenth Avenue Marine Terminal and the National City Marine Terminal. The frequency of vessel calls to the marine cargo terminals dictate the fleets and the unique number of trucks which transport cargo. For example, at the Tenth Avenue Marine Terminal, some vessels call only once to the terminal each quarter. As a result, , it is expected that data collection may take up to three months to develop an adequate sample in order to create the baseline truck inventory.

Staff is requesting additional time beyond January 2022 to work with a consultant to perform data collection, conduct an analysis of multiple truck transition pathways, and to prepare the transition plan. Staff intends to provide updates to the Board on the status of the data collection in January 2022 and preliminary results in March 2022. The final Transition Plan will be completed by and presented to the Board in June 2022.

A summary of the preliminary scope of work for the Zero Emission Truck Transition Plan is provided below in narrative form followed by a more detailed table. This preliminary summary was developed based on previous Board direction and recommendations outlined in the Environmental Health Coalitions October 9, 2021 comment letter on the District's Draft Final MCAS (October 2021). Staff is requesting feedback from the Board on the tasks and deliverables that are provided below:

Data Collection

Critical to the Transition Plan will be the collection of data to establish a baseline inventory of heavy-duty trucks. Data needs include, but are not limited to, the make and model year of trucks, current odometer reading, daily mileage and operating schedules, and company/owner information. This data will be used to forecast dates when the existing fleet may convert to zero emission trucks and to prioritize specific trucks and routes for zero emission operation. Data collection will begin in early December 2021 and occur through February 2022. Staff will present a status report regarding data collection in January 2022 and then results of truck characteristics as well as the methods to forecast truck turnover in March 2022.

Compilation of Foreseeable Tasks and Deliverables

The MCAS also contains objectives which support the transition of vehicles to zero emissions. Truck Objective 1B aims to implement a short-haul zero emission truck program. Truck Objective 1D intends to measure progress towards achieving zero emission truck trips through the development of a truck registry or appropriate database. Truck Objective 2A requires the identification of four locations for heavy-duty truck charging. The Board directed District staff to develop a compilation of foreseeable tasks and timelines for each of these objectives by January 2022. Staff will present the scope and schedule for each of these tasks to the Board in January 2022.

Truck Transition Pathways and Infrastructure Requirements

Based on truck characteristics, operating needs, market conditions, and regulatory requirements, a transition plan consistent with the MCAS targets of 40 percent zero emissions truck trips by 2026 and 100 percent zero truck trips by 2030 will be created. A preliminary framework to forecast the transition to zero emissions will be provided to the Board in March 2022. In addition, alternative scenarios will be identified comprised of zero emissions and near-zero emission trucks to ascertain whether emission reduction equivalent to or better than the MCAS scenario can be achieved by 2026. Each scenario will include an anticipated schedule, costs, and associated emission reductions. To summarize, three scenarios are being considered in the analysis consisting of the following:

1. Zero Emission Truck Transition Scenario - Truck transition to meet 40 percent zero emission truck trips by 2026 and 100 percent zero emission truck trips by 2030.
2. Reference Scenario - Truck transition based only on CARB regulatory requirements.
3. MCAS Alternative Scenario - Truck transition and timeframe to meet emissions reductions equivalent or better than the 40 percent zero emission truck trips goal, using combination of zero and near-zero emission trucks, and 100 percent zero emission truck trips by 2030.

Furthermore, infrastructure to support zero emission vehicles will be evaluated. The truck transition scenarios may be used to help inform MCAS Objective 2A, which requires the identification of four potential public-facing electric vehicle charging locations within the San Diego Region to support the deployment of zero emission heavy-duty trucks. These locations will be presented to the Board for consideration within the fourth quarter of calendar year 2022. This scope of work will identify the necessary criteria to analyze possible heavy-duty truck charging locations. This task, including the transition pathways and infrastructure requirements, are anticipated to be completed by April 2022.

Recommendations to Advance Implementation

To accelerate the advancement of zero emission trucks alignment with the MCAS' goals and objectives, additional strategies and options may be evaluated. Strategies may include lease provisions, financial incentives, and/or fees and tariffs. Additionally, as the transition to zero emission trucks is likely beyond the control of the District, the truck transition plan may recommend external strategies for the District to help achieve the District's goals. The policy and financial recommendations will be developed during April and May 2022.

Prepare and Finalize Heavy-Duty Zero Emission Truck Transition Plan

Recommendations will be compiled and finalized to meet 40% zero emission truck trips by June 30, 2026 and 100% zero emission truck trips by 2030. The plan is anticipated to be posted online approximately two-weeks in advance of the June 2022 Board meeting.

District staff have preliminarily discussed the scope of work to multiple consultant firms capable of performing the aforementioned tasks. A minimum projected cost for this scope of work is at least $150,000. Following the Board's direction, preparation of the plan will begin on December 1, 2021. This scope of work is anticipated to be completed by May 13, 2022 and presented to the Board in June 2022. The table below provides more detail on tasks, deliverables and schedules, associated with the plan.

Table 1: Recommended Tasks and Deliverables for Zero Emission Heavy-Duty Truck Transition Plan

Item	Schedule
Initiate task authorization for on-call consultant for ZE heavy-duty transition plan	November 2021
Begin data collection from multiple sources, such as customer interactions and discussions, surveys, interviews, and automated/technology options that collect and/or aggregate truck data, including: • Unique trucks and frequency of visits • Make and model • Truck type (tractor trailer, PTO, unibody, etc.) • Engine year • Fuel type • Total mileage (odometer) • Operating characteristics — Typical daily distance / hours — Number of operating shifts — Frequency of visits to Port of San Diego — Domicile location — Daily dwell times (period when truck is not operating) — Fueling locations (en-route fueling or fueling depot)	December 2022
Status update on Truck Data Collection • Identify any additional funding needed to complete transition plan Compilation of all foreseeable tasks and timelines: • Short-Haul Zero Emission Program (Truck Objective 1B) • Truck Registry and Inventory (Truck Objective 1D) • Charging infrastructure locations (Truck Objective 2A)	November 2021 to January 2022 **BPC Presentation January 2022**
Provide status update on truck data collection to Board Preliminary report and framework that recommends assumptions and methods to forecast truck turnover Preliminary pathway(s) to reach 40 percent ZE truck trips by 2026 and 100 percent ZE truck trips by 2030	January to March 2022 **BPC Presentation March 2022**
Finalize pathways to reach 40 percent ZE truck trips by 2026 pathway and 100 percent ZE truck trips by 2030 Evaluation of alternative pathways to reach 100 percent ZE truck trips by 2030, including • Reference Scenario -CARB Regulations without MCAS • Alternative Scenario – Equivalent or better DPM reductions by 2026 with ZE and NZE Trucks Recommend siting criteria for ZE truck charging	March to April 2022
Develop Preliminary Recommendations to Advance Implementation	April to May 2022
Finalize Recommendation in Heavy Duty Zero Emission Truck Transition Plan	May 2022 **BPC Presentation June 2022**

General Counsel's Comments:

The Office of the General Counsel has reviewed and approved this agenda, as presented, as to form and legality.

Environmental Review:

This Board item does not constitute an "approval" or a "project" under the definitions set forth in California Environmental Quality Act (CEQA) Guidelines Sections 15352 and 15378 because no direct or indirect changes to the physical environment would occur. CEQA requires that the District adequately assess the environmental impacts of its projects and reasonably foreseeable activities that may result from projects prior to the approval of the same. Any project approval resulting in a physical change to the environment will be analyzed in accordance with CEQA prior to such approval. CEQA review may result in the District, in its sole and absolute discretion, requiring implementation of mitigation measures, adopting an alternative, including without limitation, a "no project alternative" or adopting a Statement of Overriding Consideration, if required. The current Board direction in no way limits the exercise of this discretion. Therefore, no further CEQA review is required.

In addition, this Board item complies with Section 87 of the Port Act, which allows for the establishment, improvement, and conduct of a harbor, and for the construction, reconstruction, repair, maintenance, and operation of wharves, docks, piers, slips, quays, and all other works, buildings, facilities, utilities, structures, and appliances incidental, necessary, or convenient, for the promotion and accommodation of commerce and navigation. The Port Act was enacted by the California Legislature and is consistent with the Public Trust Doctrine. Consequently, this presentation is consistent with the Public Trust Doctrine.

Finally, this Board item does not allow for "development," as defined in Section 30106 of the California Coastal Act, or "new development," pursuant to Section 1.a. of the District's Coastal Development Permit (CDP) Regulations because it will not result in, without limitation, a physical change, change in use or increase the intensity of uses. Therefore, issuance of a Coastal Development Permit or exclusion is not required. However, development within the District requires processing under the District's CDP Regulations. Future development, as defined in Section 30106 of the Coastal Act, will remain subject to its own independent review pursuant to the Districts certified CDP Regulations, PMP, and Chapters 3 and 8 of the Coastal Act. The Board's direction in no way limits the exercise of the District's discretion under the District's CDP Regulations.

Diversity, Equity, and Inclusion Program:

This agenda sheet has no direct DEI impact.

PREPARED BY:

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Attachment(s):
Attachment A: Draft Presentation