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ISTEA [Intermodal Surface Transportation Efficiency Act] [Folder 2]

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BROWNFIELDS

PLANNING

This language would be inserted into the draft metropolitan planning language (Sec. 135) and statewide planning language (Sec. 135). The proposal would highlight brownfields as an area about which it is important to coordinate with other planning efforts.

Sec. 134, Revise (g) (3) as follows:

**“(3) COORDINATION WITH RELATED PLANNING ACTIVITIES
CLEAN AIR ACT AGENCIES.**

(A) In metropolitan areas which are in nonattainment for ozone, carbon monoxide or particulate matter under the Clean Air Act (41 U.S.C. 7401 et seq), the metropolitan planning organization and the state air quality agency (and local air quality agencies as appropriate) shall coordinate the process of developing the transportation plan and the state air quality implementation plan, including development of the transportation control measures for the State implementation plan.

(B) The metropolitan planning organization shall develop its transportation plans with due consideration of and in coordination with other related planning activities within the metropolitan planning area such as housing, brownfields, empowerment zones.

Sec 135, Insert (D) under (b) Scope of the planning process

(3) In addition, each state in carrying out planning under this section shall consider the following:

[(A) coordination with air quality; (B) local official views in non-metropolitan areas (C) concerns of tribal governments and Federal lands agencies,]

(D) The coordination of transportation plans, programs, and planning activities with related planning activities (such as housing, brownfields, empowerment zones) being undertaken outside of metropolitan planning areas

ELIGIBILITY

Add to Surface Transportation Program eligibility (23 USC 133(b) and National Highway System eligibility 23 USC (103(d)(i)(17):

“Mitigation of soil contamination (brownfields) within the right-of-way of an NHS [STP] project.”

Similar language is being developed to clarify eligibility for mitigation for transit activities.

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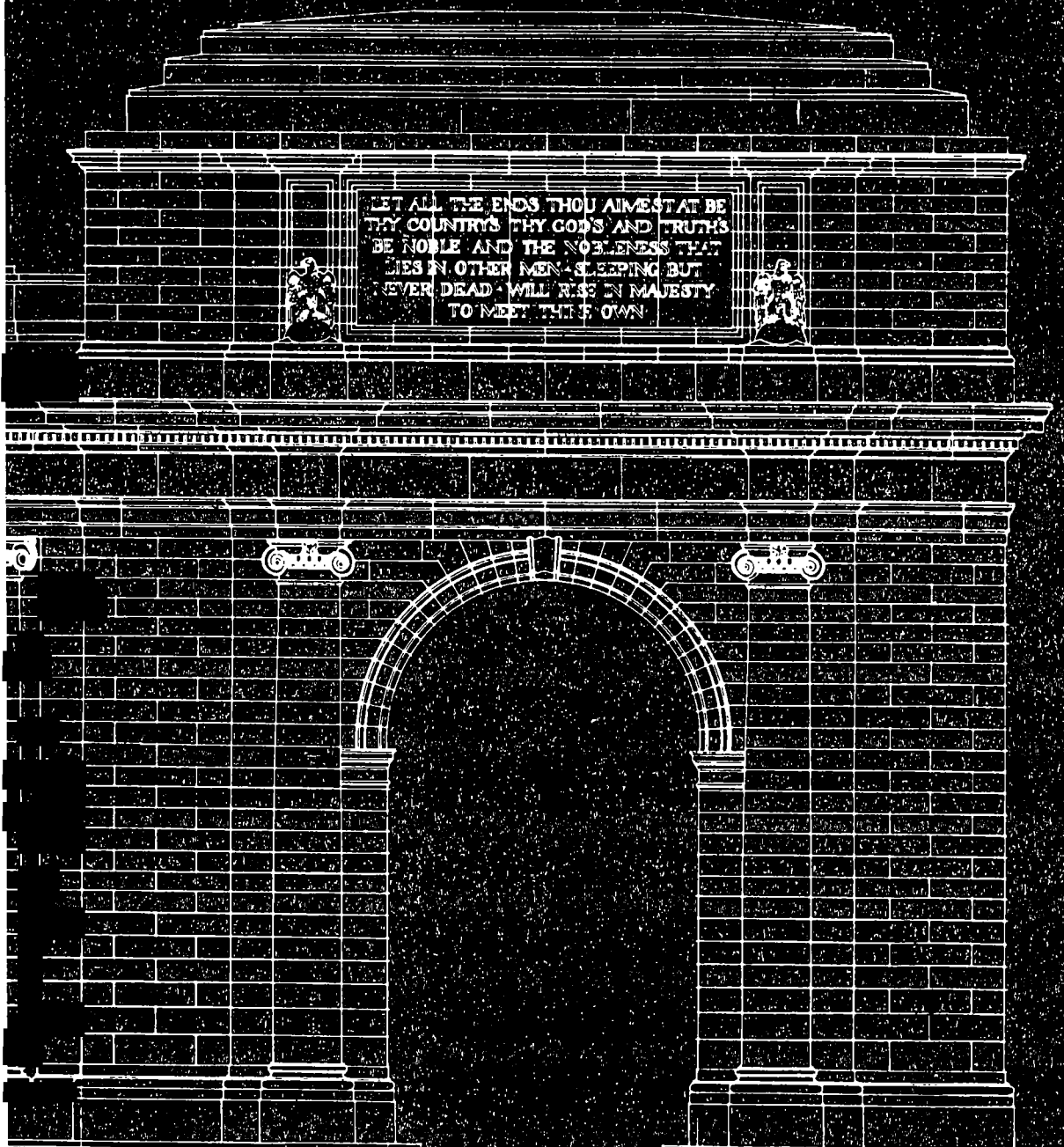
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A Blueprint for ISTEA Reauthorization

SURFACE
TRANSPORTATION
POLICY
PROJECT

A Common
Sense Guide to
Transportation
Priorities
for the
21st Century



SOUTH EAST CORNER PAVILION
SOUTH ELEVATION

FAX**Date** 02/14/97**Number of pages including cover sheet****TO:** Diane Regis**Phone**
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Fax Phone 202 260-0780**CC:****REMARKS:** ☐ Urgent ☐ For your review ☐ Reply ASAP ☐ Please Comment

ISTEA discussion starts on page 4.

Overview of Greenhouse Gas Mitigation Options

Introduction

Over the next century, important shifts in the global economy would be required to address climate change. (See attachments 1 and 2). While many mitigation options exist, these policies entail costs, increases in energy prices, or have important budgetary implications. Taking no action also involves costs since global warming can adversely affect both humans and ecosystems. This paper lays out the broad policy options available for limiting emissions, but does not analyze the costs and benefits of particular options. The options fall into three general categories:

- Those that seek to increase the rate at which existing energy efficient technologies are deployed in the marketplace by overcoming information and other barriers to their use. The Administration's efforts in the Climate Change Action Plan were designed to use technology diffusion to reduce emissions to 1990 levels and may reduce as much as one-fourth of the amount of projected growth to the year 2010.
- Those that create new government requirements to internalize the costs of greenhouse gas emissions in the marketplace. These could take the form of additional standards and regulations, changes in other government policies that indirectly affect energy use, and/or an emissions trading program. Such programs typically involve government imposed limits on emissions that increase the costs of energy or restrict consumer choice.
- Research and Development (R&D). R&D can reduce costs in all periods. However, it is particularly important in the long term, since controlling warming ultimately requires adopting an energy system that does not rely primarily on fossil fuels. This would involve stepping up and refocusing the federal government's R&D program and reversing the long-term trend of declining government and private R&D expenditures.

Technology Diffusion Programs

As noted by the National Academy of Sciences (NAS) and the Office of Technology Assessment, a wide range of energy saving technological options already exists, but is not being implemented. The NAS, for example, stated that the total diffusion of existing energy efficiency technologies in "reasonable applications" could reduce current carbon emissions by almost one-fourth.

For energy efficient technologies to be more fully employed, however, potential buyers of products need to know of the technology, as well as its performance and economic benefits. Service providers must have the expertise to appropriately design, install, and operate the technology. Yet, given the transaction costs associated with

obtaining reliable information, potential users may not fully appreciate the potential long-term net benefits of more energy-efficient technologies.

A number of technology diffusion programs to address these problems are currently underway. The Administration's CCAP launched over 40 initiatives in 1993. Their goal was to return U.S. greenhouse gas emissions to 1990 levels by the year 2000. The Administration currently projects that if funding at current annual levels (\$183 million) continues, these programs will eliminate as much as one-fourth of the total growth in emissions through the year 2010 and save over \$35 billion in energy expenses in that year. The Administration proposed higher spending levels years (\$305 million) for each of the past two years. However, Congress cut the requests by 40%.

The following illustrate the kinds of programs underway or that could be pursued in this category:

- Fully funding existing CCAP programs, adding initiatives to further reduce emissions beyond the year 2000.
- Establishing additional information and energy labeling programs for buildings (e.g., to redress the asymmetry of information between builders and occupants). This sector consumes one-third of the nation's energy.
- Should a domestic emissions trading system be created, setting aside a reserve of allowances or a portion of auction revenues to reward new R&D investment and the production of efficient and renewable technologies. Alternatively, a voluntary early banking program could be designed to encourage early action.
- Creating a secondary market for energy efficiency financing.
- Expanding sector-wide compacts in which entire industries could pledge improvements in emissions and benefit from shared information or R&D on technologies.
- Extending government procurement efforts for energy efficient technologies to state and local levels.
- Mandating through Executive Order the purchase of "green" power by federal facilities where available.

Standards and Regulations

Limitations on greenhouse gas emissions could also take the form of standards and regulations. These would have to be imposed on a wide array of consumer goods and

energy consuming equipment, involving many government actions in which the tradeoffs among costs, emission reductions, and other product attributes would be contested. The resulting level of emissions would have to be consistent with the targets established by international agreement. Since total national greenhouse gas emissions would not be capped, such compliance would have to be projected based on an analysis of the impacts of the standards program. Such standards could include:

- *Direct limits on greenhouse gases:* Standards could specify allowable greenhouse gas emission levels per unit of output (or some other factor). For example, methane from some landfills is already controlled due to limits on emissions of volatile organic compounds.
- *Minimum energy efficiency standards for energy consuming equipment:* Historically, these have targeted appliances and other residential and commercial equipment, as well as personal transportation (i.e., the Corporate Average Fuel Economy (CAFE) program). DOE estimates that the federal appliance standards implemented to date will reduce carbon emissions by 14 million tons in the year 2000. Further development of standards could result in additional reductions, although recent bipartisan attacks on implementing new standards under the 1992 Energy Policy Act have stalled recent efforts to make progress in the appliance standards area.

Emissions of greenhouse gases from the transportation sector account for about one-third of total U.S. GHG emissions and are expected to grow by about 25% by 2010. The overall in-use fuel economy of the combined new light vehicle fleet (i.e., cars and light trucks such as minivans, sport utility vehicles, and pickup trucks) has begun to *decline*. In 1994, President Clinton convened a Federal Advisory Committee Policy Dialogue to assist in the development of measures to significantly reduce greenhouse gas emissions from personal motor vehicles ("CarTalk"). Although CarTalk ended without consensus among members of the Committee, the process did result in a number of proposed policies that could be pursued.

Other Policies Relevant to Emissions

In addition to the standards it sets, government indirectly affects the levels of greenhouse gas emissions through its policies towards transportation and energy market regulation. These also offer opportunities to generate reductions in greenhouse gas emissions. Most prominent among these are:

Electricity Restructuring: States are currently adopting retail competition for the electricity industry. This trend could be accelerated with federal legislation. Retail competition is expected to lower the price of electricity by as much as 20-25% in certain regions and change the fuel mix of generation. Preliminary EPA and DOE analysis

indicates that utility greenhouse gas emissions could rise by as much as 2-6% as a result. To mitigate the environmental impacts of competition and maintain the environmental benefits of current state level renewable and demand side management programs, a number of options have been adopted at the state level (for states that have already adopted competition) or are under consideration for the rest of the nation. These include:

- A “portfolio standard” for renewable energy or greenhouse gas emissions: This would require that all generators meet a specified level of renewable generation or greenhouse gas emission reduction either by undertaking such projects themselves or purchasing “credits” from others who have.
- A social benefit fund: Revenues from a charge on transmission service are used to subsidize energy efficiency projects, renewables, R&D, or low income consumers. California has adopted this approach.
- Information disclosure requirements: Generators could be required to disclose the emission profiles of their generation, facilitating the marketing of “green” electricity.
- Additional air pollutant requirements: Many states are hesitant to adopt retail competition because they perceive that differing regional environmental requirements put their electric industry at a competitive disadvantage and will result in more pollution being transported into their states. Thus, additional environmental provisions to “level the playing field” – which could include greenhouse gas emission reductions – are currently being debated.

The Intermodal Surface Transportation Efficiency Act (ISTEA): This Act establishes the rules for federal transportation funding to the states. In 1991, ISTEA authorized \$140 billion in transportation projects over six years. The Act expires in 1997 and Congress is now considering options for its reauthorization. These could include provisions that would indirectly reduce greenhouse gas emissions. Examples include the following:

- Congestion Mitigation and Air Quality Improvement Program: Additional funds could be targeted to transportation projects that reduce air emissions and energy consumption on a long-term sustainable basis.
- Brownfields Restoration: Successful redevelopment of brownfields can help revive inner city areas and reduce sprawl, thereby reducing vehicle miles traveled. More funds could be made available for these projects.
- Incentive Funds: A new \$500 million Fuel Efficiency Incentive Fund could be established to reward the ten states that are able to reduce fuel consumption, on a per capita basis, by the greatest amount over the next five years.

Emissions Trading

Emissions trading is a tool for meeting a total quantity limit on emissions. It involves allocating or auctioning emissions allowances, and allowing the trading of allowances in a market with sufficient mechanisms to ensure compliance with targeted levels. Since emission trading involves the creation of new, marketable assets that can have substantial value, addressing distributional issues will be an important component of program design. Allocation rules or auction revenues offer the potential to redress unfair burdens resulting from the imposition of emission limitations.

Emission trading systems can offer both static and dynamic efficiency advantages over more traditional forms of regulation. The potential for static efficiency gains exists because emitters face different abatement costs. Emissions trading allows those with high abatement costs to purchase allowances from those whose costs are lower. Total costs would therefore be lower than through traditional regulations, which require all polluters to comply with a specific standard. However, it should be noted that such a program involves people and firms adjusting to higher energy prices.

Under traditional regulation, firms have little incentive to investigate ways of abating pollution by more than the minimum required to comply with regulatory requirements. Firms under-invest in pollution control R&D since they can capture neither the full market benefits from such spending (since others benefit from learning of their successes), nor the full value of any resulting environmental improvements. Here, trading offers efficiency gains because of the incentive to continuously improve pollution abatement technologies in order to create "surplus" allowances for sale.

Experience in the United States has shown that final compliance costs for the programs that have incorporated emissions trading have, in general, been lower than predicted -- often dramatically lower. While emissions trading is not the sole cause of this phenomenon, it has contributed to lower abatement costs in the acid rain program, the phase-out of Chlorofluorocarbons (CFCs), the "criteria" air pollution program, and the phase-out of lead in gasoline.

An emissions trading program, like any program designed to limit greenhouse gases, must contain certain elements. First and foremost, an agreed upon emissions budget must be established. A central authority must be given the domestic responsibility for verifying compliance and must be provided sufficient information to do so. Finally, noncompliance with allowance limitations or reporting requirements must generate real consequences, such as penalties or subtraction of allowances.

A program would have to establish permit lifetimes, monitoring and enforcement provisions, as well as rules for permit banking, borrowing, and trading. Consideration should also be given to transaction costs, which should be kept as low as possible. However, particularly difficult issues involve determining what types of activities require

a permit and how permits should be allocated. The decision for the former should consider the following:

- *Coverage:* While it may not be necessary to ensure that every ton of greenhouse gas is accounted for within an emission trading regime, the scope of coverage of the trading program should be sufficient to ensure compliance with targets set in accordance with an international agreement.
- *Administrative and compliance feasibility:* The number of sources involved in the trading program should be small enough to be administratively feasible and large enough to ensure market competition. In addition, monitoring and verification of permit compliance must be possible for those included in the program.
- *Potential to Diffuse Low Greenhouse Gas Technologies:* Alternative points of intervention should be evaluated for their ability to provide incentives for research, development, adoption and diffusion of low greenhouse gas technologies.
- *Market Impacts:* Any program that limits emissions will affect the bottom line of firms. The permit program will have economic impacts that vary depending on program design. For example, exempting certain sizes or categories of sources from permit requirements because of administrative or equity concerns (e.g., small boilers or home heating oil) has competitive implications within the energy market.

Since virtually all of the carbon contained in fossil fuel extracted from the ground (with the possible exception of certain feedstocks) is eventually released to the atmosphere, a trading program need not focus uniquely on direct emitters, but can be implemented through other points in the energy market. These include fuel imports, fuel extraction, processing, refining, distribution, and secondary conversion (e.g., coal to electricity). In addition, these points could vary by sector. For example, an emission trading program could focus on the point of final combustion for coal, but on refining for oil, or distribution for natural gas.

In an emission trading system, some mechanism must be provided for allocating permits to sources. This could be done on the basis of baseline/historical emissions (where permits are given to those currently emitting) or through an auction (where revenues accrue to the government). These two mechanisms might also be combined: some portion of permits could be allocated on the basis of historical emissions while the rest are auctioned. In any case, the value of these assets could be large depending on the permit price, which is determined by the emissions target and the costs of substitutes. Given that an auction could produce substantial revenues, some decision would have to be made with respect to what to do with the proceeds.

Research and Development (R&D)

One of the key issues in developing a domestic climate change policy will be the emphasis placed on potentially expanding the Federal R&D effort into technologies that

reduce future greenhouse gas emissions and/or lower the cost of achieving a given greenhouse gas reduction target. Achieving greenhouse gas emission reductions that would stabilize atmospheric concentrations at "safe" levels will require major advances in technology in virtually every sector of the economy. These goals will be difficult to achieve during a time of constrained federal spending and sharp reductions in long-term private sector R&D. Since 1978, federal investment in energy R&D has declined 75%. Investment by industry fell 33% from 1983 to 1993.

The President's Fiscal Year 1998 budget requests an increase of \$200 to \$300 million in relevant R&D over the current level of approximately \$1.3 billion. Such an increase was rejected by Congress last year, and achieving it may require raising the issue to a higher level in budget negotiations. In the Fiscal Year 1999 budget and beyond, further increases will be needed, as will a more coordinated effort to target the R&D on the biggest opportunities for CO2 mitigation.

Achieving greenhouse gas levels that are not harmful to humans or the environment will require major advances in technology as can be seen from the following equation:

$$\text{Emissions} = \text{Population} \times \text{Affluence (GDP/capita)} \times \text{Technology (Emissions/GDP)}$$

From 1990 to 2060, we may well see global population double and affluence increase by a factor of four. At the same time, the world may ultimately need to *lower* emissions from 1990 levels, requiring the average emissions-related technology to improve by more than a factor of ten during the next few decades and be rapidly deployed throughout the world. The benefits could be enormous, in part because of these technologies serve a number of other national goals, including reducing the emission of the criteria air pollutants and decreasing dependence on foreign oil.

Because of the high risk nature of R&D, a number of pathways could be pursued simultaneously:

Clean Power

- The next generation of natural gas technologies, including gas turbines and fuel cells, could achieve energy conversion efficiencies of 70% or more by 2005.
- The next generation of high efficiency coal-fueled power plants, such as integrated gasification combined cycle perhaps combined with a fuel cell, could achieve efficiency exceeding 55%, with half the CO2 emission of current plants.
- Renewable technologies—wind power, photovoltaics, biomass power, solar thermal, and geothermal—have seen sharp cost reductions in the past two decades, some by a factor of ten. Further R&D, coupled with expanded deployment to achieve economies of scale and improvements in manufacturing, would likely make one of more these technologies competitive with fossil fuels in a large number of areas in the next two decades.

- Nuclear fission and fusion remain options that could benefit from further R&D, though these raise significant environmental issues regarding waste handling and disposal.

Energy Efficiency

Transportation

The Partnership for a New Generation of Vehicles (PNGV) is a public-private partnership to design and build a triple-efficiency clean car by 2004. Multiple technology paths are being pursued to build a hybrid vehicle that has both an advanced engine (such as a clean diesel, Stirling or gas turbine) and an energy storage device (such as a battery, fly-wheel or ultracapacitor). Supporting R&D includes lightweight, super-strong materials such as composites; high-temperature ceramics; regenerative braking; and advanced power electronics. Proton-exchange membrane (PEM) fuel cells have perhaps the greatest long-term potential for reducing transportation CO₂.

Biofuels also lower transportation CO₂. Continued R&D in bio-engineered organisms and fast-growing crops is expected to produce ethanol from waste paper, crop waste, and dedicated crops for under 70 cents a gallon by 2005, competitive with oil at \$25 a barrel.

Industry

The seven most energy-intensive industries—steel, aluminum, petroleum refining, chemicals, pulp and paper products, glass, and metal casting—account for about 80% of the energy consumed in U.S. manufacturing and more than 90% of the hazardous waste. They represent the largest opportunity for reducing industrial CO₂ emissions, and the Energy Department is partnering with them because they significantly underinvest in R&D compared to the industry average. Key areas that would benefit from expanded R&D include advanced materials development; separation technology; catalysis; bioprocessing, biocatalysis, and renewable feedstocks; sensors and controls; and industrial cogeneration of electricity and heat, which can achieve overall efficiencies of more than 80% and ultimately utilize biomass.

Buildings

The buildings sector consumes one-third of the nation's energy and two-thirds of its electricity. Key near-term R&D opportunities include improvements in lighting, windows, design software, high-efficiency appliances, gas heat pumps, insulation and duct systems, cooling including gas cooling, solar heating and cooling, daylighting, and urban heat island mitigation (reflective roofing and road materials). Longer term R&D needs include electrochromic glazings for windows, building-integrated PV systems, and PEM fuel cells.

Capture and Sequestration

If major reductions in CO₂ emissions are necessary, and global reliance on fossil fuels continues beyond the middle of the next century, then some form of CO₂ sequestration (i.e. capture and disposal) will be needed. A long-term R&D strategy would include demonstration of a number of sequestration options and research into their possible environmental impacts; converting CO₂ into industrial chemical feedstocks; selectively permeable membranes for CO₂ capture; processes for converting fossil fuels and biomass into CO₂ and hydrogen; development of hydrogen infrastructure technology, including transportation and storage; and PEM fuel cells. Capture and sequestration has received only limited funding to date.

Advanced Research

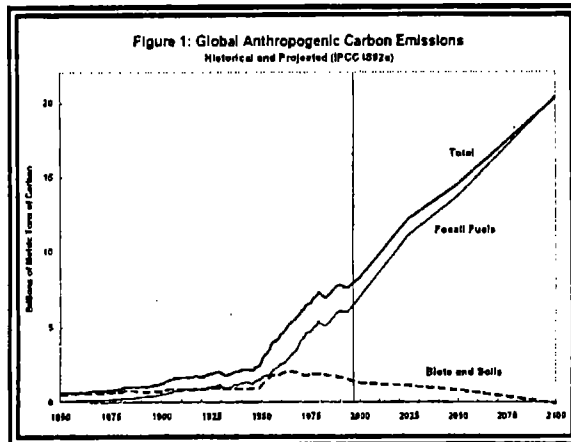
A number of areas of advanced research could prove crucial to responding to climate change, including photosynthetic mechanisms, biotechnology, fermentation microbiology, combustion research, polymer and ceramic science, process engineering, supercritical CO₂, new materials synthesis, and nanotechnology. One essential area for expanded basic and applied R&D is superconductivity, which offers the possibility of nearly loss-less energy storage and transmission and of highly efficient superconducting motors.

Conclusion

A number of mitigation options exist for controlling greenhouse gas emissions. In considering which are most appropriate, it is useful to consider the time scale in which they operate. In the near term, priority could be placed on diffusing currently underutilized energy efficiency technologies. This could be best accomplished through programs to address current information and other market barriers. Both the programs of the current Climate Change Action Plan, current energy labeling programs, as well as DOE's appliance standards are targeted at this problem. In the medium term, new government interventions, either in the form of emissions trading and/or expanded regulatory programs could be put into place to limit greenhouse gas emissions. However, in the long run, it is only through the adoption of new, non-fossil technologies, that stabilization of atmospheric concentrations of greenhouse gases can be accomplished. Thus, it is important for any program to consider the incentives it provides for both private and government research and development.

Attachment 1: Global Trends in Emissions and Concentrations

Growing emissions of greenhouse gases (GHGs) from industrial activity and land-use changes are rapidly raising the concentrations of these gases in the atmosphere, making some degree of climate change virtually certain. Although greenhouse gases come from many sources, carbon dioxide (CO₂) from fossil fuel use is the source of



greatest concern because of its rapid historical and projected growth.¹

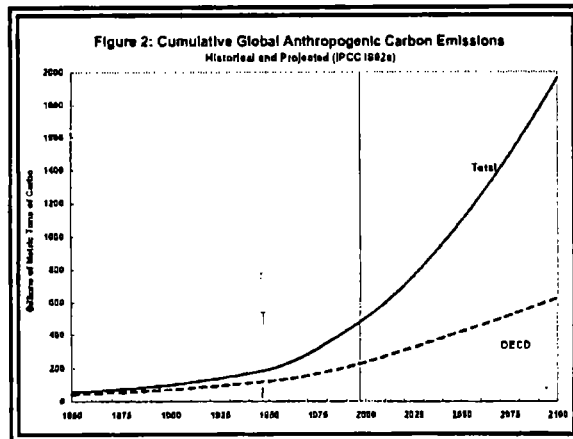
Atmospheric carbon concentrations are already over 30% higher than their pre-industrial levels and rising at about 4% per decade. The further potential for human activities to disrupt the natural balance is enormous because hundreds of years' worth of carbon (at current rates of use) are currently available in proved fossil fuel reserves that could be exploited under current economic and technological conditions – and even

larger “ultimately recoverable” reserves. In the absence of controls, emissions are projected to grow quickly as the developing countries experience rapid population growth and industrial development. These trends are expected to lead to ongoing atmospheric accumulation and climate change into the indefinite future, with a doubling of atmospheric carbon concentrations sometime during the second half of the next century and a resulting long-run increase in average global temperatures by an estimated 1.5° to 4.5°C. Even stabilizing global emissions at 1990 levels *permanently* will lead to a near doubling of atmospheric carbon concentrations by the end of the next century.

Climate change is truly a global problem in the sense that emissions from anywhere will affect everyone everywhere. As a consequence, concerted international action will be needed to induce all countries to cooperate in reducing emissions. Nevertheless, cooperation will be hampered by the uneven distribution of past and future emissions. Simply put, the developed industrial nations have relatively high levels of per capita emissions and are largely responsible for past emissions, while the developing nations, whose per capita emissions are currently very low, will be responsible for the

¹ In total, human activities have already resulted in roughly 250 billion tons of carbon (gigatons of carbon or GtC) emissions from fossil fuel combustion and perhaps 200 GtC from net deforestation since 1700. In terms of carbon equivalent, cumulative anthropogenic greenhouse gas emissions since the beginning of the Industrial Revolution have been roughly 570 billion metric tons of carbon equivalent (GtCe), of which about 450 GtC have been carbon. (Deforestation and other changes in land use have reduced the amount of carbon stored in biota and soils by perhaps 275 GtC, or around 10%, since the beginning of agriculture.) More than 75% of all fossil emissions in history have occurred since 1945, and 50% have occurred since 1970. About 40% of total carbon emissions have accumulated in the atmosphere, raising the stock of atmospheric carbon by nearly 30% from 280 ppm (parts per million) to over 360 ppm. Somewhat less than half of current emissions are accumulating in the atmosphere, while the rest is absorbed in natural sinks (the oceans and biosphere) through processes that are as yet only poorly understood. Although most of the increased carbon will ultimately be absorbed by the oceans, the increased atmospheric concentrations of carbon dioxide and other greenhouse gases will affect the climate for centuries to come.

bulk of emissions in the future.² Since the developed countries have enjoyed high levels of emissions now and bear the greatest responsibility for current atmospheric concentrations, the developing countries have been reluctant to undertake any emissions reductions at all in the absence of significant emission controls on the part of the developed countries.



Yet, actions taken by the developed countries alone are likely to have little effect on cumulative global emissions or on atmospheric concentrations. Based on the projections shown in Figures 1 and 2, stabilization of Annex I country³ emissions at 1990 levels from 2000 through 2100 would reduce cumulative carbon emissions by around 8%, and would reduce atmospheric CO₂ concentrations in 2100 by less than 5%. In other words, Annex I emissions stabilization will still lead to

well more than a doubling of atmospheric CO₂ concentrations by 2100. Even stabilizing total global emissions – which, given anticipated population growth, would require dramatic reductions in global per capita emissions – will not lead to stabilized concentrations. *Stabilization of concentrations requires global emissions to fall well below current levels, and ultimately to decline to near zero.*

Table 1: Alternative Carbon Targets and Budgets		
Target	Carbon Budget 1991-2100 (GtC)	Reduction from 1500 GtC
450 ppm	630 - 650	-57% to -58%
550 ppm	870 - 990	-34% to -42%
650 ppm	1030 - 1190	-21% to -31%
750 ppm	1200 - 1300	-13% to -20%

Researchers have examined in some detail the annual emissions paths required to meet atmospheric carbon concentration targets of 450 to 750 ppm.⁴ As shown in Table 1, all of these targets require significant reductions in cumulative

² Historically, fossil carbon emissions have come mainly from the U.S. (27% of the postwar total), the rest of the OECD (22%), and the former Soviet Bloc (24%). The rest of the world, with nearly 80% of the population, is responsible for a mere 27% of cumulative emissions. On a per capita basis, U.S. emissions are over 5 tons per person per year; the industrial nations of Western Europe and Japan emit about 2 to 2.5 tons per person; and the nations of the former Soviet Bloc, whose per capita emissions used to be very high due to the inefficiencies of central planning, have fallen to about 2.5 tons per person. At the other end of the spectrum, the developing countries of the Americas, Africa and Asia have emissions on the order of 0.2 to 0.6 tons per person.

Despite their relatively low emission levels, developing countries' emissions are growing very rapidly. (Developing country emissions grew by 21% between 1990 and 1995, and global fossil fuel emissions have been roughly stable during this period only because of the 30% reduction in former Soviet Bloc emissions associated with the collapse of the centrally planned economies.) Given current projections of population growth and economic activity, developing countries' share of annual global fossil emissions should surpass that of the developed countries during the second quarter of the next century. However, their share of cumulative fossil emissions will remain below that of the developed countries for many years to come, as will their per capita emissions.

³ The OECD nations plus the former Soviet Bloc.

⁴ The lower target would limit the projected average global temperature increase to roughly between 0.6°C to 1.75°C; the higher target would limit the increase to between 1.4°C to 3.5°C.

projected global carbon emissions; and as shown in Figures 3 and 4, all of them require dramatic reductions in annual emissions rates sometime during the next century. To achieve a 450 ppm target – which still represents a two-thirds increase in atmospheric

Figure 3: Alternative Atmospheric Concentration Pathways

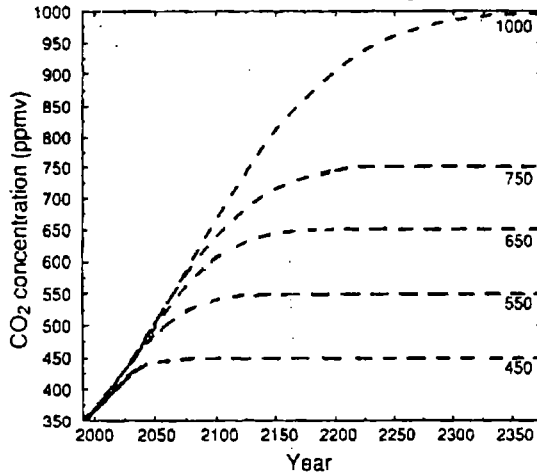
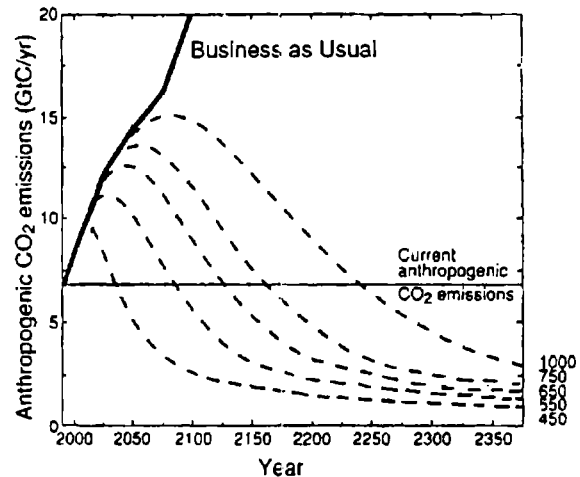


Figure 4: Emission Scenarios to Meet Alternative Atmospheric Concentrations



concentrations over preindustrial levels – annual emissions must begin declining steeply within the next quarter-century and must fall to less than half the current rate by 2100. To achieve a 550 ppm concentration target – which represents more than a doubling in atmospheric concentrations – annual emissions must begin declining steeply during the second quarter of the century. Furthermore, these budgets must be distributed both across countries and across time. And while emissions can increase in the near term, higher growth in emissions in the near term must be offset by increasingly dramatic reductions later on.

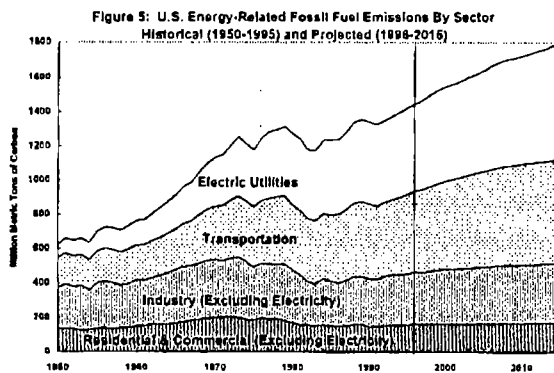
Attachment 2: U.S. Emission Trends

Total U.S. greenhouse gas emissions in 1995 were about 1,557 MMTCe (million metric tons of carbon equivalent), with gross emissions of 1,674 MMTCe offset by 117 MMTC of carbon sequestered by the nation's forests. *This total represents an increase of 100 MMTCe, or nearly 7%, in just five years.* Of the total, methane accounted for 176 MMTCe, mainly from landfills and agricultural activities, nitrous oxides about 40 MMTCe, and the various halocarbons 37 MMTCe. The remaining bulk of U.S. emissions were carbon emissions from fossil fuel combustion and non-fossil industrial activities.

Annual U.S. fossil-related carbon emissions have grown from around 620 MMTC (million metric tons of carbon) in 1950 to about 1430 MMTC in 1996, and are projected to rise to around 1800 MMTC over the next twenty years. Coal's share of the total has fallen from 50% in 1950 to 35% in 1996; while oil's share has risen from 36% to 42% and natural gas' share has risen from 14% to 23%. These shares are expected to remain fairly steady over the next quarter century.

The electric utility sector's share has grown from 12% in 1950 to 35% in 1996 (500 MMTC), as the American economy has steadily increased its use of electricity. Over 85% of electric utility sector carbon emissions come from burning coal. Similarly, the transportation sector's share of fossil-related carbon emissions has grown from 28% in 1950 to 33% in 1996 (470 MMTC),

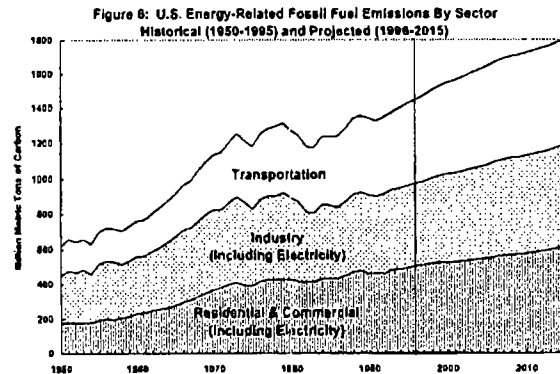
with oil accounting for practically all of the fuel use in the transportation sector. Thus, the transportation and utility sectors together currently account for 68% of U.S. fossil-related carbon emissions.



In contrast, carbon emissions from the residential and commercial sectors' direct energy use have fallen from 22% of the total in 1950 to 12% in 1996; while emissions from industrial direct energy use

have fallen from 38% to 20%. However, if electricity-related carbon emissions are attributed to the sectors that consume the electricity (rather than to the utility sector which produces it), the residential and commercial sectors' share has risen from 28% in 1950 to 35% in 1996. In contrast, the industrial sector's share has fallen from 44% in 1950 to 32% in 1996, as industry's share of economic activity has declined and services' share has risen.

Attributing electricity-related emissions to end-use sectors, then, 35% of carbon emissions are related to households and commercial businesses; 33% are related to transportation, and 32% are related to industry. These shares are projected to remain fairly constant over the next twenty to twenty-five years, although transportation's share of carbon emissions will increase slightly, while electricity generation will account for a slightly increasing share of primary energy consumption.





**U.S. Department of
Transportation**

Office of the Secretary
of Transportation

November 18, 1996

Note to: Diane Regas

Per our discussion of last Thursday.

Peter J. Basso

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U.S. Department
of Transportation

**Federal Highway
Administration**

FINANCING FEDERAL-AID HIGHWAYS

To: Digne
Regas

From:
John Reeder
260-5512



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 20 1997

MEMORANDUM

SUBJECT: EPA's Comments on the Final Draft of DOT's Proposal to Reauthorize ISTEA

TO: T. J. Glauthier
Associate Director, Natural Resources Division
Office of Management and Budget

FROM: David M. Gardiner *David Gardiner*
Assistant Administrator
for Policy, Planning, and Evaluation

Robert W. Hickmott *Robert W. Hickmott*
Associate Administrator
for Congressional and Legislative Affairs

Attached for your review are EPA's comments on the final draft of the Department of Transportation's proposal to reauthorize the Intermodal Surface Transportation Efficiency Act (ISTEA).

Please note that some of the comments attached have previously been made to the Department of Transportation, but have not yet been incorporated into the draft proposal. We again offer these comments to ensure that the draft proposal complies with the Administration's stated position that the reauthorization of ISTEA contain strong environmental protections and policies.

We have also attached a copy of a letter from Department of Transportation officials Jane F. Garvey and John N. Lieber to EPA discussing the Department's concerns with brownfields mitigation under ISTEA reauthorization. EPA believes that this letter does not provide adequate commitments on the part of the Department to satisfy EPA's concerns regarding our brownfields policy.

Attachments



EPA'S COMMENTS ON THE FINAL DOT DRAFT ISTEA REAUTHORIZATION PROPOSAL (2/20/97)

EPA appreciates the opportunity to comment on the final draft of the Department of Transportation's draft proposal for reauthorization of the Intermodal Surface Transportation Efficiency Act (ISTEA). EPA's comments are listed below by subject area of the draft proposal. EPA's "Primary Comments" are the comments that EPA feels most strongly about having included into the DOT's draft proposal. Following the primary comments are EPA's comments "For the Record," of which EPA also feels strongly about, but which we submit primarily for the record.

(All Page numbers refer to the 531-page DOT final draft proposal)

PRIMARY COMMENTS

I. - CONGESTION MITIGATION AND AIR QUALITY (CMAQ) COMMENTS -

GENERAL

The following comments are in response to the version of CMAQ legislation that we received from OMB on 2/3/97. Since that time, we have received another version of the CMAQ legislation from DOT after several meetings and phone conversations took place between EPA and DOT. EPA appreciates DOT's willingness to work closely with us to resolve the important environmental issues and we are pleased with the agreement that new nonattainment areas that result from new standards should be made eligible for CMAQ money. We will continue working with DOT to fine-tune the legislative language. A summary of our major concerns with the 2/3/97 version is given below.

1. Nonattainment Area Eligibility

- CMAQ funds are critical to helping nonattainment areas achieve air quality standards and EPA therefore believes that all new nonattainment areas that result under new NAAQS, including PM-2.5, should be eligible for CMAQ funds. This version does not allow any new areas that are designated under new standards to be eligible for CMAQ funds. This is not a desirable situation from an air quality or political perspective. All CAA references should only include section 107(d) and not sections 181(a), 186(a) or 188(a) or (b) and the term "classified" should be changed to "designated".
- A provision was added to this version which would allow the MPO and governor of current nonattainment areas to adjust their boundaries, if they choose. EPA believes that if this language is left in, it should be clarified to say that the boundary may only be expanded beyond the nonattainment area, and not decreased in size. We believe the

intention here was to allow the MPO to incorporate new areas designated under new NAAQS and to choose to spend their CMAQ funds in a larger area. However, the CMAQ funds apportioned to the States would continue to be based upon populations in existing nonattainment under the current NAAQS, which falls short of addressing the many needs of the new, larger area. This also does not address the needs of totally new areas that result under new NAAQS. The same rules and processes regarding the size of the MPO should apply to both existing and new nonattainment areas.

2. Long Term Benefits

- EPA recommends that CMAQ funding priorities should emphasize projects which provide long-term, sustainable environmental benefits, rather than those focusing on short-term improvements which are not sustainable.
- EPA recognizes the need for short term emission reductions, but projects with long term, sustainable benefits are often dismissed in the project selection process in favor of short term projects that are not necessary to achieve the NAAQS. Statutory language with emphasis on long term sustainable benefits would help level the playing field and enable longer range projects to compete with short term projects.

CMAQ SPECIFIC COMMENTS -

Section 149(b) ELIGIBLE PROJECTS

Revise to read as follows:

(b)ELIGIBLE PROJECTS--Except as provided in subsection(c), a State may obligate funds apportioned to it under section 104(b)(2) for the congestion and mitigation and air quality improvement program only for a transportation project or program if the project or program is for an area that is or was designated as a nonattainment area for ozone, carbon monoxide, or particulate matter under section 107(d) of the Clean Air Act (42 U.S.C. 7407(d)) and was classified pursuant to sections 181(a), 186(a) or 188(a) or (b) of the Clean Air Act (42 U.S.C. 7511(a), 7512(a), or 7513(a) or (b) and-

(1)(A) if the Secretary, after consultation with the Administrator of the EPA, determines, on the basis of information published by the EPA pursuant to section 108(f)(1)(A) of the CAA, that the project or program is--

(I) likely to contribute to the attainment of a national ambient air quality standard in a nonattainment area designated and classified in accordance with this subsection; or

(ii) likely to reduce emissions for the maintenance of a NAAQS in a

nonattainment area designated and classified in accordance with this subsection that was later redesignated by the Administrator of the EPA as an attainment area under section 107(d) of the CAA (a "maintenance" area); or

(B) in any case in which such information is not available, if the Secretary, after such consultation, determines that the project or program is part of a program, method, or strategy described in such section;

(2) if the project or program is included in a State implementation or maintenance plan that has been **proposed or** approved pursuant to the Clean Air Act and the project will have air quality benefits; or

(3) if the Secretary, after consultation with the Administrator of the EPA, determines that the project is likely to contribute to the attainment of a national ambient air quality standard or maintenance of such standard whether through reductions in vehicle miles traveled, or fuel consumption, through traffic management and control improvement, or through other factors.

(4) In determining project eligibility under these criteria, priority must be given to implementing those projects and programs that are included in an approved State implementation or maintenance plan as a transportation control measure and will have **long-term, sustainable** air quality benefits.

Section 149(f) NONATTAINMENT BOUNDARIES

Revise to read as follows:

Section 149(f) NONATTAINMENT BOUNDARIES--For purposes of this section, the boundaries of nonattainment areas shall continue to be those determined by the Administrator of the Environmental Protection Agency in accordance with ~~107(d) 181(a), 186(a) or 188(a) or (b) of the Clean Air Act (42 U.S.C. 7511(a), 7512(a), or 7513(a) or (b))~~ except that such boundaries may be **expanded** ~~adjusted~~ upon agreement by any affected metropolitan planning organization and Governor

Section 1008. CMAQ (b) Apportionment

(b) Apportionment. - Section 104(b)(2) of such title is amended to read as follows:

"(2) Congestion Mitigation and Air Quality Improvement Program. - For the congestion mitigation and air quality improvement program: in the ratio which the weighted nonattainment and maintenance area populations of each State bear to the total weighted nonattainment and maintenance area population of all States.

(A) Such weighted population shall be calculated by multiplying the population of each area within any State that **is or** was a nonattainment or maintenance area as described in

149(b) of this title for ozone, carbon monoxide or **particulate matter PM-10** by a factor of-

"(i) 1.0 if, at the time of apportionment, the area has been redesignated as an attainment (maintenance) area under section 107(d) of the Clean Air Act;

"(ii) 1.1, if, at the time of apportionment, the area is **or was previously designated classified** as a marginal ozone nonattainment area under subpart 2 of part D of title I of the CAA

"(iii) 1.2 if, at the time of apportionment, the area is **or was previously designated classified** as a moderate ozone nonattainment area under such subpart;

"(iv) 1.3 if, at the time of apportionment, the area is **or was previously designated classified** as a serious ozone nonattainment area under such subpart;

"(v) 1.4 if, at the time of apportionment, the area is **or was previously designated classified** as a severe ozone nonattainment area under such subpart;

"(vi) 1.5 if, at the time of apportionment, the area is **or was previously designated classified** as an extreme ozone nonattainment area under such subpart.

"(VII) 1.2 if, at the time of apportionment, the area is not a nonattainment or maintenance area as described in subsection 149(b) for ozone, but is **or was previously** a nonattainment area for carbon monoxide or particulate matter.

(B) If the area is **or was** also **designated classified** under subpart 3 or 4 of part D of title I of such Act as a nonattainment area described in subsection 149(b) for carbon monoxide or PM-10 or both, the weighted nonattainment area population of the area, as determined under clauses (2)(A)(I) through (VII) of this subsection, shall be further multiplied by a factor of 1.2. For an area that is a nonattainment area for both carbon monoxide and for PM-10, and the area's weighted population was determined under clause (2)(A)(VII) of this subsection, the area's weighted population shall be further multiplied by a factor of 1.2. For such areas, the population to which this factor is applied shall be the larger of the carbon monoxide and the PM-10 nonattainment area populations.

II. BROWNFIELDS:

NOTE: Attached is a copy of a February 18, 1997, letter from Department of Transportation officials Jane F. Garvey and John N. Lieber discussing the Department's policy with regard to brownfields. EPA believes that the letter is unsatisfactory because it fails to provide a specific commitment by the Department to produce guidance clarifying the funding eligibility of brownfields assessment, cleanup, and redevelopment. Further, the letter does not clarify the Department's application of the term "right-of-way" to brownfields activities. Finally, the funds set aside for the proposed research/pilot program are made over a 6 years period which is not a tangible budgetary time frame. Discussions of funding commitments should be limited to Fiscal Years 1997-99.

EPA has discussed our concerns with DOT and suggested that they commit to issuing clarifying guidance and agree to initiate their pilot program within the next two years. We expect that EPA and DOT will resolve this issue in a satisfactory manner. However, if we cannot resolve this issue, we are offering the following legislative language as an alternative.

1. Policy Statement

Add to the Preamble, "A Bridge to the 21st Century" - (Draft Pages 6-8):

"It is the policy of the United States government to encourage and promote brownfields activities in connection with transportation projects to benefit the national transportation system, reduce congestion, improve environmental protection, encourage sustainable redevelopment, support community revitalization, and provide flexibility for transportation decisions."

Rationale: The policy statement affirms the link between transportation and brownfields in a clear manner for transportation officials and stakeholders. This clarification is necessary at the local level where transportation, economic development, and environmental decisions are made.

2. Planning:

Add "brownfields assessment, cleanup and redevelopment" as a consideration for metropolitan highway planning (134(g)(3)(B) of USC Title 23) (Draft page 69), state highway planning (Sec. 135(b)(3)(D) of USC Title 23) (Draft Page 76), and transportation planning (Sec. 5303-5306 of USC Title 49) (Draft Page 77).

Rationale: Effective integration of brownfields activities into transportation policy largely depends upon the consideration of brownfields issues during the State and local transportation planning processes. The above language is essential to alert State and local transportation planners about the need to consider brownfields issues.

3. Eligibility:

Add a reference to brownfields to the Surface Transportation Program project eligibility criteria (Sec. 133(b) of USC Title 23) (Draft Page 57) and National Highway System eligibility criteria (Sec. 103(i)(17) of USC Title 23)(Draft Page 14) :

"Brownfields assessment, cleanup and redevelopment in connection with transportation projects, or where brownfields activities will provide an overall transportation benefit."

Revise the proposed language clarifying brownfields eligibility for transit project funding (Draft

Sec. 303 of Title III of the "Federal Mass Transportation Amendments of 1997," which amends Sec. 5302(a) of USC Title 49) (Draft Page 364):

"In accordance with all applicable laws and regulations of the United States, participation in brownfield mitigation efforts in connection activities funded under this chapter"

Rationale: Transportation stakeholders including planners, development officials, local government officials, community representatives, and environmentalists have expressed a strong need to clarify the eligibility of brownfields projects for funding under ISTEA. This language ensures the appropriate use of transportation funds by requiring the brownfields activities to be in connection with transportation projects or provide a benefit to the transportation system.

III. AQUATIC RESOURCE RESTORATION

EPA has not clarified with DOT whether restoration or remediation of aquatic resources would be eligible for ISTEA funding. DOT has submitted the attached opinion, however, it only references wetlands and does not include other aquatic resources. EPA is investigating whether this language provides an opportunity for restoration and remediation of hydraulic modifications, point and nonpoint source pollution, and lost wetland functions and values for which mitigation has not previously been provided. We feel strongly that if a state wishes to spend funds on restoration or remediation of aquatic resources, including hydraulic modifications, point and nonpoint source pollution, and lost wetland functions and values for mitigation they should be allowed to do so. If we cannot resolve this issue administratively, EPA suggests the following legislative language.

1. **Add** the following new paragraph to both Section 103 (i) of USC Title 23 (Draft Page 14) of the National Highway System and Section 133(b) of USC Title 23 of the Surface Transportation Program (Draft Page 58) as items (17) and (16), respectively:

"Restoration or remediation of aquatic resources to offset continuing adverse environmental effects that are the result of Federal-aid transportation projects, including hydrologic modifications, point and nonpoint source pollution, and lost wetland functions and values for which mitigation has not previously been provided."

IV - GLOBAL CLIMATE CHANGE AND ENERGY EFFICIENCY

ISTEA reauthorization provides a mechanism to help the transportation sector achieve reductions in emissions of greenhouse gases to enable the United States to meet its international commitment. Administration ISTEA/climate change discussions are currently ongoing, and should provide direction for how ISTEA can support the Administration's climate change objectives. As one option, EPA offers the following climate change proposal.

Establish a \$500 million incentive fund to reward the 10 states that most reduce their per capita energy consumption in the surface transportation sector over the duration of the next ISTEA. These states would receive rewards during the last year of the next ISTEA.

Legislative Language:

Add to Sec. 1003 Authorization of Appropriations:

Add (a)(9) Fuel Efficiency Incentive Fund-

A Fuel Efficiency Incentive Fund of \$500 million shall be established. This will be rewarded to the 10 states who have improved per capita fuel efficiency in the surface transportation sector during the first five years since passage of this legislation. The Secretary of Transportation will develop guidance on how the incentive fund will be allocated among the 10 states. This will be developed in coordination with the Secretary of Energy and the Administrator of the Environmental Protection Agency.

V. - PARKING CASH-OUT

The "Commuter Benefits" section (Draft Page 473) reads exactly as EPA wants it to. No changes are necessary.

The legislative analysis (section by section) (Draft Page 477) is ambiguous. We suggest the following be substituted for that text:

"Sec. Xxy, Commuter Benefit. The Internal Revenue Code (IRC) section 132(f) exempts up to \$170 per month worth of parking, and up to \$65 per month in transit or commercial vanpool services from federal and most state income and payroll taxes, *provided the employer offers only these benefits and nothing else*, such as taxable cash salary, in lieu of the benefit. In other words, to qualify for the exemption, parking must be provided by the employer, take-it-or-leave-it, with no other options, including taxable options. **If an employer offers to trade taxable cash income for any parking space, the employer loses the exemption for all parking spaces.**

This is so for two distinct but related tax reasons. First, Sec. 132 (f) (4) contains a clause that negates the tax exemption for any qualified transportation fringe benefit if the employer offers it in lieu of compensation (See IRC Sec. 132 (f) (4)). Even absent Sec. 132 (f) (4), however, offering

employees the option of taxable cash instead of tax-exempt parking runs afoul of the tax principle known as "constructive receipt." This doctrine holds that an individual cannot "turn her back" on taxable income. Thus if an individual is offered a choice between a tax-exempt benefit and a taxable benefit, the individual is taxed as if she had chosen the taxable benefit even if she opts for the tax-exempt benefit. In the case of employer-provided parking, that means that if an employer offers to exchange the parking for the taxable cash value of the parking, the tax exemption for parking is lost whichever option the employee chooses.

Like the "benefit not in lieu of compensation" clause described above, constructive receipt is a useful principle for guarding against reductions in the tax base, but in the case of parking has a perverse effect: it actually prevents *increases* in the tax base from commuters who would rather have taxable cash than tax-exempt parking, but take the free parking since it is the only commute benefit offered.

This legislative change fixes these two conflicts between the federal tax code and allowing employees to choose between parking and taxable salary. Employers who want to offer their employees a choice between free parking or a raise in salary could do so *without* losing the parking tax exemption for those employees who want to keep their parking spaces.

In addition, to make it more *convenient* for employers who already have cafeteria plans or reimbursement accounts (also known as flexible benefit and flexible spending plans) to offer their employees a choice between parking or taxable cash, this legislative change would amend IRC Sec. 125 to allow parking benefits to be included in cafeteria plans and reimbursement accounts. Allowing parking to be included in cafeteria plans and reimbursement accounts (52% of medium and large employers, and 19% of small employers have such plans, according to the Bureau of Labor Statistics) will make it very convenient for employers with these plans to offer their employees a choice between parking and other compensation within their existing payroll system. These employers could offer the choice of parking or taxable cash outside of their flexible benefits or flexible spending plans, just as employers without such plans will be able to do after the changes described above to Sec. 132, but from an accounting standpoint doing so through these plans would be simpler."

1 - Internal Revenue Code Sec. 132 (f)(4), the "benefits not in lieu of compensation" clause states: Subsection (a)(5) shall not apply to any qualified transportation fringe benefit unless such benefit is provided in addition to (and not in lieu of) any compensation otherwise payable to the employee.

VI - STATE INFRASTRUCTURE BANK PROGRAM (Draft Page 116)

This section **must** include language stating that future funds loaned from State Infrastructure

Banks **must** be subject to the National Environmental Policy Act (NEPA), as well as Davis-Bacon Act, and Americans With Disabilities Act. The Department of Transportation has suggested that they would be willing to include affirmative language to make these funds subject to NEPA but this language is not currently included.

VII - NATIONAL TECHNOLOGY DEPLOYMENT INITIATIVES PROGRAM (Draft Page 191)

EPA **strongly** supports this section, however, we recommend the following change:

Add bold type:

Sec. 326 (b) **DEPLOYMENT GOALS**

"The Secretary shall establish a limited number of goals for the program carried out under this section. Each of the goals and the program developed to achieve the goals shall be designed to provide tangible benefits in the areas of transportation system efficiency, safety, reliability, service life, **environmental protection, and sustainability.**"

COMMENTS FOR THE RECORD

1. Dredging:

Currently there is no provision in the draft ISTEA proposal to implement the important recommendation from the "Interagency Workgroup on the Dredging Process" December 1994 report, which was chaired by the Department of Transportation's Maritime Administration. The Working Group's report, The Dredging Process in the United States: An Action Plan for Improvement, was sent by Transportation Secretary Pena to President Clinton. The President endorsed the report and directed the agencies to implement its recommendations.

Recommendation number eight of the report explicitly called for revisions to ISTEA to essentially provide better linkages between Metropolitan Planning Organizations (MPOs), transportation plans, and dredging issues. The recommendation is as follows:

Recommendation 8: Revise the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) to ensure that the planning process outlined in the legislation provides for

linkages with plans which address dredging issues.

The report further goes on to say: "The MARAD/DOT will suggest changes during the reauthorization of ISTEA in 1997 which ensure that: 1) Metropolitan Planning Organizations (MPOs) consider waterside infrastructure requirements as well as landside needs when developing transportation plans; 2) a balance is sought between the mobility needs of freight and people; and 3) local port development plans are considered in the preparation of regional and statewide transportation planning efforts. The MPOs are the primary planning mechanism available to coordinate transportation needs and project prioritization within a state or region. Under the revised legislation, the MPOs will more fully consider the importance of moving freight/cargo and the roles that ports and water transportation routes play in doing so. The long-term coastal and dredging planning in an area would thus be linked to long-term intermodal transportation planning for access to ports on both the land and water side. Other structures may also exist at the state level which can be linked to the dredging process."

EPA believes that the Maritime Administration, which was instrumental in drafting the interagency report and this recommendation in particular, shares our enthusiastic endorsement of this recommendation and would strongly support EPA's position to have it included in the final Administration ISTEA bill.

2. Mitigating Bridge Runoff

Add: EPA recommends that the following language be added to Section 144 of USC Title 23 (Draft Page 96) and Section 133 of USC Title 23 (Add to Draft Page 57). The proposed additions are in bold type.

Section 144. Highway bridge replacement and rehabilitation program

(c) ELIGIBLE HIGHWAY BRIDGE PROJECTS.-

(2) PREVENTIVE MEASURES.-

(A) Each State seeking to obligate funds under this section to seismically retrofit, paint, apply calcium magnesium acetate to, install scour countermeasure

, or to mitigate the direct discharge of deck surface runoff on a highway bridge on

on a public road that crosses waterways, other topographical

barriers, other highways, or railroads shall apply to the Secretary.

Section 133. Surface Transportation Program

(b) ELIGIBLE PROJECTS.-

(1) ... including the seismic retrofit and painting of

, mitigation of direct discharge of deck surface runoff from,

and application of calcium magnesium acetate on bridges...

RATIONALE: Bridges present a unique problem in surface runoff control. Bridge runoff water is usually removed by means of a scupper drainage system that directly discharges into the receiving water body. Scuppers also discharge hazardous and toxic material spills, road salt, and harmful constituents from vehicular wear directly into water bodies, which can pollute shellfish beds, fish spawning areas, and other natural aquatic habitat. The recommended legislative changes would significantly help reduce or mitigate such impacts.

In addition, the above proposed additions make ISTEA more consistent with the Coastal Zone Act Reauthorization Amendments (CZARA) of 1990, which explicitly recognize the importance of addressing polluted runoff from highways and bridges. CZARA Section 6217 authorized the development of management measures for States with approved coastal plans to enforce control of nonpoint sources from various land use, including highways and bridges. One management measure which coastal States must incorporate in their coastal nonpoint pollution control program addresses the siting, design, and maintenance of bridges. This management measure intends to protect sensitive and valuable aquatic ecosystems that provide important water quality benefits. As an example, the State of South Carolina recently implemented this management measure in the design of the Isle of Palms Bridge which was required to include a closed drainage system to protect a sensitive fishery in the Charles River. Also, American Association of State Highway Transportation Officials (AASHTO) recently requested a study of the impacts of bridge deck runoff contaminants on receiving water through the Transportation Research Board/National Cooperative Highway Research Program, which developed a proposal under Project #25-13 to assess these impacts. This study is now underway.

3. Better Coordination with Existing Planning Efforts

As note above, EPA would like the following comments to be considered as part of the Agency's legislative record on ISTEA, even though we are not recommending any statutory changes to

reflect these concerns.

EPA would like to ensure that the allocation of enhancement funds is consistent with priorities determined through other state and local planning activities, and that enhancement funds are allocated in places where restoration plans exist or are being developed. Examples of restoration plans may include estuary Comprehensive Conservation and Management Plans, State Coastal Management Plans, and other watershed/basin plans. During a watershed discussion with Fred Bank of the Department of Transportation, it was clear that consideration of other planning efforts in allocating enhancement funds varies from state to state. Future discussions are scheduled with the Department of Transportation on this issue.

In addition, EPA believes that coastal watersheds should receive priority consideration for enhancement funding by states. (Note: EPA is not advocating changes in the overall allocation of highway funds to states, but rather recommending how individuals states should consider spending their share of the money). More than 120 million people live within 50 miles of the U.S. coast (Meeting the Environmental Challenge, EPA, 1990). High population levels coupled with the siting of ports and harbors has created coastal areas with a significant number of highways and rail lines to transport both people and goods. Because of this growth and development, coastal watersheds have been adversely impacted, and these impacts should be taken into account by states in distributing their enhancement funds.

4. BICYCLE TRANSPORTATION & PEDESTRIAN WALKWAYS:

EPA is disappointed that our previously-submitted suggested changes for this section were not accepted. **At a minimum**, we suggest that the follow revision be made:

Add: to Sec. (c) which amends Section 217 (g) of USC Title 23 "Planning and Design" (Draft Page 154). In the fist sentence, after:

"Bicyclist and pedestrian facilities shall be considered..."

Add:

"to include, but not be limited to:

- 1. separate facilities, divided facilities, and facilities which share the roadway with the roadway;**
- 2. the connections of these facilities to and across other transportation facilities; and**
- 3. any investments which enhance bicyclist and pedestrian comfort, safety, and utility (including, but not limited to, parking facilities, shelters, and**

traffic control devices)."

Delete: Section 217, Subsection (i) "Definitions" (1) "Bicycle Transportation Facility" (Draft Page 155) would no longer be needed.

5. - RECREATIONAL TRAILS PROGRAM

EPA generally supports this new section, however, we are concerned because motorized trail use can be a large source of air-borne particulates - especially on unpaved trails. We propose that the draft language include consideration of environmental, especially air quality impacts of motorized off-road trails.

EPA suggests adding the following language to section 207, (g) Uses not permitted: **new sub-section (8):**

"Construction, conversion, or expansion of motorized trails unless adequate steps are taken to mitigate adverse air and water quality impacts, as determined by the Secretary."

Other changes for Recreational Trails Program:

Draft Page 165: Section 207, (g) uses not permitted, sub-section (4): prohibits upgrading trails to motorized use "on which, as of May 1, 1991, motorized use is either prohibited or has not occurred." EPA is concerned about non-motorized trails built after May 1, 1991 being eligible for conversion to motorized use with Federal funds. ISTEA allowed a large quantity of non-motorized trails to be built between 1991 and the present. We would propose the following change to protect their non-motorized status:

Change Section 207(g)(4) to:

"upgrading, expanding, or otherwise facilitating motorized use or access to trails predominantly used by nonmotorized trail users and on which motorized use is either prohibited or has not occurred."

This date needs to be changed, given the large amount of trails built since 1991. We propose it be changed to May 1, 1997.

6. - METROPOLITAN PLANNING (Draft Page 63)

EPA strongly believes that greater efforts are needed to ensure that Metropolitan Planning Organizations (MPOs) adequately and democratically represent regional interests. EPA suggest the following language be added which would allow the Department of Transportation to evaluate MPO structure as part of the certification process and would serve as an effective check against the less stringent requirements for MPO designation included in the proposed legislation.

Add bold type:

Section 134(b)(4) of USC Title 23. "MPO STRUCTURE": "The policy boards of metropolitan planning organizations, serving areas designated as a transportation management area, when designated or redesignated, shall **fairly represent the planning area and include local officials, officials of public agencies which administer or operate major modes of transportation in the metropolitan area (including all transportation agencies included in the metropolitan planning organization as of June 1, 1991) and appropriate state officials.**"

7. - Public Participation (Draft Page 69) (Section 134 and 135)

The State and MPO planning process provisions of the draft proposal do not include EPA's suggested language to strengthen citizen participation. While the Department of Transportation believes the draft language is sufficient for adequate public participation, evidence suggests that more proactive participation strategies are needed. EPA suggests **adding the following language in bold type.**

Section 134(g) (4) "Participation by Interested Parties" (Draft Page 69) Add:

"...and other interested parties with adequate time to review relevant planning and policy documents and a full opportunity to comment.."

Section 135(d) (1), "State Transportation Improvement Program" (Draft Page 77)-- **Add bold type:**

... private providers or transportation, and other interested parties with adequate time to review relevant planning and policy documents and a full opportunity to comment..."

8. - NATIONAL HIGHWAY SYSTEM-- TRANSFERABILITY OF NHS APPORTIONMENTS.

EPA continues to oppose the Department of Transportation's draft language that would make it more difficult for a state to transfer NHS funds to STP, by requiring documentation of "the impact of such transfer on the physical conditions, operation, and safety of the NHS routes..."

We recommend that the original language for this section be retained to keep complete flexibility of funds in NEX-TEA.

This would change Section 104(c) (Draft Page 15) to the following original legislative language:

“(c) TRANSFERABILITY OF NHS APPORTIONMENTS.-A State may transfer not to exceed 50 percent of the State’s apportionment under subsection (b)(1) to the apportionment of the State under subsection (b)(3). A State may transfer not to exceed 100 percent of the State’s apportionment under subsection (b)(1) to the apportionment of the State under subsection (b)(3) if the State requests to make such transfer and the Secretary approves such transfer as being in the public interest, after providing notice and sufficient opportunity for public comment. Section 133(d) shall not apply to funds transferred under this subsection.”

Thank you for allowing EPA to comment on DOT’s final draft of the ISTEA proposal. If you have questions regarding EPA’s comments, please contact Robert Coronado (EPA/OCLA) at: (202) 260-5431.

FEB 19 '97 01:20PM

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FHWA HOA



U.S. Department of
Transportation

Office of the Secretary
of Transportation

Assistant Secretary

400 Seventh St., S.W.
Washington, D.C. 20590

MEMORANDUM FOR:

David M. Gardiner
Assistant Administrator for Policy, Planning
and Evaluation, EPA
Timothy Fields, Jr.
Deputy Assistant Administrator for Solid
Waste and Emergency Response, EPA

FROM:

Jane F. Garvey *Jane Garvey*
Acting Federal Highway Administrator

John N. Lieber *John N. Lieber*
Deputy Assistant Secretary for
Transportation Policy

SUBJECT:

Sustainable Transportation Initiatives and
ISTEA Reauthorization

This is in follow-up to discussions we have held on the subject of brownfields and related urban development in connection with the Administration's draft proposal for surface transportation authorization legislation. We want to assure you of DOT's commitment to promote sustainable transportation.

The Department is committed to supporting transportation-related brownfields redevelopment. Our brownfields strategy calls for encouraging consideration of transportation access in redevelopment planning and helping transportation providers to partner with other brownfields efforts. DOT is also committed to examining and, as necessary, altering existing policy guidance recommending avoidance of contaminated properties during transportation development activities.

DOT is also committed to carrying out a research/pilot program to better understand the role of transportation in achieving a sustainable environment. The program would test and demonstrate potential strategies for making transportation a positive force in shaping urban development, including infill development opportunities created by brownfields projects. We intend to set aside \$15 million over the next six years for this purpose.

The attached further details the proposal.



U.S. Department
of Transportation
Federal Highway
Administration

Memorandum

401-3372

Subject: Eligibility of "Historic Wetlands" for ISTEA Funding

Date: FEB 18 1997

From: Chief Counsel

Reply to
Attn. of: HCC-31

To: Anthony R. Kane
Executive Director (HOA-3)

This memorandum responds to a request we received for a legal opinion regarding whether ISTEA program funds may be used to improve or restore wetlands that were affected by past Federal-aid highway projects, even if there is no current Federal-aid project taking place in the vicinity. It is our opinion that such activities are permissible under current law and, therefore, no statutory changes are needed.

We base our opinion on several provisions of Title 23, United States Code. First, both the National Highway System and Surface Transportation Programs, which were created by ISTEA, allow states to use Federal-aid funds for wetlands mitigation activities. 23 U.S.C. §§ 103(i)(13) and 133(b)(11). These provisions are worded identically, and permit Federal-aid highways funds to be put towards efforts to conserve, restore, enhance, and create wetlands. Both provisions state that "[c]ontributions to such mitigation efforts may take place concurrent with or in advance of project construction." We believe this statement may fairly be interpreted as permissive, rather than restrictive. In other words, while states are permitted by these two provisions to use Federal-aid funds for the stated purposes concurrent with or in advance of project construction, nothing in the language of §§ 103(i)(13) or 133(c)(11) forbids states from doing so after a project has been completed. No specific prohibition having been written into these provisions, we do not believe one should be implied.

We believe two other provisions of Title 23, when read together, provide a basis for funding so-called "historic wetlands" restoration projects. The first is § 133(b)(1), which permits Surface Transportation Program (STP) funds to be spent for "mitigation of damage to wildlife, habitat, and ecosystems caused by a transportation project funded under this Title." Under § 101 of Title 23, the term "project" means "an undertaking to construct a particular portion of a highway, or if the context so implies, the particular portion of a highway so constructed." This definition, we believe, is broad enough to encompass not just new or even recent projects, but any highway that has been constructed using Title 23 funds.

A final category of funding for which historic wetlands projects may be eligible is that available under the STP for transportation enhancement activities (TEAs). 23 U.S.C. § 133(e)(8). The definition of TEAs (23 U.S.C. § 101) does limit them to those related to particular "projects" (as

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defined in § 101), but does not specify any particular time frame in which they must take place. Historic wetlands projects could qualify for STP funds if legitimately tied to one of the categories of TEAs set forth in the definition, such as scenic beautification or mitigation of water pollution due to highway runoff.

To sum up, we believe that so-called historic wetlands improvement projects may be funded under several provisions of current law. That being the case, we do not believe new legislation is needed to address this issue.

We hope this memorandum has been helpful to you. Should you have any further questions, please feel free to call Brett Gainer of my staff at 202-366-6197.



Jerry L. Malone

cc: Mr. Howard Corcoran
Deputy Associate General Counsel
Finance and Operations Division
U.S. Environmental Protection Agency