COMMENTS OPPOSING THE PROPOSED ADDITION OF THE
KNIK ARM CROSSING TO THE ANCHORAGE BOWL LRTP AND TIP

The Alaska Center for the Environment, Alaska Public Interest Research Group, Alaska Transportation Priorities Project, Alaska Wildlife Alliance, Cook Inletkeeper, Environmental Defense, and Government Hill Community Council submit these comments opposing the proposed addition of the Knik Arm Crossing to the long range transportation plan (LRTP) and transportation improvement program (TIP) for the Anchorage Bowl planning area. As set out below, Anchorage Metropolitan Area Transportation Solutions (AMATS) and the U.S. Department of Transportation (USDOT) have not satisfied the planning requirements of the Federal Aid Highway Act (FAHA), as amended by SAFETEA-LU, Pub. L. No. 109-59 (2005). Specifically, neither AMATS or USDOT have completed a major investment study (MIS) in accordance with 23 U.S.C. § 134 and 23 C.F.R. § 450.318. Until AMATS or USDOT prepare an MIS that analyzes the impacts of and alternatives to the Knik Arm Crossing, AMATS cannot add the Crossing to the LRTP or TIP.

In light of the extensive impacts the Knik Arm Crossing would have on the performance of the transportation system in the Anchorage Bowl, marine mammals and their habitat, land use and regional development, fuel consumption and greenhouse gas (GHG) emissions, and other significant socioeconomic values and natural resources, the commenters hereby demand that AMATS prepare an MIS to the Crossing before deciding whether to fund the project.

I. Federal Law Requires AMATS to Prepare an MIS

Since 1993, federal regulations have required that, before a metropolitan planning organization (MPO) like AMATS may add a project to a LRTP or TIP, it must analyze the project and potential alternatives to determine the cost-effectiveness of the project and its effects on system performance and the national transportation planning objectives prescribed in 23 U.S.C. § 134(a)(1). 23 C.F.R.pt. 450. As explained below, this requirement – known as the MIS rule – remains in effect despite recent regulatory amendments by USDOT.

USDOT amended 23 C.F.R. pt. 450 in February 2007. 72 Fed. Reg. 7224 (Feb. 14, 2007). Upon adopting the amendments, USDOT indicated that

> [s]ection 1308 of the TEA-21 required the Secretary to eliminate the [MIS] set forth in [23 C.F.R. § 450.318], as a separate requirement, and promulgate regulations to integrate such requirement, as appropriate, as part of the analysis required to be undertaken pursuant to the planning provisions of title 23 U.S.C. and title 49 U.S.C. Chapter 53 and the National Environmental Policy Act of 1969 (NEPA) for Federal-aid highway and transit projects.[1] [As amended,

[1] Section 1308 of the 1998 TEA-21 amendments reads in full:

> The Secretary shall eliminate the major investment study set forth in section 450.318 of title 23, Code of Federal Regulations, as a separate requirement, and promulgate regulations to integrate such requirement, as appropriate, as part of the analyses required to be undertaken pursuant to the

> the] purpose of [23 C.F.R. § 450.318 (Transportation planning studies and project development)] is to implement this requirement of Section 1308 of the TEA-21 and eliminate the MIS as a stand-alone requirement.

72 Fed Reg. at 7241. USDOT thus adopted regulations that purport to integrate the MIS requirement with NEPA and the planning process required by 23 U.S.C. § 134 (metropolitan planning) and 23 U.S.C. § 135 (state transportation planning). *Id.* These regulations make the MIS a voluntary undertaking by MPOs, however, whereas the MIS rule provides that MPOs "shall" prepare a MIS before adding a project to a LRTP or TIP. Unlike the MIS rule, the amended regulation falls short of section 1308 of TEA-21, Pub. L. No. 105-178 (1998).

The MIS rule requires MPOs to satisfy 23 C.F.R. § 450.322(b)(7) before adding a major project to a LRTP or TIP. 23 C.F.R. § 450.322(b)(7) requires a LRTP or TIP to "[r]eflect a multimodal evaluation of the transportation, socioeconomic, environmental, and financial impact of the overall plan, including all major transportation investments in accordance with § 450.318." At the time it adopted the MIS rule, USDOT explained that "[s]uch investment studies should occur before a particular investment is ultimately defined in an area's approved plan . . . . After a corridor/subarea study is completed, the plan would be revised to reflect the specific decision resulting from the study." 58 Fed. Reg. 58040, 58056 (Oct. 28, 1993). Together, 23 C.F.R. §§ 450.322 and 450.318 reflect the MIS requirement in 23 U.S.C. § 134 by requiring the MPO to demonstrate how an MIS affected its determination to add a project to a LRTP or TIP; section 450.322 requires the MPO to evaluate the "impact of the overall plan," and section 450.318 requires individual investments and strategies to be evaluated for their impacts on "local, State and national goals and objectives" before the MPO adds one of the alternatives to the LRTP or TIP.

Although TEA-21 instructed the Secretary of Transportation to eliminate the "separate" MIS requirement, it also directed the Secretary to "integrate such requirement, as appropriate," into the planning provisions of Title 23, Title 49, and NEPA. Pub. L. No. 105-178, at § 1308. "The technical structure of the law is such that this action requires a two step process: (1) Eliminating and (2) proposing an approach for integrating what remains." 67 Fed. Reg. 59219, 59223 (Sept. 20, 2002). USDOT thus understood that Congress intended for it to integrate into the planning process "what remains" of the required "approach" that is not otherwise required by NEPA or titles 23 or and 49 of the U.S. Code. In short, the MIS regulation remains in effect under 23 U.S.C. § 134 until USDOT replaces 23 C.F.R. § 450.318 with a regulation that fulfills the mandate to integrate the MIS requirement into the planning process.

Prior to amending its planning regulations in 2007, USDOT acknowledged that the existing regulation remained a "placeholder" to meet Congress's integration requirement. *Id.* at 59223. The MIS rule remains in effect because (1) Congress did not repeal the MIS requirement

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> planning provisions of title 23, United States Code, and chapter 53 of title 49, United States Code, and the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) for Federal-aid highway and transit projects. The scope of the applicability of such regulations shall be no broader than the scope of such section.

reflected in 23 C.F.R. § 450.318, (2) the MIS rule remained consistent with 23 U.S.C. § 134 after the TEA-21 revisions and enforceable, and (3) the USDOT has not lawfully revoked the 1993 regulation because it has not promulgated a rule that satisfies the mandate to integrate the MIS "requirement" into the planning process.

A. TEA-21 Retained the MIS Requirement

The 1998 TEA-21 amendments did not repeal or eliminate the MIS requirement, but rather clarified a latent ambiguity as to whether an MIS must be prepared separately or as part of the NEPA process. The MIS regulation left this issue to be determined on a case-by-case basis. 23 C.F.R. § 450.318(f). Because MPOs had no obligation to satisfy NEPA as part of their planning processes, MPOs often did not include within the MIS a treatment of alternatives that met the comprehensive requirement of NEPA. Accordingly, after a project was added to a LRTP or TIP, USDOT would prepare a separate, but largely duplicative, environmental impact statement (EIS) to satisfy NEPA. Participants often viewed this as a make-weight, paper-shuffling task to meet the letter of the law that had little to do with the final selection of a project. *See, e.g.,* 144 Cong. Rec. S6399, S6402 (June 16, 1998) (S.J.R. 15). Indeed, as a practical matter, USDOT could not select a different alternative identified in the NEPA process because such an alternative was not in the LRTP or TIP, and thus could not be funded.

TEA-21 sought to avoid this duplication by ensuring that the MIS would satisfy NEPA. Congress did not intend to eliminate the MIS requirement.[2] S. Rep. 106-47, at 5 (1999) ("TEA-21 deletes the Major Investment Study as a stand-alone requirement and integrates it into the planning process."); H.R. Rep. 105-831, at 29 (1998) ("The project review process is reformed by deleting the Major Investment Study as a stand-alone requirement and integrating it into the planning process."); 144 Cong. Rec. H10479, H10502 (daily ed. Oct. 10, 1998) (same). It is no wonder, then, that the mandate to integrate the MIS requirement is found within the section titled "Program Streamlining and Flexibility." Pub. L. No. 105-178, § 1308, 112 Stat. 107 (June 9, 1998). An MPO satisfies the MIS requirement when it demonstrates how the MIS affected its decision to add a project to the LRTP or TIP. *See Clairton Sportsmen's Club v. Pa. Turnpike Comm'n*, 882 F. Supp. 455, 481 (W.D. Pa. (1995) (concluding, before the 1998 TEA-21 amendments, that the Federal Highway Administration [FHWA] did not abuse its discretion by permitting the agencies to comply with the MIS regulation by incorporating a section regarding MIS compliance into the environmental impact statement). *See also* FHWA, Notice of Intent, 67 Fed. Reg. 50504, 50504 (Aug. 2, 2002) ("As directed by the Transportation Efficiency [sic] Act for the 21st Century (TEA-21), the Major Investment Study (MIS) will be integrated with the [environmental impact statement (EIS)].").

[2] 144 Cong. Rec. S1723, S1735 (daily ed. Mar. 11, 1998) (Sen. Warner) ("This amendment . . . eliminates the redundant provisions of the law by integrating the so-called major investment study, MIS, requirement into the overall transportation planning process. . . . This amendment would eliminate only those elements of the MIS that are duplicative of other transportation planning requirements."); 144 Cong. Rec. S2002, S2038 (daily ed. Mar. 16, 1998); 144 Cong. Rec. H1888 (daily ed. Apr. 1, 1998) (Rep. Petri) (recognizing that the 1998 TEA-21 amendments were designed to reduce red tape by coordinating project reviews); 144 Cong. Rec. H1913 (daily ed. Apr. 1, 1998) (Rep. Costello) (same); David M. Bearden and Linda G. Luther, Cong. Res. Serv., Environmental Streamlining Provisions in the Transportation Equity Act for the 21st Century: Status of Implementation 4 (May 30, 2003), http://www.ncseonline.org/nle/crsreports/03Jun/ RS20841.pdf.

B. USDOT Has Not Lawfully Replaced the MIS Rule

Because TEA-21 did not eliminate the MIS requirement, the MIS rule remains in effect until USDOT replaces it with a rule that complies with the statutory directive. The February 2007 amendment fails to do so, the MIS rule therefore remains in effect.

USDOT's explanation for the 1993 MIS rule specifies the requirement that TEA-21 tintended to incorporate into the planning process: "[T]he intent of the requirement is to integrate planning and environmental requirements at the planning stage so that alternative courses of action, their costs and environmental effects as well as transportation demand are considered at this point." 58 Fed. Reg. at 58056. The 2007 amendments to the MPO and statewide planning rules do not preserve these requirement and therefore do not fulfill the statutory mandate.

In contrast to the MIS requirement, the amended MIS regulation makes the preparation of an MIS discretionary. 23 C.F.R. §§ 450.212(a) ("a State, MPO, or public transportation operator may undertake a multimodal, systems-level corridor or subarea planning study as part of the statewide transportation planning process."), 450.318(a) ("MPO(s), State(s), or public transportation operator(s) may undertake a multimodal, systems-level corridor or subarea planning study as part of the metropolitan transportation planning process."). The regulations are thus inconsistent with statutory mandate in TEA-21, which directs USDOT to "integrate such requirement, as appropriate," into existing planning processes.

In sum, because USDOT has not replaced the 1993 MIS rule with a rule that satisfies the statutory MIS requirement, the MIS rule remains in effect. Additionally, the rule is effective pursuant to the 2007 rulemaking until July 1, 2007. 23 CFR § 450.338. Perhaps most importantly, finally, AMATS appears to have proceeded under the 1993 MIS rule in considering the Knik Arm Crossing. Thus, the proposed Knik Arm Crossing is a "major metropolitan transportation investment" within the meaning of 23 C.F.R. § 450.318, *see* 23 C.F.R. § 450.104 (defining "major metropolitan transportation investment"), for which AMATS must complete an MIS under the 1993 regulatory requirements for an MIS. 23 CFR § 450.318 (2006).

II. An MIS Must Consider the Effects of Alternative Projects on Whether the LRTP and TIP Will "Accomplish" the National Planning Objectives, Environmental Resources and Socioeconomic Values

An MIS requirement of interest to commenters is the preparation of the alternatives analysis that considers the environmental impacts of project alternatives and how the alternatives will "accomplish" the national, state, and local planning objectives prescribed in 23 U.S.C. § 134(a)(1). This analysis would demonstrate whether the addition of the Knik Arm Crossing to the regional transportation network would accomplish the national objectives and, if it would not, will assist AMATS in identifying alternatives that will meet the national objectives.

A. The LRTP and TIP Shall Accomplish the National Planning Objectives

23 U.S.C. § 134(c)(1) requires an MPO to "accomplish" the objectives prescribed in 23 U.S.C. 134(a)(1) through the development of long-range transportation plans and transportation improvement programs, as set out in 23 U.S.C. 134(a)(1). An MIS analysis evaluates the "effectiveness and cost-effectiveness of alternative investments or strategies in attaining local, State and national goals and objectives." 23 C.F.R. § 450.318(c).

USDOT's other implementing regulations reflect this statutory mandate. *See, e.g.,* 23 C.F.R. §§ 450.322(b)(9) (requiring LRTPs to reflect consideration of existing "national goals and objectives"), 450.316(a)(2) (requiring that "[c]onsistency of transportation planning with applicable Federal, State, and local energy conservation programs, goals, and objectives" be "explicitly considered, analyzed as appropriate, and reflected in the planning process products").

Until Congress revised the FAHA through SAFETEA-LU in 2005, the planning objectives in 23 U.S.C. § 134(a) had been understood to be largely hortatory. In the revised 23 U.S.C. § 134(c), however, Congress requires MPOs to adopt transportation plans that "accomplish" these "objectives":

> Development of long-range plans and TIPs.-- To accomplish the objectives in subsection (a), metropolitan planning organizations designated under subsection (d), in cooperation with the State and public transportation operators, shall develop long-range transportation plans and transportation improvement programs for metropolitan planning areas of the State.

The revised section 135(a)(1) similarly requires the statewide transportation plan to "accomplish the objectives stated in section 134(a)."

This language imposes on MPOs and USDOT a duty to accomplish the objectives in subsection 134(a)(1). The general planning objectives establish four broad criteria to be achieved by all transportation plans: 1) improve mobility, 2) foster economic growth and development, 3) minimize fuel consumption, and 4) minimize air pollution. 23 U.S.C. § 134(a)(1). They provide MPOs and states discretion to determine how they are to be achieved, but do not allow the planning agencies to adopt plans that fail to achieve progress with respect to the objectives. The challenge to the planning agencies is to develop plans that accomplish all four objectives.

To demonstrate that the LRTP and TIP will "accomplish" the national objectives, AMATS must apply criteria that measure how well the LRTP satisfies these objectives. Two of the objectives are readily quantifiable using commonplace measures: fuel consumption (measurable as gallons of fuel used in transportation)[3] and emissions of air pollutants (measurable as tons per day by pollutant, for defined criteria pollutants, mobile source air toxics and major greenhouse gases). The other two are quantifiable as well. The MPO should specify the numeric criteria to be used to measure the performance of plans for the purpose of determining compliance with these objectives and for the comparison of different planning options.

[3] AMATS should also measure fuel consumed on a per capita basis to ensure that the LRTP and TIP maximize transportation efficiency.

1. Measuring the Mobility Objective

The first objective is to develop "safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight and foster economic growth and development within and between States and urbanized areas." 23 U.S.C. § 134(a)(1). This objective would best be satisfied by plans that:

1. maximize travel time reliability, and thus reduce congestion delays;

2. are designed to meet travel needs while minimizing vehicle hours of travel;

3. maximize the share of jobs and public facilities reachable by all metro residents, including those without access to cars, without undue time and cost burdens; and

4. are designed to reduce transportation fatalities and serious injuries by implementing the state's data-driven Strategic Highway Safety Plan (SHSP). The SHSP must include strategic and performance based goals addressing traffic safety, including behavioral and infrastructure problems and opportunities on all public roads, and focus resources on areas of greatest need, *see* FHWA, *Strategic Highway Safety Plans Interim Guidance*, http://safety.fhwa.dot.gov/safetealu/shsppreview.htm#write).

A recent report (Cambridge Systematics and Texas Transportation Institute, *Traffic Congestion and Reliability: Linking Solutions to Problems*, [July 2004, FHWA.]) recommends the selection of Travel Time Index and Travel Reliability Index as measures of congestion and system performance. We urge AMATS to adopt these metrics as measures to apply for the comparison of planning strategies and program alternatives, and for measuring the accomplishment of the first element of the four planning objectives.[4]

2. Measuring the Economic Development Objective

The second objective is to "foster economic growth and development." 23 U.S.C. § 134(a)(1). This factor requires calculation of both public and private costs and benefits of the system including, but not limited to, net consumer (user) costs for transportation, public investment and operating costs of the transportation system, and the impacts of system performance (delay costs) on businesses and commercial enterprises that rely on the regional and statewide systems. Methods for measuring and reporting some of these costs are demonstrated in the planning scenario analyses reported by Robert Johnston in the Sacramento, California area studies cited in the attached report *Review of U.S. and European Regional Modeling Studies of Policies Intended to Reduce Highway Congestion, Fuel Use, and Emissions*.

The *Conformity Determination Report* prepared for the Crossing suggests that the project will have little effect on regional growth, but will contribute to sprawl development in the region:

[4] The Clean Air Act Conformity determination prepared for the Knik Arm Crossing addition to the regional network provides evidence that the project will not necessarily improve system performance.

"The Knik Arm Crossing project is expected to have little effect on the overall regional growth in terms of population and employment. However, by providing access to a large supply of vacant land in the Mat-Su borough, the Knik Arm Crossing (KAC) will have an impact on the relative share of population, households, and jobs growth between the Municipality of Anchorage and the Mat-Su Borough." AMATS, *Conformity Determination Report* 9. The *Report* shows a small decrease in net regional employment if the Crossing is built, and a depressive effect on growth in Anchorage as jobs and housing transfer to the Mat-Su Borough. Using these measures, the Project offers no net economic benefit to the region.

The *Report* also indicates that expected increase in sprawl development will increase user costs for transportation because of increased travel distances. Table 17 of the *Report* shows that, with the Crossing, vehicle miles traveled per person per day will increase from 14.8 in 2007 to 15.56 in 2027, an increase of 5.1%. This will add to annual user costs. Without any demonstrated public economic benefit to offset this increase in private costs, the Crossing will not foster economic development as the second planning objective requires.

3. Measuring Fuel Consumption

The third objective is to "minimize" fuel consumption. 23 U.S.C. § 134(a)(1). This objective requires an estimate of the fuel that will be consumed by all types of vehicles included within the scope of the MPO or statewide plan during the planning horizon, and the 4-year period when the plan will be in effect before an update is required. The statute does not define the types of fuel to be measured in this analysis but, at a minimum, it should measure the consumption of the different fuel types that will have different impacts on greenhouse gas emissions. Engines that consume gasoline produce more CO2 per mile than diesel engines, and both of those fuels produce somewhat more greenhouse gas emissions than natural gas-fueled engines. Electric powered vehicles usually produce even fewer CO2 emissions per mile than the prior engine types discussed, but the actual amount will depend on the source of electric generation and related transmission losses. Electric vehicles powered by wind or solar generators may be virtually emission-free. Because greenhouse gas emissions are an important form of air pollution emitted by the transportation system, *Massachusetts v. EPA*, slip op., No. 05-1120 (2007), and because the FAHA requires LRTPs and TIPs to minimize fuel consumption and air pollution, transportation planners must account for the different emission characteristics of different fuel types so that the air pollution impacts of alternative proposals can be effectively evaluated.

The *Report* demonstrates that the Crossing will increase the miles of travel (VMT), hours of travel (VHT), and fuel consumption in the planning area:

> [VMT] and [VHT] is expected to increase with implementation of this project because of more travel occurring in the Mat- Su, reflecting longer trips necessitated by the more dispersed, rural development patterns. By the year 2030, the total VMT would increase by 480,810 vehicle miles or 4.8% due to construction of the bridge. There would be a similar effect with respect to the amount of time spent in cars from 250,000 vehicle hours without the bridge to 260,000 hours with the bridge or 4%. The effect of the bridge on the

> promotion of other transportation options is probably negative overall. If one assumes the development pattern on the other side of the bridge in the Mat-Su Borough will be low density (this seems to be the assumption of the DEIS), then it is unlikely a viable bus system could be established. The effect on carpooling and vanpooling rates is less clear-cut. These depend in part on the length of the trip and the ease of finding a sufficient number of persons who share the general origin and destination. Low-density development patterns may occur in the newly opened areas of the Mat-Su Borough would tend to discourage carpooling. On the other hand, the cost of bridge tolls would tend to encourage ridesharing."

Report at 26. This analysis demonstrates that the Crossing accounts for nearly all (93%) of the VMT growth expected in the region between now and 2027 (4.8% VMT growth attributed to the effect of the Crossing out of the expected 5.1% for the region as a whole). This translates to a similar increase in fuel consumption compared to the No Action alternative. *See Report* at tbl. 18. This increase runs afoul of the national planning objective to minimize fuel consumption when the No Action alternative would result in less fuel use.

4. Measuring Air Emissions

The fourth and final planning objective is to minimize "air pollution." 23 U.S.C. § 134(a)(1). This term includes, but is not limited to, pollutants for which a national ambient air quality standard has been promulgated pursuant to sections 108 and 109 of the Clean Air Act (CAA), pollutants listed as hazardous air pollutants under section 112 of the CAA,and mobile source air toxic pollutants under 202(l) of the CAA. "[A]ir pollution" includes all pollutants emitted into the public air supply that causes or contributes to adverse effects on public health or welfare. Effects on "welfare" under the CAA include "effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate." USDOT should clarify in its guidance that all pollutants listed under sections 108, 109, 112, and 202(l) of the CAA must be included in the estimates of emissions, and that pollutants identified by other federal agencies as playing a major role in climate change and affecting water, soil, or visibility should also be included in the determination of the impacts of air pollution associated with emissions from the transportation system. Based on the recent decision in *Massachusetts v. EPA* to require EPA to recognize CO2 emissions from motor vehicles as an air pollutant, AMATS should include CO2 emissions in the measure of system performance.

B. Using the MIS to Assess the Benefits of Alternative Projects and Strategies

At the time it adopted the MIS rule in 1993, USDOT indicated that an MIS should provide a broad exploration of alternatives before transportation plans are made are made or amended:

> The alternatives to be considered in such a study should be broad ranging in character. . . . Properly done, major investment analyses should broaden the consideration of options earlier in the planning process such that local and State officials are provided a broader array of choices to improve the performance of the transportation system.

58 Fed. Reg. at 58055.

Various combinations of projects and strategies can improve mobility and foster economic growth while simultaneously minimizing fuel consumption and air pollution. Commenters submit and incorporate by reference the attached report by Professor Robert Johnston – who has evaluated some 40 plans undertaken by numerous MPOs, European cities, and himself – to identify strategies that can be expected to best contribute to achieving the four statutory objectives, and to evaluate the importance of each strategy in contributing to accomplishing the overall objectives. *See* Robert Johnston, *Review of U.S. and European Regional Modeling Studies* (Aug. 24, 2006).

Johnston identifies scenario plans that optimize available regional strategies that demonstrate reductions in fuel consumption as large as 24% to 30% compared to baseline (trend) analyses. He concludes that

> [t]he results from 40 long-range scenario exercises performed in the U.S. and Europe demonstrate that substantial reductions in (VMT), fuel use, and emissions of both criteria pollutants and greenhouse gas emissions are possible using transportation pricing policies and investment priorities that have been demonstrated as acceptable and effective in a modest but growing number of metropolitan areas and regions around the world.

Id. at 1. Johnston finds that the reviewed scenario planning studies demonstrate that the most effective investment policies and management strategies can achieve significant reductions in emissions and fuel consumption while maintaining or improving system performance:

> VMT reductions in 20 years range from 10% to 20%, compared to the future trend scenario, are achievable with reductions in emissions and fuel use roughly proportionate to the decrease in VMT, while supporting the same level of future job and housing growth. In most studies, the highway levels-of-service are the same as, or better than, the trend scenario.

Id. These results have been achieved with an integrated combination of transit investment, transit-oriented land use, growth boundaries, and pricing incentives for system users:

> The most-effective policy sets combine land use policies, such as compact growth, with strong transit provision and not expanding highway capacity. The addition of auto pricing policies, such as fuel taxes, work trip parking charges, or all-day tolls increases the effectiveness of the land use and transit policies. Peak-period tolls, by themselves, increase travel. Expanding road capacity, along with transit capacity, but without changing market incentives to encourage

> more efficient use of existing roads and parking, results in expensive transit systems with low ridership.

Id.

These studies demonstrate that investment policies and management strategies likely to achieve the greatest improvement in system performance are also the policies and strategies most likely to achieve the greatest reduction in fuel consumption and air pollution. In some metropolitan areas, these policies are being implemented or considered in the planning process .

An additional set of integrated policies are available to enhance the productivity and efficiency of freight and goods movement within and outside metropolitan areas to meet the SAFETEA-LU planning objectives. These are especially important for consideration in state transportation plans and interregional planning. The commenters attach a paper by Michael Replogle and Caroline Cheng, *Opportunities Abound to Enhance U.S. Freight Transportation for Reduced Congestion, Emissions, and Fuel Use*, which discusses these strategies in more depth.

This paper reveals that freight transport accounts for 25% of transportation-related carbon emissions[5] and 6.3% of total carbon emissions in the United States.[6] Global research and experience suggests that there are opportunities that are not fully exploited in the U.S. to better manage freight transportation, boosting its productivity and efficiency while realizing substantial reductions in carbon emissions and fuel consumption. Feasible, cost-effective strategies supporting growth of both the economy and mobility could cut carbon emissions from freight while decreasing fuel consumption and improving energy security. These strategies include market incentives, investments in infrastructure and technology, and other good practices. Many of these strategies have additive effects, so implementing a combination of these strategies could produce a 20% reduction in fuel consumption and carbon emissions compared to trend projections over the next two decades. More intensive application of these and other measures, such as road pricing, fuel or carbon taxes, or other incentives that favor fuel efficiency in transportation, could produce even larger fuel use savings.

The new statutory obligation to "accomplish" the statutory objectives now requires that all MPOs and states not only consider the policies and strategies that optimize system performance with respect to these four objectives, but adopt LRTPs and TIPs that contain the best mix of policies and strategies designed to accomplish these objectives. The elements and strategies of a transportation plan that optimizes performance with respect to each objective must be identified if the planning process is to be effective in identifying a package that optimizes all the objectives. For many planning areas and states, this may require a shift in investment priorities to enhance transit opportunities for most travelers to most destinations, introduction of new operational and management strategies, such as transportation pricing and real-time traveler

[5] U.S. Department of Energy, December 2000. "Annual Energy Outlook, 2001." Originally referenced by Ang-Olsen, J. & Schroeer, W. 2003.

[6] U.S. Environmental Protection Agency, February 2005. "Draft Inventory Of U.S. Greenhouse Gas Emissions And Sinks: 1990-2003," adjusted by ICF Consulting to reflect freight as described in report. Available at http://www.fhwa.dot.gov/Environment/freightaq/chapter2.htm

information and services, together with efforts to expand travel options for walking, cycling, and off-highway movement of freight.

While some stakeholders in the planning process have been skeptical that measures to reduce fuel consumption and air pollution will serve mobility and economic needs, the studies reviewed by Johnston demonstrate that such assumptions are not supported by the best scenario exercises undertaken by transportation planning agencies. Unfounded fears of the feasibility of identifying policies and strategies that can accomplish all four objectives provide no justification for short-circuiting the planning process that SAFETEA-LU requires. The extension of the planning cycle, with long range plans updated each four years rather than three, combined with the significant increase in federal funding set aside for metropolitan and state planning, provide the opportunity for MPOs and states to consider a wider range of options that can achieve the nationally defined objectives of the planning process.

The new mandate focuses on the need for MPOs and states to identify the best mix of available policies and strategies. This cannot be identified without state-of-the-art modeling tools to test the effectiveness of future scenarios on the four factors identified by the planning objectives. Alternative transportation and development scenarios, with different land use patterns to accommodate expected growth, perhaps combined with pricing policies that influence user choices regarding mode, trip length, and trip frequency, should be created with public involvement, and then tested to find the plan that best accomplishes the statutory objectives. A decision by AMATS not to include the capacity to evaluate the effect of tolls on travel demand and route choice significantly weakens AMATS' ability to evaluate policies and strategies.

In sum, various transportation policies, projects, and strategies have been tested by MPOs in the U.S. and by transportation planning agencies in Europe. These studies, reviewed by Professor Johnston in his report, provide a starting point for planning agencies like AMATSto identify policies, projects, and strategies demonstrated to be most effective.

C. New Statutory Criteria in Addition to the Statutory Objectives for Developing LRTPs and TIPs

SAFETEA-LU maintains most of the criteria required to be addressed in LRTPs and TIPs that have been in effect since ISTEA, Pub. L. No. 102-240 (1991), and establishes three additional criteria for evaluating LRTPs and TIPs in addition to the four planning objectives in 23 U.S.C. § 134(a)(1). The three important new elements to be included in RTPs are

1. 23 U.S.C. § 134(i)(2)(B)(i) requires "discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the plan;" and (B)(ii) requires that this discussion "shall be developed in consultation with Federal, State, and tribal wildlife, land management, and regulatory agencies";

2. 23 U.S.C. § 134(i)(2)(D) requires "operational and management strategies to improve the performance of existing transportation facilities to relieve vehicular congestion and maximize the safety and mobility of people and goods"; and

3. 23 U.S.C. § 134(i)(2)(E) requires "capital investment and other strategies to preserve the existing and projected future metropolitan transportation infrastructure and provide for multimodal capacity increases based on regional priorities and needs."

SAFETEA-LU also adds an important procedural requirement to the MPO planning process: 23 U.S.C. § 134(i)(4)(A) provides that "the metropolitan planning organization shall consult, as appropriate, with State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of a long-range transportation plan." 23 U.S.C. § 134(i)(4)(B) requires that the consultation include comparison of the transportation plan with conservation plans or maps.

Lastly, counterparts to each of these requirements appear in the amendments to the requirements for "Statewide transportation plans." *See* 23 U.S.C. §§ 135(f)(2)(D) (identical duty to consult), 135(f)(4)(A) and (B) (identical duty to discuss mitigation measures), 135(f)(7) (similar duty requiring plan to preserve the existing system, and operational and management strategies).

1. Discussion of Mitigation Activities

23 U.S.C. § 134(i)(2)(B)(i) raises the same issues as NEPA regarding what kinds of impacts need to be included in the discussion, what kind and magnitude of mitigation needs to be considered, and what obligation there is to implement the mitigation measures. NEPA and 23 USC § 109(h) indicate how these questions are to be answered.

a. Use of Mitigation Discussion to Satisfy NEPA

SAFETEA-LU excludes transportation plans from the scope of NEPA, but the MIS requirement directs USDOT to integrate the MIS requirement with the planning process and NEPA, and transportation projects remain subject to environmental review under NEPA. Both the MIS requirement and NEPA mandate consideration of the cumulative impacts of multiple highway projects and consideration of mitigation sufficient to avoid or minimize the adverse impacts of multiple projects as well as each individual project. *See* 40 CFR §§ 1502.14, 1502.16, 1508.7; *City of Carmel-by-the-Sea v. U.S. Dep't of Transp.*, 123 F3d. 1142 (9th Cir.1997); *W. N.C. Alliance v. N.C. Dep't of Transp.*, 312 F. Supp. 2d 765, 778 (E.D. N.C. 2003). These requirements apply to USDOT even though NEPA does not apply to the Secretary's action on a LRTP and TIP. Thus, before USDOT may approve individual projects, it must analyze the cumulative impacts of projects in a LRTP or TIP through the preparation of an MIS before adding a regionally significant project to the LRTP or TIP. If USDOT integrates this MIS with NEPA, it will satisfy NEPA by giving proper consideration to alternatives as a means of mitigating adverse impacts, 40 C.F.R. § 1502.14, and other means of mitigation, 40 C.F.R. § 1502.16(e)-(h), "which would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 CFR § 1502.1.

The revised statutory mandate to consider mitigation measures in the planning process is an element of the planning process that USDOT and MPOs must integrate with the MIS requirement and the NEPA process. To do so, AMATS must satisfy the requirements of NEPA.

The amended 23 C.F.R. §§ 450.212 and 450.318, and guidance in Appendix A, address how the products of the planning process can be used in the NEPA process, but do not require that the consideration of mitigation prescribed by NEPA be used as the criterion for determining the appropriate scope of the discussion of mitigation required by 23 U.S.C. §§ 134(i)(2)(B)(i) and 135(f)(4)(A) and (B). If AMATS integrates the MIS requirement with the planning process and NEPA, as SAFETEA-LU requires, then the consideration of mitigation under 23 U.S.C. §§ 134 and 135 may not be less comprehensive than would be needed to satisfy NEPA. However, the amended statute does not require the mitigation considered in the planning process to avoid, eliminate, or minimize the adverse impacts. Accordingly, if the mitigation considered in the planning process is not comparable to that required under NEPA, commenters will object to the use, for NEPA purposes, of such planning studies or other planning products. In sum, AMATS cannot lawfully use planning studies as the NEPA assessments of impacts and mitigation if less criteria are applied to discuss mitigation in the planning process that are less comprehensive than the criteria that NEPA provides.

i. NEPA Requirements That Must Be Satisfied – Notice

To the extent that MPOs and states seek to use the results of planning studies in the NEPA process, we urge USDOT to modify 23 C.F.R. §§ 450.212 and 450.318 and Appendix A to clarify that the use of planning products in the NEPA process requires MPOs and states to act as cooperating agencies with USDOT, as the lead agency under NEPA, 40 CFR Part 1506, by treating the planning studies as part of a programmatic assessment under NEPA (that considers the mitigation options available to avoid or minimize the cumulative impacts of multiple projects that can be tiered to in the subsequent project-level NEPA review) or as part of studies that are expressly identified as prepared for use in the project-level NEPA review of specific projects, in addition to use in the planning process.

At a minimum, compliance with NEPA procedures requires the MPO or states to inform the public that a study is being prepared for NEPA compliance, in addition to meeting the planning requirements of SAFETEA-LU. Such notice is essential to inform the public that the assessment of impacts and mitigation options will be used for NEPA purposes, and to ensure that the agencies apply the appropriate standards to the development of the planning products Finally, such notice should allow the minimum time allowed for public comment under NEPA.

ii. NEPA Requirements That Must Be Satisfied – Consider All Reasonable Measures to Avoid or Minimize Significant Effects

Perhaps the most important aspects of NEPA review that planning products must include are the obligations to consider mitigation for all direct and indirect effects, including cumulative effects, that "significantly affect the human environment" as defined by 40 CFR § 1508.27, and to

consider a range of alternatives that avoid or minimize adverse impacts and enhance the environment as 40 C.F.R. §§ 1502.14 and 1502.16 require.

If the planning process is used to define a project's purpose and need to exclude options that would mitigate significant impacts (such as further reducing air pollution or fuel consumption compared to the selected alternative), exclude alternatives as Appendix A suggests, or fuel consumption compared to the selected alternative), or otherwise make determinations that the lead agency normally makes in a NEPA review, the MPO must also satisfy the obligation under NEPA to "state whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not." 40 CFR § 1505.2(c).

b. Use of Mitigation for the Purpose of Satisfying 23 USC § 109(h)

23 U.S.C. § 109(h) requires highway projects to be reviewed for their adverse environmental, social and economic impacts, and that mitigation strategies be identified to "eliminate or minimize" such "adverse" impacts. The USDOT regulation implementing this section requires an EIS prepared under NEPA to also address the social and economic impacts required to be considered under 23 U.S.C. § 109(h). 23 CFR § 771.105. Additionally, the metropolitan planning rule issued to implement ISTEA requires MPOs to address the criteria required by 23 U.S.C. § 109(h) in the transportation plan. 23 CFR §450.316(a)(2006). The 2007 amendment does not retain this requirement, but if the MPO or state does not address section 109(h), then USDOT should clarify that the products of the planning process may not be used to satisfy the requirements of section 109(h).

i. Scope of Impacts to be Included in Discussion of Mitigation to Satisfy 23 U.S.C. § 109(h)

If USDOT allows the planning process to consider mitigation sufficient to satisfy 23 U.S.C. § 109(h), then all adverse "environmental, social and economic" impacts are subject to the requirement to identify reasonable mitigation measures. The consideration of mitigation measures required by 23 U.S.C. §§ 134(i)(2)(B)(i) and 135(f)(4)(A) and (B) must be equally broad if USDOT allows planning agencies to address adverse impacts under 23 U.S.C. § 109(h).

23 U.S.C. § 109(h), enacted December 30, 1970, supplemented the requirements of NEPA, enacted January 1, 1970, for highway projects. Section 109(h) requires a three-step evaluation of impacts and mitigation measures to ensure that "final decisions on the project are made in the best overall public interest." The first step is to determine the "possible adverse economic, social and environmental effects relating to any proposed project." 23 U.S.C. § 109(h). The second step is to determine "the costs of eliminating or minimizing such adverse effects." *Id.* The third step is to consider "the costs of eliminating or minimizing such adverse effects" together with "the need for fast, safe and efficient transportation" to make a final decision on the project. *Id.* USDOT's implementing regulation requires any measures necessary to mitigate such adverse effects to be incorporated into the project. 23 C.F.R. § 771.105(d).

Like any effort to coordinate the evaluation of mitigation options in the planning process with the NEPA requirement that transportation plans consider mitigation for any "significant" environmental impact, any effort to use the planning process to consider the mitigation of

impacts required to be considered under section 109(h) must be as broad as the scope of that statute. Although NEPA limits the obligation to consider mitigation for only those impacts deemed "significant" under NEPA, 23 U.S.C. §§ 134(i)(2)(B) and 135(f)(4)(A) and (B) and 109(h) do not so limit the effects that planning agencies must plan to mitigate.

c. What kind and magnitude of mitigation needs to be considered to Satisfy §§ 134(i)(2)(B) and 135(f)(4)(A) and (B)

Both NEPA and 23 U.S.C. § 109(h) inform the meaning of the revised 23 U.S.C. §§ 134(i)(2)(B) and 135(f)(4)(A) and (B). The NEPA rules require mitigation to be identified as part of the environmental review. 40 CFR § 1502.16(h). NEPA regulations define mitigation to include measures that –

> (a) avoid the impact altogether;
> (b) minimize impacts by limiting the degree or magnitude of the action;
> (c) rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
> (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
> (e) compensating for the impact by replacing or providing substitute resources or environments.

40 CFR § 1508.20.

Section 109(h) also requires a determination of the "possible adverse economic, social and environmental effects relating to any proposed project," and "the costs of eliminating or minimizing such adverse effects" to be used in weighing "the costs of eliminating or minimizing such adverse effects," together with "the need for fast, safe and efficient transportation" to make a final decision on the project that is "in the best overall public interest."

Using both NEPA and section 109(h) as the reference point for defining the duty to discuss mitigation under 23 U.S.C. §§ 134(i)(2)(B) and 135(f)(4), the law requires a planning agency to identify measures that include "eliminating" or "avoiding" the impact, as well as measures that may be less protective of the environment. Furthermore, section 109(h) requires the cost of mitigation to be weighed against the benefits of improved mobility from the project. Therefore, the scope of the duty must include all "possible adverse" impacts, the identification of effective mitigation capable of eliminating or avoiding the impact, as well as options to minimize the impact, and the quantification of the costs of mitigation options to be weighed against the benefits of the mobility improvements so that the planning agency has the information required to make decisions in "the best overall public interest."

Thus defined, the adverse impacts of individual projects as well as the aggregate impacts of all the projects in a regional plan need to be discussed in the LRTP and TIP. A major advantage of addressing these considerations at the regional planning stage is to include consideration of measures that may be implemented at the regional level, such as land use, more comprehensive

transit services, pricing, fuel quality, zone travel limitations, and other measures that would not be available or relevant at the corridor scale in a project EIS.

Emerging case law interpreting the obligation under NEPA to consider the cumulative impacts of federally funded highway projects, cited above, makes clear that if the analyses of cumulative impacts are not performed by the MPO as part of the development of the transportation plans, they must nonetheless be considered by the implementing agencies as part of a project EIS. Developing information regarding the mitigation of regional impacts that will result from the projects planned for the region will be less useful if prepared by the implementing agencies outside the regional planning process. We therefore encourage USDOT to adopt comprehensive guidance to ensure that mitigation for all impacts – at the regional, corridor, and local scales – is identified and cost estimates developed as part of the planning process.

d. Mitigation Analyses to Be Performed in All States and Planning Areas

Based on the evidence of the impacts of air pollutant emissions from the transportation sector on public health and climate change, these impacts must be mitigated in the planning process under 23 U.S.C. §§ 134(i)(2)(B) and 135(f)(4)(A) and (B), NEPA, and 23 U.S.C. § 109(h).

i. Public Health Impacts

Attached is a September 2006 review by Dr. John Balbus of peer-reviewed literature demonstrating that highway emissions have a significant impact on human health, and a supplemental review that includes more recent reports. These studies include studies of the undifferentiated effects of all highway emissions without distinguishing the effects of particular pollutants, and other studies that identify the effects of individual pollutants, or limited combinations of pollutants. Some of these are criteria pollutants (that is, pollutants for which a national ambient air quality standard [NAAQS] has been adopted under section 109 of the CAA), and others are pollutants listed as hazardous under section 112 of the CAA and/or listed as a mobile source air toxic (MSAT) pollutant under section 202(l) of the CAA. EPA has also updated its initial assessment of the health risks associated with exposure to motor vehicle emissions as part of its recent MSAT rulemaking. 71 Fed. Reg. 15804 (Mar. 29, 2006). *See also* 66 Fed. Reg. 17229 (Mar. 29, 2001); 64 Fed. Reg. 38705 (July 19, 1999) (National Integrated Air Toxics Strategy). This information demonstrates that the adverse health impacts of highway emissions are significant in every metropolitan planning area, and that planning agencies must consider mitigation of these impacts.

Together, the health risk assessments performed by EPA and the methodologies used by USDOT in preparing the study of health costs of air pollution[7] provide examples of the tools available to MPOs and states to estimate the magnitude of adverse health outcomes associated with exposure to air pollutant emissions in a metropolitan area. These tools can provide estimates that, within a range of uncertainty of exact numbers of adverse health outcomes in the exposed population, can

[7] Addendum to the 1997 Federal Highway Cost Allocation Study Final Report, U.S. Department of Transportation, Federal Highway Administration (May 2000).

be used to compare the expected health consequences of different emission scenarios associated with differing project, mode, land use, and economic incentive strategies.

Commenters incorporate herein by reference the attached supplemental summary of recent health research reports completed on May 24, 2007. AMATS should consider these reports jointly in reviewing and assessing the health risks associated with exposure to motor vehicle emissions.

An important conclusion from the studies summarized in these surveys is that motor vehicle emissions include nearly 100 pollutants known to cause adverse health effects, and that compliance with the NAAQS for four of those pollutants is insufficient to protect against the health effects associated with exposure to emissions from motor vehicles. The best protection is to separate populations, especially populations of sensitive groups such as children and the elderly, from continuous, long-term exposure to motor vehicle emissions in residential, health care and educational settings. The zone of increased exposure demonstrated in the research studies, and documented adverse effects, extends to 500 meters from major highway facilities.

Because these effects can permanently impair normal development and affect lifetime health, we request that AMATS conduct a thorough examination of the situations where populations will be exposed to elevated concentrations of motor vehicle emissions (500 meter zone), and to identify mitigation strategies to remove sensitive populations from the zone, or to modify the alignment of the highway facility to avoid health impacts on those populations.

ii. Impacts of Greenhouse Gas Emissions

The United States and the United Nations (UN) recognize the adverse impacts of CO2 and other air pollutants emitted from the transportation sector. The United Nations Framework Convention on Climate Change (UNFCCC) seeks to stabilize atmospheric concentrations of greenhouse gases at levels that would prevent dangerous human interference with the climate system.[8] The United States ratified the UNFCCC, and the Bush Administration endorsed the scientific consensus on the threat posed by climate change with its submission to the UN of *Climate Action Report 2002*.[9] The Administration has also acknowledged that drastic reductions in total greenhouse gas emissions are needed to stabilize atmospheric concentrations,[10] and has funded technological developments toward this end. Measurement of increasing CO2 concentrations in the atmosphere provides compelling evidence that comprehensive programs to reduce CO2 emissions are necessary to meet climate change goals. EPA's inventories of carbon emissions from major sectors of the U.S. economy demonstrate that emissions from the transport

[8] For a general description of UNFCCC provisions, obligations, and implementation measures, see United Nations (U.N.) Climate Change Secretariat, A Guide to the Climate Change Convention Process (2002), available at http://unfccc.int/resource/process/guideprocess-p.pdf.

[9] See U.S. Climate Action Report 2002, Third National Communication of the United States of America Under the United Nations Framework Convention on Climate Change [hereinafter Climate Action Report 2002]. Chapter 6 of Climate Action Report 2002 spells out the adverse impacts on the United States, including temperature and sea level rises, increase in severe weather events, and loss of sensitive ecosystems.

[10] See U.S. Department of Energy (DOE), Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Implementation of the Carbon Sequestration Program, 69 Fed. Reg. 21514, 21515 (Apr. 21, 2004) ("even modest stabilization scenarios would eventually require a reduction in worldwide greenhouse gas emissions of 50 to 90[%] below current levels").

sector account for the fastest growth of GHG emissions from the United States.[11] Thus, significant reductions in GHG emissions from the U.S. cannot be achieved without stopping, and perhaps reversing, the growth in GHG emissions from the transportation sector. *Id.*

Although the United States has not ratified the Kyoto Protocol, Congress has required that the transportation planning process produce transportation plans that "minimize fuel consumption" and "air pollution." 23 USC §§ 134(a) and (c), 135(a). Accomplishment of these objectives will result in significant reductions in CO2 emissions from the transportation sector. Given that the United States acknowledges the predicted harm from GHG emissions and expected climate change, and the mandate to develop metropolitan and statewide transportation plans that minimize fuel consumption and air pollution, these impacts are significant in every state and metropolitan transportation planning area with respect to triggering the obligation to consider mitigation in the transportation planning process to minimize these impacts.

III. Environmental Impacts In Addition to Those Addressed by National Planning Objectives

The above comments identify various procedural and substantive requirements of FAHA that AMATS must satisfy before adding the Knik Arm Crossing to the Anchorage Bowl LRTP or TIP. Among the procedural requirements, AMATS must prepare an MIS that provides a range of alternatives to the Knik Arm Crossing, provides measures to mitigate the adverse impacts of the Crossing, and ensures that the LRTP and TIP will "[r]eflect a multimodal evaluation of the transportation, socioeconomic, environmental, and financial impact of the [LRTP and TIP], including all major transportation investments." 23 C.F.R. §450.322(b)(7). Among the substantive requirements, the FAHA requires the MIS, the LRTP, and the TIP to demonstrate that AMATS and USDOT have planned to "minimiz[e] transportation-related fuel consumption and air pollution." 23 U.S.C. § 134(c)(1). These are prerequisites to a decision by AMATS to add the Knik Arm Crossing to the Anchorage Bowl LRTP and TIP.

The commenters and various government agencies raised many of the above issues – including issues regarding alternatives to the Crossing, mitigation measures, and the impacts of the Crossing on transportation efficiency and air pollution – in comments on the draft EIS prepared by USDOT for the Crossing. As set out above, given the similarity in the standards of FAHA and NEPA as described above, these comments are also relevant to the requirements of FAHA and its implementing regulations. Accordingly, the commenters incorporate certain of these comments herein by reference to comment on the need for AMATS and USDOT to address these issues by through the procedural and substantive mandates of FAHA. The comments we incorporate herein can be found at the following website: http://www.knikbridgefacts.org/2006/11/draft-eis-comments.html.

[11] *See* Bob Yuhnke, *Global Warming And Transportation System Planning*, presented at Global Warming Conference, Natural Resources Law Center, University of Colorado (June 7, 2006).