

**Proposition 1B:
Goods Movement Emission Reduction Program
2011 Funding Awards**

STAFF REPORT

Board Hearing: December 16, 2011

California Environmental Protection Agency

 **Air Resources Board**

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AIR RESOURCES BOARD HEARING

December 16, 2011
Cal/EPA Building
1001 I Street
Sacramento, California 95814

See <http://www.arb.ca.gov/board/board.htm> for the Board hearing agenda and a link to the webcast of the Board hearing.

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EXECUTIVE SUMMARY

The Proposition 1B: Goods Movement Emission Reduction Program (Program), approved by voters in 2006, authorizes \$1 billion in bond funding to the Air Resources Board (ARB or Board) to cut air pollution and the associated health risk by upgrading the diesel equipment used to move freight in California's trade corridors. The Program is a partnership between ARB and local agencies (like air districts and ports). Based on funding authorization provided by the State budget and availability of cash from bond sales or other State financing mechanisms, ARB awards Program funding to the agencies and they in turn use a competitive process to provide incentives to equipment owners to upgrade to cleaner technology.

ARB needs to update the tentative funding allocations approved at a June 2010 public hearing in response to the \$100 million in proceeds received from the Fall 2011 bond sale, and additional proceeds that may become available in Spring 2012. Staff recommends that the Board award all funds to upgrade trucks -- both drayage trucks and other trucks. The proposed awards are a continuation of the public process that was conducted in 2010 in accordance with statutory requirements.

Drayage Trucks. Drayage trucks are a priority due to health risk concerns in communities near ports, rail yards, and distribution centers. In response, drayage truck owners have to act earlier than other truck owners to upgrade their fleets under ARB's truck regulations. The drayage truck industry has already received over \$200 million in public incentives to install diesel particulate matter (PM) filters or replace older trucks.

Staff's recommendations for 2011 funding awards include utilization of the "drayage priority reserve" concept that the Board directed staff to establish and implement at the appropriate time. That time is now. By statute, Program funds must be used to achieve early or extra emission reductions. The window to achieve early emission reductions through replacement of older drayage trucks closes at the end of 2012, one year ahead of the compliance deadline in ARB's Drayage Truck Regulation. To support early reductions, ARB needs to make the incentives available in early 2012.

In the 2010 Program Guidelines, the Board previously approved the universe of trucks eligible for this priority funding in the form of grants – Class 8 drayage trucks with Model Year (MY) 1994-2003 engines that were equipped with diesel PM filters by mid-2010 and that meet all other registration and usage requirements of the Program. Staff recommends that the Board expand the scope of the drayage priority reserve to: (a) include any Class 8 trucks with MY2004 engines equipped with a diesel PM filter by the same date and (b) make funds available through ARB to improve access to financing for owners of the filter-equipped trucks that are eligible for grants. A maximum of \$66 million of the \$100 million would be needed for all of the potentially eligible drayage trucks. Based on prior experience, we expect that substantially less than the maximum amount would be used by drayage truck owners.

For efficiency, we strongly recommend that grants towards the replacement costs be administered by the Bay Area Air Quality Management District for drayage trucks in Northern California and by the South Coast Air Quality Management District for drayage trucks in Southern California. The Central Valley and San Diego/Border corridors would also benefit as many of the drayage trucks travel in these corridors.

If additional bond funds become available in Spring 2012, staff proposes to expand the financing assistance to owners of certain drayage trucks with MY2005-2006 engines. Thousands of these trucks were newly introduced into drayage service (after the ARB Regulation was adopted) to take advantage of the extended compliance deadlines for this subset of model years. These trucks typically do not have diesel PM filters. To continue serving the ports and railyards, the owners must act by the end of 2012 to either: (a) replace the trucks with fully compliant models (good for a decade or more) or (b) install PM filters (good for just one year) and then replace the same trucks by the end of 2013. Owners of trucks with MY2004 engines not equipped with PM filters must take action this year, before the new funding will be available. These trucks were previously eligible for Program grants to install PM filters.

Other Trucks. Staff proposes that a minimum of \$34 million of the \$100 million be used for other truck “backup” projects already waiting on competitively ranked lists for each air district. These lists reflect the high demand for Program funding in response to the Spring 2011 solicitations for truck projects. To further satisfy the documented demand, we recommend that any of the \$66 million reserved, but not used, for drayage trucks and any new funds be directed to these backup truck projects to best achieve the overall corridor funding targets. We recommend that the Board delegate to the ARB Executive Officer the ability to provide supplemental funding for this purpose in Spring 2012, including any unused drayage funds, and funds from a possible new bond sale in that time period.

Focusing on the existing lists of truck projects already evaluated by the districts and approved by ARB staff, rather than potential new solicitations, would expedite the use of Program funds. ARB has committed to quickly disburse the \$100 million and any Spring 2012 monies to benefit air quality and the economy.

Reuse of Drayage Trucks Equipped with PM Filters. Using Program funds to aid replacement of drayage trucks that are already equipped with PM filters presents a unique opportunity. Typically, trucks that are replaced in this Program are scrapped to ensure the emissions benefits are achieved. However, some of these drayage trucks with filters could and should be re-used to replace the oldest trucks used in agriculture or other applications that are not required to upgrade until 2017 or later under ARB’s Truck and Bus Regulation. Scrapping the very oldest trucks and replacing them with filter-equipped trucks could provide substantial health benefits, including in low-income and minority communities that are heavily impacted by diesel emissions.

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The current and proposed commitment of Program funding to upgrade drayage trucks is providing the greatest benefits in communities within the Los Angeles/Inland Empire and Bay Area trade corridors, as well as the San Diego area. Recognizing the environmental justice concerns in the San Joaquin Valley, ARB staff is recommending that this truck reuse program be focused on the Valley. We have initiated discussions with the San Joaquin Valley Air Pollution Control District to develop a program applicable to these vehicles that meets the truck reuse requirements of the Guidelines.

Trade Corridor Allocations. The Board established trade corridor funding targets for the entire \$1 billion Program, with the caveat that the allocations made in each individual funding cycle may not be directly proportional to those targets. Unlike prior staff recommendations, this proposal focuses on the process for distributing funding to air districts (and to ARB for the truck loan assistance program), with the final grants to be determined by ARB's Executive Officer based on the Board's direction.

Following the December Board hearing, we would quickly notify potentially eligible drayage truck owners of the funding opportunity and provide the \$34 million funding to districts for other trucks. After staff determines the level of drayage funding actually needed, we would add any remaining funds (and any proceeds from new bond sales) to the district grants for other trucks. The allocations to air districts for other truck grants would consider: the trade corridor funding targets; the total Program funding allocated to each trade corridor to date; the number of backup projects on existing, approved ranked lists; and the district resources available to quickly implement additional funds.

In the 2010 funding awards, ARB temporarily re-directed \$5.5 million in funding for other trucks from the San Diego/Border corridor to the Central Valley corridor based on district resources. With these new awards, the Central Valley's share would be reduced and the San Diego/Border's share would be increased by that amount.

The focus on drayage trucks with the current funding awards would increase the funding administered by the Bay Area in the near-term, relative to the overall corridor funding targets. In the next cycle of funding awards (Fall 2012 or later), ARB staff would solicit new agency proposals and seek to recommend funding allocations that restore the balance in each corridor, subject to the other criteria in the Program.

Table ES-1 shows the staff's recommendation for initial allocation of the new \$100 million in available Program cash, assuming that the maximum of \$66 million reserved for drayage is actually used for drayage (although staff expects the actual funding level to be significantly lower). As a result, the funds initially awarded to districts for other truck projects represent the minimum (and would likely increase substantially when unused drayage funds are re-directed). If ARB receives additional cash from a Spring 2012 bond sale, this would further increase the grants to districts for other trucks. See Section III.B for details on the proposed allocations for other truck projects. Table ES-2 is similar to Table ES-1, but it assumes that only half the funding reserved for drayage is used for drayage.

Table ES-1: Proposed Allocation of New \$100.8 Million for Trucks (\$ Millions)
100% Drayage Response

Trade Corridor	Air District/ Agency	Maximum \$ Reserved for Drayage Trucks ¹	Minimum \$ Awarded for Other Trucks ²
Los Angeles/Inland Empire	South Coast	up to \$61.6	\$21.2
Bay Area	Bay Area		---
Central Valley	San Joaquin	---	\$5.4 ³
	Sacramento	---	
San Diego/Border	San Diego	---	\$7.6 ⁴
	Imperial	---	
Subtotal for District Grants	---	\$61.6	\$34.2
All - Truck Loan Assistance	ARB	\$5.0	---
TOTAL (\$100.8 Million)		\$66.6	\$34.2

Table ES-2: Proposed Allocation of New \$100.8 Million for Trucks (\$ Millions)
50% Drayage Response

Trade Corridor	Air District/ Agency	Drayage Trucks ¹	Other Trucks ²
Los Angeles/Inland Empire	South Coast	\$30.8	\$40.3
Bay Area	Bay Area		---
Central Valley	San Joaquin	---	\$15.3 ³
	Sacramento	---	
San Diego/Border	San Diego	---	\$9.4 ⁴
	Imperial	---	
Subtotal for District Grants	---	\$30.8	\$65.0
All - Truck Loan Assistance	ARB	\$5.0	---
TOTAL (\$100.8 Million)		\$35.8	\$65.0

1. Drayage trucks in all corridors would be eligible for this funding. Unused drayage funds would be re-directed to fund other truck projects in all trade corridors.
2. These minimum levels would increase with unused drayage funds and any new funds from a Spring 2012 bond sale. See Section III.B. for details on the proposed allocations for other truck projects..
3. The figures reflect the return of \$5.5 million to San Diego/Border trade corridor that was temporarily re-directed to the Central Valley in the last funding cycle. Given a typical fallout rate for truck projects, staff anticipates that nearly all of the backup projects on the Sacramento Air District's current list will be covered by the pending re-direction of \$0.3 million in existing ARB administration funds. Therefore, all of the new funds would go to the San Joaquin Valley Air District, which has an extensive list of backup projects.
4. Staff recommends a 50%-50% split of these funds between the San Diego and Imperial Air Districts, which have nearly equal lists of backup projects.

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Emission Benefits. This proposal for the above funding allocations would quickly reduce diesel PM health risk in every trade corridor by upgrading more than 2,700 heavy duty diesel trucks. Over the term of their five-year grant contracts, the projects would reduce 14,500 tons of nitrogen oxides (NOx), and 90 tons of PM. The \$100.8 million in bond funding would also leverage approximately \$118 million in match funding from truck owners and others.

I. BACKGROUND

California residents face serious health impacts from freight-related diesel pollution, especially in communities near ports, rail yards, roads with high truck traffic, and distribution centers. The diesel engines that move freight are also a major cause of high regional ozone and fine particle levels that harm millions of Californians today.

Freight-related emissions are a public health concern at both the regional and community levels because they contribute to serious health effects, such as cardiac and respiratory diseases, increased asthma and bronchitis episodes, increased risk of cancer, and premature death.

A. Proposition 1B Program Authority and Scope

1. Statutory Direction

Proposition 1B, approved by voters in 2006, authorizes \$1 billion in bond funding to the ARB to cut freight emissions in four priority trade corridors. These corridors are: the Los Angeles/Inland Empire; the Central Valley; the Bay Area; and the San Diego/Border area. Health and Safety Code section 39625 et seq. establishes the Goods Movement Emission Reduction Program (Program) and directs the Air Resources Board (ARB or Board) to maximize the emission reduction benefits while achieving the earliest possible health risk reduction in communities heavily impacted by goods movement. The major sources eligible for bond funding include heavy duty diesel trucks, locomotives, commercial harbor craft, and cargo ships at berth, plus cargo handling equipment used at a port or intermodal rail yard (ships at berth/equipment).

The Program is a partnership between ARB and local agencies (like air districts and ports) to quickly reduce air pollution emissions and health risk from freight movement along California's priority trade corridors. The State awards funding to local and State agencies; those agencies then use a competitive process to provide incentives to equipment owners to upgrade to cleaner technology. The Program supplements ARB's diesel regulations by funding early compliance or providing extra emission reductions beyond those required by applicable rules or mandated by enforceable agreements.

2. Appropriations

The State budgets for Fiscal Years (FY) 2007-08 through FY2011-12 have appropriated the entire \$1 billion, with \$980 million to ARB for the Program and \$20 million set aside by the control agencies to cover bond issuance and oversight costs. While an appropriation provides the authority for ARB to spend funds, it does not provide the cash to implement the Program. We refer to funds based on when the appropriation established the fiscal authority, not when we receive the cash to support that authority. ARB solicits local and State agency projects and awards funding when the cash is made available through bond sales or other mechanisms. ARB has now received a total of \$568 million in cash.

3. Program Guidelines and Funding Awards

The Board adopted the first set of Proposition 1B: Goods Movement Emission Reduction Program Guidelines for Implementation (Guidelines) for FY2007-08 in February 2008. These Guidelines define the procedures for ARB and local agencies to implement the Program. The appended project specifications detail what kinds of equipment projects are eligible for funding, and at what level of funding.

The Board awarded the first \$250 million to local agencies in 2008 (ARB, 2008a). Following a freeze on bond sales that delayed implementation, these grants for trucks, locomotives, and ships at berth are completed or will be completed in 2012.

For FY2008-09 and later funds, the Board adopted updated Guidelines and project specifications in March 2010 (ARB, 2010a). In June 2010, the Board allocated up to \$475 million in Program funds to local and State agencies in two phases. Phase 1 included final awards for the \$200 million in available cash. These projects for trucks, ships at berth, and harbor craft are underway. Phase 2 included tentative allocations to local and State agencies for the remaining \$275 million, with the specifics to be finalized based on cash from future bond sales.

4. Trade Corridor Funding Targets

In February 2008, the Board adopted these funding targets for each trade corridor, to be achieved over the course of the \$1 billion Program.

<u>Percent</u>	<u>By Trade Corridor</u>
55%	Los Angeles/Inland Empire (South Coast Air Basin and Port of Hueneme)
25%	Central Valley (San Joaquin Valley Air Basin and Sacramento Federal Nonattainment Area)
14%	Bay Area (San Francisco Bay Area Air Basin)
6%	San Diego/Border (San Diego County and Imperial County)

5. Category Funding Targets

In March 2010, the Board revised the allocation targets for various funding categories, also to be achieved over the course of the \$1 billion Program. These funding splits are not intended to be directly applied in each funding cycle; the Board retains the discretion to fund the mix of projects that best meets the Program needs.

<u>Dollars</u>	<u>By Funding Category</u>
\$700 million	Heavy duty diesel trucks that haul goods, plus any truck stop or distribution center electrification
\$100 million	Diesel freight locomotives
\$160 million	Cargo ships at berth, plus cargo handling equipment used at a port or intermodal rail yard
\$ 40 million	Commercial harbor craft

6. Current Priorities for Funding

In addition, the Board identified the following priorities for funding:

1. Truck upgrade projects to quickly reduce the health risk in communities near high truck-traffic freeways, warehouse/distribution centers, ports, and railyards (*focus of recommendations in this report*).
2. Locomotive projects to cut the elevated, excess cancer risks in neighborhoods near rail yards, as identified in ARB's health risk assessments (*deferred to future funding awards to take advantage of technology advancements*).
3. Ships at berth projects to further reduce diesel pollution in port-side communities and greenhouse gas emissions (*addressed in 2010 funding awards*).

7. Emission Reduction Targets

In the initial 2008 Program Guidelines, staff estimated that the emission reduction benefits over the entire \$1 billion Program would be approximately 7,400 tons of PM and 185,000 tons of nitrogen oxides (NOx). With this report, we are proposing to update the overall emission reduction targets to align with changes in the Program.

The emission reduction estimates were based on the original contract terms for bond-funded equipment (4-20 years) and the original source category funding targets. Stakeholders provided ARB with feedback that the length of these contract terms would prevent most equipment owners from requesting bond funds. The Board subsequently modified the Program to shorten the contract terms (2-15 years), which govern how long the equipment owner must comply with the conditions of the grant. The life of the cleaner equipment is substantially longer than the contract term, providing additional emission reductions. The Board also updated the source category funding targets, which affect the assumptions about Program benefits.

Table 1 shows the original and updated targets for emission reductions to be achieved over the course of the entire \$1 billion Program. The actual Program benefits will ultimately depend on the mix of projects completed.

Table 1: Emission Reduction Targets for the Overall Program

Reduction Targets	Emissions Benefits (tons)	
	PM	NOx
Original Target (2008 estimates)	7,400	185,000
Updated Target (2011 estimates)	4,600	116,000

8. Match Funding

Consistent with clear directives in the implementing legislation, the Program uses State bond funding to leverage other monies to achieve the greatest emission reductions per State dollar within a source category and region. By limiting the amount of Program funds available for each project, we maximize the number of individuals, businesses, and ports able to access those funds, as well as the resulting air quality benefits.

While the Guidelines cap the maximum amount of bond funding for each project type, they do not require a fixed match ratio and they do not specify who must pay the remainder of the project cost. The local agencies implementing the Program are not required to contribute any of their own monies. To provide flexibility, projects can be co-funded through a combination of private, federal, other State, and/or local sources.

9. Accountability and Transparency

Executive Order S-02-07 highlighted the importance of transparency and accountability in administering the over \$40 billion in bond funding approved by voters in 2006. ARB staff conducted the solicitation and review of applications consistent with the Guidelines and three-part accountability structure required by the Executive Order. This accountability structure was approved by the Department of Finance in February 2008 and is available on the Program website (<http://www.arb.ca.gov/gmbond>).

ARB staff has made all Program materials available on the website, including: the Guidelines and Board Resolutions; each Notice of Funding Availability and application instructions; summary tables and the complete applications submitted by local and State agencies; staff's preliminary recommendations for funding; and materials from the public workshops to discuss those recommendations. The Program website also contains copies of existing grant agreements and amendments, as well as semi-annual progress reports. The Department of Finance is completing its first audit of this bond program now. ARB staff will provide a link to the audit report on the same website.

B. Progress to Date

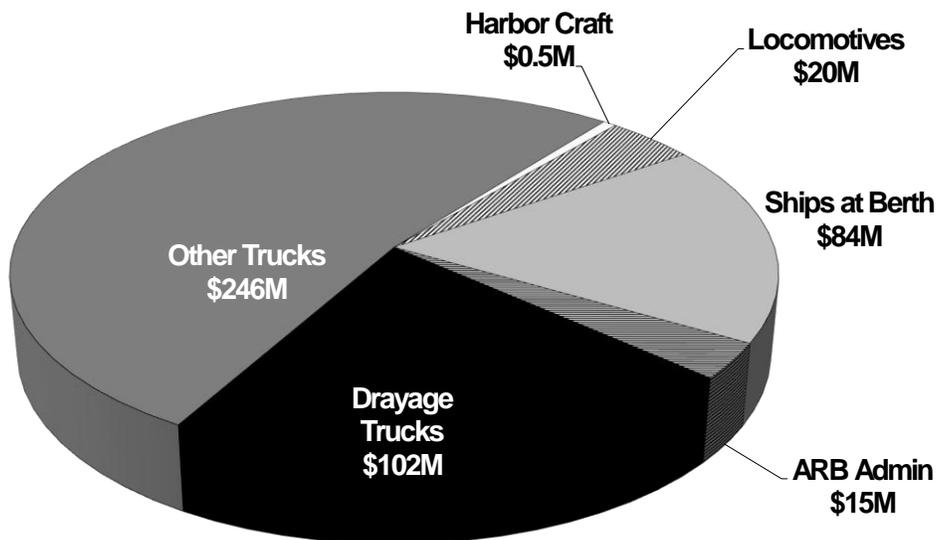
As shown in Table 2, we estimate that all of the projects funded with \$468 million already allocated will reduce over 2,300 tons of diesel PM, plus almost 58,000 tons of NO_x, in California over the life of their grant contracts (e.g., 2-5 years for trucks). The following table summarizes funding, number of projects, and emission reductions by trade corridor.

Table 2: Emission Reductions from Program Funds Allocated to Date

Trade Corridor	Funds (\$ millions)	Number of Projects	Emission Reductions (tons)	
			PM	NOx
Los Angeles/Inland Empire	\$249.1	3,412	1,100	31,100
Central Valley	\$118.8	2,129	670	16,000
Bay Area	\$63.2	1,539	470	8,500
San Diego/Border	\$21.4	426	90	2,200
ARB Administration	\$15.5	--	--	--
TOTAL	\$468.0	7,506	2,330	57,800

Figure 1 summarizes funding by category, including the funds listed in Table 2 and ARB administration funds.

Figure 1: Program Funding Allocations to Date (\$468 Million)



C. Background on Drayage Trucks

The Board has adopted a combination of regulations, incentives, and policies to quickly cut diesel emissions from drayage trucks, ships, locomotives, harbor craft, cargo equipment, and transport refrigeration units, as well as their fuels. The focus is on near-term diesel PM control to reduce the localized health risk, with NOx reductions by 2014 to lower the levels of regional ozone and fine particulate matter (PM2.5).

1. ARB Drayage Truck Regulation

ARB’s health risk assessments show that drayage trucks have the greatest health impact per pound of diesel pollution because those trucks operate so close to the communities near ports, railyards, freeways, and inland warehouses. The Board first approved the Drayage Truck Regulation back in 2007 to accelerate the transition of port and railyard trucks from the dirtiest fleet in the State to the cleanest fleet over a four-year period. Class 8 trucks that can haul the maximum 80,000 pounds are the backbone of the drayage industry. The Board approved rule amendments for drayage trucks in 2008 and 2010 (ARB, 2008b; ARB, 2011a).

The Drayage Truck Regulation established two phases of requirements to reduce diesel PM and NOx emissions from Class 8 trucks serving ports and intermodal railyards in California. Table 3 shows the requirements applicable to these drayage trucks. In December 2010, the Board approved further amendments that tightened the rule to prevent compliant drayage trucks from exchanging cargo with noncompliant trucks near ports or rail yards (i.e., “dray-off”). The amendments also added a requirement that smaller Class 7 drayage trucks must meet MY2007 or newer emission levels on the same schedule as the Class 8 trucks.

Table 3: Existing Compliance Deadlines for Class 8 Drayage Trucks

Deadline (Dec 31st)	Requirements to Upgrade Drayage Trucks to Continue Accessing Ports and Railyards	Compliant Until
Phase 1:		
Dec 2009	Prohibition on MY1993 and older engines	N/A
	PM filter retrofit on MY1994-2003 engines	Dec 2013
Dec 2011	PM filter retrofit on MY2004 engines	Dec 2013
Dec 2012	PM filter retrofit on MY2005-2006 engines	Dec 2013
Phase 2:		
Dec 2013	MY2007 or newer engines (built-in PM filter and lower NOx emissions)	Dec 2022
Drayage trucks become subject to Truck and Bus Regulation:		
Dec 2023	MY2010 or newer engine (built-in PM filter and lowest NOx emissions)	2023 and beyond

2. Implementation of ARB Drayage Truck Regulation

When the first major deadline approached in late 2009, many drayage truck owners chose to replace their old trucks with vehicles that meet MY2007 or newer emission levels, which means those trucks already comply with the Phase 2 requirement. Owners of a few thousand drayage trucks chose the lower cost option to retrofit their trucks with PM filters, and later replace those trucks to meet Phase 2 requirements. Most of the retrofitted trucks are in the hands of independent owner-operators and small fleets.

Incentives. The Prop. 1B Program provided over \$100 million in grants to aid the transition to cleaner drayage trucks, with another \$100 million in public funds provided by local air districts, ports, and federal agencies. Trucks with MY1994-2003 engines were eligible for Program grants to install PM filters or replace their trucks with MY2007 or newer versions. Large and small drayage fleets also privately financed their acquisition of trucks with MY2007 or newer engines to secure compliance through 2022.

Truck Statistics. There was a large influx of trucks with MY2004-2006 engines into drayage service to take advantage of the later compliance deadlines for installing PM filters. The proportion of those trucks in the fleet increased ten-fold after adoption of the ARB requirements for both PM and NOx upgrades within 2-3 years. These trucks with MY2004-2006 engines were previously eligible for Program funding to install PM filters early, but very few did. Table 4 shows the number of in-State Class 8 drayage trucks by model year and region.

Table 4: Drayage Truck Registry Statistics (as of November 2011)

Drayage Trucks Based and Registered in California			
Engine Model Year	Northern California	Southern California	Total
MY1994-2003 w/PM filters -- Phase 1 compliant	1,700	600	2,300
MY2004 – most not yet Phase 1 compliant	700	1,550	2,250
MY2005-2006 – most not yet Phase 1 compliant	2,200	3,050	5,250
MY2007-2009 -- Phase 2 compliant	1,400	8,800	10,200
MY2010+ -- Fully compliant	500	2,400	2,900
Total	6,500	16,400	22,900
Companies with California ZIP Codes and California Registered Trucks			
*Northern California ZIP Codes 94005-96158			
*Southern California ZIP Codes 90001-93960			
There are also over 50,000 out-of-state drayage trucks that are Phase 2 compliant			

3. Progress Achieved v. Expected

Significant progress has been made in cleaning up the drayage fleet statewide, as confirmed by independent studies measuring truck emissions outside the Ports of Los Angeles, Long Beach, and Oakland (ARB, 2011b; Dallmann, 2011). The port truck fleet is markedly cleaner now, thanks to the investments in pollution controls made by truckers, California taxpayers, and ports.

- *Southern California.* In Southern California, all of the trucks accessing the major ports will meet ARB's Phase 2 standards by the end of 2011 (two years early). These ports chose to implement gate fees on dirtier trucks back in 2008, which created market pressures for swift action and accelerated the compliance date. The ports used the revenue from the gate fees to provide more public subsidies for drayage truck owners to move from old trucks to new, clean trucks in a single step. Trucks serving Southern California railyards, but not the ports, are more likely to be older trucks with retrofit PM filters (partially funded by Prop. 1B grants) or trucks with MY2004-2006 engines.
- *Port of Oakland.* The trucks serving the Port of Oakland have also gotten cleaner because of the 1,700 older trucks with retrofit PM filters (80 percent received Prop. 1B grants) and the introduction of 1,900 trucks with MY2007 or newer engines that have built-in PM filters. The Port of Oakland has not yet achieved all of the PM and NOx emission reductions expected under the Drayage Truck Regulation. The large influx of 2,900 trucks with MY2004-2006 engines that don't have PM filters has delayed the expected diesel PM emission reductions and associated health benefits in the Oakland community. The Regulation needs to be fully implemented to ensure that the entire truck fleet serving the Port of Oakland meets ARB's targets for pollution reduction. Our latest analysis shows that the overall Northern California drayage truck fleet has cut diesel PM by over 50 percent, still short of the target of 90 percent reduction by 2010.

There are significant early NOx reductions occurring from the 1,700 new trucks, and lesser early NOx benefits from the trucks with MY2004-2006 engines. This combination has cut NOx by 40 percent, about three years ahead of schedule. More new trucks are being introduced each month. Full implementation of the Phase 2 requirements will put the Port of Oakland on the path to meet the greater regulatory target of 60-70 percent NOx reduction by 2014.

II. APPLICATION AND AWARD PROCESS

The implementing statute contains ARB's requirements for soliciting and evaluating local agency project applications, including workshops to obtain public input and comment. ARB staff must issue a Notice of Funding Availability; solicit and evaluate project applications; develop a preliminary list of projects and hold three public workshops throughout the State to discuss the list; and present recommended projects to the Board for approval. The Program Guidelines establish detailed procedures for these steps. The following sections summarize the process that led to the June 2010 tentative allocations that are being updated with the 2011 funding awards.

A. Application Solicitation

In April 2010, ARB staff issued a Notice of Funding Availability and solicited applications from local and State agencies for projects to implement up to \$475 million in Program funds. These funds included \$200 million in available proceeds from the Spring 2010 bond sale, with the remaining funds contingent on future bond sales.

Seven local agencies in the four trade corridors and a State agency (ARB) submitted project proposals, requesting over \$1.1 billion in Program funding. The Appendix provides additional information on the funding requested by trade corridor and category.

B. Public Outreach

ARB staff held three workshops around the State during the week of June 1, 2010 to receive public input on how Program funds should be distributed among the eligible projects within each trade corridor. The workshops were held in Oakland, Fresno, and Long Beach to cover Northern, Central, and Southern California communities as required by State law. Local agencies also held at least one community meeting to solicit public comments on their proposed projects prior to application submittal.

In addition to the three workshops during June 2010, ARB staff released a concept paper and held a workshop in Sacramento on November 14, 2011 to receive public input on a proposed approach for distributing the \$100.8 million in available funds from the Fall 2011 bond sales and potential funding from Spring 2012.

C. Process for Developing Funding Recommendations

ARB staff used the process and Board priorities described in the Guidelines to develop recommendations for funding local and State agency proposals. We considered the availability of bond funds, trade corridor and category funding targets, competitive process results, the Board's funding priorities for the cycle, regulatory compliance deadlines, local and State agency readiness, and public input in developing funding recommendations.

D. 2010 Funding Awards (Phase 1 and Tentative Phase 2)

ARB staff presented funding recommendations during a public hearing on June 24, 2010. After reserving up to \$25 million for ARB administration costs as allowed by law, the Board allocated up to \$475 million in Program funds to local and State agencies in two phases (ARB, 2010b). Phase 1 included final awards for the \$200 million in available cash. The implementation of the \$200 million is well underway as local agencies have generated ranked lists to upgrade more than 2,300 trucks and install shore-side power at 33 berths throughout the state. Appendix A contains details on allocations by region and project category.

Phase 2 included tentative allocations to local and State agencies for the remaining \$275 million, with the specifics to be finalized based on cash from future bond sales. Of this Phase 2 total, \$216 million was earmarked for truck grants to be administered by the local air districts and a truck loan assistance program to be administered through ARB. The remainder of the Phase 2 funding was recommended for locomotive and ships at berth/cargo handling equipment projects. Appendix A contains information on the previous funding awards and tentative allocations, as approved by the Board in June 2010.

E. ARB Administration Costs

State law allows ARB to use up to 5 percent of the Program funds for its administration costs. ARB is currently running at 2.6 percent (\$15 million against total funds of \$568 million) for staff and support contracts. These costs cover Program development, implementation assistance for local agencies and equipment owners, oversight and audits, and outreach/marketing. ARB may reserve a higher level funding if we anticipate higher costs, with the Board direction to transfer any unneeded funds to district grants for truck projects in each corridor (in proportion to the corridor funding targets).

We have determined that approximately \$6 million previously reserved for ARB administration can be re-directed to district grants for other truck backup projects. We intend to combine these funds with the new funding awards recommended in this report into a single grant agreement for each air district.

III. ARB STAFF RECOMMENDATIONS

The focus now is on finalizing the Phase 2 awards based on an updated assessment of the available funding, including the \$100.8 million in new cash from the Fall 2011 bond sale and additional funding possible in Spring 2012. This staff report utilizes the Board's priorities (documented in the Program Guidelines) to recommend that funds from the Fall 2011 bond sale and any proceeds from a Spring 2012 bond sale be used to fund truck projects.

The Board has established diesel trucks as a high priority category in the Program and they have also approved priority funding for drayage trucks. Staff proposes using this hierarchy to focus the final Phase 2 funding awards on trucks, with up to \$66.6 million set aside for drayage trucks and \$34.2 million for other trucks.

Staff is proposing an accelerated schedule for the allocation and expenditure of bond proceeds in the final Phase 2 funding awards, consistent with the Governor's direction in his budget proposal *for bond funded projects* that includes "...expediting projects, moving cash out of accounts and into projects that create jobs and improve state infrastructure as taxpayers intended." (Brown, 2011).

A. Proposed Approach: Drayage Trucks

To achieve early emission reductions from drayage trucks, the Program would need to provide funds during 2012 to assist owners in purchasing replacement trucks. Owners of eligible Class 8 trucks would be notified that priority funding is available and would be given the opportunity to apply for grants and loan assistance. ARB estimates that up to \$66.6 million in Program grants and loan assistance could potentially be needed, but actual drayage funding needs would be determined based on applicant responses. Funds not used for drayage trucks would be used for other truck projects consistent with the Board's direction. Details on the proposed drayage priority funding process are provided below.

ARB staff is proposing that the air districts in the Bay Area and Los Angeles trade corridors would administer the priority drayage funding for Northern and Southern California respectively, because the vast majority of eligible drayage trucks operate through ports and railyards in these areas. The Central Valley and San Diego/Border corridors would also benefit from reduced emissions as many of the drayage trucks travel through these corridors and may be based there as well. Focusing the administration of these funds in two air districts will create a temporary imbalance in the trade corridor funding targets. However, staff proposes using the remaining available cash and future program allocations to achieve the overall Board-adopted corridor funding targets.

1. Financial Incentives

The Program Guidelines allow for grants and loan assistance to replace drayage trucks with MY1994-2003 engines. Under current Guidelines, drayage trucks with MY2004 and newer engines are no longer eligible for Program funds. However, staff is recommending that the Program offer loan assistance for MY2005-2006 trucks if more money becomes available from a Spring 2012 bond sale. Unused drayage truck funds from the current cash cannot be used for loan assistance, which requires a different type of bond sale.

Program funds will not provide 100 percent financing; therefore, equipment owners will have to put their own cash toward the purchase of a truck. Additionally, equipment owners cannot get 100 percent financing and use the grant funds for other purposes. The grant funds must be used toward the purchase of a truck that meets the MY2007 emission level (1.20 g/bhp-hr or less NO_x) or cleaner.

When estimating the total funding that would be needed for eligible drayage trucks, ARB assumed that most truck owners would be purchasing a used replacement truck that would cost approximately \$70,000, based on staff research and stakeholder input. The bulk purchasing approach being developed by the Bay Area District may yield lower cost trucks.

Drayage Trucks with MY1994-2003 Engines and PM Filters

Staff is proposing grants of \$25,000 - \$30,000 per truck to replace retrofitted drayage trucks with MY1994-2003 engines that had PM filters installed by June 30, 2010 and meet all of the conditions for the priority funding. These trucks would also be eligible to apply for loan assistance. Consistent with the approach proposed in 2010, the maximum grant amount for the replacement truck would be reduced by any Program funds received to install a PM filter (ARB, 2010c). Owners would be eligible for grants of up to \$25,000 per truck if they previously received a \$5,000 Program grant to retrofit the truck now being replaced. The existing truck would need to be turned in for scrappage or re-use under a program approved by ARB (*see discussion of potential San Joaquin Valley reuse program for drayage trucks with PM filters*).

Drayage Trucks with MY2004 Engines and PM Filters

For the handful of drayage trucks with MY2004 engines that had PM filters installed by the same June 30, 2010 timeframe as the trucks above, staff proposes to extend loan assistance program eligibility to these trucks out of the existing cash if the Board approves a temporary modification to the Program Guidelines. The equipment owners will not have to turn in or scrap their existing trucks, so it is assumed that the owners would sell or trade in the old truck and use that money (\$15,000-\$25,000) for a down payment towards a replacement truck.

Drayage Trucks with MY2005-2006 Engines

Staff is proposing to provide loan assistance to replace drayage trucks that have MY2005-2006 engines, if funding becomes available and the Board approves a

temporary modification of Program Guidelines. The equipment owners will not have to turn in or scrap their existing trucks, so it is assumed that the owners would sell or trade in the old truck and use that money (\$15,000-\$25,000) for a down payment towards a replacement truck. A used compliant diesel truck with a MY2007 engine is expected to cost \$65,000-\$70,000, while a brand new diesel truck with a MY2010 or better engine runs about \$125,000 unless bulk pricing is negotiated. The cost for a new natural gas truck is about 50 percent higher.

Loan Assistance

The owners of the eligible trucks could apply for loan assistance through the California Pollution Control Financing Authority's (CPCFA) California Capital Access Program (CalCAP). CalCAP encourages banks and other financial institutions to make loans to small businesses that fall just outside of their conventional underwriting standards. For the proposed CalCAP loan assistance, a small business is defined as 100 or fewer employees, a fleet size of 40 or fewer trucks, and \$10 million or less in annual revenues (averaged over 3 years). Truck owners would apply for loans with participating lenders that, in turn, would base their approval on utilizing CalCAP. This is intended to improve access to loans provided by lenders and is not a guarantee that a truck owner will get a loan.

ARB would provide funds to CPCFA to be used for a loan loss reserve account which provides funds to lenders if the truck owner defaults on the loan. The amount that ARB contributes to the loan loss reserve is based on a percentage of the loan amount. ARB has provided funds to CPCFA for on-road and off-road programs at 14 percent of the loan amount. Staff is looking at raising the percentage to 20 percent so that more truck owners may qualify for loan assistance, but this is not yet finalized. The Program would provide a maximum of \$10,000 or the loan loss reserve percentage (e.g., 20 percent of the loan amount), whichever is less.

2. Notification of Eligible Applicants

Staff proposes a targeted outreach effort to notify truck owners who are eligible to apply for priority drayage funding. Eligible trucks must have been registered in ARB's Drayage Truck Registry (DTR) system by June 30, 2010. They also must currently be in use for port or rail yard service and must have a MY1994-2003 engine that was retrofitted with a PM filter by June 30, 2010. Trucks with MY2004 engines meeting the same eligibility requirements would be eligible for the loan assistance provision only. If additional funding becomes available, ARB will notify owners of eligible MY2005-2006 trucks regarding loan assistance opportunities.

Based on DTR data as of June 30, 2010, the number of potentially eligible trucks statewide is approximately 2,200 for MY1994-2003 engines and almost 4,300 for MY2005-2006 engines. These vehicles can achieve early emission reductions if they are replaced during 2012 with a truck that meets 2007 or later emission levels. The MY2004 engine drayage trucks must be upgraded with PM filters (or replaced) to meet Phase 1 requirements by the end of 2011. These drayage trucks were previously

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eligible for Program funding to assist with early installation of PM filters. They are no longer eligible for retrofit funding because of the compliance date. Drayage trucks with MY2005-2006 were also eligible for Program funding to install PM filters, but are no longer eligible because the truck would need to be replaced within a year (PM filter grants require a two year performance contract).

ARB would notify eligible truck owners about the availability of funds beginning in December 2011. Since much of the needed information is already available, staff would use a streamlined application process, requiring the applicant to demonstrate current registration and proof of financing by early February 2012.

Acceptable proof of financing documents include:

- Bank statement for the truck owner showing cash availability;
- Financing commitment letter from an established lender to the truck owner;
- Letter from a bank showing that the truck owner has available funds under a line of credit; or
- Letter from an established lender verifying that the truck owner has funds available, in lieu of the owner's bank statement.

Staff would conduct an initial screening to confirm eligibility and ensure that application requirements have been met. Based on the initial assessment, ARB staff would determine how much money needs to be set aside for drayage grants and loan assistance.

3. Drayage Truck Issues

Some stakeholders have recommended that ARB provide a higher level of Program funding for replacement trucks that use alternative fuels (e.g., natural gas) or zero-emission technology. ARB supports the use of alternative technologies as a long-term strategy for achieving significant emission reductions. Incentive funding is available through the ARB's Hybrid Truck and Bus Voucher Incentive Project (HVIP), which provides vouchers to help fleets purchase hybrid and zero-emission trucks. For the currently available Prop. 1B funding, staff have proposed grant amounts that ensure all eligible drayage trucks would have access to the priority funding if approved by the Board. Since limited funding is available, offering more funding for alternative technologies could mean that some eligible drayage truck owners would not receive grants or loan assistance.

ARB's long-term vision for freight transport includes the deployment of zero and near-zero freight transport equipment powered by clean energy. Truck technologies being assessed for a zero-emission freight transport system include full battery-electric trucks, fuel cell trucks, and dual-mode (hybrid) electric trucks with all-electric range. There has been much progress in developing on-road technologies with zero and near zero emissions, particularly for light duty vehicles and passenger transit. In general, however, additional technology development, demonstration, and commercialization will be required prior to broad deployment of zero emission technologies for freight transport. ARB staff anticipates that the final round of Prop. 1B funding will be available

at the right time to focus those funds on the early introduction of commercially available zero and near-zero emission Class 8 trucks.

Some stakeholders provided comments requesting grants for the replacement of trucks with MY2004-2006 engines. Program Guidelines do not allow for grants to fund the replacement of trucks with MY2004-2006 engines – they only include grants for retrofits on these trucks. The Program focuses limited incentives on upgrading older trucks, particularly those that were in drayage service before rule adoption. The majority of the trucks with MY2004 or newer engines were brought into drayage service after the rule was adopted, with knowledge of compliance deadlines and Program funding levels; the MY1994-2003 trucks were primarily in drayage service prior to the drayage rule going into effect.

Finally, owners that receive grants must turn in their old trucks for scrappage or reuse to ensure the emissions benefits of the Program. Currently, owners of MY2004-2006 trucks can sell their old trucks at an estimated value of \$15,000-\$25,000 and use the proceeds toward the purchase of a newer truck. If the Program tried to offer grants to MY2004-2006 trucks and still offer funding for all eligible owners, it is unlikely the grant amount could even match the value of the replaced truck.

One commenter suggested that ARB should not provide funding to trucks with MY1994-2003 engines and should only fund the replacement of MY2005-2006 trucks with those that meet MY2010 or newer emission levels. As noted above, the current Guidelines and the amount of available funding do not support grants for the replacement of MY2005-2006 trucks.

Staff's proposed approach is consistent with the Board's direction, can be implemented within the limited time available, and adds significantly to the \$100 million in financial assistance that the Board has already awarded to help drayage owners upgrade their trucks and reduce health impacts from drayage operations. Overall, public incentives are funding a greater portion of the upgrade costs for the private drayage industry than any other sector that is covered by our diesel PM rules.

4. Reuse of Drayage Trucks with PM Filters

Typically, trucks that are replaced in this Program are scrapped to ensure the emissions benefits are achieved. However, many of the drayage trucks with filters could be used to replace the oldest trucks that are not scheduled to be upgraded for nearly a decade. The oldest trucks would then be scrapped.

Under Program Guidelines, local agencies may allow the reuse of old trucks under specific conditions if approved by ARB. Retrofitted drayage trucks are potential candidates for reuse in a limited number of truck categories under ARB's Truck and Bus Rule (e.g., agricultural, specialty agricultural). Using retrofitted trucks for these types of applications could provide several years of additional PM emission reductions beyond those achieved by the rule. For example, agricultural vehicles that travel less than

10,000 miles/year are not required to upgrade their trucks until the end of 2022, so replacing them with retrofitted trucks would result in almost a decade of early reductions.

Staff recommends that truck reuse efforts focus primarily on owners that are relying on the agricultural fleet provision and complying with the associated reporting requirements under the Truck and Bus rule. Since many of these agricultural fleets operate in the Central Valley trade corridor, it makes sense for the San Joaquin Valley District to administer a reuse program targeted toward these trucks. Focusing on the agricultural sector would also prevent the reused trucks from competing with those doing general over the road hauling and subject to earlier regulatory deadlines.

Staff proposes that retrofitted trucks first be made available to the San Joaquin Valley to replace the oldest trucks that have compliance deadlines of 2017 or later. The older trucks that are replaced by the reused drayage trucks would be scrapped to ensure that emission reductions are achieved.

Per the Guidelines, the ARB Executive Officer may approve truck reuse proposals that meet all of the following criteria:

- Deliver an equivalent or greater air quality benefit in California (compared to scrappage of the middle-aged truck).
- Require any truck reused in California to be retrofit with a PM filter to ensure a localized health benefit.
- Require any truck reused outside of California to be prevented from re-entering the State.
- Are consistent with the principles and goals of this Program.
- Do not increase Program cost and do not substantially increase the Program administration workload.

A stakeholder recommended that ARB allow truck owners to sell the retrofitted MY1994-2003 trucks on the open market. ARB needs to ensure that the replacement of these trucks results in additional emission reductions, either by scrapping the MY1994-2003 trucks or re-using them to replace older, dirtier trucks that are then scrapped. Allowing the sale of these trucks on the open market will not achieve the air quality benefits required by the Program.

B. Proposed Approach: Other Trucks

As noted above, we propose that a maximum of \$66.6 million be set aside to provide grants and loan assistance, or just loan assistance, for eligible drayage trucks. Staff recommends that \$34.2 million be awarded for other truck projects, based on the approved trade corridor percentages and the demand on districts' current ranked lists. Any unused drayage funds that become available, along with future proceeds from a Spring 2012 bond sale, would also be used for other truck projects.

1. Allocation of \$34.2 Million

Staff are proposing that \$34.2 million be awarded for other truck projects on current district ranked lists. To determine the distribution of the \$34.2 million, we started with the standard trade corridor percentages, then made the following adjustments:

- The Bay Area already exceeds the target trade corridor percentages, based on the amount of drayage truck funding. Therefore, we do not need to allocate any of the \$34.2 million to the Bay Area for other truck projects. Instead, the 14 percent that would have been allocated to the Bay Area can be split evenly between the Los Angeles/Inland Empire and Central Valley trade corridors where there are substantial numbers of backup projects and the staff resources to quickly administer additional grants.
- To restore the \$5.5 million re-directed from the San Diego/Border Corridor to the San Joaquin Valley Air District in the 2010 funding awards, staff will subtract that amount from the calculated “TC Other Truck \$” for the Central Valley corridor and split it between the San Diego and Imperial Air Districts in the San Diego/Border corridor.

The resulting equations are provided below:

$$\begin{aligned} [\text{Other Truck \$, Los Angeles/Inland Empire}] &= [55\%+7\%] * [\$34.2M] = \$21.2M \\ [\text{Other Truck \$, Central Valley}] &= [25\%+7\%] * [\$34.2M] - \$5.5M = \$5.4M \\ [\text{Other Truck \$, San Diego/Border}] &= [6\%] * [\$34.2M] + \$5.5M = \$7.6M \\ [\text{Other Truck \$, Bay Area}] &= \$0 \end{aligned}$$

2. Allocation of Unused Drayage Funds and Spring 2012 Proceeds

In addition to the \$34.2 million that would initially be awarded for other truck projects, staff recommends that unused drayage funds and any Spring 2012 bond proceeds be used for other truck projects. Staff will first determine how much of the \$66.6 million will likely be used for drayage projects, based on the number of drayage truck owners that meet the initial application requirements. The total amount of money available for other truck projects will be the \$34.2 million plus the total amount of unused drayage funding:

$$[\text{Other Truck \$}] = [\$34.2 \text{ million}] + [\text{Unused Drayage \$}]$$

Trade Corridor Targets: Staff will identify all of the funding awarded to date for each trade corridor and will determine which areas need additional funds to achieve the target percentages approved by the Board. For each trade corridor (TC), staff will determine the relative funding levels by adding up money received thus far, excess ARB administration funds being re-directed to district grants, and the drayage allocation from Fall 2011 bond proceeds:

$$\begin{aligned} \text{TC Funding Thus Far} &= \\ &[\text{FY07-08 \$}] + [\text{FY08-09 \$}] + [\text{TC Funds from Re-Directed ARB Admin}] + [\text{TC New Drayage \$}] \end{aligned}$$

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Staff will then estimate how much additional funding would be needed for other truck projects (“*TC Other Truck \$*”) in each trade corridor to achieve the target percentages approved by the Board:

TC Funding Goal \$ = [TC Funding Target %][Total Funding for All TCs, including the \$100.8M]*

TC Other Truck \$ = [TC Funding Goal \$] - [TC Funding Thus Far]

If the amount of money available for other truck projects is not sufficient to fully achieve the target percentages, staff will use funds from future bond sales to bring funding levels in line with trade corridor goals. Alternately, if a trade corridor exceeds its target percentage, no funds for other truck projects would be allocated to that corridor.

Documented Demand for Funding: After determining whether a trade corridor is eligible for more funding to achieve target percentages, staff will review existing ranked lists from applications received during the Spring 2011 solicitations to gauge the number of backup projects. If a ranked list is oversubscribed (e.g., at least 20%), it would be considered for funding. The criteria for oversubscription will consider the previous levels of project fallout.

If a trade corridor is eligible for more funding, but there is insufficient demand on a local agency’s existing ranked list for truck projects, the funding would first be available to another agency in that same trade corridor. If the second agency also has insufficient demand, the funding would be shifted to an agency with excess demand in another trade corridor. If both agencies in a corridor have sufficient demand, staff will consider other factors to apportion funding, based on the evaluations conducted per statutory requirements and documented in the June 2010 staff report (ARB, 2010b).

Local Agency Resources: Staff will evaluate the capacity of existing local agency staff and resources to complete additional projects within the available time line. Due to the compressed schedule, the demonstrated ability to quickly implement projects will be critical.

C. Funding Scenarios

To assess how the staff’s proposal may affect the final allocation of the new \$100.8 million, we first documented the prior funds allocated or pending allocation to agencies in each trade corridor. Table 5 shows the current grant awards from the first two Program years, along with the unused funds being returned to each district and the ARB administration funds being re-directed to districts to support additional other truck backup projects.

Table 5: Prior Funding and Resulting Trade Corridor Percentages (\$ Millions)

Trade Corridor	Agency	Prior Funding ¹	Funds Redirected from ARB to Districts ²	Total Prior Funds	Current Trade Corridor %
Los Angeles/Inland Empire	South Coast	\$245.8	\$3.3	\$249.1	55%
Central Valley	San Joaquin	\$91.7	\$1.2	\$118.8	26%
	Sacramento	\$25.6	\$0.3		
Bay Area	Bay Area	\$62.4	\$0.8	\$63.2	14%
San Diego/Border	San Diego	\$14.3	\$0.2	\$21.4	5%
	Imperial	\$6.7	\$0.2		
Subtotal to Local Agencies	--	\$446.5	\$6.0	\$452.5	100%
State Administration	ARB	\$21.5	(\$6.0)	\$15.5	--
TOTAL	--	\$468.0	--	\$468.0	--

1. The Year 1 and Year 2 funds include monies awarded by the Board and unused district funds (due to project fallout) that ARB re-directed to other projects within the same agency or other agencies.
2. ARB administration funds that were reserved for staffing and contract costs, but which are being re-directed to district grants to fund additional truck projects on existing ranked lists.

We began with the total prior funding for each trade corridor and then evaluated two scenarios for funding new truck projects with the \$100.8 million in new cash. Using a range of participation rates for drayage truck owners, we estimated possible funding distributions for both drayage trucks and other trucks in each corridor. Table 6 and Table 7 show the estimated amount of funding that would be available for each trade corridor, based on the proposed approach. The tables consider two scenarios (100% and 50%) for the percentage of drayage truck owners that respond to the priority funding notification and meet all of the requirements for obtaining funding.

Table 6: Effect of Staff Recommendations on Corridor Funding if 100% Drayage Response (Million \$)

Trade Corridor	Total Prior Funds (A)	New Truck Funds (B)	Total Corridor Funds (C)	Total Corridor % (D)	Corridor Target % (E)
Los Angeles/ Inland Empire	\$249.1	\$35.2	\$284.3	52%	55%
Central Valley	\$118.8	\$5.4	\$124.2	23%	25%
Bay Area	\$63.2	\$47.6	\$110.8	20%	14%
San Diego/ Border	\$21.4	\$7.6	\$29.0	5%	6%
Subtotal - Local Agencies	\$452.5	\$95.8	\$548.3	100%	100%
All Corridors – ARB administration – ARB truck loan assistance	\$15.5 --	-- \$5.0	-- \$20.5		
TOTAL	\$468.0	\$100.8	\$568.8		

1. Column (A) Total Prior Funds: see Table 4.
2. Column (B) New Truck Funds: combined drayage plus other truck funds, assuming all \$66.6 million in reserved funds go to drayage trucks (a 100% participation rate) and the remaining \$34.2 million in new funds is distributed to other truck backup projects as proposed, including return of funds from Central Valley to San Diego/Border
3. Column (C) Total Corridor Funds: (A) + (B)
4. Column (D) Total Corridor %: (C)/\$548.3 million
5. Column (E) Corridor Target %: Board-approved corridor funding target over the course of the entire Program, expressed as a percentage of the total funding granted to local agencies

If only half the eligible drayage trucks are upgraded with the new grants or loan assistance (the 50% response scenario), the overall trade corridor percentages are very close to the targets approved by the Board. These scenarios are based on the number of drayage truck owners who respond to the priority funding notification and meet all of the requirements for obtaining funding. These response percentages were used to estimate drayage funding needs. Any money not used for drayage was distributed to the trade corridors for other truck projects, to best achieve the overall corridor funding targets. Please note that the same drayage response percentages were applied in the Bay Area and South Coast Districts, but actual response rates may differ in the two areas.

Table 7: Effect of Staff Recommendations on Corridor Funding if 50% Drayage Response (Million \$)

Trade Corridor	Total Prior Funds (A)	New Truck Funds (B)	Total Corridor Funds (C)	Total Corridor % (D)	Corridor Target % (E)
Los Angeles/ Inland Empire	\$249.1	\$47.3	\$296.4	54%	55%
Central Valley	\$118.8	\$15.3	\$134.1	24%	25%
Bay Area	\$63.2	\$23.8	\$87.0	16%	14%
San Diego/ Border	\$21.4	\$9.4	\$30.8	6%	6%
Subtotal - Local Agencies	\$452.5	\$95.8	\$548.3	100%	100%
All Corridors					
– ARB administration	\$15.5	--	--		
– ARB truck loan assistance	--	\$5.0	\$20.5		
TOTAL	\$468.0	\$100.8	\$568.8		

1. Column (A) Total Prior Funds: see Table 4.
2. Column (B) New Truck Funds: combined drayage plus other truck funds, assuming \$33.3 million in reserved funds go to drayage trucks (a 50% participation rate) and the remaining \$62.5 million in new funds is distributed to other truck backup projects as proposed to best approach the overall corridor funding targets
3. Column (C) Total Corridor Funds: (A) + (B)
4. Column (D) Total Corridor %: (C)/\$548.3 million
5. Column (E) Corridor Target %: Board-approved corridor funding target over the course of the entire Program, expressed as a percentage of the total funding granted to local agencies

D. Temporary Modifications to Program Guidelines

To ensure that ARB can pay out truck project funds to districts by April 2012 (part of ARB’s commitment to the Department of Finance) and still implement the priority reserve funding for drayage trucks, ARB staff is recommending some temporary modifications to the Guidelines to streamline the implementation process.

1. Drayage Trucks Only

Under the Guidelines, the priority drayage funding option allows for drayage trucks to be ranked separately from the other trucks in the same solicitation. Since the priority drayage funding was not offered in the Spring 2011 solicitation, staff recommend a separate targeted notification effort for the \$66.6 million that would be set aside for drayage. We have also proposed a streamlined application process where drayage

truck owners submit the initial application information to ARB, instead of to local agencies. For trucks that previously received retrofit funding, we recommend that vehicle registration validation be simplified using quarterly reports from the Department of Motor Vehicles (DMV) where possible. These temporary variances from the Guidelines will allow ARB staff to quickly assess drayage funding demand from eligible applicants and the amount of money remaining for other truck projects. After ARB staff review the initial responses, we will provide the information to the Bay Area and South Coast Air Districts to complete the grant process.

Staff's recommended streamlined processes for drayage trucks include:

- 1) Allowing districts to waive the requirement that owners submit documentation to verify their reported vehicle miles traveled (owners will still need to certify annual miles driven in California and in the trade corridors);
- 2) Simplifying the verification of vehicle registration using DMV data where possible;
- 3) Waiving the pre-inspection requirement for trucks that previously received retrofit funding;
- 4) Allowing truck owners to order replacement trucks before pre-inspection and/or contracting (at their own risk); and
- 5) Shortening the obligation and liquidation time periods for the local agencies to support the compressed time schedule.

These recommendations would help expedite the districts' application review process. We are proposing to temporarily waive the pre-inspection requirement for the retrofit drayage trucks, because most of them have already been pre-inspected and post-inspected during the grant process for installation of the PM filters. Trucks that did not previously receive retrofit funding for PM filters would need to comply with pre-inspection requirements in the Guidelines.

The replacement drayage trucks need to be operational by the end of 2012 to achieve early emission reductions. In light of this deadline, districts have requested flexibility in allowing truck owners to order their trucks before pre-inspection and/or contracting. Staff support giving local agencies the option to allow owners to submit purchase orders for new equipment prior to execution of contract. Equipment owners ordering trucks prior to contract execution would still assume all financial risk, and are in no way assured grant funds per the Guidelines.

Under the current Guidelines, trucks with MY2004-2006 engines are not eligible to receive Program funds for truck replacement. Consistent with the Guidelines, the proposed allocation of the available \$100.8 million does not include any loan assistance for MY2004-2006 trucks. However, staff recommends that the Guidelines be modified temporarily to allow trucks with MY2004 engines that have PM filters and meet the priority drayage requirements to receive loan assistance now. In addition, staff recommend that the Guidelines be modified to allow MY2005-2006 engines to receive loan assistance if additional funding becomes available from a Spring 2012 bond sale.

To meet the tight schedule, staff also recommends revising the obligation and liquidation time periods for local agencies to implement the drayage truck grants only - funds for other truck projects would have the same deadlines as the current grants. We propose the following:

Funding Category	Local Agency Obligation Deadline	Local Agency Liquidation Deadline
Drayage Truck Priority Funds	June 30, 2012	March 31, 2013
Other Truck Funds	October 15, 2012	April 15, 2014

2. Drayage and Other Trucks

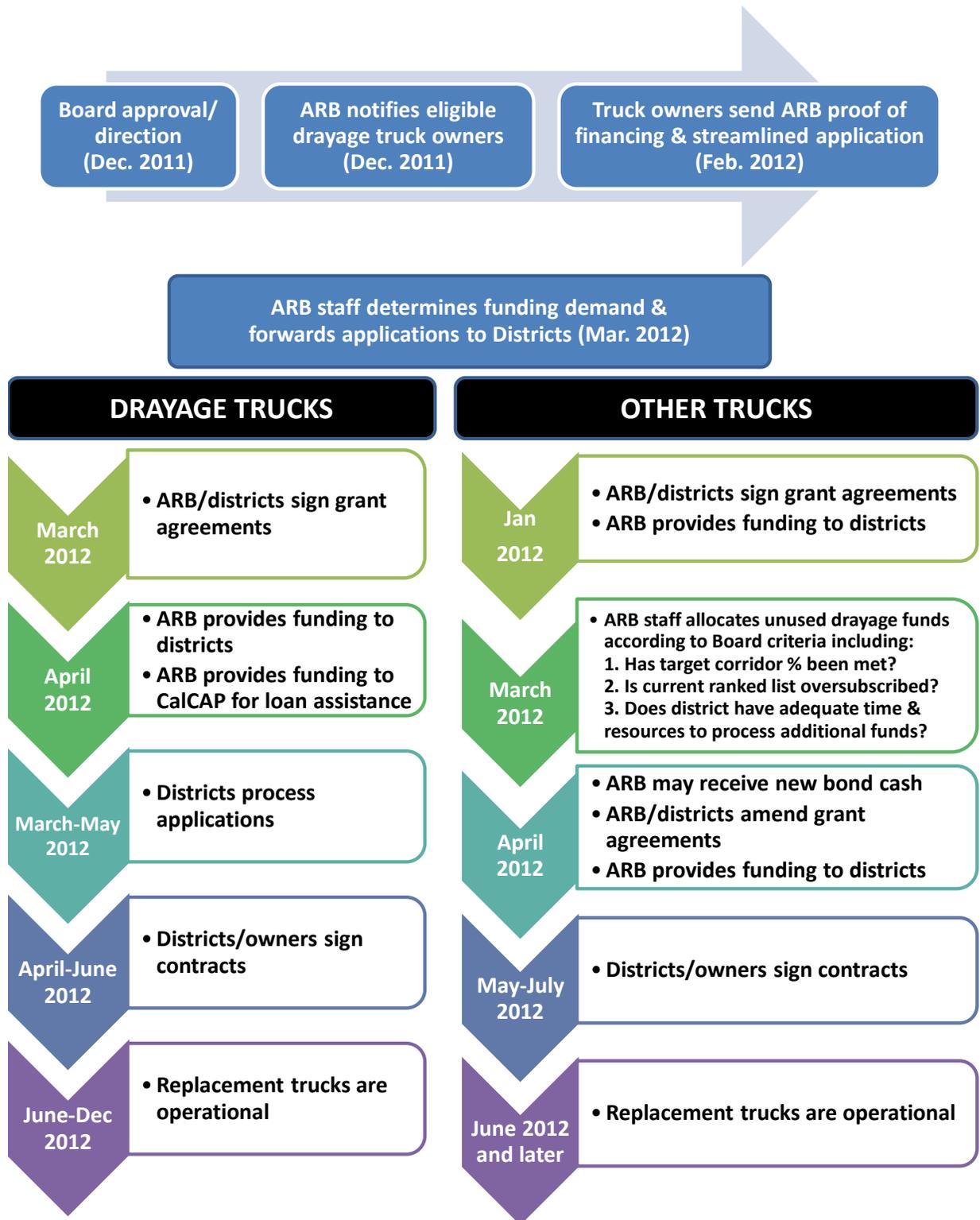
The Guidelines modifications described above are being recommended as temporary variations for the final Phase 2 awards only. In addition to these temporary changes, staff recommends a permanent change for truck grant funding levels. We propose that the maximum grant amount for replacement trucks be reduced by any Program funds received to install a PM filter. ARB staff originally proposed this approach in February 2010 and we recommend implementing it for the current funding awards and future awards (ARB, 2010c).

E. Next Steps for Drayage Trucks and Other Trucks

If the Board approves the approach recommended by staff, we will conduct a streamlined assessment of drayage priority funding demand and then define the additional dollar amounts available for district grants for other truck backup projects. ARB will enter into grant agreements with local agencies in early 2012 for the \$100.8 million in available Program funds, and amend those agreements to add any new funding from a Spring 2012 bond sale.

Figure 2 contains a flow chart for funding drayage and other truck projects.

Figure 2: Flow Chart for Disbursement of Proceeds from the October 2011 Bond Sale and Possible Spring 2012 Bond Sale



IV. FUTURE FUNDING

As noted previously, staff proposes that monies available to support the final Phase 2 funding awards would be used to implement the drayage priority reserve and to fund other truck projects on the existing ranked lists. The tentative Phase 2 allocations that were presented to the Board in June 2010 contained proposed funding for locomotive and shorepower projects, but staff proposes to defer funding for projects in those categories.

The Board has already supported the use of Program funds for current technology locomotive projects that are underway in the Los Angeles/Inland Empire and Central Valley trade corridors. We anticipate that cleaner locomotives will become available over the next 2-3 years, which will provide greater health and air quality benefits per State dollar invested. Therefore, staff proposes that funding be awarded in a future allocation when cleaner Tier 4 engines are available. Tier 4 engines will achieve PM reductions of at least 95 percent and NOx reductions of at least 90 percent, compared to uncontrolled, pre-Tier 0 engines.

For shorepower (or ships-at-berth) projects, the nearly \$80 million in existing grant agreements is sufficient to cover all of the ship berths that are contained on existing ranked lists. Therefore, staff proposes that we revisit the need for additional shorepower funding in a future allocation.

The focus on drayage trucks with the Fall 2011 bond proceeds would likely increase the proportion of funding administered by the local agency in the Bay Area corridor in the near-term, relative to the corridor funding targets. Staff proposes to use the remaining Fall 2011 proceeds for other trucks, as well as future program allocations, to achieve the Board's adopted corridor funding targets over the course of the Program.

Proceeds from future bond sales (Fall 2012 and later) require that ARB consider any necessary updates to the project specifications element of the Program Guidelines and begin a new solicitation process for local and State agency project proposals. As required by statute, staff would work with local agencies to solicit project applications, conduct public workshops in the trade corridors, and present a proposed project list for Board consideration. The solicitation process would include consideration of projects for all categories in the Program: heavy duty diesel trucks; locomotives and rail yards; ships at berth; commercial harbor craft; cargo handling equipment; and truck stop/distribution center electrification.

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APPENDIX A

Reference Tables:

Summary of 2010 Funding Requests and Prior Allocations

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1. Summary of 2010 Funding Requests

In response to the Notice of Funding Availability issued in 2010, ARB received 15 proposals from seven local agencies in the four trade corridors and a State agency (ARB). Provided below is a summary of the bond funding requested by trade corridor and category (ARB, 2010b). The recommendations for new funding described in this report continue to implement the agency proposals submitted in 2010.

Table A-1: Summary of 2010 Local and State Agency Funding Requests for Up to \$475 Million in Program Funds

Trade Corridor	Local Agency (Air District Unless Indicated)	Funding Category	Estimated Number of Equipment	Bond \$ Requested ¹ (millions)	Total Corridor \$ (millions)
LA/Inland Empire	South Coast	Trucks	8,320	\$436.8	\$528.8
		Locomotive	40	\$30.9	
		Ships/Equipment	18	\$55.6	
	Oxnard Harbor District	Ships/Equipment	2	\$5.5	
Central Valley	San Joaquin Valley	Trucks	6,000	\$315.0	\$449.2
		Locomotive	100	\$77.2	
	Sacramento	Trucks	300	\$15.8	
		Locomotive	53	\$41.2	
Bay Area	Bay Area	Trucks	857	\$45.0	\$88.0
		Locomotive	5	\$3.9	
		Ships/Equipment	13	\$39.1	
San Diego/Border	San Diego	Trucks	420	\$22.1	\$31.0
	San Diego	Harbor Craft	3	\$0.5	
	Imperial	Trucks	160	\$8.4	
All Trade Corridors	ARB ²	Trucks	---	\$50.0	\$50.0
TOTAL			16,291	\$1,147.0	\$1,147.0

¹ Includes dollars for equipment projects, plus administration funds where permitted.

² State agency proposal for truck loan assistance program.

2. 2010 Funding Awards and Tentative Allocations

Table A-2 summarizes the funding awards for \$200 million in Phase 1 monies and the tentative allocations for up to \$275 million in future bond proceeds, as approved by the Board in June 2010 (ARB, 2010b, 2010d). The tentative Phase 2 amounts were based on anticipated bond proceeds of \$275 million, but ARB has only received \$100.8 million from the 2011 bond sales.

Table A-2: June 2010 Board Action on Phase 1 Awards and Phase 2 Allocations¹

Trade Corridor	Funding Category	Local Agency (Air Districts)	Total ² (millions)	Phase 1 (millions)	Tentative Phase 2 (millions)
LA/Inland Empire	Trucks	South Coast	\$141.5	\$42.5	\$99.0
	Ships/ Equipment	South Coast	\$61.3	\$61.3	---
	Locomotives	South Coast	\$30.9	\$6.2	\$24.7
	Corridor Total		\$233.7	\$110.0	\$123.7
Central Valley	Trucks	San Joaquin Valley	\$78.5	\$45.5	\$23.0
	Trucks	Sacramento		\$10.0	
	Locomotives	San Joaquin Valley	\$20.0	---	\$20.0
	Locomotives	Sacramento	\$7.7	---	\$7.7
	Corridor Total		\$106.2	\$55.5	\$50.7
Bay Area	Trucks	Bay Area	\$33.3	\$8.0	\$25.3
	Ships/ Equipment	Bay Area	\$23.9	\$20.0	\$3.9
	Locomotives	Bay Area	\$2.3	---	\$2.3
	Corridor Total		\$59.5	\$28.0	\$31.5
San Diego/ Border	Trucks	San Diego	\$25.0	\$3.0	\$19.0
	Trucks	Imperial		\$3.0	
	Harbor Craft	San Diego	\$0.5	\$0.5	---
	Corridor Total		\$25.5	\$6.5	\$19.0
All Trade Corridors	Trucks	ARB ³	\$50.0	---	\$50.0
Local and State Agency Totals			\$474.9	\$200.0	\$274.9

¹ The funding allocations in this table reflect the June 2010 Board Hearing resolution. These allocations were subsequently adjusted by small amounts to shift unused funds between local agencies and avoid reversion of the funds.

² Adds to just under \$475 million due to rounding.

³ State agency proposal for truck loan assistance program.

3. Total Prior Funding

Table A-3 shows the allocation of Program grants to local agencies by trade corridor and source category for all prior rounds of funding. These include adjustments made after Board funding awards to shift unused funds between local agencies and to redirect funds from ARB administration to district truck grants.

Table A-3: Prior Funding

Trade Corridor	Funding Category	Local Agency (Air District unless Noted)	Funds ¹ (\$ Millions)
LA/Inland Empire (55%)	Port/Rail Trucks	South Coast & Port of Long Beach	\$82.6
	Other Trucks		\$95.9
	Ships/Equipment		\$61.3
	Locomotives		\$9.3
	Corridor Total		
Central Valley (26%)	Other Trucks	San Joaquin Valley	\$92.9
	Other Trucks	Sacramento	\$15.6
	Locomotives		\$10.3
	Corridor Total		
Bay Area (14%)	Port Trucks	Bay Area	\$14.5
	Other Trucks		\$25.8
	Ships/Equipment		\$22.9
	Corridor Total		
San Diego/Border (5%)	Port Trucks	San Diego	\$5.2
	Other Trucks		\$8.8
	Other Trucks	Imperial	\$6.9
	Harbor Craft	San Diego	\$0.5
	Corridor Total		
Subtotal to Local Agencies			\$452.5
State Administration	ARB		\$15.5
TOTAL			\$468.0

¹ Includes the \$6 million re-directed from ARB administration to district grants for truck projects.