

MANAGING MEMBERS
STAFF BRIEFING

Item No. 7B
Date of Meeting September 4, 2018

DATE: August 22, 2018
TO: Managing Members, The Northwest Seaport Alliance
CC: John Wolfe, Chief Executive Officer
FROM: Jason Jordan, Director, Environmental and Planning Services
Sara Cederberg, Environmental Senior Project Manager
SUBJECT: Update Briefing on Clean Truck Program

A. BRIEFING REQUESTED

The Ports of Seattle, Tacoma, and Vancouver, BC, collectively set a goal in 2008 of having 2007 or newer model year truck engines exclusively serving the international container terminals by January 2018. In February 2018, the Managing Members took the following action:

- Effective **April 1, 2018**, all trucks entering NWSA international container terminals must have a 2007 engine or newer or equivalent emissions control retrofits to be considered compliant (“2007 Emission Standard”). To continue to access the terminals after April 1, 2018, a driver with a non-compliant truck may apply for a Temporary Access Pass. This pass will require a commitment from the trucker to become compliant by the end of 2018. The application was available by March 1 on the NWSA website.
- Effective **January 1, 2019**, all non-compliant trucks will be turned away from NWSA international container terminals.
- Trucks meeting the 2007 Emission Standard will be able to serve the gateway until at least 2025. This provides certainty to drivers in the process of upgrading that the standard will not change in the immediate future.
- Authorization for the NWSA to spend \$1 million to develop a Clean Truck Fund Program and to partner with certified Community Development Financial Institutions to ensure all drivers have access to fair and affordable financing.

As of the end of July, the gateway had approximately 63% of the trucks meeting the standard.

Over the summer, staff have held workshops for drivers and communicated regularly that the end of the year deadline will not move again. The Clean Truck Fund – the loan loss reserve program – will be launched no later than September 4, 2018.

New gate technology is under construction in both harbors to track compliance with the Clean Truck Program and improve visibility into congestion at the terminals.

As requested by the Managing Members, staff are developing a recommendation for NWSA domestic terminals.

B. BACKGROUND

The original Northwest Ports Clean Air Strategy (NWPCAS) was developed in 2007 and published in 2008 in collaboration between Port Metro Vancouver (PMV), the Port of Seattle (POS), and the Port of Tacoma (POT). The strategy's aim is to reduce air emissions from maritime and port-related activities, such as vessels, trains, trucks and terminal equipment, that affect air quality and contribute to climate change in the Puget Sound-Georgia Basin air shed. The Clean Truck Program is one segment within the broader NWPCAS.

Several government agencies worked in partnership with the ports to support implementation, including the US Environmental Protection Agency (EPA), the Washington State Department of Ecology (Ecology), the Puget Sound Clean Air Agency (PSCAA), Environment Canada, and Metro Vancouver.

During the initial NWPCAS development in 2007, there were 7 Commission briefings on the Clean Truck Program and more than 60 meetings with industry, community, labor, environmental and agency stakeholders.

The NWPCAS demonstrates leadership by proactively reducing port-related emissions. A key goal of the joint strategy is to stay in attainment of ambient air quality standards and objectives. In addition to concerns about ambient air quality, reducing risk from exposure to diesel particulate is also a primary goal of the strategy.

The over-arching 2007 clean air strategy goals for all segments of the strategy are:

- Goal 1: Reduce diesel particulate matter (DPM) emissions per ton of cargo by 75% by 2015 and by 80% by 2020, relative to 2005.
 - The 2016 Puget Sound Maritime Emissions Inventory for NWSA shows an 80% reduction in DPM emissions per ton of cargo within the Puget Sound airshed – surpassing the 2020 goal four years ahead of schedule.
- Goal 2: Reduce greenhouse gas (GHG) emissions per ton of cargo by 10% by 2015 and by 15% by 2020, relative to 2005.
 - The 2016 Puget Sound Maritime Emissions Inventory for NWSA shows a 17% reduction in GHG emissions per ton of cargo within the Puget Sound airshed – surpassing the 2020 goal four years ahead of schedule.

Drayage trucks with 1993 or older model-year engines emit over twice the diesel particulate matter (DPM) as 1994 engines. EPA's on-road diesel engine emissions standards for DPM remained constant for engine model-years 1994-2006 at 0.10 g/bhp-hr and were lowered to 0.01 g/bhp-hr for 2007 model-year engines. By raising the minimum engine year requirement

to 2007, the Clean Truck Program can effectively reduce drayage truck DPM emissions by over 98%.

In 2016, NWSA heavy duty trucks accounted for 47 tons of DPM in the Puget Sound airshed, approximately 23% of DPM emissions associated with NWSA activity (Figure 1). This is down from 89 tons of DPM in 2005. Greenhouse gas emissions, measured in CO₂ equivalent (CO₂e) increased in this sector from 2005 to 2006, likely due to more transload operations (Figure 2).

Figure 1. NWSA Airshed Diesel Particulate Matter 2005 and 2016.

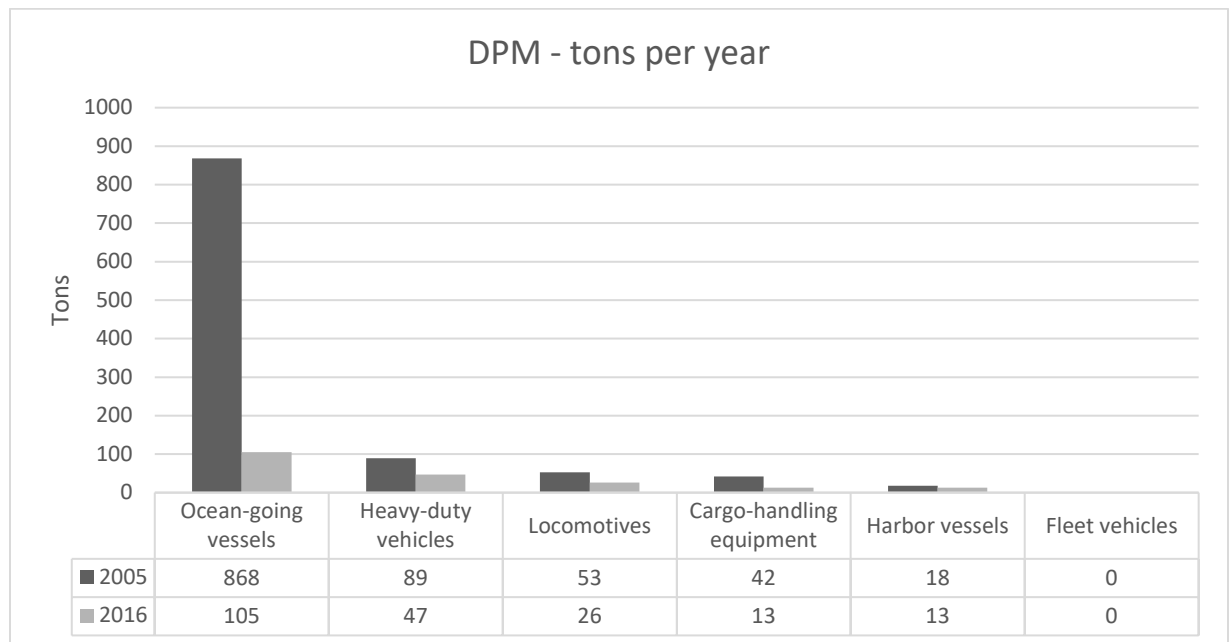
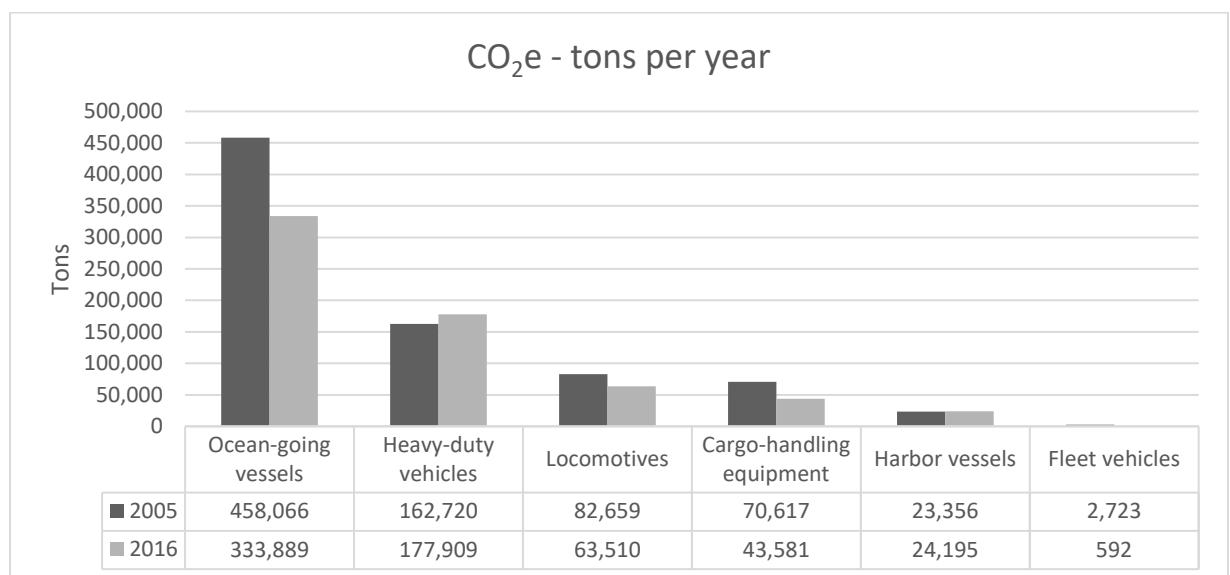


Figure 2. NWSA Airshed Greenhouse Gas Emissions 2005 and 2016.



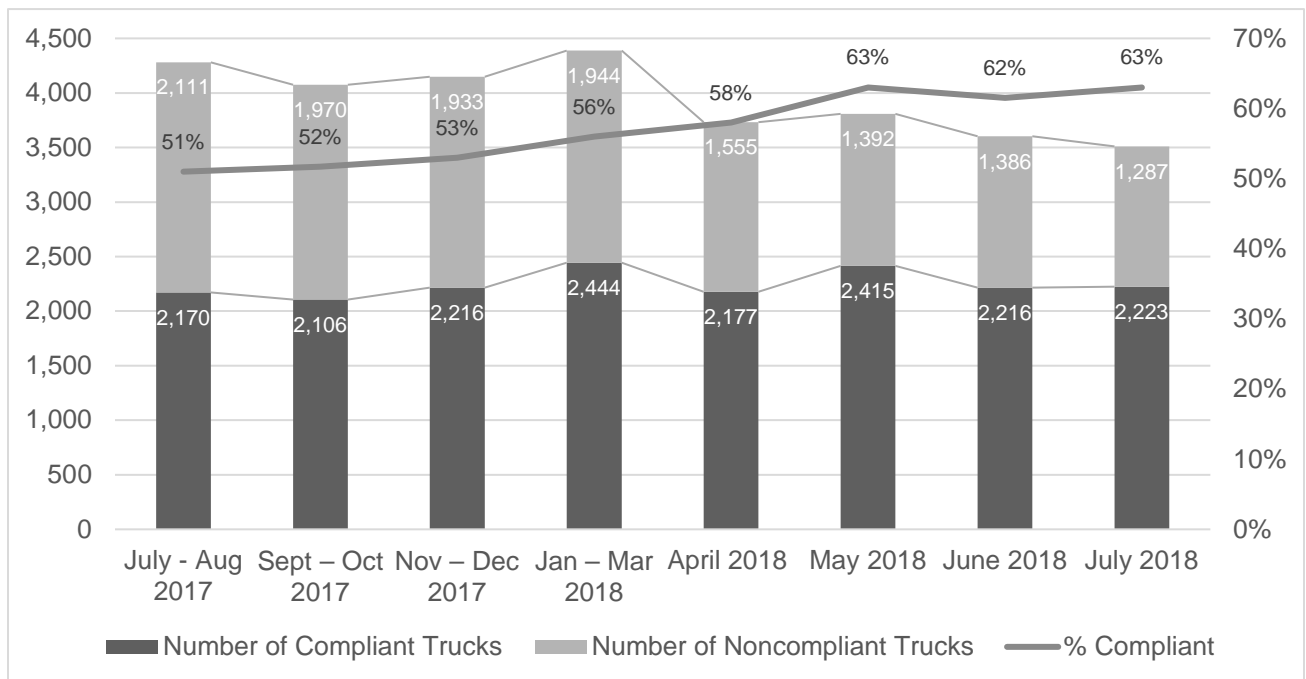
Additional Clean Truck Program background can be found in the February 6, 2018, memo, Attachment B.

C. CURRENT STATUS

The Clean Truck Program requires all trucks serving the international container terminals to have a 2007 engine or newer or equivalent verified emission controls after December 31, 2018. In July 2018, 63% of the trucks met the standard (Figure 3). It is unknown exactly how many trucks are needed to serve the gateway, however, based on MTO and trucking community feedback in 2017, both agreed that there were approximately 20% too many trucks in the system for it to operate efficiently. At that time, approximately 4,200 trucks were serving the gateway. Eighty percent is equivalent to 3,360 trucks. Assuming there are at least 2,400 compliant trucks available, based on May 2018 data, approximately 960 trucks need to convert by the end of the year.

Truck numbers have been tracked over different time scales and therefore the dataset is a different size each time and makes comparison difficult. Note that no data has been reported for Pierce County Terminal (PCT) after May 2018. Incomplete data was reported for Tacoma Container Terminal (TCT) in June and no data was reported from Terminal 30 in July.

Figure 3. Clean Truck Compliance Rates.



Volumes of containerized cargo at terminals operated by the Northwest Seaport Alliance grew for the second straight month in July, after three months of declining volumes. In July, NWSA terminals handled 327,462 TEUs for the month, a 10.6 percent increase July 2018 vs. July 2017. International import TEUs increased 18.3 percent and exports increased 11.0 percent

July 2018 vs. July 2017, despite fewer trucks. No indications of a truck shortage were reported to NWSA staff during the month of July.

Beginning in July 2018, the approximately 2,100 drivers each registered for a Temporary Access Pass through the end of the year and agreed to provide NWSA monthly progress reports. In the first month, NWSA received a low response rate, despite multiple email reminders, updated website text, and reminders at in-person events.

July Responses:

Have you upgraded your non-compliant truck?

Yes	20
No	211

If no, where are you in the process to become compliant with the Clean Truck Program?

Identifying a suitable truck	79
I have not started	56
Identifying a suitable certified retrofit	34
I will not be making this truck compliant	23
Securing financing. (i.e., Loan application process)	19

Clean Truck Fund

The Managing Members approved developing and executing a Clean Truck Fund at their June 5, 2018, meeting with the intent of providing equal access to fair lending to drayage drivers. The Managing Members took the following action:

- a. Develop and execute the Clean Truck Fund Program design as currently proposed by staff:
 1. The Clean Truck Fund will provide equal access to market rate truck loans by providing a loan loss reserve for Community Development Financial Institutions (CDFIs). Loans issued through the program will be pegged to market rate interest and loan terms.
 2. Highest priority for loans will be given to drivers who have frequently called the gateway over the past two years and have the largest limitations for access to fair lending.
 3. NWSA will procure a non-profit agency skilled in financial counseling to coordinate the program through March 2019.
 4. Loans will be made by Community Development Financial Institutions who meet The Northwest Seaport Alliance (NWSA) criteria.
 5. Less than 10 percent of the total fund will be used toward administration, loan vetting, and financial counseling.

6. The balance of funds will be held in an NWSA account as loan guarantees through the life of the loans. Once the loan is fully repaid, the guarantee is released and the NWSA will be free to invest funds in other emission reduction strategies.

The Clean Truck Fund will seek to provide at least 500 qualified truck drivers equal access to market rate truck loans by providing a loan loss reserve for Community Development Financial Institutions (CDFIs) who meet NWSA criteria. NWSA requires the CDFI to be registered and in good standing as a CDFI, and that loans do not exceed 15% interest rate and 7-year loan term.

The Clean Truck Fund includes grants from the State of Washington, Washington State Department of Ecology, the Puget Sound Clean Air Agency, California South Coast Air Quality Management District, and contributions from NWSA, outline in the Financial Implications section below.

The estimated launch date for the Fund is September 4, 2018.

A Request for Proposals (RFP) for financial counselors was issued June 7, 2018, with responses due June 20, 2018. One response was received. In addition to publishing the RFP, staff informed the 15 organizations who participated in the May 17, 2018, workshop of the opportunity. Of those 15, three focus on financial counseling and workforce development. The purpose of the May workshop was to socialize the concept of the NWSA Clean Truck Fund design, especially with respect to the loan loss reserve components, and gain as much insight as possible to refine our thinking on how best to set up the program for success. The NWSA engaged the responding non-profit financial counselor, Sound Outreach, who will help drivers who opt-in to assess their finances, their business, and direct them towards their best options.

Non-profit Financial Counseling Agency Responsibilities

Financial counseling

- A financial counselor will meet with drivers who opt-in individually to help determine whether the driver should be directed to a mainstream lender, whether they need their finances vetted further as part of this initiative (see below for details), or whether their business is not viable and they should be referred for vocational support.
- Counselors will be required to review and assess:
 - Completed net worth and cash flow statement,
 - Completed budget,
 - Reviewed credit report and coach on credit usage and debt repayment,
 - Verified vehicle insurance is current and driver's license is valid,
 - Conducted financial health assessment,
 - Duty cycle of driver, frequency of calls to the NWSA,
 - Collect as much information as possible on viability of business
- Documents to be reviewed by counselors:
 - Copies of two most recent paystubs or two-years' worth of tax returns,

- Brief written summary of action plan and explanation of derogatory credit report marks,
 - Completed referral form indicating desired term/monthly payment.
- Provide monthly reports to the NWSA on the number of drivers reviewed and the outcome of those meetings. For drivers who successfully complete a loan, the counselor must document the non-compliant truck make, model, model year, and the average number of miles traveled per year.
- Follow up with drivers who expressed interest but did not follow through up to 3 times.
- Counselors must be available during business hours and able to host additional counseling sessions in the evenings and on weekends at three locations (South Seattle Community College in Georgetown, SeaTac, and Tacoma).
- Counselors must process at least 300 drivers by November 30, 2018.
- Relationship with CDFIs.
- Establish relationships with multiple CDFIs, who meet NWSA criteria, and determine what information the CDFI would require to advance a truck loan.
- After pulling credit scores and engaging in in-depth conversations about credit, debt, cashflow, income, expenses (drivers bring proper documentation) etc., financial counselors will determine a monthly payment that each individual driver can reasonably afford.
- The counselor then shares their recommendation, with a background summary, to the recommended CDFIs.
- CDFIs can present options for loan amounts, terms, and interest rates that will meet or beat the counselor's recommended monthly payment. The CDFIs can also state how much of the default must be covered by the Clean Truck Fund to achieve this monthly payment, up to 10% of the loan value.

CDFI Lenders

A Request for Qualifications (RFQ) for CDFI lenders was issued August 7, 2018 with responses due August 24, 2018. There were two responses indicating that they could finance up to 325 loans by the December 31, 2018 deadline. NWSA staff expects to review responses and select initial CDFI firms by September 15, 2018.

Under the Clean Truck Fund, the NWSA offers CDFI lenders a mechanism to provide loans to drayage truck drivers who have served the NWSA gateway for at least the past two (2) years to assist them in financing heavy-duty vehicles or exhaust retrofits to meet the requirements of the Clean Truck Program. Eligible purchases with loan proceeds are limited to used and new trucks equipped with 2007 year engines or cleaner; the engines can use diesel fuel, compressed natural gas (CNG), liquefied natural gas (LNG); EPA or CARB-verified diesel emission control devices (exhaust retrofits).

Flexibility	Restrictions
<ul style="list-style-type: none"> Lenders independently set the terms and conditions of the loans and decide which loans to enroll into the Clean Truck Fund program. 	<ul style="list-style-type: none"> Maximum interest rate of 15% APR (Annual Percentage Rate).
<ul style="list-style-type: none"> Loans can be short-term or long-term, have fixed or variable rates, be secured or unsecured, and bear any type of amortization schedule. 	<ul style="list-style-type: none"> Maximum loan term of 7 years.
<ul style="list-style-type: none"> NWSA will maintain reserves in an amount equal to up to 10% of the principle amount of each loan issued in a loss reserve account until the maximum loan loss reserve amount is met. (Up to \$2.2M total Loss Reserve Funds available). 	

CDFIs will independently determine if applicant drivers meet that CDFIs qualifications to decide to whom loans are made. A CDFI must enter into loan agreement with a driver if he/she meets application criteria. As long as each loan meets the requirements of the Clean Truck Fund (maximum loan term 7 years, maximum interest rate 15%, borrower used loan to purchase compliant truck or retrofit), the CDFI is eligible (though not required) to enroll its loan(s) in the Clean Truck Fund to have a loan loss reserved for each loan enrolled.

A CDFI is required to notify the NWSA within 120 days of when the lender has charged off all or part of a qualified loan as a result of default by a borrower. Subject to submittal of a complete claim form, NWSA will reimburse the CDFI lender from the NWSA's loss reserve account within 30 business days.

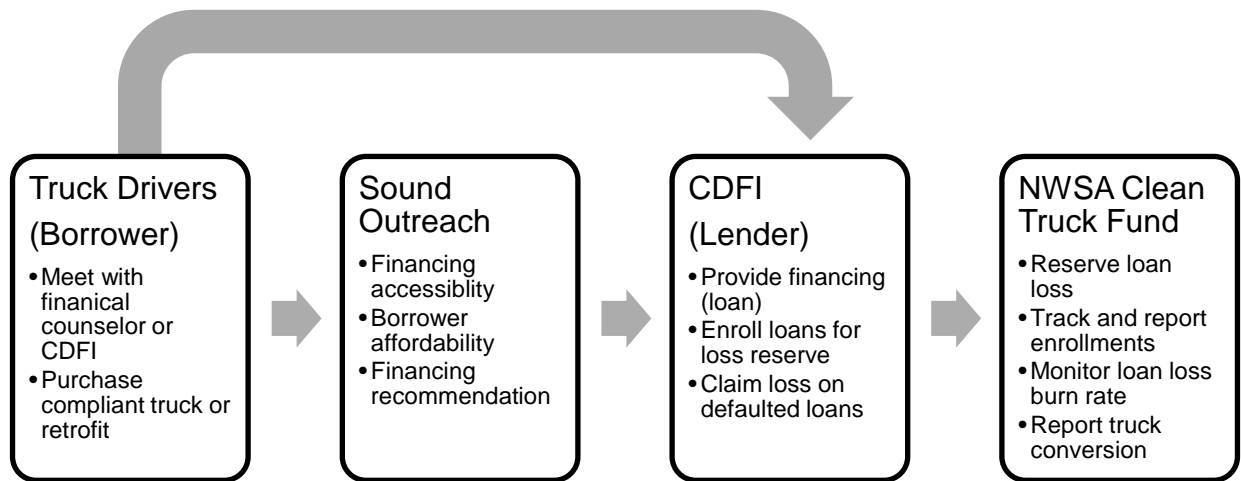
Claims must include documentation of collateral recovered in the event of default. The loan loss reserve would be used in the event of default after the lender has exhausted their usual process for collecting on loans in default (i.e., recovered collateral – in this case the truck – prior to being paid from the loss reserve).

The CDFI acknowledges that the NWSA will have no liability to the Participating CDFI under the Clean Truck Fund Program except to the extent of funds allocated in the Loss Reserve Account for the CDFI.

The CDFI will report quarterly on the status of the loans made through the loan term.

Roles and responsibilities for the program are outline in Figure 4.

Figure 4. Roles and Responsibilities.



Other Related Initiatives

At the July 17 meeting, Managing Members authorized the NWSA to implement an ILA with PSCAA, assuming responsibility of administering a transfer of 10 trucks from Southern California to NWSA truck owners. This project will transfer ten 2011-2014 model year (MY) trucks from Southern California to the Pacific Northwest and scrap 10 pre-2007 PNW trucks. The NWSA will help match truck owners in the PNW to Southern California fleets. Southern California fleet owners receive a \$100,000 grant toward a near zero truck and retain the proceeds of selling their trucks in the PNW, capped at \$30,000. Retail value of second-hand trucks is approximately \$45,000-\$60,000. The NWSA will receive \$2,500 per truck to administer the program which will be put back into the Clean Truck Fund for the loan loss reserve.

The State of Washington grant for \$1.2M included in the fund requires that for any loans backed by those dollars, the non-compliant truck owned by the recipient must be scrapped. At the August 14 meeting, Managing Members approved an ILA with Ecology to accept a \$234,000 Clean Diesel grant to provide additional scrapping bonuses to 39 drivers enrolled in the Fund to ensure they have scrapped their trucks, making up the difference between the scrap value and trade-in value of the noncompliant truck. NWSA staff will confirm scrapping requirements have been met before the driver can take possession of the compliant truck.

Outreach Plan

Communication Objectives

- Provide timely, easy-to-understand information to drayage truck owners and other stakeholders on how to comply with Clean Truck Program requirements and how to

access loans to purchase compliant trucks or pay for retrofit of non-compliant trucks to bring them into compliance.

Audiences

- NWSA Managing Members and executives
- Drayage drivers, drayage truck owners, drayage trucking companies, terminal operators, intermodal yard operators
- Environmental organizations, regulatory agencies, near-port communities

Key Messages

- December 31, 2018, is the date trucks must comply with The Northwest Seaport Alliance Clean Truck Program.
- Compliance is defined as having a truck that meets 2007 federal air emissions requirements.
- Non-compliant trucks will not have access to NWSA international container terminals beginning January 1, 2019.
- The Alliance has established a Clean Truck Fund to provide qualified drayage truck owners access to market rate truck loans.
- The Clean Truck Fund establishes a \$2.2 million loan loss reserve for Community Development Financial Institutions that meet NWSA criteria and agree to offer loans to drivers who to make their trucks compliant with Clean Truck Program requirements.
- The money in the fund is not available to lend, but serves as a way to reduce the CDFIs' losses from loans that are not repaid in full, thus allowing lenders to accept higher risk loans.

Communication & Outreach Tactics

- Continue to keep the NWSA website up to date with resources for drivers, including the video from the June 9 workshop. Include information on how drayage truck owners can apply for financing from CDFIs offering loans backed by the Clean Truck Fund, as well as other lenders.
- Send emails to drayage driver email list(s) that explain the January 1, 2019, deadline and link to the NWSA website page with information on lenders.
- Produce and distribute truck gate flyers with the same information as the emails mentioned immediately above, distribute at truck gates a minimum of three times before January 1, 2019.
- Distribute the lending information to drivers/owners through drayage trucking companies.
- Hold no fewer than two Driver Resource Fairs (one in the North Harbor and one in the South Harbor) that will include participation by lenders, dealers, and select sellers/installers of retrofit devices, encourage drivers to speak directly with the lenders and vendors.

Communication and Outreach Calendar

Timeline	Task
Sept 4, 2018	Update NWSA website to include information on how drayage truck owners can apply for financing from CDFIs offering loans backed by the Clean Truck Fund, as well as other lenders.
Sept 4, 2018	Issue press release on CDFI program (include quotes from MM); Establish "statement of commitment" to December 31 st deadline signed by Managing Members on website.
Sept 4, 2018	Send emails to drayage driver email list(s) that explain the December 31, 2018, deadline and link to the NWSA website page with information on lenders.
Mid-Sept, early Nov, early Dec	Produce and distribute truck gate flyers with the same information as the emails mentioned immediately above, distribute at truck gates a minimum of three times before December 31, 2018.
TOF Oct 31, 2018	Distribute the lending information to drivers/owners through drayage trucking companies and Trucker Outreach Forum; Request one Managing Member to present on progress at the Trucker Outreach Forum.
Oct and Nov, prior to Nov 22	Hold no fewer than two (2) Driver Resource Fairs (one in the North Harbor, and one in the South Harbor) that will include participation by lenders, dealers, and select sellers/installers of retrofit devices, encourage drivers to speak directly with the lenders and vendors. Formal presentation by a Managing Member representative.
Dec 1	Explore use of variable message boards at select truck gates with countdown reminder to December 31, 2018.

2018 Outreach

The NWSA hosted four workshops in partnership with the African Chamber of Commerce Pacific Northwest chapter over the summer:

1. June 9: How to Maintain DPFs, approximately 90 attendees
2. June 21: Business Strategies for Succeeding in Drayage, approximately 20 attendees
3. August 2: Business Planning and Financing Compliant Trucks, approximately 35 attendees
4. August 23: Safe Truck Operations

Staff also presented an update on the Clean Truck Fund and Clean Truck Program at the July 25 Trucker Outreach Forum.

The NWSA Truck website (www.nw.sa.com/trucks) has been updated to reflect the frequently asked questions (FAQs) received through the truck inbox and to provide resources to drivers, such as a copy of the June 9 presentation.

Northwest Ports Clean Air Strategy Update – Outreach

The Northwest Seaport Alliance, the Port of Seattle, the Port of Tacoma, and Port of Vancouver are collectively conducting a review and update of the Northwest Ports Clean Air Strategy (NWPCAS). The NWPCAS Update will take place from August 2018 through to summer 2019. The Ports and partners have long recognized the importance of involving stakeholders and community members in their planning and programming activities. During this NWPCAS Update, the Ports wish to build on past engagement efforts and provide stakeholders with more extensive opportunities to participate in the review and update of the Northwest Ports Clean Air Strategy vision, goals, targets and activities.

Over the next year, the Ports are reaching out to and accepting input from stakeholders to:

- Raise awareness of the NWPCAS
- Identify related community and industry initiatives
- Understand if there are measures and/ or information you would like included
- Obtain feedback on our progress reporting and communications mechanisms
- Understand how stakeholders would like to be involved in the NWPCAS Update

Stakeholders may provide input over the next year by:

- Attending NWSA Managing Member Public Meetings
- Providing input through an Online Survey
- Engaging with the NWPCAS Stakeholder Committee. This Committee will be composed of approximately 15 representatives from the Ports stakeholder groups. To ensure a balanced group, the Ports have identified specific seats on the committee:
 - Up to 2 Marine Terminal Operators (MTOs)
 - Rail
 - Trucking
 - Tugs and Harbor Craft
 - Warehouses and Distribution Centers
 - Up to 2 Labor representatives
 - Up to 3 Tribal representatives
 - Regional Environmental Community
 - Public Health Advocacy Group
 - Social Justice Advocacy Group
 - North Harbor Near-Port Community Group
 - South Harbor Near-Port Community Group

These events are estimated to occur according to the following schedule:

Project Phase	Month	Activity
1. Setting the Stage	August – September 2018	<ul style="list-style-type: none"> • Stakeholder Interviews
2. Establishing the Vision	September – November 2018	<ul style="list-style-type: none"> • 11/6/2018 Tentatively scheduled Managing Member presentation • Establish NWPCAS Stakeholder Committee Workshop
3. Defining the Plan	November 2018 – April 2019	<ul style="list-style-type: none"> • January: NWPCAS Stakeholder Committee Workshop • January: First Draft and Public Comment • March: NWPCAS Stakeholder Committee Workshop • March: First Draft and Public Comment • 4/2/2019 Tentatively scheduled Managing Member presentation
4. Monitoring & Reporting Framework	January – May 2019	<ul style="list-style-type: none"> • Internal only
5. Final Strategy	April – August 2019	<ul style="list-style-type: none"> • Publish 2019 NWPCAS

The Clean Truck Program remains the focus of NWSA communication on Air Quality issues through the end of the year. To make sure the message isn't confused or conflated with the NWPCAS Update, the first draft will be published in January, after the December 31, 2018 Clean Truck Deadline.

Operations Update

Operations staff provide monthly updates on key performance indicators (KPIs) to the Managing Members. These reports are included as Attachment C. Gate turn times are reported pedestal to pedestal by terminal operators for both international and domestic terminals. As of June 2018, average turn times are 31.36 minutes for the year with at 25% variance. The target KPI is 25 minutes.

NWSA began publishing data from a third party, PierTrucker.com, on the NWSA website in early summer 2018 (Figure 5). This data is volunteered from truck drivers through an application on their smartphones. The site estimates the turn times for each terminal from the time the truck enters the queue to the time it leaves the terminal.

Figure 5. Example Pier Trucker data on NWSA website.

Estimated Truck Turn Times by PierTrucker.com

Place	2 hrs	24 hours	7 days	30 days	90 days
T18		1hr 50m	1hr 35m	1hr 40m	1hr 40m
Husky	1hr 10m	1hr 20m	1hr 15m	1hr 55m	1hr 45m
Everport	1hr 40m	1hr 50m	2hr 5m	2hr 10m	2hr 10m
T46	1hr 35m	1hr 30m	1hr 25m	1hr 20m	1hr 20m
WUT	1hr 10m	1hr 30m	1hr 20m	1hr 30m	1hr 30m
T30	1hr 5m	1hr 15m	1hr 15m	1hr 15m	1hr 25m
EST (TCT)	1hr 25m	1hr 5m	1hr 10m	1hr 15m	1hr 10m
Matson (Tac)		1hr 0m	50m	1hr 0m	1hr 0m

The NWSA is exploring additional RFID hardware to track queue wait times prior to a truck entering a terminal, to facilitate a reduction of truck idling in terminal queues, and provide insight into MTO truck operations. The installation of RFID technology at North Harbor terminal OCR lanes (terminal queue entry locations) is part of the Clean Drayage System project for monitoring of terminal queue times. To provide standardization and consistency within NWSA terminals, this project will implement compatible Zebra/WhereNet RFID hardware at South Harbor terminal queue entry locations, identified as “Lot F” for Husky, E Sitcum/TCT and WUT terminals, as well as the “Overflow Lot” and Guard Shack gate for PCT terminal.

The primary benefits will include:

- Monitoring of MTO truck queue wait times to benefit the Northwest Ports Clean Air Strategy.
- Truck RFID data will provide improved insight into MTO operations for management decisions, and will be available for Business Intelligence and KPI reporting.
- Improved visibility to MTO operations will increase productivity, efficiency and effectiveness of the Operations Service Center.

This project is currently under review. The earliest this project could be completed is mid-2019.

Clean Drayage System Project Updates

North Harbor

The North Harbor Clean Drayage System is being implemented at Terminals 18, 30, and 46. Physical installation and commissioning of all hardware is complete. Servers at Terminals 18 and 30 are in the process of being upgraded by the MTO, once this is completed the updated software collecting the new truck data requirements will be implemented. The software vendor needs to enhance their current data formatting in order to accept the new data requirements being collected and send them to NWSA. An alternative to how NWSA receives the data has been identified and is being pursued as a potential solution, bypassing the need for the vendor to enhance their data formats. The alternative option would allow us to update T46 immediately, and T18 and T30 as soon as the server upgrades are complete; expectation is the end of September and October, respectively. Despite a setback in schedule, the project will be completed before the January 1, 2019 deadline.

South Harbor

The South Harbor Clean Drayage System is being implemented at Tacoma Container Terminals, Pierce County Terminal, Washington United Terminals, and Husky Terminal.

Physical installation of equipment and construction of the associated infrastructure will be done mid-September in the South Harbor. Commissioning of the system has begun in late August on the pieces that have been completed. The IT Servers to operate the systems at the marine terminal operators has been procured and installed.

Approximate go live date is November 2018.

Domestic Terminal Update

The Managing Members requested at their February 2018 meeting a proposal to include domestic container terminals in the Clean Truck Program. Those terminals are T25, TOTE and West Sitcum. Staff had initial conversations with each terminal in early spring 2018 and are scheduled to meet with SSA and TOTE to discuss the program in late summer 2018. Staff will use the marine terminal operator near-term discussions to finalize a recommendation on domestic terminals by the end of 2018.

Gate Technology

A new project would be established to construct infrastructure needed to support enhanced truck-tracking for domestic container terminals. The NWSA issued an RFI in June 2018 to solicit industry feedback on potential solutions based on three components: 1. Truck-Tracking Technology, 2. Drayage Truck Registry, and 3. Truck Gate Electronic Monitoring Infrastructure and Systems. The NWSA received seven responses, however, none of the responses provided end-to-end solutions, including real-time reporting equivalent to the solution installed at the international container terminals. Three of the RFI responses were from companies that identified a background with Zebra/WhereNet technology, which is the preferred solution of South Harbor container terminals and SSA Marine (Matson/West Sitcum) has implemented the Zebra/WhereNet solution as the standardized technology platform for their terminals.

- POS Engineering and NWSA Operations surveyed T25 to see if additional technology will be needed there. SSA Marine (Matson) currently has an active Zebra/WhereNet solution installed at entry and exit gates, and will become compliant with reporting of the Clean Truck Program along with T30.
- In the South Harbor, TOTE installed Kalmar equipment on their terminal and at their gates 5-10 years ago. A survey needs to be conducted to see if this equipment is still useable. If so, server upgrades and hardware costs are projected to be minimal to become compliant with reporting of the Clean Truck Program.
- A survey needs to be completed at West Sitcum, though given that SSA is planning to install this technology for Matson's operations in Seattle, it seems likely SSA will want to install their standard technology solution in Tacoma. Electrical requirements exist at the gates, and fiber connections exist within a general vicinity of potential antennae locations. There may be some public works associated with the infrastructure, but it is expected to be minimal.

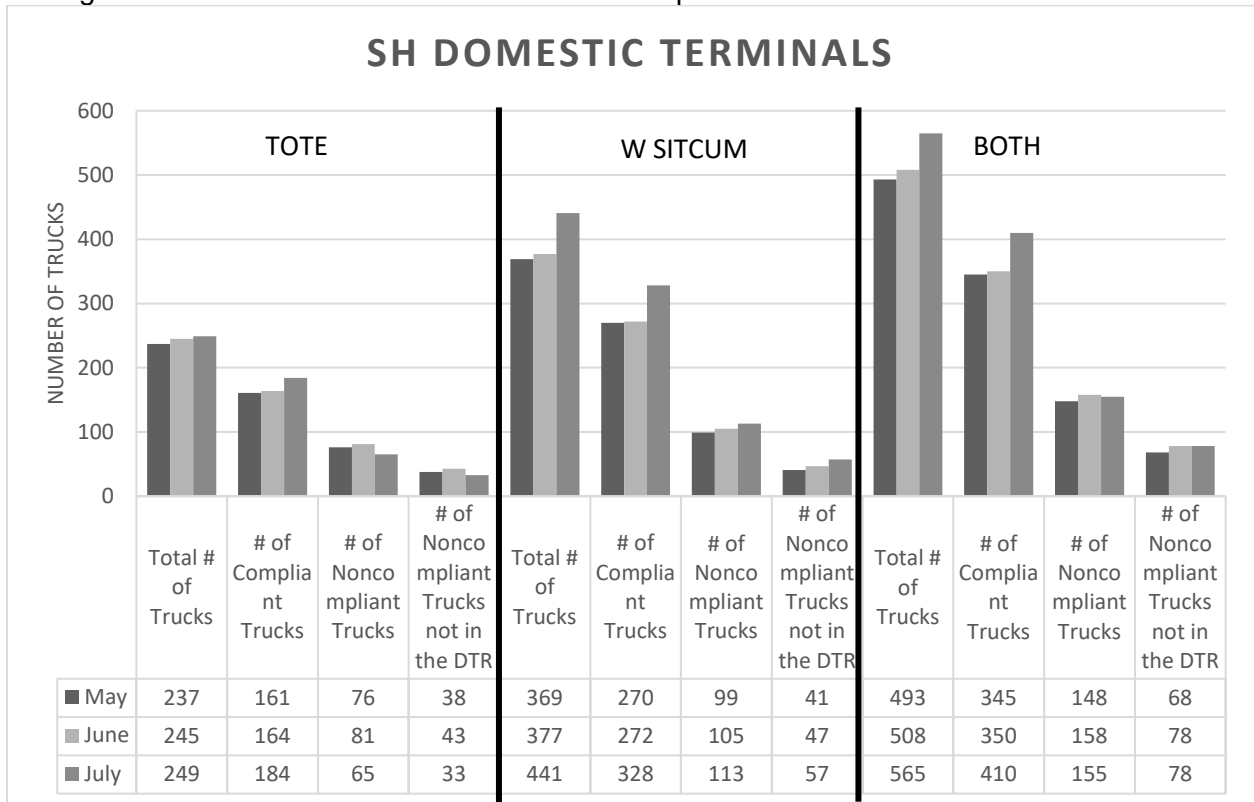
Costs for the hardware to be installed and for server upgrades are estimated to be \$775,000 for the two South Harbor terminals. Operations, Engineering, and Environmental are completing an Opportunity Assessment to refine costs as part of the 2019 budget process.

It is our recommendation to expand the Kalmar/WhereNet/Advent solution to the domestic terminals and have consistent technology and reporting across all terminals.

Clean Truck Compliance

The NWSA environmental team has tracked compliance rates for Clean Trucks at domestic terminals in the South Harbor (Figure 6). The fleet is much smaller. Most trucks meet the standard already, and most also service the international terminals. Approximately 160 trucks need to be upgraded in the South Harbor. The number is unknown in Seattle, as the NWSA cannot currently differentiate trucks serving T30 from those serving Matson at T25.

Figure 6. South Harbor Domestic Terminal Compliance Rates.



To support truck conversion, staff recommend announcing the Domestic Terminal strategy soon after discussions are complete with the MTOs and the Managing Members approve a policy decision in order to provide truck drivers as much time as possible to upgrade and access available resources like the Clean Truck Fund.

Leases

The Clean Truck tariff will need to be revised to reflect domestic terminals. As staff have collected information on the state of the gate infrastructure, and the current compliance level of the domestic truck fleet, discussions have started with the terminal operators, with meetings scheduled to discuss implementation of the program at these terminals.

- TOTE's lease will need to be revised.
- The lease for West Sitcum includes language that references the international container terminal tariff.
- The T5 lease will need to reference the Clean Truck tariff once it returns to active container operations.

D. FINANCIAL IMPLICATIONS

Project Cost Details

Authorized in March 2018, the Clean Drayage System project in both harbors is expected to be complete by December 31, 2018 and both harbors are projected to come in under budget.

	Costs YTD	Forecasted Amount	Authorized Amount
North Harbor	\$190,740	\$506,440	\$1,369,000
South Harbor	\$436,000	\$1,290,588	\$1,654,000
Total	\$626,740	\$1,797,028	\$3,023,000

These costs reflect hardware and infrastructure costs. Ongoing costs for maintaining the Drayage Truck Registry are captured in the program budget below.

The Capital Investment Plan accounts for costs associated with truck technology reviews, the ongoing contract to support the RFID registry, the sticker program, the Clean Truck Fund and staff time. These costs are expensed as incurred.

The Clean Truck Fund includes contributions, grants and NWSA funding to support truck conversion by the end of the year.

NWSA Clean Truck Fund	
Funding Source	Contribution
WA State Department of Ecology – VW State Fund	\$1,200,000
NWSA	\$1,000,000
WA State Clean Diesel Grant	\$234,000
PSCAA	\$200,000
City of Seattle (pending Managing Member approval)	\$150,000
SCAQMD DERA 2017 Administrative Costs	\$25,000
Total Funding	\$2,809,000

Source of Funds

The 2018 Capital Investment Plan allocated \$1,380,000 for this program. One million dollars was reallocated to the Clean Truck Fund MID 201050.02 (Table 2). Additional funds for the Clean Truck Program were reallocated from other Air Quality MIDs to increase the 2018 budget to \$650,022 in 2018. See Table 1 for detail.

Table 1. NWSA Clean Truck Program 2018 Budget

NWSA Clean Truck Program MID 201050.01	YTD (through 7/31/18)	Forecast
RFID contract	\$ 94,100	\$ 220,800
Temporary staff support	\$ 35,463	\$ 50,000
Outreach support from ACCPNW	\$ 21,500	\$ 21,500
Outreach materials and events (space rental, food)	\$ 9,049	\$ 10,000
Cascadia Law LLC	\$ 6,702	\$ 7,000
GeoEngineers	\$ 5,594	\$ 15,000
Truck Stickers	\$ 1,271	\$ 1,271
WA State Dept of Licensing	\$ 1,008	\$ 2,076
Sum of outside services	\$ 174,687	\$ 327,647
<i>Staff time</i>	\$ 230,932	\$ 322,375
Grand Total	\$ 405, 619	\$ 650,022

Table 2. NWSA Clean Fund 2018 Budget

NWSA Clean Truck Program MID 201050.02	YTD (through 7/31/18)	Forecast
Sound Outreach	\$ 0	\$ 103,000
<i>Staff time</i>	\$ 0	\$ 5,000
Grand Total	\$ 0	\$ 108,000

E. ATTACHMENTS TO THIS REQUEST

- Attachment A: Slide presentation
- Attachment B: February 6, 2018 memo
- Attachment C: Monthly KPI Reports (January – June 2018)

F. PREVIOUS ACTIONS OR BRIEFINGS

DATE	ACTION
8/14/2018	Clean Truck Program Update Managing Members approved ILA with Ecology to accept \$234,000 Clean Diesel Grant for scrapping bonuses
7/17/2018	Clean Truck Program Update Managing Members approved ILA with PSCAA to receive \$200,000 for Clean Truck Fund, and ILA with PSCAA to accept 10 CA trucks from SCAQMD
6/5/2018	Clean Truck Program Update Managing Members approved Clean Truck Fund program design, approval of contract extension and expansion to S Harbor for RFID technology with Advent

DATE	ACTION
5/1/2018	Clean Truck Program Update
4/3/2018	Clean Truck Program Update, Puget Sound Emissions Inventory and Greenhouse Gas Inventory results
3/20/2018	Clean Truck Program Update Managing Members approved \$2,264,000 funding for Clean Drayage System
2/6/2018	Managing Members approved adoption of the NWSA Clean Truck Program Managing Members authorized the CEO to negotiate and enter into lease amendments to carry out the Clean Truck Program in the South Harbor. Managing Members authorized contribution of \$1,000,000 to the Clean Truck Fund
1/16/2018	Clean Truck Program Briefing and draft Policy Motion
11/7/2017	Clean Truck Policy Update Briefing

G. NEXT STEPS

The NWSA is committed to accomplishing comprehensive goals and accompanying programs that benefit the environment we live and work in, the surrounding community with whom we share the air, and our work force that helps us move cargo throughout gateway. NWSA seeks the support, help and collaboration from our regional partners and stakeholders in implementing the Clean Truck Program and updating the goals in the Northwest Ports Clean Air Strategy in 2018.

Over the rest of 2018 and 2019, NWSA staff are working on the following activities to improve progress towards the 2020 NWPCAS targets and the Clean Truck deadline of December 31, 2018:

2016 Puget Sound Maritime Air Emission Inventory: The NWSA has just completed a multi-stakeholder effort to develop a comprehensive air emissions inventory based on 2016 maritime activities in Puget Sound. The Emissions Inventory updated the results of previous inventories conducted for 2005 and 2011 activities. Results of the inventory will now provide data on NWPCAS progress to reduce air emissions and inform future direction of NWSA air quality initiatives. The results will guide direction for the NWPCAS Update activities over 2018 and 2019.

Greenhouse Gas Resolution: In 2017, the NWSA, POS and POT formally adopted by Resolution an update to greenhouse gas (GHG) reduction targets. This aligned NWSA, POS and POT efforts with the Paris Accords. The three organizations adopted the following goals for GHG reduction:

By 2030:

- 50% below 2005 levels (scope 1, 2, & 3 emissions)

By 2050:

- Carbon Neutral (scope 1 & 2 emissions)

- 80% below 2005 levels (scope 3 emissions)

Staff undertook a comprehensive GHG Inventory of Scopes 1, 2 and 3 emissions of NWSA, POT and tenant operations, and presented to Managing Members in April 2018. Staff used the results of these GHG Inventories to develop the GHG Glidepath, which will guide NWPCAS Update activities around how to tackle POT and NWSA GHG emissions over the next cycle of the Strategy.

NWPCAS 2018 Update: The original NWPCAS was published in 2008, and was updated in 2013. Using the updated inventories and GHG Resolutions as a basis, the NWPCAS partners plan to update the NWPCAS' 2020 and 2025 targets during the course of 2018-19. Managing Members from both home ports will provide guidance to the next NWPCAS and Clean Truck goals beyond 2025, with initial goals proposed in early 2019, and finalized in summer 2019, following extensive public consultation.

Domestic Terminal Clean Truck Strategy: Staff propose including domestic terminals in the Clean Truck Program and staff will return to Managing Members for formal adoption of this policy recommendation and implementation date. Activities before the deadline will include site surveys to determine infrastructure requirements at each gate, installation of RFID tracking technology, lease updates, and targeted outreach and support to drivers not engaged in the current International Clean Truck Program.

Clean Truck Fund: The Clean Truck Fund will be operational from September 2018, administering market-rate loans to truck owners to help them upgrade their trucks to become compliant with the 2007 Emission Standard. Loans are anticipated to be distributed by the Fund through the end of 2018.