

Control Strategy Short List Review

ON-ROAD

North Central Texas Council of Governments

September 27, 2005

Please get us your comments by Wednesday September 28, 2005.

NOTE: Comments on High-Occupancy Vehicle (HOV) / Managed Lanes and Transit category strategies will be accepted through Friday, September 30, 2005

There are four ways to get us your comments:

OPTION 1: Website

http://www.dfwcleanair.com/sip/new_comments.asp

OPTION 2: Email

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OPTION 4: Fax

NCTCOG (817) 640-3028
Attn: Carrie Reese or Amanda Brimmer
Subject: Comments on Control Strategy Short List

ON-ROAD SOURCE DRAFT SHORT LIST

NCTCOG #	STRATEGY	DESCRIPTION
Bicycle and Pedestrian		
2, 3, 4, 8, 13, 31, 48, 47, 46, 44, 43, 42, 41, 40, 39	Construct Bicycle and Pedestrian Facilities Within the Current Street Right of Way	Sign bicycle routes on local street or low volume routes that reach destinations. Add bike lanes or wide outside lanes to collectors and arterials. Fund the construction of sidewalks and bicycle facilities in the right of way with all new or reconstructed roadways. Construct sidewalks, crosswalks, medians, pedestrian signals, street furniture, and other pedestrian connections.
7, 16	Construct Bicycle and Pedestrian Facilities on Separate Right of Way	Construct priority segments of the regional Veloweb. Provide morning and evening lighting along off-street bicycle and pedestrian routes.
23, 24, 25, 26, 27, 32, 33, 34, 35	Construct End-of-Trip Bicycle and Pedestrian Facilities	Permit bicycles on all transit vehicles. Expand bicycle parking at transit. Create a new ordinance, to be endorsed by the Regional Transportation Council and adopted by local governments that all employment centers with greater than 100 employees shall provide facilities for bicyclists and pedestrians to secure their bicycle, clothes and other items, shower and change for work, and do basic repairs on a bicycle. Create a new ordinance, to be endorsed by the Regional Transportation Council and adopted by local governments that all property owners must provide bicycle parking equal to 2% of available automobile parking.
1, 18, 19, 20, 21, 22	Educate or encourage frequent, safe bicycling and/or walking	Provide coupons for free bicycle repairs. Develop local action groups to promote bicycling and walking. Develop and provide free bicycle route maps. Require local bicycle coordinators at all transportation providers and at all local governments. Increase media promotion of bicycling and bicycle safety.
Clean Vehicle Programs		
53, 187	Financial Incentives for Clean Vehicles	Provide a financial incentive program for the purchase of vehicles meeting higher standards for fuel economy or emission scores. Incentives could be used towards the purchase of or conversion to an alternative fuel vehicle, hybrids, retrofits, repowers, and other aftermarket technologies approved by NCTCOG. Incentives could also be used towards the purchase of new model year or engine standards that meet particular emission criteria. Incentives could be available for public entities and include rebates and other grant assistance. Incentives towards clean vehicle purchases, like sales tax reduction and property tax reduction, could be used for private entities.
54, 55, 59, 66, 70, 71, 73, 75, 78, 589	Clean Fleet Vehicle Procurement Policy/Clean Fleet Program	Create a fleet program that addresses the clean vehicle acquisitions, operations, maintenance, and verification of public and private fleets. Furthermore, the program will promote the use of heavy-duty and light-duty alternative fuel, hybrid, and clean diesel vehicles and technologies. This program would also incorporate public recognition of fleets participating in the clean fleet program.
62, 64, 67	Fueling Station Policy	Promote and support the establishment of increased alternative refueling sites in the region to allow for increased access by fleets and general public.
57, 123, 127, 129	Clean Vehicle Education Outreach	Create a Clean Vehicle Education Outreach program that will provide information on routine vehicle maintenance and promote clean vehicles and clean fuels, such as hybrids and alternative fuels vehicles.

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NCTCOG #	STRATEGY	DESCRIPTION
Freeway Incident/Roadway Construction Management		
84, 88, 89, 94	Intelligent Transportation System Technology [Also see Notification Using Dynamic Message Signs below]	This would include more accurate information from permanent and mobile electronic message locations. Greater attention will be placed on providing information on alternative transportation routes. Greater communication between the planners impacting freeway operations with actual freeway operators, will lead to less disruption by integrating greater surveillance and control.
92	Location of Enforcement Protocols	Continue the education that all insurance data information exchange should take place off of the freeway system and on to the frontage roads. Encourage police officers to conduct their citation activities also on the frontage roads. This will improve air quality operations, enhance the safety of the public and the police officers, and increase the reliability of the transportation system.
90, 93, 95, 97, 98, 99, 101	Mobility Assistance Operations/Freeway Operations	Increase the mobility assistance network both in hours of operation and miles of roadway. Allocate more intensive service hours during the ozone season. In addition, this would include greater enforcement and removal of parked vehicles on the freeway shoulder lanes, greater use of shoulders and frontage roads to circumvent accidents, and continued education of the "Steer It/Clear It" program. Tow trucks will be located at critical locations to more quickly remove disabled vehicles, especially during the ozone season. Ordinances with local governments will be established to minimize the delay in dispatching tow truck services. TxDOT will pursue the use of glare screens to reduce rubber necking delays on the transportation system.
85, 86, 87, 218	Planning Lane Disruptions	Establish an ozone season construction and maintenance schedule by shifting work to the non-ozone season time period and to less congested times of day during the ozone season. (Depending on the results of air chemistry analysis, shift maintenance and construction when feasible to the afternoon and night time periods.) This would include contractors renting lane closures with higher prices during the ozone season.
102	Reduced Occurrence of Incidents	Enhance a freeway bottleneck program, which eliminates sharp/dangerous locations areas with poor sight distance and areas with inadequate or no longer appropriate roadway design.
100, 103, 300, 302, 310	Aggressive Driving and Speed Enforcement	Increase police enforcement of speeding and aggressive driving leading to lower direct emissions from reduced vehicle speed and lower indirect emissions from increased roadway reliability due to fewer accidents. This will lead to more environmentally friendly driving. Fewer accidents will increase roadway reliability.
Freeway System Infrastructure		
106	Roadway Construction Improvements	Support continued roadway construction improvements to alleviate congestion, provide reliability and reduce air quality emissions from mobile sources.
107	Additional Lanes Without New Capacity	Where feasible, investigate the addition of new travel lanes where total reconstruction of the corridor is not necessary to add new capacity.
108	Limit Construction of New Freeways and Tollways	Limit construction of new freeways and tollways in areas outside of the most urban portions of the region to encourage infill development and make the most efficient use of the existing roadway capacity. Development should be encouraged in areas with developed transit system capacity and where freeway and tollway capacity is utilized.

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NCTCOG #	STRATEGY	DESCRIPTION
Fuel Evaporative Emissions		
112	Gas Cap Replacement Program	Develop a program with automotive parts supplier(s) and regional Inspection & Maintenance testing facilities to offer free gas caps to any vehicle failing the emissions test due to a faulty gas cap. Issue \$5.00 vouchers to owners for vehicles that require specialized or unusual caps redeemable at the automotive parts retail store.
109, 110, 111, 218	Ozone Season Morning Fueling Program	Dependent upon results from the air chemistry analysis results, implement strategies to limit or prohibit morning fueling activities during the ozone season. Also, encourage the public to delay fueling on ozone action days.
270	Gasoline Pricing	Implement cheaper gasoline prices during the evening hours.
Fuel Standards		
118	Lower Reid Vapor Pressure	Texas currently has a maximum RVP of 7.8. This strategy would investigate the benefits of lowering the maximum RVP in Texas. Maximum RVP is controlled because of the increased VOC emissions that result from gasoline with higher RVP levels. The nationwide range for RVP for reformulated gasoline certified under the simple model is 6.6 - 9.0 psi. The nationwide range for RVP for reformulated gasoline certified under the complex model is 6.4 - 10.0 psi.
Funding		
122	Streamline Air Quality Project Funding and Delivery	Streamline project funding for air quality projects by using local funds (vs. federal funds) on sustainable development projects and air quality strategies. This strategy would reduce the length of the implementation process and the cost of such projects. Streamline project delivery for air quality projects by proactively educating implementing agencies about the federal funding process and encouraging them to initiate the environmental review and engineering processes early in the project development cycle.
General Public Education and Outreach		
123, 124, 126, 128, 129	North Texas Clean Air Coalition	Educate general public and business community on air quality issue in North Texas and voluntary ways to reduce air pollution.
128, 130	Regional Air Quality Outreach and Marketing Coordination	Regional coordination by NCTCOG, Transit Authorities, North Texas Commission, and other entities in North Texas to coordinate marketing and outreach efforts on air quality, transit, employee trip reduction, and congestion mitigation efforts in the region by creating an awareness campaign supported by all entities.

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NCTCOG #	STRATEGY	DESCRIPTION
Goods Movement		
131, 132, 135, 140, 142, 143, 136, 137, 140, 143, 138, 146	Pickup, Delivery, Refueling or Terminal Operations	Require all shippers or receivers with at least one dedicated loading dock to provide an anti-idling device of their choice at each loading dock. Require all parking lots with at least 10 truck parking spaces to provide an anti-idling device of their choice at at-least 50% of the truck parking spaces. Provide off-site, off-street staging areas with anti-idling technologies for major destinations with limited delivery or pick up capacity (example: air cargo airports, downtown Dallas, downtown Fort Worth). Develop a regional model ordinance for managing loading and unloading needs, including seasonal operations, event management, time of day scheduling and on-street versus off-street operations.
144	Rail System Infrastructure	Fund grade separations of major freight rail bottleneck locations. Fund additional track capacity at freight rail bottlenecks. Fund grade separations between road and rail. Extend freight rail tracks to reach current distribution hubs and goods movement destinations. Adopt planning, zoning and development code regulations that (1) set aside land adjacent to current freight rail for freight oriented uses and (2) require new commercial developments of light industrial, big box retail, distribution, manufacturing and other freight oriented uses along those rail lines to include easements for spur tracks and building designs to expedite rail freight service. Require the use of automated gate systems and electric or clean fuel technology for on-site operations at all local freight facilities. Require use of idle stop technologies for operations within the nonattainment area. Fund conversion of the local freight rail locomotive fleet to modern, clean vehicles.
133, 134, 139, 141, 144, 145	Truck Roadway Infrastructure	Fund improvements to ITS technology to allow for real time speed and travel time data to be reported on all controlled access freeways and select major arterials in the region frequented by freight trucks. Provide dedicated lanes and access/egress points for freight truck traffic. Identify locations on the freeway system where speed and acceleration differentials indicate an air quality benefit from truck lane restrictions could be achieved.
High-Emitting Vehicle Detection and Programs		
173, 179, 182, 619	AirCheck Texas Repair and Replacement Assistance Program	Offer financial assistance to low-income vehicle owners whose vehicles fail the emissions inspection test. The program is designed to help vehicle owners comply with vehicle emissions standards to reduce ozone-forming pollutants created by on-road motor vehicles. The program targets the highest polluting vehicles and provides an incentive for citizens to contribute to the regional air quality solution. Qualified participants may receive a voucher worth up to \$600 for emissions repairs, or \$1,000 towards the cost of a replacement vehicle that meets emissions standards if they retire their old vehicle.

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NCTCOG #	STRATEGY	DESCRIPTION
172, 173, 179, 183, 185, 186, 190, 191, 192, 620	Enhanced AirCheck Texas Repair and Replacement Assistance Program	Administer an enhanced emissions repair and replacement assistance program to individuals not eligible for assistance under the existing AirCheck Texas Repair and Replacement Assistance Program guidelines. Local agencies would administer a program targeting high emitting vehicles by partnering with aftermarket manufacturers, retail and wholesale parts suppliers, Recognized Emission Repair Facilities, replacement facilities, auto manufacturers and dealerships, and other interested parties. The program will assist vehicle owners with emission repairs by offering coupons, rebates, various incentives, and possibly assistance with diagnostic and repair expenses. The program will also provide vehicle owners the ability to retire and replace their high emitting vehicles through partnerships established with auto manufacturers and area dealerships and also work to provide assistance to nonprofit organizations. The program would enable local agencies the ability to optimize aftermarket partnerships by concentrating on individual segments of the emissions repair and replacement markets.
165, 188	Smoking Vehicle Program	Establish implement a Regional Smoking Vehicle Program for North Central Texas. The integration of the Smoking Vehicle Program into the AirCheck Texas Repair and Replacement Assistance Program would create one seamless high emitting vehicle program yielding a more efficient process by which the local agency would provide solutions on how to bring high emitting vehicles into compliance. By utilizing the existing infrastructure for the AirCheck Texas Repair and Replacement Assistance Program, the incorporation of the Smoking Vehicle Program would encourage greater participation by providing local solutions to vehicle owners.
163, 167, 171	County Constables Enforcement Program	Expand and implement the pilot constable enforcement program region-wide for inspecting, diagnosing and possibly repairing high emitting vehicles that remain unclaimed after being removed from the roadways due to fictitious or counterfeit state inspection and/or registration stickers.
164, 168, 170	Enhanced Remote Sensing Program	Develop and implement new and different strategies for the use of remote sensing in order to expand current use of technology. Smart signs would display a real time pass/fail message to those captured by the remote sensing unit thereby improve public perception about remote sensing, encourage repairs for violating vehicles, and applaud compliant vehicles.
189, 190, 193, 195, 282	Policy	Work with local officials and businesses on implementing or enforcing various policies relating to high emitting vehicles including: provide tax incentives to vehicle owners who scrap old vehicles, new vehicle discounts for vehicle trade-ins (1995 or older), prohibit the sale of high emitting vehicles, license plate fees to fund repair and replacement programs and deny registration to vehicles with emission failures.
178	Impound Lots	Work with local officials on creating and implement various policies relating to impound lots including allowing cities the ability to remove engines of high-emitting vehicles that are abandoned and scheduled for auction.

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NCTCOG #	STRATEGY	DESCRIPTION
169, 177, 187	Education and Outreach	The education and outreach program would utilize inspection and maintenance failure data to target areas with high emission failure rates to provide vehicles owners with information about assistance available or how they can bring their vehicles into compliance. The program would also Promote AirCheck Texas Repair and Replacement Assistance Program participation through increased education, outreach, and advertising efforts, which experiences a considerable increase in participation each time an advertising campaign is launched. Other outreach strategies for the program areas include posters, danglers, brochures, flyers, mailers and inserts to targeted zip codes, billboards and various media campaigns.
High-Occupancy Vehicle (HOV)/Managed Lanes		
150, 151, 152, 153, 161, 162	Higher Vehicle Occupancies	Higher occupancies can be encouraged through incentives such as free or reduced tolls for HOVs on managed facilities and express type travel on restricted lanes for HOV/transit use only, or increasing vehicle occupancy requirements.
147, 148, 149, 159, 160	Improved Facility Access	Access to HOV/managed facilities could be made easier and available to other restricted vehicle types such as alternative fueled vehicles or trucks.
154	Discourage SOV Travel	Activities to discourage single occupant vehicle (SOV) travel could be accomplished by not building new general purpose capacity or significantly reducing the rate at which new capacity is added. It is currently the policy of the RTC to NOT convert currently free lanes to toll or managed lanes.
Intelligent Transportation Systems (ITS)		
205	Notification At High Activity Centers	Advance real time traffic information at kiosks, truck centers, rental car agencies, and other high activity areas, which could benefit from real time information to the traveling public.
211	Notification At Train Stations	Advance real time display of train arrivals at rail stations.
201	Notification By Radio	Advance use of radio communication to avoid congestion.
203	Notification Using Cell Phones	Advance cell phone text messaging capabilities by providing information to assist users of the public transportation system and the freeway/toll road system. In addition, advance the use of telephone hotlines.
209, 210	Notification Using Dynamic Message Signs	Advance use of dynamic message signs for freeway traffic control. This includes the use of message signs for the control of truck movements. Particular attention will be placed at freeway locations that exhibit high truck incident frequency. Increase the effectiveness of electronic message signs by adding travel times anticipated on different routes.
202, 206, 207, 212	Notification Using the Internet	Advance use of Internet homepages to relay traffic conditions. This will require increased system surveillance and greater use of speed sensor technology integrated in real time to the traveling public. This will also include other roadway conditions impacting the transportation system.
Ozone Action Day/Ozone Season		
213, 215	Morning Meeting Policy	Dependent on the results of delayed activities in the air chemistry analysis, develop a policy or ordinance for public organizations to postpone external meetings until after 10:00 a.m. during the ozone season. Encourage similar policy for private organizations and businesses.

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Parking Management		
223, 224, 225, 233, 234, 263, 264, 268, 269	Parking Supply Strategies	Require a shared parking plan and agreements for all developments, including unrelated developments on adjacent parcels. Require developers adjacent to rail to include with their site plan a pedestrian access to transit plan and a shared parking plan. Reduce minimum parking requirements for developments with a pedestrian access to transit plan and a shared parking plan. Establish maximum parking limits for all land uses. Require an ITS parking space identifier system for all major parking areas.
235, 236, 237, 240	Drive Access to Transit Strategies	Limit parking at transit stops in areas that are pedestrian friendly or primarily a transit destination. Increase parking at transit stations or park and rides with good access to congested roadways and which provide a driver an opportunity to start a transit trip. Develop infrastructure that improves access to parking at transit or park and ride start points.
227, 228, 229, 230, 231, 232, 241, 242, 249, 250, 253	Parking Demand Strategies	Provide preferential or reduced cost parking to preferred drivers throughout transit, public and private parking lots. Provide remote parking with shuttle services. Price parking based on vehicle type, occupancy, and/or arrival time. Require toll tag parking fee collection at all stop and pay to park lots to reduce vehicle idling.
Pricing Measures		
275, 281, 287, 290, 294	Measures to Discourage Travel	Reduce vehicle trips by discouraging travel through strategies such as congestion pricing at major activity centers, local or regional fuel taxes, cold start taxes or a vehicle tax for two or more vehicles per household.
273, 274, 278, 280, 283, 284, 286, 288, 289, 291, 298	Measures to Incentivize Reduced Trips	Reduce vehicle trips through pricing incentives such as accelerated depreciation allowances for employer-provided vanpool or bicycle facilities, state and local exemptions for provision of vanpool and transit benefits, no tolls for buses and vanpools, discounted registration for lower-than-standard annual vehicle miles traveled, exemption of rideshare vehicles from "common carrier" tax status, Pay-As-You-Drive Automobile Insurance, and other tax incentive and subsidy programs for insurance coverage and liability responsibility.
295, 296, 297, 299	Measures to Discourage Peak Period Trips	Shift trips out of peak period through discouragement using strategies such as increasing tolls during peak traffic periods, charging peak period tolls to enter designated congested areas, increasing tolls during daytime traffic periods and levying higher rates during daytime hours for a vehicle miles traveled charge.
New	Off-Peak Incentives to Shift Trips	Shift trips out of peak period through off-peak incentives such as tax incentives for businesses that offer flexible work schedules.
272, 276, 279, 285, 292, 293	Encourage Greater Fuel Efficiency	Encourage greater fuel efficiency or switching to lower-emission fuels by strategies to encourage ownership of multiple vehicles (use most effect vehicle that serves a purpose), progressive registration fees by vehicle emission standards (age), tax credits for alternative fuel use, exclusion of sales tax on hybrid and other clean vehicle purchases, tax increase for cars and mobile equipment below a certain EPA standard, greater charge for higher emission fuels.

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Speed		
308, 307, 311, 312	Reduce Speed Limits for Trucks	Since diesel trucks emit more emissions at speeds above 45 mph than automobiles, set the maximum truck speed limits to 55 mph in the region and require lower speed limits during peak period congestion through variable speed limit signs. During high levels of congestion, more vehicles can travel at lower speeds effectively and safely. This approach will maximize person trips, reduce congestion, and improve air quality.
309	Work-zone Enforcement and Safety	Enhance visibility of work-zone speed limits when workers are present and posted speed limits when workers are not present. Addition of flashing speed limit sign will increase visibility and notify drivers that workers are present for worker safety.
Sustainable and Transit-Oriented Development		
314, 315, 317, 318, 321	Tax and Financial Strategies	Level the playing field between cities with 4A and 4B programs and those supporting transit by allowing cities utilizing sales tax to support transit to add an additional ½ cent over the cap for police, charter schools, or other economic development purposes. Allow municipal take over of under-performing schools or school systems, including the tax base associated with the impacted schools' attendance zones. Reduce, rebate or eliminate property taxes and sales taxes associated with sustainable developments. Utilize tax revenue derived from sustainable developments to fund transportation and utility infrastructure, sidewalk and storefront improvements, maintenance, police patrols, and public spaces within those sustainable development areas. Limit eligibility for economic development incentives to commercial activities locating from outside the non-attainment area. Disallow economic development incentives for commercial activities relocating or expanding from sustainable development areas. Increase allowable lending limits for residential buyers adjacent to transit hubs and rail stations.
	Tax and Financial Strategies (Continued)	Provide free or discounted transit passes to residents and employees who live or work along the rail system and meet income requirements. Withhold federal funds for transit facilities from projects that fail to meet sustainable development land use criteria.
320, 322, 323, 324, 325, 326, 327, 319	Planning and Zoning Strategies	Require municipal comprehensive plans to identify jobs available by income group and to provide zoning for a range of housing types that would accommodate the full range of income levels present in the workforce within the city boundaries. Eliminate or increase maximum density limits at rail stations. Increase minimum density limits at rail stations. Require street level retail, professional services and neighborhood services for multi-story buildings adjacent to rail stations. Require major office campus developments include, on-site, a mix of residential, retail, professional service and neighborhood service uses in a walkable environment. Regulate development by the form the development presents to the street rather than by the statistics associated with the development. Require a pedestrian circulation plan and a safe routes to school plan with every green field development. Amend local government transportation plans to include bicycle and pedestrian facilities.

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NCTCOG #	STRATEGY	DESCRIPTION
	Planning and Zoning Strategies (Continued)	Change planning, zoning and development codes to allow sustainable development by right adjacent to rail stations and other key areas. Expand the resources of the Center of Development Excellence to allow for additional outreach and local planning assistance.
316, 313	Infrastructure Strategies	Invest in local street network improvements necessary to build neighborhood schools off collectors and arterials, or to provide for the opportunity to satisfy trips within a development rather than utilizing major transportation facilities. Invest in major transportation infrastructure rehabilitation and expansion in central cities. Invest in transportation infrastructure that provides new or improved access to neighborhoods and commercial zones in sustainable development areas. Invest in bicycle and pedestrian infrastructure in areas where the existing and/or allowable building forms, uses and layout encourage bicycling and walking. Only build new outer-loop controlled access facilities that can be supported by toll revenue. Move programming of Statewide Transportation Enhancement Program funds to MPOs in nonattainment areas and limit eligibility to projects in sustainable development areas.
Traffic Flow Improvements		
331, 332, 334, 335, 339, 342, 343, 344, 345	Freeway and Arterial Improvements	This includes major widening projects for highly-congested roadways, as well as lower-cost measures to reduce specific bottleneck problems. Strategies include re-design of driveways (spacing and entrances), use of one-way streets, use of reversible traffic lanes, construct of shoulders, and development of off-street loading areas for commercial vehicles.
328, 337, 338, 341	Intersection Modifications	This group of strategies includes case-specific changes to intersection geometries that are designed to improve overall efficiencies in traffic movements. In some situations this will include turning movement restrictions, while in other situations this will include installation of new turn and/or through lanes.
329, 330, 333, 346, 347, 348, 349, 353, 354	Traffic Control	Real-time traffic flow management solutions include ramp metering and other controls to encourage better utilization of available road capacity. Special strategies include selective ramp closures to discourage short-distance use of freeways, regional route marking systems to encourage underutilized capacity, auto-free zones, and removal of traffic signals that may no longer be warranted.
350, 351, 352, 355, 356, 359, 360	Traffic Signal Improvements	Update traffic signal equipment, vehicle detectors, and software to be more responsive to changing conditions. Re-time groups of traffic signals so they not only promote traffic progression and mobility, but maximize total emissions savings. This includes new signal phasing and offset plans by time-of-day, as well as new computer-controlled, volume-actuated plans. Bus traffic signal pre-emption/priority strategies designed to improve bus operating speeds should be developed so that the negative impacts on overall traffic flow can be minimized.

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Traffic Management		
361	Major Attraction and Special Event Traffic Management	Improve traffic flow at major trip attractions. This includes improved parking management systems using intelligent transportation system technology. In addition, this would require additional effort in managing traffic for special events. This would apply to air carrier airports, tourist attractions (e.g., Six Flags Amusement Park), special events (e.g., motor speedway, sporting events), and shopping malls (e.g., opening of new stores, sales tax days).
366	Drive-Thru Service Restrictions	Prohibit drive thru service during ozone season. This applies to, at minimum, fast food restaurants, banks, pharmacies, and dry cleaners.
368	Route Efficiency for Delivery and Refuse Trucks	Promote route efficiency for delivery and rubbish pick up services. This includes special sensitivity during the ozone season.
369	Impact Analysis for New Regionally Significant Developments	Require impact analysis be performed on all regionally significant new developments. This would include an evaluation of traffic circulation elements on-site and off-site. On-site evaluation would include traffic flow evaluation as discussed above in this section. Analysis would also be performed off-site to ensure adequate thoroughfare capacity. The role of public transit would need to be included in all assessment.
369	Access Management Analysis for New Regionally Significant Developments	All regionally significant new developments require an access management assessment to determine the appropriate access and egress locations to a particular development.
Transit		
405, 426, 373, 374, 375, 377, 381, 382, 384, 386, 407, 428, 390, 431, 427, 429, 387	Transit	Transit provides an efficient, reliable, cleaner means of travel than Single Occupant Vehicle (SOV) travel. Strategies, which encourage travelers to use transit or HOV rather than SOV, provide Air Quality Benefits. Strategies, which make driving less attractive, more costly, will draw drivers to transit or HOV will also provide Air Quality Benefits. Strategies such as making transit more convenient and reliable such as additional light rail and commuter rail lines, exclusive bus lanes, easily understood fare structures and transfers, and subsidized transit service. In addition, strategies to improve transit amenities such as business class service, more comfortable and attractive bus and rail stops, increased security can be used to make travel more pleasant and convenient. Strategies to make automobile travel less attractive will also be beneficial to transit such as increased parking cost, higher fuel cost, higher vehicle registration fees, and more toll roads.
Travel Demand Management - Business Operations		
447, 448, 449, 450, 451, 452	E-Commerce Business Operations	Offer E-commerce and E-government incentives and enhancements for expanding electronic transactions. Offer discounts for paying bills by mail or online. Increase online business and purchases by waiving sales taxes for internet purchases. Increase E-commerce deliveries.
445, 453, 454, 455, 457, 458	Retail Business Operations	Reward business efforts that promote the shifting of hours of business to later hours; require or encourage delayed openings of businesses until after 9:00 am; operate under later business hours during ozone season; link start times of interacting businesses; and mandate peak spreading.

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NCTCOG #	STRATEGY	DESCRIPTION
Travel Demand Management - Employer Trip Reduction		
462, 471, 480, 483, 485, 489, 492	Incentives for Employer Amenities	Initiate an employer tax credit or deduction for businesses that offer in-building cafeterias, gym facilities, on-site convenience stores, purchase vans for vanpools, free or subsidized transit (bus, rail, party bus), and offer remote or satellite offices close to residential areas.
463, 464, 465, 468, 470, 472, 476, 481, 482, 484, 493	Incentives for Employer Business Efforts	Implement a program that rewards business efforts that encourage an increase in teleconference meetings, offer discounted or free lunches on ozone action days, mandate or encourage vanpooling and carpooling, offer financial incentives to its employees for not driving, provide food vendors at remote worksite locations, provide business-based concierge services, provide personalized travel planning, and allow the use of employer's fleet during business hours. Also offer rewards to businesses that offer mandatory or voluntary flextime programs (daily start and end time), staggered workdays, staggered lunch schedules and midday flexibility for trip chaining.
475, 486, 487, 488, 490	Telecommuting	Increase the incentives for Best Workplaces for Commutes Designation that offer telecommuting incentives or mandates, full-time telecommuting with full tele/video conferencing and electronic support, provide home computers and work stations for employees that participate in telecommuting and determine current and future availability of dsl/cable for residential use.
460, 461, 469, 473	Ride Sharing	Advocate positive reinforcement for alternative travel to include subscription buses or buspooling, internet ride matching services, and the requirement of some employer subsidy for employees parking and transit.
Travel Demand Management - Regional Applications		
496, 497, 499, 501, 503, 504, 508	Incentive Programs	Implement regional vanpool programs and rideshare matching, transit marketing and information programs. Also implement shared ride taxis, shared hybrid vehicles, and car sharing (Flexcar) programs. Establish a rewards system for reducing total vehicle miles traveled in a city of region and an ozone season transit incentive program.
500, 505, 506, 507	Community Outreach	Encourage pooled ownership of single occupant vehicles for local midday travel. Develop informational materials that incorporate employee surveys, subject advocacy and education.
511, 512, 513	Transportation Coordinators	Develop activity center transportation management outlets. This would also include transportation services coordinators and traffic management education for activity center directors.
Travel Demand Management - Schools and Colleges		
520, 521, 522, 523, 524	Campus Infrastructure and Planning	Increase the number of distance learning programs by developing satellite campuses. Reduce the amount of emissions associated with travel habits on college campuses by eliminating internal streets within the campus, by making on-campus housing more readily available and appealing and by encouraging on-campus convenience retail stores.
526, 527, 528, 529, 530, 531	Planning and Scheduling Policies for Schools	Encourage community schools and locate the schools away from arterial streets to eliminate slow zones. Address school districting issues to reduce the required distances that students must travel to attend school. Adjust the hours of operation so that they do not coincide with peak traffic periods and the ozone season. Additionally adjust the school year to not coincide with the ozone season. Encourage more home schooling.

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NCTCOG #	STRATEGY	DESCRIPTION
516, 514, 515, 517, 518, 519, 525	Transit Options for Schools	Restrict student drivers to high schools and provide intramural and after school van service or pooling for students. School systems could change their policies regarding bus operations; provide school bus service within ½ mile of schools; and address bus stop locations. Use “walking bus” program for younger children and promote youth bus riders.
516	Ride Sharing (Schools & Colleges)	Encourage schools and universities to offer intramural and after school van service or pooling.
Travel Demand Management - Special Events		
532, 533, 534, 540	Scheduling for Special Events	Establish an ozone season special events schedule through the use of a public / private coordination committee. The committee would also aid in the coordination of services with the event schedule. The ozone season special events schedule would also in the scheduling of major events at night.
539, 545, 546	Site Planning for Special Event	Develop ordinances for site plan reviews and develop special routes for special events that may include the closure of streets for special events for use by bikes and pedestrians.
547, 548, 549, 550	Transit Options for Special Events	Include transit service as a part of the facility rental agreement for special events. Through this agreement, free transit services could be provided to event patrons. Ticket/transit packages could also be made available. High occupancy vehicle (HOV) lane facilities could also be opened to peak direction traffic for special events.
535, 536, 537, 538	Notification Options for Special Events	The advance use of dynamic message signs along approach routes, television, newspaper and radio communications could be used to notify the public on special event routes, travel options and event scheduling.
Vehicle Emissions Standards		
551, 552, 553, 556, 555	California Low Emitting Vehicle (LEV) II Standards	Adoption of California’s Low Emitting Vehicle (LEV) II standards would have slightly more NOx benefit relative to the Federal Tier 2 standards with or without the zero emission vehicle (ZEV) component. VOC, PM, and GHG will also be dramatically reduced with LEV II over Tier 2 standard. Overall, passenger vehicle emissions reduction benefits will continue to increase over time with implementation of LEV II over Tier 2 standards. Adopting LEV II would also help to encourage EPA to further tighten emission standards on all new passenger and light-duty commercial vehicles and would aid in requiring the purchase of ultra LEV (ULEV) by mandated fleets within the state. Also, adopting California’s Heavy-Duty Diesel Vehicle Standards would further reduce emissions from vehicles within the region.
Vehicle Engine Modifications		
560, 563, 566	Engine Warming Technology	Encourage development of starting and warm-up catalysts technologies and block heaters to address cold start emissions reductions in trucks. Also promote the increase usage of Pony Engines (smaller, more environmentally friendly motors) to assist in starting and warming-up larger cold motors.

ON-ROAD SOURCE DRAFT SHORT LIST

NCTCOG #	STRATEGY	DESCRIPTION
Vehicle Idling		
583, 584, 586	Idle Reduction Infrastructure	Implement idle reduction electrification projects at public parking facilities such as truck stops and rest stops to help heavy-duty vehicles reduce idling. Implement idle reduction electrification projects at private facilities, such as goods movement terminals, airports, hospitals and ambulance stations.
568, 570, 571, 569	Vehicle Idling Education	Launch an education outreach program to increase vehicle idling awareness and encourage all types of motorists to refrain from idling whenever possible. This can be done using various marking items such as hang tags, posters, signs posted in parking garages, and dealership education flyers
573, 574, 575, 576, 577, 585, 572, 578, 579	Vehicle Idling Restrictions and Policies	Develop city and regional ordinances to require restrictions on idling for both public and private fleets. Restrictions may be determined by area, such as airport curbsides, downtown event areas, school zones, and off-street parking lots, or it may be determined by specific vehicle types, mainly focusing on heavy-duty vehicles. An extended idling tax and/or a shortened truck stop stay could be implemented to detract from idling.
Vehicle Inspection and Maintenance (I/M)		
589, 591, 605, 607, 608, 613	Policy	Enforcement of partially implemented strategies such as license plate renewal tied to current emissions inspection, bar codes on inspection stickers, test on resale, I/M certification to operate in non-attainment counties needs improvement. Local rules should be adopted to inspect highly traveled vehicles (such as taxi cab fleets) more than once per year if operated in a non-attainment area. Military ground equipment inspections should be considered, also.
593, 594, 595, 601, 609, 610	Expanded I/M	The current I/M program should expand to include all OBD II vehicles, regardless of weight class and possible tighten the standards on existing vehicles being tested. The I/M program should also expand to include all 2-24 year old diesel vehicles including light-duty and heavy-duty diesel vehicles. Safety, opacity testing, and OBD testing should be conducted on all 1997 and newer vehicles, with all older vehicles being subject to safety and opacity testing. The I/M program should also consider testing of out of region vehicles for compliance.
587, 590	Statewide Emissions Testing	Statewide emissions testing and a border crossing inspection program should be established.
614, 615, 616, 617, 618	Education and Outreach	Various outreach strategies should be implemented to encourage proper vehicle maintenance and should target such issues as proper tire maintenance; vehicle tune-ups with an emphasis being placed on the beginning of ozone season; and car care clinics.
Vehicle Operations Management		
624	Reduction of Short Trips and Cold Start Emissions	Reduce cold start emissions from frequent vehicle starting. This includes the identification of locations that demonstrate a large amount of vehicle emissions from travel of short distances. This would put a cap on the number of starts at a particular location on weekdays during the ozone season. Vehicle starts above the cap would require the location to fund air quality programs to offset higher emissions. This would include such facilities as new and used car dealerships, car rental facilities, military installations and large employers that do not provide lunchtime eating establishments within walking distance.