

MULTI-COUNTY GOODS MOVEMENT ACTION PLAN VOLUME 1, APPENDIX B: SUPPORTING TABLES

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**Table 1
Environmental Regulatory Agencies**

AGENCY	RESPONSIBILITY	JURISDICTION	KEY REGULATION(S)
International Civil Aviation Organization (ICAO)	International civil aviation standards established by Convention	International, but not preemptive of FAA	Annex 16: Environmental Protection, Volume II - Aircraft Engine Emissions
International Marine Organization (IMO)	International marine safety and pollution prevention law established by the United Nations	International	MARPOL Annex I-VI
U.S. Congress	Established federal environmental protection and Council of Environmental Quality (CEQ) to further NEPA.	Nationwide	National Environmental Protection Act (NEPA)
U.S. Environmental Protection Agency (EPA)	Regulation and enforcement for protection of human health and the environment.	Nationwide	Clean Air Act, Clean Water Act, Oil Pollution Prevention Regulation
Federal Aviation Administration (FAA)	Regulation and enforcement of aviation standards for airport, aircraft, and airmen.	Nationwide	Airport Noise & Compatibility Act; Commercial Airport Certification; Aircraft Certification
U.S. Fish and Wildlife	Conservation and protection of fish, wildlife, and plants and their habitats.	Nationwide	Endangered Species Act
U.S. Department of Transportation (DOT)	Ensuring a fast, safe, efficient, accessible, and convenient transportation system; oversees federal railroad, federal transit, and federal highway regulations.	Nationwide	Title 49 of the Code of Federal Regulations (Transportation), including Hazmat transport.
Bureau of Land Management (BLM)	Sustain the health, diversity, and productivity of the public lands.	Nationwide	Federal Land Policy and Management Act
Army Corps of Engineers (ACE)	Water resource and environmental restoration and stewardship.	Nationwide	Permitting of projects/actions affecting navigable waters of the U.S.
California Legislature	Established state environmental protection and the State Clearinghouse and Office of Planning and Research (OPR) to further CEQA.	Statewide	California Environmental Quality Act (CEQA)
Business, Transportation, & Housing Agency	Oversees 13 state agencies, including Caltrans, California Highway Patrol, Department of Motor Vehicles, and Department of Alcoholic Beverage Control; Regulates managed health care plans as well as the banking, and financial and securities industries	Statewide	Oversight of law enforcement activities of subordinate state agencies.

**Table 1
Environmental Regulatory Agencies**

AGENCY	RESPONSIBILITY	JURISDICTION	KEY REGULATION(S)
California Fish & Game	Manage fish, wildlife, and plant resources and their habitats	Statewide	California Endangered Species Act
California EPA	Oversees CARB, SWRCB, Department of Pesticide Regulation, Department of Toxic Substances Control, Office of Environmental Health Hazard Assessment, Integrated Waste Management Board	Statewide	California Clean Air Act
California Air Resources Board (CARB)	Part of CalEPA; to promote and protect public health, welfare, and ecological resources through effective reduction of air pollutants while recognizing and considering effects on the economy.	Statewide	California Air Pollution Control Laws
State Water Resources Control Board (SWRCB)	Water allocation and water quality protection; Oversees nine regional boards	Statewide	Porter-Cologne Water Quality Control Act (California Water Code, Division 7)
Native American Heritage Commission	Identify and catalogue Native American cultural resources, and prevent damage to and insure Native American access to sacred sites. Also, identify a Most Likely Descendant (MLD) when Native American human remains were discovered any place other than a dedicated cemetery -- MLDs were granted the legal authority to make recommendations regarding the treatment and disposition of the discovered remains.	Statewide	
Regional Air Quality Management Districts	<i>See CARB</i>	Regional	
South Coast AQMD	<i>See CARB</i>	Portions of Los Angeles, Orange, Riverside, and San Bernardino counties	Emissions regulations
South Central AQMD	<i>See CARB</i>	Ventura County	Emissions regulations
Mojave Desert AQMD	<i>See CARB</i>	Portions of Los Angeles, Riverside, and San Bernardino counties	Emissions regulations

**Table 1
Environmental Regulatory Agencies**

AGENCY	RESPONSIBILITY	JURISDICTION	KEY REGULATION(S)
Antelope Valley AQMD	<i>See CARB</i>	Portion of Los Angeles County	Emissions regulations
Regional Water Quality Control Boards	<i>See SWRCB</i>	Regional	
Los Angeles RWQCB	<i>See SWRCB</i>	Portions of Los Angeles and Ventura counties	Water allocation and water quality protection regulations
Santa Ana RWQCB	<i>See SWRCB</i>	Portions of Orange, San Bernardino, and Riverside Counties	Water allocation and water quality protection regulations
Colorado River Basin RWQCB	<i>See SWRCB</i>	Portions of San Bernardino, Riverside, and San Diego Counties	Water allocation and water quality protection regulations
Lahontan RWQCB	<i>See SWRCB</i>	Portions of Los Angeles and San Bernardino Counties	Water allocation and water quality protection regulations
San Diego RWQCB	<i>See SWRCB</i>	Portions of Orange and Riverside Counties	Water allocation and water quality protection regulations
Central Coast RWQCB	<i>See SWRCB</i>	Portion of Ventura County	Water allocation and water quality protection regulations

Source: Jones & Stokes, 2006.

**Table 2
Southern California Air Districts and Air Basins**

COUNTY	AIR BASIN	AIR DISTRICT
Imperial	Salton Sea Air Basin	Imperial County Air Pollution Control District
Los Angeles	South Coast	South Coast AQMD
	Mojave Desert	Mojave Desert AQMD and Antelope Valley AQMD
Orange	South Coast	South Coast AQMD
Riverside	South Coast	South Coast AQMD
	Mojave Desert	Mojave Desert AQMD
	Salton Sea	Mojave Desert AQMD
San Bernardino	South Coast	South Coast AQMD
	Mojave Desert	Mojave Desert AQMD
San Diego	San Diego Air Basin	San Diego Air Pollution Control District
Ventura	South Central Coast	Ventura County AQMD

Source: Jones & Stokes, 2006.

**Table 3
CARB Emission Reduction Plan for Ports and Goods Movement in California
List of Strategies to Reduce Emissions
March 2006**

Strategy	Status (Adopted or New Strategy)	Implementation Could Begin		
		2006-2010	2011-2015	2016-2020
SHIPS				
Vessel Speed Reduction Agreement for Southern California	2001	✓		
U.S. EPA Main Engine Emissions Standards	2003	✓		
U.S. EPA Non-Road Diesel Fuel Rule	2004	✓		
ARB Rule for Ship Auxiliary Engine Fuel	New (2005)	✓		
Cleaner Marine Fuels	New	✓	✓	✓
Emulsified Fuels	New	✓	✓	✓
Expanded Vessel Speed Reduction Programs	New	✓	✓	✓
Engines with Emissions Lower than IMO Standards in New Vessels	New	✓	✓	✓
Dedication of Cleanest Vessels to California Service	New	✓		
Shore Based Electrical Power	New	✓		
Extensive Retrofit of Existing Engines	New		✓	✓
Highly Effective Controls on Main and Existing Engines	New		✓	✓
Sulfur Emission Control Area (SECA) or Alternative	New		✓	
Expanded Use of Cleanest Vessels in California Service	New		✓	
Expanded Shore Power and Alternative Controls	New		✓	
Full Use of Cleanest Vessels in California Service	New			✓
Maximum Use of Shore Power or Alternative Controls	New			✓
COMMERCIAL HARBOR CRAFT				
Incentives for Cleaner Engines	2001-2005	✓		
ARB Low Sulfur Diesel Fuel Rule	2004	✓		
ARB Rule to Clean Up Existing Engines	New	✓		
Shore Based Electrical Power	New	✓		
U.S. EPA or ARB New Engine Emission Standards	New		✓	
CARGO HANDLING EQUIPMENT				
ARB Low Sulfur Diesel Fuel Rule	2003	✓		
ARB/U.S. EPA Tier 4 Emission Standards	2004	✓		

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CARB Emission Reduction Plan for Ports and Goods Movement in California
List of Strategies to Reduce Emissions
March 2006

Strategy	Status (Adopted or New Strategy)	Implementation Could Begin		
		2006-2010	2011-2015	2016-2020
ARB Stationary Diesel Engine Rule	2004	✓		
ARB Portable Diesel Equipment Rule	2004	✓		
Incentives for Cleaner Fuels	2001-2005	✓		
CARGO HANDLING EQUIPMENT, continued				
ARB Rule for Diesel Cargo Handling Equipment	New (2005)	✓		
ARB Rule for Gas Industrial Equipment	New	✓		
Upgrade to 85 Percent Diesel PM Control or Better	New		✓	
Zero or Near Zero Emission Equipment	New			✓
TRUCKS				
ARB/U.S. EPA 2007 New Truck Emission Standards	2001	✓		
Vehicle Replacement Incentives	2001-2005	✓		
ARB Low Sulfur Diesel Fuel Rule	2003	✓		
ARB Smoke Inspections for Trucks in Communities	2003	✓		
Community Reporting of Violators	2005	✓		
ARB Truck Idling Limits	2002-2005	✓		
ARB Low NOx Software Upgrade Rule	2005	✓		
ARB International Trucks Rule	New (2006)	✓		
ARB Private Truck Fleets Rule	New	✓	✓	
Port Truck Modernization	New	✓	✓	✓
Enhanced Enforcement of Truck Idling Limits	New	✓		
LOCOMOTIVES				
ARB Low Sulfur Diesel Fuel Rule	2004	✓		
ARB 2005 Agreement with Railroads to Cut PM Statewide	2005	✓		
Idle Enforcement Training	2006	✓		
Upgrade Engines in Switcher Locomotives	New	✓		
Retrofit Diesel PM Control Devices on Existing Engines	New	✓		
Use of Alternative Fuels	New	✓		
More Stringent National Requirements	New		✓	
Concentrate Tier 3 Locomotives in California	New		✓	✓

**Table 3
 CARB Emission Reduction Plan for Ports and Goods Movement in California
 List of Strategies to Reduce Emissions
 March 2006**

Strategy	Status (Adopted or New Strategy)	Implementation Could Begin		
		2006-2010	2011-2015	2016-2020
OPERATIONAL EFFICIENCY				
Efficiency Improvements	New	✓	✓	✓
Transport Mode Shifts	New	✓	✓	✓
LAND USE DECISIONS				
PROJECT AND COMMUNITY SPECIFIC MITIGATION	New	✓	✓	✓
PORT PROGRAMS TO REDUCE EMISSIONS	Ongoing/New	✓	✓	✓

**Table 4
San Pedro Bay Ports Clean Air Action Plan
November 2006**

All new projects to meet or be below acceptable health risk standards (<10 in 1,000,000 excess residential cancer risk threshold)
Heavy Duty Vehicles
<ul style="list-style-type: none"> ▪ By the end of 2011, all trucks calling at the ports frequently or semi-frequently will meet or be cleaner than the EPA 2007 on-road PM emissions standards and be the cleanest available NOx at the time of replacement or retrofit.
Ocean-Going Vessels
<ul style="list-style-type: none"> ▪ 100% compliance with the Vessel Speed Reduction Program, initially out to a distance of 20 nautical miles from Point Fermin, expanded to 40 nautical miles (nm). ▪ The use of <0.2% sulfur MGO fuel in vessel auxiliary and main engines at berth and during transit out to a distance of 20 nm from Point Fermin and expanded to 40 nm or equivalent reduction (starting 1st quarter 2008). ▪ The use of shore power (or equivalent) for hotelling emissions implemented at all major container, selected liquid bulk, and cruise terminals in the Port of Los Angeles within five years and at all container terminals and one crude oil terminal in the Port of Long Beach within five to ten years. ▪ The use of DPM and NOx control devices on auxiliary and main engines mandated on new vessel builds and existing frequent callers.
Cargo Handling Equipment
Beginning 2007, all purchases will meet one of three performance standards: <ul style="list-style-type: none"> ▪ Cleanest available NOx alternative-fueled engine, meeting 0.01 g/bhp-hr PM, available at time of purchase. ▪ Cleanest available NOx diesel-fueled engine, meeting same standard as above, available at time of purchase. ▪ If there are no engines meeting above standard, then must purchase cleanest available engine (engine fuel type) and install cleanest Verified Diesel Emissions Controls (VDEC) available.
By the end of 2010, all yard tractors operating at the San Pedro Bay Ports will meet at a minimum the EPA 2007 on-road or Tier IV engine standards.
By the end of 2012, all pre-2007 on-road or pre-Tier IV top picks, forklifts, reach stackers, rubber tired gantries (RTG), and straddle carriers < 750 hp will meet at a minimum the EPA 2007 on-road engine standards or Tier IV off-road engine standards.
By end of 2014, all cargo handling equipment with engines >750 hp will meet at a minimum the EPA Tier IV off-road engine standards. Starting 2007 (until equipment is replaced with Tier IV), all cargo handling equipment with engines >750 hp will be equipped with the cleanest available VDEC verified by the California Air Resources Board.
Harbor Craft
<ul style="list-style-type: none"> ▪ By the second year of the Plan, all harbor craft home-based at San Pedro Bay Ports will meet EPA Tier 2 for harbor craft and equivalent reductions. ▪ By the fifth year, all previously repowered harbor craft home-based at San Pedro Bay Ports will be retrofitted with the most effective CARB verified NOx and/or PM emission reduction technologies. ▪ When Tier 3 engines become available, within five years all harbor craft home-based at San Pedro Bay Ports will be repowered with the new engines.
Railroad Locomotives
<ul style="list-style-type: none"> ▪ By 2008, all existing Pacific Harbor Lines switch engines in the ports will be replaced with Tier 2 engines equipped with 15-minute idling limit devices, retrofitted with either DOCs or DPFs, and shall use emulsified or other equivalently clean alternative diesel fuels available ▪ Any new switch engine acquired after the initial Pacific Harbor Line replacement must meet EPA Tier 3 standards or equivalent to 3 grams NOx/bhp-hr and 0.023 g PM/bhp-hr. ▪ By 2011, all diesel-powered Class 1 switcher and helper locomotives entering port facilities will be 90% controlled for PM and NOx, will use 15-minute idle restrictors, and after January 1, 2007, use ULSD fuels. ▪ Starting in 2012 and fully implemented by 2014, the fleet average for Class 1 long haul locomotives calling at port properties

Table 4
San Pedro Bay Ports Clean Air Action Plan
November 2006

<p>will be Tier III equivalent (Tier 2 equipped with DPF and SCR or new locomotives meeting Tier 3) PM and NOx and will use 15-minute idle restrictors. Class 1 long haul locomotives will operate on ULSD while on port properties by the end of 2007. Technologies to get to these levels of reductions will be validated through the Technology Advancement Program.</p>
<ul style="list-style-type: none"> ▪ Any new rail yard development or significantly redesigned rail yard at the San Pedro Bay Ports shall be required to operate the cleanest available technology for switcher, helper, and long-haul locomotives, utilize idling shut-off devices and exhaust hoods, use only ULSD or alternative fuels and have only clean cargo handling equipment and HDVs consistent with the Clean Air Action Plan.
<p>Implementation Strategies (Proposed)</p> <ul style="list-style-type: none"> ▪ Facilities required by lease to meet emission reduction requirements. ▪ Port tariffs changed to influence activity and implement uniform rules affecting most or all port users. ▪ New projects or changes to existing facilities must meet health risk requirements as part of environmental review process. ▪ Incentive funding targeted toward specific sources to accelerate emission reductions. ▪ Voluntary emission reduction actions encouraged. ▪ Reward participants for accepting emission reduction responsibility if they achieve reductions early or outperform program expectations. ▪ Allow a port to cover initial capital costs for equipment associated with a measure and then lease back or lease-to-own the cleaner equipment purchased. ▪ Loan guarantees ▪ Loans through a third party available to driver/owners. ▪ Provide trucking companies meeting clean truck requirements exclusive rights to operate on port property. ▪ Joint Powers Authority Nonprofit Trucking Entity to directly purchase trucks, hire drivers, etc. ▪ Recognize industry efforts under Clean Air Action Plan.

MULTI-COUNTY GOODS MOVEMENT ACTION PLAN

APPENDIX B – SUPPORTING TABLES

Table 5
MCGMAP Preliminary Regional Goods Movement Projects/Strategies
 (Expanded Descriptions for Table 5 in Executive Summary)

NOTE: REGIONAL AND COUNTY-SPECIFIC LISTS ARE BOTH CONSIDERED TO BE OF EQUAL PRIORITY IN MCGMAP. MODES AND PROJECTS ARE NOT LISTED IN PRIORITY ORDER. ALL PROJECTS WILL REQUIRE FURTHER STUDY PRIOR TO IMPLEMENTATION UNLESS ALREADY COMPLETED.

MITIGATION/ MODE/ SYSTEM	PROJECT / STRATEGY	DESCRIPTION	2007 COST ¹ (MILLIONS)	COMMITTED FUNDS (MILLIONS)	TIME FRAME ²	
	ENVIRONMENTAL MITIGATION	Implementation of goods movement infrastructure projects could require mitigation of project specific impacts such as noise, vibration, hazardous waste, visual, light, and glare. San Pedro Bay Ports Clean Air Action Plan	TBD	TBD	S, M, L	
	PROJECT SPECIFIC MITIGATION					
	EMISSIONS REDUCTION		\$2,067	\$464	S	
			TBD	TBD	S, M	
RAIL	GRADE SEPARATIONS	<ul style="list-style-type: none"> • Alameda Corridor East (ACE) Grade Separations and Grade Crossings Improvements <i>ACE County subtotals:</i> <ul style="list-style-type: none"> ○ Los Angeles County – San Gabriel Valley ○ Orange County ○ Riverside County ○ San Bernardino County • Gateway Cities BNSF Mainline Grade Separations (on ACE list) 	\$4,450	\$961	S, M	
	MAINLINE CAPACITY ENHANCEMENTS	<ul style="list-style-type: none"> • Rail Capacity Improvements (e.g., additional rail track, Colton Crossing)³ 	\$2,200	\$0	S, M	
	REGIONAL FREIGHT LINKS	<ul style="list-style-type: none"> • Reconnect Santa Paula Branch Rail Line – Port of Hueneme to Santa Clarita 	\$450	\$0	M	
	ON DOCK RAIL	<ul style="list-style-type: none"> • San Pedro Bay Ports Rail Systems 	\$631	TBD	S, M	
				\$1,891	\$343	S, M
				\$731	\$115	S, M
			\$1,048	\$257	S, M	
			\$840	\$168	S, M	
			\$196	\$78	S, M	
INTERMODAL GROUND ACCESS						

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 (Expanded Descriptions for Table 5 in Executive Summary)

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MITIGATION/ MODE/ SYSTEM	PROJECT / STRATEGY	DESCRIPTION	2007 COST ¹ (MILLIONS)	COMMITTED FUNDS (MILLIONS)	TIME FRAME ²
ALTERNATIVE TECHNOLOGY	INTERMODAL YARDS/FACILITIES	<ul style="list-style-type: none"> Ports of Los Angeles/Long Beach Union Pacific Intermodal Container Transfer Facility Modernization⁴ BNSF Port of Los Angeles/Long Beach Near Dock Facility (Southern International Gateway – SCIG)⁴ 	\$300	\$0	S
	INLAND PORT	<ul style="list-style-type: none"> Further investigation of inland port strategy 	TBD	\$0	M
	TRUCK LANES/DEDICATED FREIGHT GUIDEWAY SYSTEM	<ul style="list-style-type: none"> Dedicated Freight Guideway System/Regional Truck Lanes (I-710 From Port of Long Beach to SR-60; East-West Corridor between the I-710 to I-15; and I-15 to Victorville) 	\$18,268	\$35	M, L

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 (Expanded Descriptions for Table 5 in Executive Summary)

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MITIGATION/ MODE/ SYSTEM	PROJECT / STRATEGY	DESCRIPTION	2007 COST ¹ (MILLIONS)	COMMITTED FUNDS (MILLIONS)	TIME FRAME ²
FREEWAY / HIGHWAY	FREIGHT CORRIDOR CAPACITY ENHANCEMENT AND OPERATIONAL IMPROVEMENTS	<ul style="list-style-type: none"> • High Desert Corridor^s (SR-14 to I-15) • Alameda Corridor SR-47 Expressway including Schuyler Heim Bridge Replacement • Replace/Reconstruct Gerald Desmond Bridge • I-710 Early Action Projects <ul style="list-style-type: none"> ○ City of Long Beach – Shoemaker Ave. bridge interchange/PCH interchange/Anaheim St. interchange ○ City of South Gate-Firestone Blvd interchange ○ City of Vernon - Atlantic Blvd/Bandini Blvd ramp reconfiguration • I-5 Truck Lanes <ul style="list-style-type: none"> ○ Southbound from Pico Canyon Rd/Lyons Avenue to Weldon Canyon Road and Northbound From Weldon Canyon Road to Calgrove ○ Southbound from Parker Road to Pico Canyon Road and northbound from Calgrove to Parker Road • SR-86 NAFTA Corridor Interchange Construction (to facilitate grade separation for trucks) • SR-58 Corridor <ul style="list-style-type: none"> ○ Realignment and Widening Project between Hinkley & Barstow ○ Widening project between Kern Co. Line and east of US-395 	<p>\$5,600</p> <p>\$662</p> <p>\$800</p> <p>\$500</p> <p>\$148</p> <p>\$244</p> <p>\$150</p> <p>\$113</p> <p>\$188</p>	<p>\$0</p> <p>\$265</p> <p>\$337</p> <p>\$12</p> <p>\$12</p> <p>\$0</p> <p>\$0</p> <p>\$0</p> <p>\$0</p>	<p>M, L</p> <p>S</p> <p>S</p> <p>S</p> <p>S</p> <p>M</p> <p>M</p> <p>M</p> <p>M</p>

Table 5
MCGMAP Preliminary Regional Goods Movement Projects/Strategies
 (Expanded Descriptions for Table 5 in Executive Summary)

NOTE: REGIONAL AND COUNTY-SPECIFIC LISTS ARE BOTH CONSIDERED TO BE OF EQUAL PRIORITY IN MCGMAP. MODES AND PROJECTS ARE NOT LISTED IN PRIORITY ORDER. ALL PROJECTS WILL REQUIRE FURTHER STUDY PRIOR TO IMPLEMENTATION UNLESS ALREADY COMPLETED.

MITIGATION/ MODE/ SYSTEM	PROJECT / STRATEGY	DESCRIPTION	2007 COST ¹ (MILLIONS)	COMMITTED FUNDS (MILLIONS)	TIME FRAME ²
	BORDER CROSSING IMPROVEMENTS	<ul style="list-style-type: none"> • Access Improvements to the California/Mexico Ports of Entry at Otay Mesa, Otay Mesa East, and Calexico East: <ul style="list-style-type: none"> ○ SR-905: 6-lane freeway and truck route (From I-805 to Otay Mesa Port of Entry) ○ SR-11/Otay Mesa East Port of Entry: 4-lane freeway (From SR-905/125 to Border) and new port of entry ○ SR-78 Brawley Bypass: 4-lane highway (SR-111-SR-78) 	\$848	\$348	S, M
			\$650	\$13	S
			\$201	\$163	S
		TOTAL	\$39,081	\$2,610	

NOTES:

1. All figures includes environmental mitigation costs
2. S=Short-term (2007-2015); M=Mid-term (2015-2025); L=Long-term (post 2025)
3. Project must demonstrate regional public benefit to qualify for public funds
4. Private sector fund sources
5. Requires further analysis west of US-395, private sector primary fund source, with possible exception of short-term project to construct section between Phantom East and I-15 (\$490 million)

Table 6
Preliminary County-Specific Goods Movement System Improvements
 (Expanded Descriptions for Table 6 in Executive Summary)
(NOTE: REGIONAL AND COUNTY-SPECIFIC LISTS ARE BOTH CONSIDERED TO BE OF EQUAL PRIORITY IN MCGMAP. MODES AND PROJECTS ARE NOT LISTED IN PRIORITY ORDER. ALL PROJECTS WILL REQUIRE FURTHER STUDY PRIOR TO IMPLEMENTATION UNLESS ALREADY COMPLETED.)

MODE / SYSTEM	TYPE	COUNTY	DESCRIPTION	2007 COST (IN MILLIONS)	TIME FRAME ¹
RAIL	GRADE SEPARATIONS	VEN	<ul style="list-style-type: none"> Construct Rice Avenue/UP Grade Separation Coast Main Line & Designated Access for Port Hueneme 	\$45	TBD
		VEN	<ul style="list-style-type: none"> Construct Rose Avenue/UP Grade Separation Coast Main Line 	\$45	TBD
		VEN	<ul style="list-style-type: none"> SR-118/Coast Line – Construct Grade Separation 	TBD	TBD
	MAINLINE CAPACITY ENHANCEMENT	LA	<ul style="list-style-type: none"> Nogales Street (LA Subdivision) grade separation project 	\$29	S
		SD	<ul style="list-style-type: none"> Coastal Rail Corridor – Sidings, Passing Track, Rehabilitation, and Shared Use Improvements 	\$1,350	S, M
		SD	<ul style="list-style-type: none"> South Line Rail/Trolley – Sidings, Passing Track, Intermodal Yards to Port of San Diego, Mexico Trade Connectivity, and Coronado Branch Rehabilitation 	\$328	S, M
		LA	<ul style="list-style-type: none"> Relief siding between Lang and Ravenna sidings on the Antelope Valley Line 	\$3	S

Table 6
Preliminary County-Specific Goods Movement System Improvements
 (Expanded Descriptions for Table 6 in Executive Summary)
(NOTE: REGIONAL AND COUNTY-SPECIFIC LISTS ARE BOTH CONSIDERED TO BE OF EQUAL PRIORITY IN MCGMAP. MODES AND PROJECTS ARE NOT LISTED IN PRIORITY ORDER. ALL PROJECTS WILL REQUIRE FURTHER STUDY PRIOR TO IMPLEMENTATION UNLESS ALREADY COMPLETED.)

MODE / SYSTEM	TYPE	COUNTY	DESCRIPTION	2007 COST (IN MILLIONS)	TIME FRAME ¹
		LA	<ul style="list-style-type: none"> Relief siding between Vincent and Lancaster sidings on the Antelope Valley Line 	\$3	S
		LA	<ul style="list-style-type: none"> Upgrade 7 existing sidings on the Antelope Valley Line to 40 mph 	\$9	S
INTERMODAL GROUND ACCESS	INTERMODAL YARDS/ FACILITIES	SBD	<ul style="list-style-type: none"> Build New BNSF Intermodal Yard in Victorville 	TBD	TBD
		LA	<ul style="list-style-type: none"> Shuttle Train Intermodal Service to Inland Empire; Inland Terminal 	\$60	TBD
	MARITIME	SD	<ul style="list-style-type: none"> San Diego Port District Marine Terminal Ground Access 	\$822	S, M
ALTERNATIVE TECHNOLOGY	ITS APPLICATIONS	LA	<ul style="list-style-type: none"> San Pedro ATSAC System in City of Los Angeles - provided ATSAC control of all signalized intersections within the project limits to aid motorists. Use available ITS technology to manage traffic accessing the Vincent Thomas Bridge and provide optimal route information 	\$6	TBD

Table 6
Preliminary County-Specific Goods Movement System Improvements
 (Expanded Descriptions for Table 6 in Executive Summary)

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MODE / SYSTEM	TYPE	COUNTY	DESCRIPTION	2007 COST (IN MILLIONS)	TIME FRAME ¹
		LA	<ul style="list-style-type: none"> Wilmington ATSC System in City of Los Angeles - provided ATSC control of all signalized intersections within the project limits to aid motorists. Use available ITS technology to manage traffic accessing the Vincent Thomas Bridge and provide optimal route information 	\$7	TBD
		LA	<ul style="list-style-type: none"> Transportation Management, Information and Security System 	\$10	TBD
FREEWAY / HIGHWAY	FREIGHT CORRIDOR CAPACITY ENHANCEMENT AND OPERATIONAL IMPROVEMENTS	VEN	<ul style="list-style-type: none"> Reconstruct US 101/Rice Avenue IC 	\$75	M
		LA LA	<ul style="list-style-type: none"> Key Goods Movement Arterial Improvements Reconstruct SR-91/1605 interchange Reconstruct I-605/SR-60 interchange 	TBD \$240 \$1,000	TBD S S

Table 6
Preliminary County-Specific Goods Movement System Improvements
 (Expanded Descriptions for Table 6 in Executive Summary)

(NOTE: REGIONAL AND COUNTY-SPECIFIC LISTS ARE BOTH CONSIDERED TO BE OF EQUAL PRIORITY IN MCGMAP. MODES AND PROJECTS ARE NOT LISTED IN PRIORITY ORDER. ALL PROJECTS WILL REQUIRE FURTHER STUDY PRIOR TO IMPLEMENTATION UNLESS ALREADY COMPLETED.)

MODE / SYSTEM	TYPE	COUNTY	DESCRIPTION	2007 COST (IN MILLIONS)	TIME FRAME ¹
		LA	<ul style="list-style-type: none"> Reconstruct I-605/I-10 interchange Reconstruct SR-60/SR-57 interchange I-110 8th/9th Street Interchange – Add Auxiliary Lanes and Modify/Reconstruct Ramps (Two Projects) 	\$1,000 \$550 \$39	S S TBD
		LA	<ul style="list-style-type: none"> Washington Blvd. Widening and Reconstruction project 	\$14	S
		LA	<ul style="list-style-type: none"> Alameda Street Widening and Reconstruction in Los Angeles (101 Freeway to 7th Street; I-10 to 7th Street) 	\$29	TBD
		LA	<ul style="list-style-type: none"> Seaside Avenue/Ocean Blvd (SR-47) and Navy Way Interchange 	\$43	TBD
		LA	<ul style="list-style-type: none"> I-110 Connector Improvement Program includes: South Wilmington Grade Separation (\$53 M), I-110 Freeway/"C" Street Interchange Improvements (\$22 M), I-110/SR-47 Interchange & John S. Gibson Blvd Intersection/NB I-110 Ramp Access Improvements (\$39 M), SR-47 On-Ramp and Off-Ramp at Front Street (\$20 M) 	\$134	TBD
		OR	<ul style="list-style-type: none"> I-5 From the I-5/SR-22/SR-57 Interchange to SR-91 add a General Purpose Lane in Each Direction 	\$430	M

Table 6
Preliminary County-Specific Goods Movement System Improvements
 (Expanded Descriptions for Table 6 in Executive Summary)

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MODE / SYSTEM	TYPE	COUNTY	DESCRIPTION	2007 COST (IN MILLIONS)	TIME FRAME ¹
		OR	<ul style="list-style-type: none"> I-5 Reconstruct El Toro Interchange to provide separate moves to El Toro Road East and El Toro Road West 	\$120	S
		OR	<ul style="list-style-type: none"> I-5 between SR-55 and the SR-133 (near El Toro "Y") add one general purpose lane in each direction and improve interchanges in the vicinity 	\$319.2	M
		OR	<ul style="list-style-type: none"> I-5 between the vicinity of El Toro "y" to near SR-73 add new lanes in each direction 	\$315	M
		OR	<ul style="list-style-type: none"> I-5 Northbound Extend Existing Truck Bypass Lane From Alicia Parkway to El Toro Road. Add Auxiliary lane where needed. 	\$240	L
		OR	<ul style="list-style-type: none"> I-5 Southbound From Alicia Parkway to the Crown Valley Interchange Lane add a General Purpose Lane 	\$411	M
		OR	<ul style="list-style-type: none"> I-5 Construct new interchange at Crown Valley (Saddleback) and reconstruct interchange at Avery Parkway with collector distributor road between Crown Valley and Avery 	\$260	L
		OR	<ul style="list-style-type: none"> SR-57 Northbound From Lambert Road to the SR-60 Interchange Add Truck Climbing Lane (Orange County Line) 	\$157	M

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Preliminary County-Specific Goods Movement System Improvements
 (Expanded Descriptions for Table 6 in Executive Summary)

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MODE / SYSTEM	TYPE	COUNTY	DESCRIPTION	2007 COST (IN MILLIONS)	TIME FRAME ¹
		OR	<ul style="list-style-type: none"> SR-57 Northbound From Orangethorpe to Lambert Road, Add Auxiliary Lane & 5th Through Lane 	\$140	S
		OR	<ul style="list-style-type: none"> SR-57 in the Northbound Direction Extend General Purpose Lane #5 Between Orangewood and SR-91 and Add Auxiliary Lane Where Needed 	\$190.8	S
		OR	<ul style="list-style-type: none"> SR-91 Westbound From SR-57 to I-5, Add One General Purpose Lane and Add Auxiliary Lane 	\$152	S
		OR	<ul style="list-style-type: none"> SR-91 Westbound- Provide a General Purpose Lane from SR-55 to SR-57 and add Auxiliary Lane 	\$120	M
		OR	<ul style="list-style-type: none"> SR-91 Eastbound Add a Lane between SR-55 (Lakeview and SR-241 and Westbound From SR-241 to Imperial Highway). 		
		OR	<ul style="list-style-type: none"> I-405 from the I-5 to SR-55 add 1 general purpose lane in each direction 	\$96	S
		RIV	<ul style="list-style-type: none"> SR-60/10 Truck Climbing Lane 	\$328.9	L
		RIV	<ul style="list-style-type: none"> SR-60/10 Truck Climbing Lane 	\$50	S
		RIV	<ul style="list-style-type: none"> March ARB/Global Cargo Port Van Buren Interchange Project 	\$75	S
		RIV	<ul style="list-style-type: none"> I-10/SR60 New Interchange Construction 	\$100	L
		SBD	<ul style="list-style-type: none"> I-15 Widening and Devore Interchange (at I-215) Reconstruction 	\$200	S

Table 6
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 (Expanded Descriptions for Table 6 in Executive Summary)

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MODE / SYSTEM	TYPE	COUNTY	DESCRIPTION	2007 COST (IN MILLIONS)	TIME FRAME ¹
		SBD	<ul style="list-style-type: none"> Interstate 10 Widening and Interchange Improvements (LA Co. Line to I-215) 	\$700	S
		SD	<ul style="list-style-type: none"> I-5 Widen/Managed Lanes (From La Jolla Village Dr. to Vandergrift) 	\$962	S
		SD	<ul style="list-style-type: none"> I-15 Widen/Managed Lanes & Operational Improvements (From SR-163 to SR-78) 	\$608	S
		SD	<ul style="list-style-type: none"> I-805 Widen/Managed Lanes (From SR-905 to I-5) 	\$1,801	S
		SD	<ul style="list-style-type: none"> San Diego International Airport Truck Access to I-5 (Truck route/Interchange improvements) 	\$32	M
		SD	<ul style="list-style-type: none"> Pipeline Truck Access (Petroleum Terminal) to I-15 (Truck route/Interchange improvements) 	\$32	M
			TOTAL	\$13,680.9	

NOTES ¹: S=Short-term (2007-2015); M=Mid-term (2015-2025); L=Long-term (post 2025)

**Table 7
Comprehensive List of Goods Movement Projects (INITIAL EVALUATION)**

County	Description	Cost (\$Mill's)
All	Extend Delivery Hours to 24 hours	
All	Evaluate Use of LCVs on Dedicated Facilities	
All	Improve demand forecasts for labor and equipment across all modes	
All	Employ better trade and transportation forecasting	
All	Enact expanded public-private partnership legislation	
All	Enact design-build and design sequencing legislation	
N/A	Increase "destination loading" on ships from the far east	
Los Angeles County		
LA	Reconfiguration of Control Point (CP) Mole including computerized train control	\$20.0
LA	Pier B Street Rail Yard and ICTF	\$257.9
LA	New Three-track Cerritos Channel rail bridge	\$91.0
LA	Mainline improvements within LA/LB Harbor District	\$184.7
LA	Construct BNSF "Southern California International Gateway" Near Dock Facility	\$200.0
LA	Modernization of UP Near Dock Intermodal Container Transfer Facility (ICTF)	\$300.0
LA	Triple track s/o Thenard	\$16.5
LA	Continue PierPass program at the San Pedro Bay ports and eventually extend to 24-hour operations when warranted.	
LA	I-5 SR-14 to Calgrove Ave. truck lanes	\$50.0
LA	I-5 from Calgrove Ave. to SR-126 West truck lanes	\$100.0
LA	I-5 from SR-126 West to Kern County line truck lanes	\$366.0
LA	I-710 Corridor from Port of Long Beach/Los Angeles to SR-60 - User Fee-Backed Capacity Improvement.	\$7,000.0
LA	Reeves Avenue closure and grade separation (other port area grade separations included in I-110 Connectors Program)	\$61.0
LA	POLA/POLB Advanced Transportation Management, Information, and Security (ATMIS) System	\$15.0
LA	Replace/ Reconstruct Gerald Desmond Bridge.	\$800.5
LA	SR-47 Expressway including Commodore Heim Bridge Replacement	\$557.0
LA	Expansion of I-5 from I-605 to Orange County Line	\$1,150
LA	I-710 from I-10 to Huntington Dr - Construct 3 MF lanes each dir.	\$300.0
LA	I-710 from Huntington Dr to I-210 - Construct 3 MF lanes each dir.	\$450.0
LA	I-110 8th / 9th Street Interchange - Add auxiliary lanes and modify / reconstruct ramps (two projects)	\$39.0
LA	I-405: La Tijera Blvd to Jefferson Blvd, Add Auxiliary Lane	\$39.0
LA	I-5 Orange County Line to I-605, Widen for HOV and Mixed Flow lanes.	\$163.0
LA	I-710 Early Action Project - City of Long Beach – Shoemaker Ave. bridge interchange/PCH interchange/Anaheim St. interchange (bridge replacement and ramp reconfigurations)	\$500.0 Total of (3) I-710 Early Action Projects
LA	I-710 Early Action Project - City of South Gate – Firestone Blvd. interchange (bridge widening & ramp reconfiguration)	
LA	I-710 Early Action Project - City of Vernon – Atlantic Blvd./Bandini Blvd. (ramp reconfiguration)	
LA	I-5 Carmenita Road interchange	\$250.0

**Table 7
Comprehensive List of Goods Movement Projects (INITIAL EVALUATION)**

County	Description	Cost (\$Mill's)
LA	I-110 Connector Improvement Programs (Fries Ave. grade separation - \$53 million; I-110/SR-47/Harbor Blvd. Interchange improvement program - \$17 million; C St/I-110 access ramp - \$30 million; John S. Gibson intersection & NB ramp - \$18 million; SR-47 on and off ramp - \$17 million; I-110 ramp at Miraflores & Gaffey St/SR-47 - \$31 million; Broad Ave. grade separation - \$18 million)	\$184.0
LA	Seaside Ave & Navy Way Interchange	\$40.0
LA	Reconstruct SR- 91 / I-605 Interchange	\$240.0
LA	Reconstruct SR- 60 / I-605 Interchange	\$1,000.0
LA	Reconstruct I-10 / I-605 Interchange	\$1,000.0
LA	Reconstruct I-105 / I-605 Interchange	\$500.0
LA	Develop chassis pools	
LA	Improve communications (including electronic data interchange) and planning among terminals, steamship lines and railroads to increase efficiency of on-dock rail movements.	
LA	Implement incentives to limit container dwell time	
LA	Establish port-wide terminal appointment systems for truckers	
Los Angeles / Multi-County		
LA/SB	East-West Corridor from I-710 Corridor to I-10/SR-60 Interchange	
LA/SB/ RC	Shuttle train intermodal service to Inland Empire, Inland Terminal	\$60.0
LA/SB/ RC	Evaluation of Alternative Rail Technologies	\$5.0
LA/SB/ RC/OC	Triple track BNSF Transcon; double track two UPRR corridors: LA to San Bernardino	\$2,300.0
LA/SB/ RC/OC	Alameda Corridor-East Trade Corridor Grade Separations	\$3,456.0
LA/SB/ RC/OC	Implement virtual container yards	
Orange County		
OC	SR-57 add a lane northbound from Lambert Road to Los Angeles County Line. Includes ITS components.	\$157.0
OC	SR-91 Truck Storage Lane between Weir Canyon and Imperial. Include ITS components.	
OC	I-5 Improvements SR-55 to SR-57	
OC	SR-91 - Add 5th GP lane in each direction between SR-55 and SR-241	\$135.0
OC	SR-91 EB/WB from Truck scales - Add storage lane at truck weigh in motion station between Weir Canyon and Imperial Hwy. Includes ITS components.	\$11.0
OC	SR-91 westbound from SR-57 to I-5, connect auxiliary lane. Includes ITS components.	\$72.00
OC	I-5, IC/Ramp modifications (acceleration lanes) at various locations on all routes to accommodate trucks. Include ITS components.	\$130.0
OC	I-5, At Crown Valley Parkway Ramp Improvements for SB Off-Ramp. Include ITS components.	\$10.5
OC	I-5, Re-construct southbound on-ramp and off-ramp at Alton Pkwy. Include ITS components.	\$2.7
OC	I-5 Add aux lane from Oso to Crown Valley and widen off-ramp. Include ITS components.	
OC	I-5 Reconstruct northbound on-ramps, construct SB auxiliary lanes and widen arterial at Oso Parkway. Include ITS components.	
OC	I-5 Extend Aux lane between La Paz and Oso Parkway. Include ITS components.	

**Table 7
Comprehensive List of Goods Movement Projects (INITIAL EVALUATION)**

County	Description	Cost (\$Mill's)
OC	I-5 From Alicia Parkway through El Toro Road extend auxiliary lane through interchange. Include ITS components.	
OC	I-5 Construct auxiliary lane from the Collector Distributor Rd to Bake Pkwy off-ramp to provide two lane off-ramp. Include ITS components.	
OC	I-5 Construct auxiliary lane between the Collector Distributor Rd and Alton Pkwy off-ramp. Include ITS components.	
OC	I-5, Construct auxiliary lane and add 2nd off-ramp lane from SB I-5/133 Branch Connector to Barranca Pkwy. Include ITS components.	
OC	I-5 Construct 2nd auxiliary lane and widen off-ramp at Jamboree Road. Include ITS components.	
OC	I-5 Widen arterial eastbound and northbound loop-on-ramp at Jamboree Road. Include ITS components.	
OC	I-5, Reconstruct Avenida Pico Interchange and widen arterial. Include ITS components.	
OC	I-5, Avenida Pico to Camino Las Ramblas add 1 general purpose lane. Include ITS components.	
OC	I-5, Mainline curve correction between Stonehill and SR-1. Include ITS components.	
OC	I-5, New SB off-ramp at Stonehill. Include ITS components.	
OC	I-5, Reconstruct the Interchange at Ortega Hwy (SR-74). Include ITS components.	
OC	I-5, Reconstruct the Interchange at Junipero Serra and widen arterial. Include ITS components.	
OC	I-5, Crown Valley/Avery Interchange Improvements /I-5 Connectors and Collector/Distributor Road. Include ITS components.	
OC	I-5, Reconstruct the Interchange at Avery Pkwy and widen arterial. Include ITS components.	
OC	I-5, Reconstruct the Interchange at La Paz Road and widen arterial. Include ITS components.	
OC	Add NB On & SB off ramps at Los Alisos (Alt #1) or SB On and Off Ramps from Avenida De La Carlota (Alt #2). Include ITS components.	
OC	I-5, Construct two-lane branch connector and extend # 6 general-purpose lane from SR-133 on to Culver Drive NB on-ramp. Include ITS components.	
OC	Sand Canyon Avenue to Jeffrey Rd Add sixth NB and SB general purpose lanes and add a second drop lane from I-5 to the SB off-ramp at Sand Canyon. Include ITS components.	
OC	I-5, Jeffrey Road and Walnut Avenue I-5 SB ramps Add eastbound shared second through lane/second right turn lane. Include ITS components.	
OC	I-5, Interchange improvement between 4th street off-ramp to north and Newport Avenue to South on the I-5, and 4th Street to the north and Edinger Avenue to the south on the SR-55. Include ITS components.	
OC	On I-5 from SR-57 to SR-91 add additional lane in each directions	
OC	I-5, SR-57/SR-22 Interchange to the SR-91: Add additional two lanes. Include ITS components.	
OC	SR-39, Widen highway under freeway from three to four lanes SR-39 / I-405 Interchange. Include ITS components.	
OC	SR-55 from SR22 to SR91 add one lane and aux lane. Include ITS components.	
OC	SR-55 19th Street to SR73 add auxiliary lanes. Include ITS components.	
OC	SR-55 Construct Aux Lane SB from Dyer to Edinger in the City of Santa Ana. Include ITS components.	
OC	SR-55 Construct Aux Lane NB from Dyer to Edinger in the City of Santa Ana. Include ITS components.	

**Table 7
Comprehensive List of Goods Movement Projects (INITIAL EVALUATION)**

County	Description	Cost (\$Mill's)
OC	SR-55, I-5 to SR22 add aux lanes. Include ITS components.	
OC	SR-57, SR90 to County line add 1 general purpose and aux lane. Include ITS components.	
OC	SR-57, SR22 to SR91 add 1 general purpose and aux lanes. Include ITS components.	
OC	SR-57, At SR-91 add 4th general purpose lane. Include ITS components.	
OC	SR-57, Interchange improvement at Imperial Highway. Include ITS components.	
OC	SR-57, Add northbound lane from 0.3 miles south of Katella Avenue to 0.3 miles north of Lincoln Avenue. Include ITS components.	
OC	SR-57 Add Northbound lane from 0.4 miles North of SR-91 to 0.1 miles North of Lambert Road Interchange Include ITS components.	
OC	SR-91, Reconstruct interchange extend existing auxiliary lane to tie into existing on-ramp between SR-55 Connector and Tustin Avenue Interchange. Include ITS components.	
OC	SR-91, Add general purpose lane from SR-55 to Riverside Co. line. Include ITS components.	
OC	SR-91, Add a lane in each direction eastbound between SR-55/SR-91 Connector to east of Weir Canon Road and westbound between east of Weir Canyon Road and Imperial Highway	
OC	SR-91, Construct WB 91 to SB 55 connector flyover. Include ITS components.	
OC	SR-91, Auxiliary lane between Lakeview Avenue to SR-241. Include ITS components.	
OC	SR-91, Lakeview interchange construct barrier-separated onramp (2 lanes) from SB Lakeview to WB SR-91. Include ITS components.	
OC	SR-91, Lakeview interchange construct barrier-separated onramp (2 lanes) from SB Lakeview to WB SR-91. Include ITS components.	
OC	SR-91, Relocation of Weigh Stations in both directions. Include ITS components.	
OC	SR-91. SR-241 to SR-71 add auxiliary lanes. Include ITS components.	
OC	SR-91, Add auxiliary lane from SR-71 to SR-241. Include ITS components.	
OC	SR-133: Widen from Lake Forest Drive to I-405 from 4 to 6 lanes. Include ITS components.	
OC	SR-133: I-405 to I-5 add 1 general purpose lane and aux lanes. Include ITS components.	
OC	I-405, Sand Canyon Ave SB off-ramp add second drop lane from I-405 to the off-ramp. Include ITS components.	\$3.0
OC	I-405, Widen on-ramp from 2-lane to 3-lane at WB Culver Dr. Include ITS components.	\$2.7
OC	I-405, Modify ramp and widen intersection at ramp entrance at Euclid. Include ITS components.	\$4.0
OC	I-405, Modify ramp and add 2nd NB off ramp at Talbert interchange in Fountain Valley. Include ITS components.	\$3.1
OC	I-405: Add auxiliary lane from SR-133 to Irvine Center Drive. Include ITS components.	
OC	I-405: Construct Sand Cyn SB on-ramp with an auxiliary lane to the SR-133 Collector Distributor Road. Include ITS components.	
OC	I-405, Construct auxiliary lane between Jeffrey Road On-Ramp & Sand Canyon. Include ITS components.	
OC	I-405, Add Aux lane from Jeffery on-ramp to Culver Dr. off-ramp. Include ITS components.	
OC	I-405, Jeffrey Rd NB off ramp Add second auxiliary lane from I-405 to off-ramp. Include ITS components.	
OC	I-405, SR55 to SR73 add aux lanes. Include ITS components.	
OC	I-405, Construct aux lane from Talbert to Ellis/Euclid in the City of Fountain Valley. Include ITS components.	
OC	I-405, Construct aux lane from Euclid to Brookhurst in the City of Fountain Valley. Include ITS components.	

**Table 7
Comprehensive List of Goods Movement Projects (INITIAL EVALUATION)**

County	Description	Cost (\$Mill's)
OC	I-405, Construct NB auxiliary lanes from Brookhurst to Beach in the City of Fountain Valley. Include ITS components.	
OC	I-405, Construct SB Auxiliary lanes from Magnolia to Brookhurst in the City of Fountain Valley. Include ITS components.	
OC	I-405: Widen and extend collector distributor road southerly to serve both SR-133 and Irvine Center Drive. Include ITS components.	
OC	I-405: Braid the SR-133 Connector with NB Sand Canyon Ave. Include ITS components.	
OC	I-405: SR-133 to SR-55, add 1 general purpose lane and auxiliary lanes. Include ITS components.	
OC	I-405: Reconstruct SB 405 connector to SR-133, braid with NB off-ramp from SR-133 to Barranca Parkway. Include ITS components.	
OC	I-405: Modify the Interchange to widen the Sand Canyon Rd. Include ITS components.	
OC	I-405: Construct collector distributor SB I-405 from Jeffrey Road to Sand Canyon. Include ITS components.	
OC	I-405: South Bristol Braid delete left turn access from NB Bristol to SB I-405. Provide right turn on-ramp from NB Bristol to SB I-405 via a new braid that provides direct access to NB SR-55. Include ITS components.	
OC	I-405: Add a general purpose lane and auxiliary lanes in each direction. Include ITS components	
OC	I-605, Intersection Modification & ramp entrance Katella Ave on ramp to NB I-605. Include ITS components.	\$2.0
OC	I-605, Modify ramp at Katella. Include ITS components.	\$2.0
OC	I-605 to County line add 1 general purpose lane. Include ITS components.	
Riverside County		
RC	I-10 from San Bernardino County Line (R0.0) to Banning City Limits (12.9) - Add eastbound truck climbing lane.	\$75.0
RC	On I-10 at & E/O Apache Trail - Construct new Morongo Pkwy IC (4 Ins, ramps - 2 Ins), construct aux lane, widen Apache Trail 3 to 5 Ins, widen Seminole Dr 2 to 5 Ins (ea: oa650g)	
RC	On I-10 near Rancho Mirage from 1.5 km east to 0.9 km west of Ramon Rd IC - Construct Bob Hope Dr extension (6 lanes) with a new diamond IC plus modify Ramon Rd IC and ramps	
RC	I-10 from Calimesa @ County Line Rd (R4.0) to 500 meters e/o Sandalwood Dr I/C (R4.3) - Replace Bridge, Ramps, Construct Auxiliary Lanes, and Realign Calimesa Rd (EA 0A710K).	\$60.0
RC	I-10 at Ave 50 - Construct new interchange .	\$19.5
RC	I-10 McNaughton Pkwy (approx. 3.38 mi e/o Dillon Rd) - Construct interchange.	\$20.0
RC	I-10 at Portola Ave btwn Dinah Shore & Varner - Construct new IC (4 lanes) and ramps incl. bridge over UPRR & Varner realignment.	\$19.8
RC	I-10 at Monterey Ave - Reconfigure IC, add 1 NB lane, construct new WB entry loop ramp from Monterey & WB entry ramp from Varner, realign/relocate WB exit ramp.	\$4.3
RC	At I-15/Weirick Road IC in Corona - Widen ramps 1 to 2 lanes, widen Weirick Road 2 to 4 lanes from Temescal Canyon Rd to I-15, and install signals at ramps/Weirick Rd	
RC	i-15/cajalco road, widen Cajalco Rd i/c widen 2 to 4 Ins from Temescal Cyn rd to Bedford Cyn rd and widen ramps 1 to 2 lanes.	
RC	At I-15/El Cerrito Rd IC in Corona - Widen on/off ramps 1 to 2 lanes, widen 2 to 4 lanes El Cerrito Rd between ramps, install signals, realign Bedford Cyn Rd and add soundwalls	

**Table 7
Comprehensive List of Goods Movement Projects (INITIAL EVALUATION)**

County	Description	Cost (\$Mill's)
RC	on i-15 at Ontario Ave, widen sb off & nb on ramps 2 to 3 lns, & widen Ontario 4 to 6 lns (Compton Ave to State St) & install signals	
RC	In Riverside County at i-15/Limonite Ave IC - widen ic 4 to 6 lns, ramps 1 to 2 lns, & widen Limonite Ave from Hamner to Wineville 4 to 6 lns (approx 1 mi)	
RC	At I-15 and Clinton Keith Road widen overcrossing from 2 to 4 lns and widen ramps from 1 to 2 lns	
RC	SR-86 S at Ave 50 - Construct interchange.	\$9.3
RC	SR-86 S at Ave 52 btwn La Hernandez and Polk - Construct new interchange.	\$19.7
RC	SR-86 at Ave 54 btwn SR-111 & Fillmore - Construct bridge/interchange w new SR-86.	\$11.2
RC	SR-86 S at Airport Blvd/Ave 56 btwn Orange & Fillmore - Construct new interchange (Spread-Diamond).	\$17.8
RC	SR-86S/Airport Blvd. (Ave. 56) construct new IC (three lanes OC:1 lane each direction + 1 median lane) and ramps (1 lane) from approx. Desert Cactus Dr. Ave. 57	\$27.8
RC	SR-86 S at SR-195 (Avenue 66) R10.63/R11.43 - Near Mecca, construct new interchange.	\$19.4
RC	SR-86 S Tyler St w/o SR-86S Tyler St e/o SR-86S - Construct new interchange.	\$19.0
RC	SR-60 at Etiwanda Ave btwn San Sevaine Wy & Iberia St - Widen ramps 1 to 2 lanes. 0.1 mi..	\$0.2
RC	SR-60 from 0.4 mi e/o I-15/SR-60 IC to 0.2 mi e/o Main St - Add auxiliary lanes both directions.	\$5.0
RC	On I-10 at Indian Ave near Palm Springs - Widen overcrossing 2 to 6 lns from 20th Ave North of I-10 & Garnet ave South of I-10 & ramps 1 to 2 lns (tea21-#377) (ea# 45570)	
RC	On I-10 at Date Palm IC in Cathedral City - Widen overcrossing from 2 to 6 lns and ramps from 1 to 2 lns	
RC	At I-10 and Jefferson St IC, modify/widen existing IC from 2 to 6 lanes	
RC	I-10 from Monterey Ave (44.5) to Dillon Rd (58.9) - Add 1 MF lane each direction (EA 0A030K).	\$71.0
RC	I-10/SR-60 - Construct new interchange.	\$129.0
RC	SR-60 - Construct truck climbing lane through Badlands to I-10	\$26
RC	SR-60 at Milliken Ave btwn Etiwanda Ave & Wineville Rd - Widen ramps 1 to 2 lanes. 0.1 mi..	\$0.1
San Bernardino County		
SB	I-15 from Wheaton Springs-Baily Road to Yates Well Road - construct NB truck descending lane	
SB	Colton Crossing BNSF/UP rail grade separation	\$280.0
SB	I-10 and I-215 from On I-10 from 0.1 km w/o I-215 (PM 23.6) to 0.9km e/o SR-38 (PM 31.4) to On I-215 from Riverside County Line (PM 0.0) to Jct I-10/I-215 (PM 4.03) - Install Fiber Optic Communications (FOC) backbone system, Changeable message signs (CMS), Ramp metering stations (RMS), modify existing communication hub, CCTV, VDS, TOS Cabinets; widen on-ramps on I-10 and I-215; add aux lanes on I-10 (various locations).	\$9.5
SB	I-10 from 0.1 km e/o I-15 (PM 9.9) to 0.4 km e/o I-215 (PM R24.5) - Install RMS, CCTV ESU; widen entrance ramps from 1 to 2 lanes at: EB & WB at Cherry Ave, Citrus Ave, Cedar Ave, Riverside Ave and Mt Vernon Ave; WB at Rancho Ave; EB at 9th St.	\$9.2
SB	I-10 - Add auxiliary lanes from I-15 to Riverside Co. line	
SB	I-10 from 0.8 km e/o Etiwanda Ave OC (PM 11.6) to 1.5 km w/o Riverside Ave OC (PM 19.1) - In Fontana widen exit ramps from 1 to 2 lanes at Cherry Ave, Citrus Ave, & Cedar Ave IC to accommodate proposed aux lanes at Cherry Ave IC E/B aux lane PM 11.99/12.85, W/B Aux lane PM 13.38/13.68; Citrus Ave IC E/B aux lane only PM 14.58/14.88; Cedar Ave IC E/B aux lane PM 17.36/17.83, W/B aux lane PM 18.94/19.41.	\$19.0
SB	I-10 WB from Yucaipa Bl to Ford St - Add 1 MF lane westbound.	\$30.0

**Table 7
Comprehensive List of Goods Movement Projects (INITIAL EVALUATION)**

County	Description	Cost (\$Mill's)
SB	SR-60 from Ramona Ave. to I-15 - add auxiliary lanes	\$71.0
SB	I-15 - Rt 60 to I-10 Widen Freeway	\$100.0
SB	I-15/I-215 Devore interchange	\$200.0
SB	SR-60 / Ramona interchange	\$26.0
SB	SR-60 / Euclid interchange	\$5.0
SB	SR-60 / Grove interchange	\$43.0
SB	SR-60 / Vineyard interchange	\$43.0
SB	SR-60 / Archibald interchange	\$6.0
SB	I-10 / Monte Vista interchange	\$25.0
SB	I-10 / Grove/4th interchange	\$67.0
SB	I-10 / Cherry interchange	\$43.0
SB	I-10 / Beech interchange	\$40.0
SB	I-10 / Citrus interchange	\$47.0
SB	I-10 / Cedar interchange	\$33.0
SB	I-10 / Riverside interchange	\$50.0
SB	I-10 / Pepper interchange	\$33.0
SB	I-10 / Mt. Vernon interchange	\$31.0
SB	I-10 / Tippecanoe interchange	\$50.0
SB	I-10 / Mt. View interchange	\$50.0
SB	I-10 / California interchange	\$43.0
SB	I-10 / Alabama interchange	\$26.0
SB	I-15 / 6th/Arrow interchange	\$36.0
SB	I-15 / Joshua interchange	\$1.0
SB	I-15 / Bear Valley interchange	\$20.0
SB	I-15 / La Mesa-Nisqualli interchange	\$72.0
SB	I-15/High Desert Corridor interchange	\$74.0
SB	I-215 / University interchange	\$29.0
SB	I-215 / Pep/Lind interchange	\$50.0
SB	I-215 / Palm interchange	\$10.0
SB	SR-210 / 5th interchange	\$17.0
SB	SR-58 PM 21.8/31.0 Near Hinkley from 1.4 miles /wo Valley View Rd. to 0.Kern Co. Line to 7.5 miles E/O JCT US-395. Construct 4 lane expressway. (2-4 lanes) (Phase 2)	\$93.0
SB	SR-58 PM 0.0/12.9 Kern Co. Line to 7.5 miles E/O JCT US-395. Construct 4 lane expressway.	\$152.0
SB	US-395 from Adelanto to I-15 - realign on new route to carry trucks and through traffic	\$670.0
SB	High Desert Corridor - Construct new roadway between Antelope Valley and Victor Valley (First phase from 1 Mi. W/O US-395 to SR-18 in Apple Valley - costs for first phase only)	\$900.0
SB	I-15 at Foothill Blvd (SR-66) - Add 400m deceleration lane on NB I-15 and widen NB off-ramp from 1 to 2 lanes.	\$0.7
SB	Southern California Logistics Airport Track and intermodal yard improvements	\$278.5
San Bernardino / Riverside County		
SB/RV	Electronic Clearance/Pre Pass Program for Inland Empire ITS	\$2.0
San Diego County		
SD	San Diego Yard Improvements (Port, Airport, Border Region)	\$2,112.9

**Table 7
Comprehensive List of Goods Movement Projects (INITIAL EVALUATION)**

County	Description	Cost (\$Mill's)
SD	San Diego Mainline Rail Improvements	\$1,929.6
SD	I-5, Widen I-805 to SR56	\$180.0
SD	I-5, Widen/ML La Jolla Vil. to Vandergrift	\$962.0
SD	I-805, Widen/ML SR905 to SR54	\$469.0
SD	I-805, Widen/ML SR54 to I-8	\$555.0
SD	I-805, Widen/ML, I-8 to I-5	\$469.0
SD	I-805, Widen/ML Mission Valley Viaduct	\$308.0
SD	SR125, SR905 to San Miguel RD	\$635.0
SD	SR125, San Miguel Rd to SR54	\$140.0
SD	SR52, Widen SR125 to SR67	\$446.0
SD	SR52, I-805 to SR125	\$241.0
SD	I-15, Widen/HOV SR94 to SR163	\$247.0
SD	SR54/125, Widen/HOV I805 to SR94	\$111.0
SD	SR125, Tele Canyon to San Miguel Rd	\$37.0
SD	SR125, San Miguel Rd to SR 54	\$37.0
SD	SR94, Widen/HOV	\$190.0
SD	TAMT/NCMT Ground Access Improv. 1	\$2.4
SD	Lindbergh Field to I-5 Access	\$31.6
SD	SR 905, Siempre Viva Interchange	\$29.0
SD	SR905, I-805 to Mexico Border	\$423.0
SD	SR905, Otay Mesa POE Truck Route	\$42.0
SD	SR-11, 4F SR905 to Mexico	\$234.0
SD	East Otay Mesa Border Crossing	\$750.0
SD	KM MV Terminal to I-15 Access	\$31.6
SD	I-15 Improvements - SR-52 to Lake Hodges	\$83.0
SD	I-15, Widen/ML SR56 to Ctr City Pkwy	\$422.0
SD	I-15 Widen/ML, SR163 to SR56	\$342.0
SD	I-15 Widen/ML, Ctr City Pkwy to SR78	\$183.0
SD	I-5, SR54 to Sea World Drive	\$210.0
SD	I-5/I-805 HOV/ML Connectors	\$222.0
SD	I-15 Improvement, SR52 - SR78	\$19.0
SD	I-15/SR94, S/W-E/N Connectors	\$185.0
SD	SR94, Widen/HOV I-5 to I-15	\$99.0
SD	SR94/SR125 W/N-S/E Connectors	\$136.0
SD	TAMT/NCMT Ground Access Design	\$1.2
San Diego / Multi-County		
SD/RC/ SB	I-15 (U.S./Mexico Border to Victorville) dedicated truck lanes (2 lanes in each direction)	
Ventura County		
VC	Port/rail intermodal access at Port of Hueneme	\$18.0
VC	Santa Paula Branch Line from Santa Clarita to Port Hueneme	\$350.0
VC	Port Terminal - Hueneme Rd (Port to Los Pasos), Los Pasos (Hueneme to US 101)	

**Table 7
Comprehensive List of Goods Movement Projects (INITIAL EVALUATION)**

County	Description	Cost (\$Mill's)
VC	Port Terminal - Ventura Rd (Hueneme to Channel Island), channel Island Blvd (Ventura to Victoria), Victoria Ave (Channel Island to US Port Terminal - Ventura Rd (Hueneme to Channel Island), channel Island Blvd (Ventura to Victoria), Victoria Ave (Channel Island to US 101)	
Imperial County		
IC	SR-78/Brawley bypass	\$108.0

**Table 8
Roles and Responsibilities**

ACTION DESCRIPTION(S)	RESPONSIBLE AGENCIES	TIME FRAME ¹	GOAL/OBJECTIVE	MARKET SEGMENT	COST	FUNDING STRATEGIES & CHALLENGES
ACTION SET 1: ACCELERATE ENVIRONMENTAL MITIGATION						
1.1. Fund and implement the SIP (including San Pedro Bay Ports CAAP, 2007 SCAQMP, and statewide GMAP)	Respective environmental agencies	I, C	Reduce air quality impacts of goods movement	All goods movement vehicles (truck, rail, intermodal equipment, ships)	\$2B for the CAAP	State General Obligation Bonds (potential source), secure greater share of Federal and state funding and work with San Pedro Bay ports to negotiate funding plan with private sector
1.2. Develop guidelines for local jurisdictions to use in siting and designing goods movement related land uses and facilities	MCGMAP partners (in cooperation w/ local agencies)	I	Minimize adverse impact between goods movement & local communities to balance impacts with economic opportunities	All goods movement projects	TBD	Use the Goods Movement Environmental Justice Grant to initiate process and identify potential fund sources
1.3. Accelerate broad regional environmental mitigation strategies	County Commissions, MPO, state and federal agencies; private industry	S, M	Reduce emissions and improve public health	All goods movement vehicles (truck, rail, intermodal equipment, ships)	TBD	Moderate/high opportunity for regional fair share and private sector funding
1.4. Initiate a follow-on effort to identify more aggressive goods movement environmental initiatives to achieve regional air quality conformity and complement the State Implementation Plan	MCGMAP partners	I	Full implementation of current proposals is will not achieve conformity	All goods movement projects	TBD	Use discretionary planning funds to conduct research The challenge will be lack of understanding of new innovative solutions
1.5. Accelerate regional emission reduction measures and strategies	County Commissions, MPO, state and federal agencies	S	Reduce emissions and improve public health	All goods movement projects	TBD	Moderate/high opportunity for regional fair share and private sector funding

Table 8
Roles and Responsibilities

ACTION DESCRIPTION(S)	RESPONSIBLE AGENCIES	TIME FRAME ¹	GOAL/OBJECTIVE	MARKET SEGMENT	COST	FUNDING STRATEGIES & CHALLENGES
1.6. Accelerate project specific environmental mitigation strategies	Project sponsors/owners	S,M,L	Reduce localized/community impacts	All goods movement projects	TBD	Moderate/high opportunity for regional fair share and private sector funding
ACTION SET 2: RELIEVE CONGESTION AND IMPROVE MOBILITY						
2.1. Fund and implement the use of on-dock rail and near-dock as needed	Ports and railroads	I, C as needed	Reduce truck traffic volumes, congestion, and emissions for port communities	Regional, national intermodal markets	\$631M on-dock SCIG \$500M near-dock ICTF	Private sector implementation and funding. Near-dock fully funded by industry. Significant funding shortfall for on-dock improvements (61% funding gap, assuming 39% from TCIF). The challenge is limited available acreage due to many competing operations at the ports
2.2. Increase Intermodal Lift Capacity	Ports and railroads	S	Reduce congestion and emissions	Regional, national intermodal markets	TBD	High opportunity for negotiated project fee
2.3. Participate with railroads to eliminate key bottlenecks and increase capacity of mainline rail system - Mainline Rail Plan (MLRP)	County Commissions, Metrolink, Class I railroads	S, and as needed	Increase regional passenger & freight rail service and reduce vehicular traffic	Regional, national intermodal markets	\$2.1B for MLRP; \$280M for Colton Xing	Secure more Federal and state funding. Significant funding shortfall – 100% gap for both. TCIF-potential source for additional 20% for each. Potential private sector and railroads participation.
2.4. Increase Mainline Rail Capacity	Railroads and rail agencies	S	Reduce congestion and emissions	Regional, national intermodal markets	TBD	High opportunity for private sector funding

Table 8
Roles and Responsibilities

ACTION DESCRIPTION(S)	RESPONSIBLE AGENCIES	TIME FRAME ¹	GOAL/OBJECTIVE	MARKET SEGMENT	COST	FUNDING STRATEGIES & CHALLENGES
2.5. Develop framework to provide ongoing improvements to mainline track. (e. g. Colton grade separation, highway-rail grade separations, locomotive emission reductions, and other rail corridor related mitigations)	Railroads/rail agencies and State, regional or local agencies	S	Reduce congestion and emissions	Regional, national intermodal markets	TBD	High opportunity for private sector funding (increased contributions)
2.6. Implement the multi-county Alameda Corridor East (ACE) Trade Corridor railroad grade crossing improvement program	County commissions	I, C as funding comes available	Reduce the congestion, emissions, and the impact of regional rail movements on local communities	Local communities	\$4.3B	Secure greater share of Federal and state funding. Significant funding shortfall – 86% gap. TCIF a potential source for additional 20%.
2.7. Grade Separation	County commissions	S,M,L	Reduce congestion and emissions	Local communities	TBD	High opportunity for regional fair share; low for private sector funding

Table 8
Roles and Responsibilities

ACTION DESCRIPTION(S)	RESPONSIBLE AGENCIES	TIME FRAME ¹	GOAL/OBJECTIVE	MARKET SEGMENT	COST	FUNDING STRATEGIES & CHALLENGES
2.8. Implement high-priority freeway capacity and safety operational improvement projects included in county transportation plans. (e.g., Gerald Desmond Bridge, I-710...)	County commissions and state agencies; ports	I, C as funding comes available	Improve mobility, operations and safety	Local, regional and transload markets	\$1.531 B, excl. I-710 & High Desert corridor	Work with the San Pedro Bay ports to negotiate a fair-share funding plan with shippers. Significant funding shortfall (52% gap). Industry user fee and TCIF a potential source.
2.9. Initiate RSTIS to evaluate the feasibility of a dedicated freight guideway on east-west corridor bounded by I-710, SR-60, I-10, and I-15, from SR-60 to U.S.-395	MCGMAP partners	S	Reduce congestion, emissions, and impact of truck related traffic relative to other East/West corridors and for the specific factors analyzed. This corridor has the least impact on schools and the greatest revenue potential	Local, regional and transload markets	\$4-5M for study	Discretionary planning fund The challenge is the community acceptance of a dedicated freight guideway and filling the funding gap to implement it – only 20% available through traditional tolling methods
2.10. Implement key highway projects	County commissions and state agencies; ports	S, M	Congestion reduction, truck trip reduction, air quality improvement	Local, regional and transload markets	TBD	Moderate/high opportunity for regional fair share and private sector funding
2.11. Continue planning of I-710 dedicated freight guideway facility Or is it the EIR and EIS	LA County agencies (Metro, Caltrans, SCAG, Gateway COG)	S	Congestion reduction, truck trip reduction, air quality improvement	Local, regional and transload markets	\$5.5B	Moderate/high opportunity for regional fair share and private sector funding

Table 8
Roles and Responsibilities

ACTION DESCRIPTION(S)	RESPONSIBLE AGENCIES	TIME FRAME ¹	GOAL/OBJECTIVE	MARKET SEGMENT	COST	FUNDING STRATEGIES & CHALLENGES
2.12. Develop inland port / concentrate inland warehouse and distribution locations	County and City planning agencies	S, M	Reduce trucks; improve air quality; minimize community impacts	Local, regional and transload markets	TBD	Moderate/high opportunity for development impact fee
2.13. Improve highway system	County commissions and state agencies	S, M, L	Promote safe and efficient mobility for all users	All goods movement market segments	TBD	Low opportunity for negotiated fair share
2.14. Increase Border Trade Capacity and Efficiency	Project sponsors, County Transportation Commissions, U.S. Customs and Border Protection	S	Reduce congestion and emissions	Regional, national, and international markets	\$1.5B	Moderate / high opportunity for regional fair share and private sector funding
ACTION SET 3: IMPROVE OPERATIONAL EFFICIENCY						
3.1. Implement efficiency improvements contained in the San Pedro Bay Ports Master Plans.	Ports and port tenants	I, C in step with new innovations and approaches	Minimize community impacts and accommodate trade	International container market	TBD	Private sector implementation and funding The challenge is institutional barriers...
3.2. Improve terminal productivity, truck turn times, and intermodal operations	Ports, railroads, intermodal terminal operators	S	Improve operations, increase mobility and reduce emissions	International container market	TBD	Moderate/high opportunity for private sector funding

Table 8
Roles and Responsibilities

ACTION DESCRIPTION(S)	RESPONSIBLE AGENCIES	TIME FRAME ¹	GOAL/OBJECTIVE	MARKET SEGMENT	COST	FUNDING STRATEGIES & CHALLENGES
3.3. Highway operational improvements	County commissions and state agencies	S,M	Improve operations, increase mobility and reduce emissions	All goods movement market segments	TBD	Low opportunity for regional fair share and private sector funding
3.4. Develop public/private partnerships to research and develop advances in goods movement transportation technologies.	MCGMAP partners and others	S	Conventional modes do not have the capacity to reduce future community and environmental impacts. Private sector lacks long-term solutions	All goods movement market segments	TBD	Planning funds. Partner with private sector and university-based transportation technology research centers
3.5. Implement Ontario International Airport's air cargo cross-dock facility	Airport agencies	S	Airport and Belly Cargo Shift	Air cargo	TBD	Low opportunity for regional fair share and private sector funding
3.6. Initiate goods movement supply chain logistics study on the link between industry supply chain trends and trade related transportation patterns and movements	The San Pedro Bay Ports and the MCGMAP partners	S	Data modeling of supply chain impacts on transportation patterns, particularly of first, secondary, and tertiary trips	All goods movement market segments	\$2-4M	Discretionary planning funds. Partner with ports and private sector The challenge is generating reliable data
ACTION SET 4: DEVELOP EQUITABLE PUBLIC/PRIVATE FUNDING STRATEGY						
4.1. Maximize the Study Area's Fair-share of State and Federal Funds	County and state agencies	S	Increase funding capability to complete projects	Regional and national goods movement market segments	TBD	Federal dollars maybe federal participation or federal grants and loan?

Table 8
Roles and Responsibilities

ACTION DESCRIPTION(S)	RESPONSIBLE AGENCIES	TIME FRAME ¹	GOAL/OBJECTIVE	MARKET SEGMENT	COST	FUNDING STRATEGIES & CHALLENGES
4.2. Negotiate user fees with industry that can be included in a project-specific finance plan to improve goods movement and air quality.	MCGMAP partners and the ports	I	Increase goods movement funding from private sector. Ensure health and economic well being of the region	Regional and national goods movement market segments	TBD	Work with the San Pedro Bay ports to negotiate a fair-share funding plan with importers/exporters and licensed motor carriers The challenge is agency interests competing with institutional barriers
4.3. Establish institutional arrangements to collect and disburse funds.						
4.4. Pursue self-help public-private funding arrangements	County and state agencies	S	Increase funding capability to complete projects	Regional and national goods movement market segments	TBD	TBD
4.5. Implement the SCNFG MOU among regional, state, and federal agencies to facilitate the actions contained in the MCGMAP	MCGMAP partners, state and Federal agencies	I	Facilitate a coordinated approach to implementing and monitoring the action plan	Local, regional, national goods movement market segments	TBD	Establish a joint working group (regional state & fed agencies) to lead coordination and implementation The challenge is multiple agencies' broad range of operational objectives
4.6. Develop Institutional Structure for Managing User Fees and Revenue	County and state agencies	S	Increase funding capability to complete projects	Regional and national goods movement market segments	TBD	TBD
4.7. Develop and coordinate a comprehensive regional legislative support program for goods movement	MCGMAP partners	S	Increase the region's chances of securing Federal and state funding	Regional and national goods movement market segments	TBD	Deploy as part of overall project programming process The challenge is many competing interests
4.8. Maintain a database of high priority goods movement						

Note 1: S = Short-term (2007-2015), M = Mid-term (2015-2025), L = Long-term (post 2025), I = Immediate, C = Continuous

**Table 9
Detailed Actions**

TYPE OF ACTION	ACTION SET	TIME FRAME ¹
	ACTION SET 1: ACCELERATE ENVIRONMENTAL MITIGATION	
PROJECT SPECIFIC	Promote coordinated CEQA/NEPA review of regional goods movement projects. Increase public involvement and notification to expand CEQA/NEPA process to a regional level.	S,M,L
	Develop specific mitigation plans for proposed projects.	S,M,L
	Achieve compliance w/ natural resource statutes (fed & state Endangered Species Acts and Clean Water Acts, Migratory Bird Treaty Act, etc.)	S,M,L
	Include “smart” design and good planning principles in the short-term, such as: <ul style="list-style-type: none"> – Landscaped buffering – Noise barriers – Exterior light shielding and positioning – Facility orientation to minimize light and noise spillover – Pedestrian crossing improvements – Paleontological and archeological surveys and monitoring – Separation of incompatible land uses – Wetlands protection 	S
REGIONAL CONFORMITY	Aggressively seek reductions in diesel emissions.	S
	Consider market-based approaches to emissions reduction, such as that recommended by the Maritime Goods Movement Coalition.	S
	Initiate a follow-on effort to identify more aggressive goods movement initiatives to achieve regional air quality conformity.	S
	Undertake an initiative to generate public and/or private funds to accelerate implementation of the air quality strategies contained in the Ports’ Clean Air Action Plan, the California Air Resources Board’s Emission Reduction Plan, & the South Coast AQMD’s Air Quality Management Plan.	S
BROADER REGIONAL STRATEGIES	Fund and implement the State Implementation Plan including the San Pedro Bay Ports Clean Air Action Plan (CAAP), the 2007 South Coast Air Quality Management (AQMP), and the California Air Resources Board (ARB) statewide Goods Movement Action Plan (GMAP).	S,M,L
	Develop guidelines for local jurisdictions to use in siting and designing goods movement related land uses and transportation facilities.	S

**Table 9
Detailed Actions**

TYPE OF ACTION	ACTION SET	TIME FRAME ¹
	<p>Strongly encourage EPA to rapidly finalize its proposed rulemaking for the Control of Emissions of Air Pollution from New Locomotive Engines and New Marine Compression-Ignition Engines Less Than 30 Liters per Cylinder.</p> <p>Urge adoption of a Sulfur Emission Control Area (SECA) for the west coast.</p> <p>Achieve full implementation of emerging technologies that have air quality benefits, including, but not limited to:</p> <ul style="list-style-type: none"> - Low-sulfur diesel fuels - Shore-based electrical power (cold ironing) - Diesel particulate filter and diesel oxidation catalyst retrofits - Fuel cells - Fleet modernization/replacement - On-board engine diagnostics - Diesel-electric hybrids <p>Investigate feasibility of advanced transportation technologies such as Maglev and linear induction motors.</p>	<p>S</p> <p>S</p> <p>S, M, L</p> <p>S</p> <p>L</p> <p>S</p> <p>S</p> <p>M</p> <p>L</p>
<p>BROADER REGIONAL STRATEGIES</p>	<p>Promote short term coordinated institutional policies for:</p> <ul style="list-style-type: none"> - Quiet zones for rail corridors - Stricter zoning and land use regulations (buffering) - Strengthened mandatory emissions controls and engine performance standards - Mitigation banking and/or development of pooled funds for mitigation (Time frame to be determined) - Research funding (Timeframe to be determined) - Community health investment (e.g., health clinics) (Time frame to be determined) 	<p>S</p>
<p>ACTION SET 2: RELIEVE CONGESTION AND IMPROVE MOBILITY</p>		
<p>INTERMODAL LIFT CAPACITY ENHANCEMENTS</p>	<p>Fund and implement the full use of on-dock rail according to the San Pedro Bay Ports Master Plans, as well as increase intermodal rail lift capacity near-dock as needed.</p> <p>Implement Ports Rail Systems (on-dock rail development)</p>	<p>S, M, L</p> <p>S</p>

**Table 9
Detailed Actions**

TYPE OF ACTION	ACTION SET	TIME FRAME ¹
	Implement BNSF's near-dock rail yard.	S
	Modernize the UPRR's ICTF.	S
	Build new BNSF intermodal yard in Victorville.	S
	Consider a compatible facility in Banning/Beaumont area along UPRR.	S,M
MAINLINE RAIL CAPACITY ENHANCEMENTS	Participate with the railroads in eliminating key bottlenecks along the mainline rail system, such as the Colton Crossing, and in the capacity expansion along the mainline system according to the Mainline Rail Plan (MLRP).	S
	Develop the appropriate institutional arrangements and negotiating framework to provide simultaneous and continuous improvement to mainline track improvements, the Colton grade separation, highway-rail grade separations, locomotive emission reductions, and other rail corridor related mitigations.	S
	Grade separate Colton Crossing.	S
	Triple track the BNSF Transcon from Redondo Junction to San Bernardino.	S
	Triple track the Cajon Pass.	S
	Double track segments of the UPRR Los Angeles and Alhambra Subdivisions.	S
	Implement Santa Paula Branch Line gap closure.	M
GRADE SEPARATIONS	Implement the Alameda Corridor East (ACE) Trade Corridor railroad grade crossing improvement program for all counties involved.	S,M,L
	Grade separate SR-118 over UPRR coast mainline near Somis.	S
	Grade separate 5th Street (SR-34/Rice Avenue) over UPRR Coast Mainline in City of Oxnard.	S
	Implement Port of San Diego Tenth Avenue/National City Marine Terminals Access program, including grade separation.	M

**Table 9
Detailed Actions**

TYPE OF ACTION	ACTION SET	TIME FRAME ¹
<p>COMPREHENSIVE INNOVATIVE APPROACH (HIGHWAY)</p>	<p>Implement the following key highway projects:</p> <ul style="list-style-type: none"> – Gerald Desmond Bridge replacement – SR-47 Expressway, including Schuyler Heim Bridge replacement – I-110 Connectors Program – Navy Way/Seaside Avenue Interchange – I-710 Corridor, including two truck lanes in each direction – East-west truck corridor (I-710 to I-15) – I-15 truck lanes (from east-west corridor to Victorville) – SR-57 climbing lanes – Truck lanes through Cajon and San Geronio Passes – High Desert Corridor – Widen Rice Road Interchange and ramps to improve access to the Port of Hueneme to U.S.-101. 	<p>S S S S M M M M M M M S</p>
	<p>Initiate a Regionally Significant Transportation Investment Study (RSTIS) focused on increasing freight moving capacity along a dedicated freight guideway (DFG) on the east-west corridor generally bounded by I-710, SR-60, I-10, and I-15, from SR-60 to U.S.-395. To include possible inland ports and staging areas, innovations in transport modes, and alternative energy uses.</p>	<p>S</p>
	<p>Continue with analysis and planning of I-710 dedicated facility.</p>	<p>S</p>
	<p>Evaluate feasibility of Long Combination Vehicles (LCVs) on truck lanes.</p>	<p>S,M</p>
	<p>Give serious consideration to the option of private ownership and operations for key facilities such as truck-only toll lanes.</p>	<p>S</p>
	<p>Develop inland port / concentrate inland warehouse and distribution locations.</p>	<p>S,M</p>
	<p>Proceed with planned operational and safety improvements throughout the region.</p>	<p>S</p>
	<p>Evaluate corridor-specific operational and safety improvements across jurisdictional boundaries.</p>	<p>M</p>
	<p>Combine operational and safety improvements with corridor-specific master plans.</p>	<p>L</p>
	<p>GENERAL HIGHWAY IMPROVEMENTS</p>	

**Table 9
Detailed Actions**

TYPE OF ACTION	ACTION SET	TIME FRAME ¹
BORDER TRADE CAPACITY ENHANCEMENTS	Implement the following key highway projects: <ul style="list-style-type: none"> - SR-905 Freeway, from Otay Mesa Border Crossing to I-805 (S) - SR-78 Brawley Bypass, the Calexico East Border Crossing Corridor (M) - Construct East Otay Mesa Port of Entry and highway SR-11 from Mexico Border to SR-905 (S) - Construct truck routes/bypasses at Otay Mesa and Tecate Ports of Entry (S) 	S M S S
ACTION SET 3: IMPROVE OPERATIONAL EFFICIENCY		
PORT TERMINALS	Implement the efficiency improvements contained in the San Pedro Bay Ports Master Plans.	S
	Establish common chassis pools to improve productivity and turn times within terminals.	S
	Extend hours of operation.	S
	Implement Advanced Transportation Management, Information, and Security (ATMIS) system.	S
HIGHWAY OPERATIONS & NEW TECHNOLOGIES	Develop partnership between public and private entities to research and develop advances in goods movement transportation technologies.	S
	Expand regional ITS system – Incident management and variable message signs (VMS)	S
	Increase enforcement of trucking operations on highways	
	ORT	
	Congestion pricing	
	Implement regional weigh-in-motion (WIM) stations combined with stricter enforcement of truck weight restrictions	S,M
	Initiate Regional Goods Movement Supply Chain Logistics Study (GMSCLS) focused on the linkage between industry supply chain trends and port and trade related transportation patterns and movements.	S
	Evaluate feasibility of advanced technologies, such as Maglev and linear induction motors.	S
AIRPORT & BELL Y CARGO SHIFT	Implement Ontario International Airport's air cargo cross-dock facility.	S

**Table 9
Detailed Actions**

TYPE OF ACTION	ACTION SET	TIME FRAME ¹
ACTION SET 4: DEVELOP EQUITABLE PUBLIC/PRIVATE FUNDING STRATEGY		
MAXIMIZE FAIR-SHARE	Focus on maximizing the region's share of the upcoming federal transportation reauthorization in 2009.	S
	Continue formula-based funding from regional and local agencies for highway capacity and general-purpose lane enhancement projects.	S
PROJECT-SPECIFIC USER FEES	Negotiate user fees with industry that can be included in a project-specific plan of finance for goods movement and air quality improvements. Develop the institutional structure to collect and disburse funds for the projects.	S
	Focus on a "short list" of high priority projects.	S
	Pursue "self-help" public-private funding arrangements to increase state and federal funds, focusing on projects to increase intermodal lift capacity, increase mainline rail and specialized (e.g., focused market-segment) truck capacity improvements, and corridor-wide grade separations.	S
INSTITUTIONAL ARRANGEMENT	Implement the GM MOU among regional, state, and federal agencies to facilitate the actions contained in the MCGMAP.	S
	Initiate a joint powers agency of key stakeholders, potentially similar to the structure developed for ACTA, to administer the fee collection and fund disbursement program. This will reassure the private sector that a government entity will not attempt to use fee revenue for non-project related uses.	S
LEGISLATIVE ACTIONS	Develop a comprehensive legislative program supportive of goods movement. Coordinate legislative efforts at a regional level to communicate and promote needs for goods movement improvements at the state and federal levels. Maintain a running list of high priority goods movement infrastructure and air quality projects and promote those projects at the regional state, and federal levels.	S
	Urge Congress to develop and pass legislation that would implement a national goods movement policy	S
	Develop a California consensus position on goods movement development, then work closely with the entire California congressional delegation, the West Coast Corridor Coalition, CALMITSAC, the Waterfront Coalition and other stakeholders to develop a unified approach to lobbying for additional federal support for goods movement related projects, port security and environmental programs.	S

**Table 9
Detailed Actions**

TYPE OF ACTION	ACTION SET	TIME FRAME ¹
	Establish short-term programs that will encourage private sector investment in essential infrastructure, including, but not limited to: <ul style="list-style-type: none"> – Investment tax credits – Loans – Expansion of tax-exempt bonding to projects of both public and private benefit. 	S
	Encourage market-based approaches similar to the REACH program and the Carl Moyer Program. Extend design-build authority to ports, transportation joint powers authorities, county and city public works departments, and local and regional transportation agencies.	S

Note 1: S = Short-term (2008-2015), M = Mid-term (2015-2025), L = Long-term (post 2025)

**Table 10
Potential Funding Sources for Goods Movement Projects**

SOURCES	DESCRIPTION	Eligible Project Types
Federal Sources		
High Priority Project Earmark	Discretionary program. Provides designated funding for specific projects identified in SAFETEA-LU. Approximately \$15 billion for 5,173 projects was identified in SAFETEA-LU.	Highway, Port and Rail Projects
Projects of National and Regional Significance	Discretionary program. Provides funding for high cost projects (in excess of \$500 million) of national or regional significance. Projects selected by competitive evaluation process based on ability to generate national economic benefits, reduce congestion, improve safety, leverage non-federal funding, stability of financial plan, use of new technology, and maintain/ protect the environment. Total in federal program: \$1.8 billion	Highway, Port and Rail Projects
National Corridor Infrastructure Program	Discretionary program. Provides funding for construction of corridors of national significance to promote economic growth and international or interregional trade. Competitive selection process based on criteria including: extent to which corridor links two existing segments of the interstate system; facilitates major mobility, economic growth, development in area underserved by highway investment, significant commercial traffic; reduce commercial or other travel time through a major freight corridor. Total in federal program: \$1.95 billion.	Highway,
Interstate Maintenance (IM) Program	Discretionary program. Provides for the on-going work necessary to preserve and improve Interstate highways. This includes funding for resurfacing, restoring, rehabilitating and reconstructing (4R) most routes on the Interstate System. For FY 06, seven projects named in California with funding levels ranging from \$750,000 to \$1 million.	Highway
Highway Bridge Program	Discretionary Program. Provides funding to enable states to improve the condition of their highway bridges through replacement, rehabilitation, and systematic preventive maintenance.	Highway
Transportation Improvements	Discretionary program. Provides funding for earmark projects identified in SAFETEA-LU ranging in cost from \$75,000 to \$30 million. Project sponsors could consider securing a Transportation Improvements earmark in the next reauthorization bill (federal fiscal year 2010-2016).	Highway, Port and Rail Projects
Transportation , Community, and System Preservation (TCSP) Program	Competitive program with funds earmarked for projects that integrate transportation, community, system preservation, and the environment. Limited levels of funding total and by project.	Highway, Port and Rail Projects
Formula Programs		

**Table 10
Potential Funding Sources for Goods Movement Projects**

SOURCES	DESCRIPTION	Eligible Project Types
Federal Sources		
Federal “Core” Programs: - Surface Transportation Program (STP) - National Highway System (NHS) - Highway Safety Improvements	Funds are distributed through the STIP and SHOPP. For STIP, 75 percent of funds are programmed at discretion of the MPOs in RIP and 25 percent by Caltrans in IIP. Of these, 88.53% are federal.	Highway
Congestion Mitigation and Air Quality (CMAQ)	For projects that improve air quality and reduce congestion. Funds are programmed by OCTA for bus/rail capital, highway, and bus/rail operations (first 3 yrs of start-up). Newly proposed FHWA guidelines in circulation as of February 2007 would eliminate start-up operations as an allowable use.	Highway, Port and Rail Projects
Loan and Financing Programs		
Transportation Infrastructure Finance and Innovation Act (TIFIA)	The TIFIA program provides project sponsors with secured loans, loan guarantees, and lines of credit from the federal government for surface transportation infrastructure projects of national or regional significance. Under SAFETEA-LU, eligibility extends to any highway, transit or railroad project in excess of \$50 million in cost, and can include intermodal facilities, border crossing infrastructure, expansion of multi-state highway trade corridors, and other investments with regional and national benefits.	Highway, Port and Rail Projects
Section 129 Loan	The National Highway System Designation Act (NHS) established the Section 129 Loan Program as a mechanism to allow states to offer low interest loans to project sponsors. States can use the funds from the program for any federal-aid highway project and can offer loans to either public or private project sponsors.	Highway, Port and Rail Projects
Railroad Rehabilitation and Improvement Financing	This program provides up to \$35 billion for direct loans and loan guarantees with up to \$7.0 billion reserved for projects benefiting freight railroads other than Class I carriers.	Rail
Freight Programs		

**Table 10
Potential Funding Sources for Goods Movement Projects**

SOURCES	DESCRIPTION	Eligible Project Types
Federal Sources		
Freight Intermodal Distribution Pilot Grant Program	<p>Provides grants to states to facilitate and support intermodal freight transportation initiatives. Pilot projects are designed to reduce congestion into/out of ports and establish/expand intermodal facilities and inland freight distribution centers.</p> <p>SAFETEA-LU provided \$30 million over 5 years (2005-2009) for 6 designated projects: (A) Short-haul intermodal projects, Oregon, \$5,000,000; (B) The Georgia Port Authority, \$5,000,000; (C) The ports of Los Angeles and Long Beach, California, \$5,000,000; (D) Fairbanks, Alaska, \$5,000,000; (E) Charlotte Douglas International Airport Freight Intermodal Facility, North Carolina, \$5,000,000; (F) South Piedmont Freight Intermodal Center, North Carolina, \$5,000,000</p>	Highway, Port and Rail Projects
Capital Grants for Rail Line Relocation Projects	<p>SAFETEA-LU establishes a new capital grants program for local rail line relocation and improvement projects. A state is eligible for a grant for any construction project for the improvement of the route or structure of a rail line that either is carried out for the purpose of mitigating the adverse effects of rail traffic on safety, motor vehicle traffic flow, community quality of life, or economic development; or involves a lateral or vertical relocation of any portion of the rail line.</p> <p>Approximately \$350 million per year (2006-2009) is available with a \$20 million maximum grant for a project.</p>	Rail
Department of Defense		
DHS Preparedness and Recovery Preparedness	<p>Discretionary grant program, as determined by the Secretary of Homeland Security, which will provide \$1.15 billion in grant to state and local agencies in FY 2006. Of this total, \$765 million will be for use in high-threat, high density urban areas; \$175 million will be for port security grants; and \$150 million will be for intercity passenger rail transportation, freight rail, and transit security grants.</p>	Highway, Port and Rail Projects
DOD Railroads for National Defense Program	<p>The Department of Defense established a special program to identify and protect commercial railroad infrastructure important for defense purposes. The program is administered by the Military Surface Deployment and Distribution Command Transportation Engineering Agency (SDDCTEA). SDDCTEA's mission is to "provide the DOD with the research, engineering, and analytical expertise to improve the deployability of U.S. Armed Forces, the transportability of military equipment, the infrastructure of the defense transportation system, and the management and execution of the DOD transportation programs for national defense."</p>	Rail

**Table 10
Potential Funding Sources for Goods Movement Projects**

SOURCES	DESCRIPTION	Eligible Project Types
Federal Sources		
STATE SOURCES		
State Transportation Improvement Program: Interregional Improvement Program (Cash)	25 percent of the federal and state funds in the State Highway Account funds are prioritized and programmed by Caltrans for projects of regional significance. These funds are programmed in the Interregional Transportation Improvement Program (IIP) component of the State Transportation Improvement Program (STIP).	Highway, Port and Rail Projects
STIP: Grant Anticipation Revenue Bonds (GARVEES)	<p>Federal grant revenue anticipation bond proceeds pledged to projects. Annual debt service programmed in the STIP, with source from IIP (or RIP) funds.</p> <p>It is anticipated that the earliest GARVEE issuance would be during Fiscal Year 2006-2007, although it is possible that issuance could be delayed even further. Based on an April 2006 report from the State Treasurer, the state capacity to issue GARVEE bonds is approximately \$2 billion.</p>	Highway, Port and Rail Projects
Transportation Finance Bank (TFB) Revolving Loan Program	<p>Program which provides flexible, short-term financing to public entities and public/private partnerships for the purpose of accelerating the delivery of transportation projects in California.</p> <p>Any local transportation planning agency or county transportation commission may apply for a loan. Additionally, recipients of fuel tax revenue monies are eligible for a TFB loan.</p>	Highway, Port and Rail Projects
State Infrastructure Bond Program	On November 7, 2006 voters approved \$19.925 billion in bonds for transportation projects. The program consists of the following: 1) \$17.25 billion for mobility, transit, congestion relief; (of which \$4 billion is for bus, rail, and transit improvements) 2) \$1.525 billion for safety, security, disaster preparedness; and 3) \$1.2 billion for air quality.	Highway, Port and Rail Projects
Public Utilities Commission Section 130 Program	The Section 130 Program provides federal funds to improve safety at existing at-grade highway-rail crossings. The purpose of Section 130 Program is to reduce the number, severity and potential of hazards to motorists, bicyclists, and pedestrians at highway-rail at-grade	Highway and Rail Projects

**Table 10
Potential Funding Sources for Goods Movement Projects**

SOURCES	DESCRIPTION	Eligible Project Types
Federal Sources		
	<p>crossings</p> <p>The Section 130 program is a cooperative effort between the FHWA, Caltrans, California Public Utilities Commission, railroad companies and local agencies. FHWA delegated the authority to manage this program to Caltrans in cooperation with the California Public Utilities Commission.</p>	
Public Utilities Commission Section 190 Program	The Section 190 Program provides \$15 million annually in state funds for proposed grade separation of existing or proposed highway-rail crossings, at grade crossings in need of elimination, and existing grade separations in need of alteration or reconstruction.	Highway and Rail Projects
REGIONAL SOURCES		
State Transportation Improvement Program: Regional Improvement Program (Cash)	75 percent of the federal and state funds in the State Highway Account funds are prioritized and programmed by regional agencies (such as OCTA). These funds are programmed in the Regional Transportation Improvement Program (RTIP) component of the State Transportation Improvement Program (STIP).	Highway, Port and Rail Projects
LOCAL SOURCES		
Transportation Impact Fee (for Annual Debt Service)	Creation of Transportation Impact Fee, with fees pledged for payment of annual debt service	Highway, Port and Rail Projects
Tax Increment Financing (for Annual Debt Service)	Creation of Tax Increment Finance District, with tax increments pledged for payment of annual debt service	Highway, Port and Rail Projects
USER FEES		
Tolls	Tolls could provide a mechanism to generate revenue, moderate traffic demand, and/or provide incentive to use particular facilities. Tolling could be part of an overall funding strategy with toll revenues providing part of a larger revenue stream pledged for debt repayment. Facility could be designed, built, and/or operated as public, private, or public-private partnership.	Highway Projects

**Table 10
Potential Funding Sources for Goods Movement Projects**

SOURCES	DESCRIPTION	Eligible Project Types
Federal Sources		
Transportation Development Credits	Transportation Development Credits (TDCs), formerly known as toll credits, allow states which have toll road facilities that are part of the state and national highway system to utilize revenues derived from the facilities as a “credit” or “match” to any federally funded highway and/or transit related program.	Highway Projects
Shadow Tolls	A shadow toll occurs on a roadway typically constructed under a DBFO arrangement where the government entity will pay the private contractor on an annual basis depending upon the volume of traffic using the road. The term "shadow tolling" is used since there are no tollbooths and the users do not pay tolls.	Highway Projects
Pass-Through Tolling	Pass through tolling is an agreement between local communities and TxDOT where the local communities provide funding to build a state highway project and the state partially reimburses the community over time by paying a fee for each vehicle that drives on the new highway.	Highway Projects
Truck Toll (TOT) Lanes	Truck only toll (TOT) lanes are highway lanes that are reserved for the use of commercial vehicles, primarily trucks and buses. Commercial vehicles can pay a fee to use the lanes if so desired, or they can continue to use the regular lanes. TOT lanes can either be newly constructed facilities, or they can be created by reallocating the use of existing lanes.	Highway Projects
Regional Freight Fees	If part of larger goods movement network, could potentially be part of any program funded through container fees or other freight fee program.	Rail Projects
Pier Pass	PierPass is a not-for-profit organization created by marine terminal operators to reduce congestion and improve air quality in and around the Ports of Los Angeles and Long Beach. The off peak program provides an incentive for cargo owners to move cargo at night and on weekends, in order to reduce truck traffic and pollution during peak daytime traffic hours and to alleviate port congestion.	Highway, Port and Rail Projects
Container Fees	Container fees can be assessed for the use of infrastructure either directly or indirectly. Fees could be charged by users of port and freight movement corridors could be used to support transportation and air quality improvement projects.	Highway, Port and Rail Projects
Impact Fees	The implementation of impact fees associated with the movement of cargo or sources (i.e., trucks, locomotives, vessels, etc.) could provide funding for projects in order to accelerate emission reductions from all source categories	Highway, Port and Rail Projects
INNOVATIVE FINANCING MECHANISMS		
General Obligation Bonds	General obligation bonds (GO bonds) are bonds that are legally backed by the full faith and credit of the issuing government. GO bonds are considered the most secure type of revenue bond, and therefore has the lowest interest rates. The security is based on the issuing government’s ability to raise property taxes to assure payment.	Highway, Rail, or Port Projects

**Table 10
Potential Funding Sources for Goods Movement Projects**

SOURCES	DESCRIPTION	Eligible Project Types
Federal Sources		
Revenue Bonds	Revenue bonds are municipal bonds distinguished from other bonds by the guarantee of repayment exclusively from revenues generated by a project. Interest rates may be slightly higher for revenue bonds since the security pledge is not as great as GO Bonds, however, they are usually considered the second-most secure type of municipal bonds.	Highway, Rail, or Port Projects
Certificates of Participation (COPs)	COPs are tax-exempt bonds, issued by a state-authorized, tax-exempt entity (typically called Finance Corporation) that allows government entities to finance capital projects. The proceeds of the bond sale are used to acquire capital assets. The capital assets are leased to a government entity, which makes semi-annual lease payments using a combination of local funds and federal grant funds.	Highway, Rail, or Port Projects
Private Activity Bonds	Private Activity Bonds are bonds that allow a portion of the proceeds to be used for non-governmental purposes.	Highway, Rail, or Port Projects
INNOVATION AND MANAGEMENT OF RESOURCES		
Tapered Match	The tapered match approach allows project sponsors to seek federal reimbursement of expenditures as high as 100 percent in the early phases of a project provided that by the time the project is complete, the overall federal contribution does not exceed the statutory federal-aid limit for the project.	Highway, Rail, or Port Projects
Flexible (or Soft) Match	The Flexible Match approach allows certain public donations of cash, materials, and services to satisfy the non-federal matching requirement.	Highway, Rail, or Port Projects
Advanced Construction Authority	Advance construction authority provides a project sponsor the ability to request and receive approval to construct federal-aid projects in advance of the apportionment the federal dollars	Highway, Rail, or Port Projects
INNOVATIVE PROJECT DELIVERY AND MANAGEMENT/PUBLIC PRIVATE PARTNERSHIP		
Design-Build Project Delivery	Design-Build is a project delivery method that combines two, traditionally separate services into a single contract. With design-build procurements, project sponsors execute a single, fixed-fee contract for both architectural/engineering services and construction.	Highway, Rail, or Port Projects

**Table 10
Potential Funding Sources for Goods Movement Projects**

SOURCES	DESCRIPTION	Eligible Project Types
Federal Sources		
Design-Build-Operate-Maintain Project Delivery	The Design-Build-Operate-Maintain (DBOM) model is an integrated partnership that adds operations and maintenance to the design and construction responsibilities of design-build procurements.	Highway, Rail, or Port Projects
Design-Build-Finance Project Delivery	The Design-Build-Finance-Operate (DBFO) approach transfers to the private sector the responsibilities for a project's design, construction, finance and O&M.	Highway, Rail, or Port Projects
Leasing of Publicly Owned Assets	This PPP approach involves the long term lease of an existing, publicly-financed toll facility to a private sector concessionaire for a prescribed period during which they have the right to collect tolls on the facility. In exchange for the lease, the private partner must operate and maintain the facility and in some cases make improvements. The private partner must also pay an upfront concession fee.	Highway

Source: Sharon Greene & Associates, March 2007