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From

11/24/92 **Date**

Robert M. Sussman

M. Chupka

~~K. McGinty~~

D. Harwood

J. Speth

R. Adcock

Attached is the full package of materials we discussed yesterday. We will plan on reviewing them during tomorrow morning's conference call at 9 a.m.

cc: Reed Hundt

November 24, 1992

MEMORANDUM

TO: Reed E. Hundt

FROM: Robert M. Sussman

SUBJECT: Environmentally Acceptable Infrastructure Project

This memorandum presents initial thoughts on infrastructure projects that would be beneficial (or at least not harmful) to the environment. Further investigation is needed to determine financing mechanisms for these projects and to better define their economic and environmental impacts.

I. Transportation

In 1991, Congress enacted the Intermodal Surface Transportation Efficiency Act (ISTEA), which overhauls the federal framework for funding transportation programs. ISTEA is generally viewed as a step in the right direction by environmentalists because it allows Highway Trust Fund monies to be used for purposes other than highway construction, encourages intermodal transportation planning and places increased emphasis on public transit, congestion mitigation and air quality concerns. ISTEA contains detailed formulas for allocating federal funds to different classes of transportation projects and to states and regional governmental bodies. ISTEA also limits federal review of proposed projects and obligates the Department of Transportation (DOT) to advance funds for eligible projects if the state or regional government proposing them has not exceeded its share of available funding.

Authorized funding for ISTEA is \$18 billion for FY 93 and subsequent years. Actual funding for FY 93, however, is \$11 billion. One possibility, accordingly, is to increase FY 93 funding by \$7 billion. Appropriations above this level could be considered as a supplemental step to stimulate transportation projects.

If ISTEA were funded at authorized levels, the additional monies would probably be distributed to different transportation sectors (e.g., road repair or mass transit) in accordance with formulas in the law itself. Appropriations above authorized levels, however, would not be subject to these formulas and could be allocated as the Congress saw fit.

From an environmental standpoint, some transportation projects possess obvious drawbacks while others are highly desirable. Priorities to consider include the following:

- ♦ Construction of new highways should be discouraged because it is unlikely to relieve congestion to an appreciable extent and will encourage continued dependence on the automobile.
- ♦ Repair and restoration of existing roads, bridges and tunnels will not result in additional harm to the environment and are essential for the efficient movement of goods and services.
- ♦ Construction of ports and waterways has historically raised environmental concerns (e.g., wetlands damage) and often has reflected local political pressures rather than a coordinated national strategy to stimulate trade and commerce.
- ♦ Expenditures on mass transit (particularly suballocation funding to cities) are highly desirable because of the enormous capital requirements for rehabilitating existing systems and for expansion.
- ♦ Funding for transportation control measures and congestion mitigation programs are highly desirable from the standpoint of enhancing air quality, reducing energy consumption and discouraging single occupancy vehicles.
- ♦ A high priority should also be placed on building modern intermodal links, such as air-to-rail and rail-to-transit passenger terminals.

One interesting concept is to establish a performance-based standard for evaluating the effectiveness of ISTEA funding grants over the near-term and determining the size of future grants. This standard would focus on the success of states and cities in stabilizing or reducing vehicle miles traveled (VMT).

ISTEA funds are not used to support the intercity rail system. Thus, improvements in that system will require additional funding. Amtrak, for example, estimates that \$6 billion is needed to replace aging locomotives and passenger cars and to maintain existing facilities. Upgrading of the conventional passenger rail network should also be coupled with development of high-speed rail systems in heavily traveled regions.

II. Construction Of Sewage Treatment Plants

EPA has estimated that local communities will incur \$110 billion in construction costs for sewage treatment plants that comply with the Clean Water Act (CWA) over the next 20 years. The CWA created a State Revolving Loan Fund (SRF) to provide low or no interest loans to localities for treatment

plant construction. The law authorizes \$8.4 billion for SRF during the 1989-1994 period. Through 1991, however, Congress appropriated only \$2.9 billion. Thus, \$5.4 billion is needed to fund the SRF at authorized levels through 1994. Appropriating these additional funds immediately would probably result in rapid project initiation since states and municipalities are believed to have long lists of unfunded construction needs. In addition, since SRF loans would be leveraged with state and local funding, stimulative effects can be expected beyond those provided by SRF funding alone.

Upgrading and expanding sewage treatment plants has been supported by the Cummo Commission as a needed infrastructure improvement that would contribute to economic growth. It is important, however, that increased funding for sewage treatment be used in an efficient and environmentally responsible manner. In this regard, two approaches that merit consideration are:

- ♦ Water conservation investments should be eligible for SRF loans. Across the nation, localities have begun spending millions of dollars on water conservation projects, which can greatly reduce the costs of water and sewage treatment.
- ♦ To provide further incentives for improved efficiency, up to \$300 million in loan forgiveness should be provided to treatment systems that use SRF investments to decrease the sewage volume per capita.

III. Water Supply Infrastructure

Drinking water distribution systems in the U.S. are in urgent need of repair and upgrade. In many areas, water supply pipes and equipment are over 70 years old and must be repaired to avoid water loss and/or the inflow of sewage and other polluted water. In other areas, replacement of service lines and installation of new treatment systems are required to meet the stringent health-based standards of the Safe Drinking Water Act. For example, EPA has estimated that 20 percent of the nation's largest cities are distributing drinking water with lead levels in excess of federal limits. In many of these cities, compliance with these limits will require replacement of lead-contaminated lines and plumbing.

Starting in FY 93, federal funding for improving the water supply infrastructure could be increased by \$2 billion per year. Non-federal matching requirements could initially be suspended to encourage early start-up but could then be increased to 25 percent during FY 95-96 to leverage federal expenditures. The increased funding could be used for the following projects:

- ♦ Consolidation of small water systems
- ♦ Upgrade of small systems
- ♦ Distribution system improvements (including replacement of lead-contaminated lines and plumbing)
- ♦ Replacement of plumbing in low-income residences

IV. Public Works And Wetlands

Traditionally, public works projects by the Army Corps of Engineers and Bureau of Reclamation have raised environmental concerns. The costs of such projects have also been great.

However, from an environmental standpoint, a promising area is increased funding for wetlands restoration projects developed jointly by the Army Corps of Engineers and EPA. It has been projected that \$50 million might represent appropriate initial funding for this effort.

V. Recycling And Solid Waste Disposal

This is a promising area for infrastructure projects. However, more thought needs to be given to funding needs and levels.

Memorandum

November 23, 1992

TO: Reed Hundt
FROM: Marc Chupka, Roger Dower, David Harwood
RE: Environmental Tax and Subsidy Options

Fiscal policy can have a great impact on the environment. The selection of tax bases and special preferences in the tax code will change the real prices of many goods and affect the economic returns from a wide variety of economic activities. The proposals outlined below are intended to make government program and tax policy more neutral in regard to consumption and investment decisions that may have significant environmental costs or damages. By doing so, market forces can be relied upon more fully to dictate investment, production and consumption choices.

All budget savings or revenue estimates are based on CBO assessments, unless noted otherwise. They all tend to be conservative and are heavily dependent on the assumptions used by CBO. The estimates should be viewed as the savings or revenues expected during the first full year of program implementation. No political analysis is included -- and many of these options have significant political costs which must be considered.

I. Charge Pollution-Based Fees

Rationale: Existing laws and regulations protect the environment, but still allow some pollution and harm to occur. To the extent that charges could be levied on these residuals or activities, this would create additional incentives to reduce environmental impacts while also providing a source of revenues. The tradeoffs between administrative complexity, economic incidence, and environmental impact must be addressed.

Annual Revenues/Program:

\$1.9 billion	A. Impose an Excise Tax on Water Pollutants at \$0.50 per pound of BOD
\$5.0 billion	B. Impose a \$3/Ton Listing Fee for Substances Documented on the Toxic Release Inventory ¹
\$0.9 billion	C. Impose a 10% Environmental Tax on Agricultural Chemicals
\$0.1 billion	D. Impose a Tax on HCFCs and Methyl Bromide ²

¹ Estimate derived from "Green Fees" (WRI)

² This is a guess, but we can get real numbers on this option.

II. Environmental Charges on Energy Use

Rationale: The production and consumption of energy results in a wide range of environmental damages and costs. Environmental user fees or charges could be placed on energy market transactions to reflect more fully the environmental costs associated with energy use. Such user fees would create market signals to shift consumption, production or investment decisions towards more environmentally benign energy sources, uses and technologies.

Annual Revenue/Program:³

\$20 billion	A. Impose a \$15 per Ton Carbon Tax on Fossil Fuels
\$20 billion	B. Impose a \$0.25 per Million Btu Tax on all Energy Consumption.
\$20 billion	C. Impose a \$0.20 per Gallon Gasoline Tax ⁴

III. Encourage Market-based Pricing of Federally-owned Resources

Rationale: The users fees charged by the federal government fail to account for the full market value for many activities conducted on public lands. Initiatives to better price these resources and activities would: reduce the federal deficit and reduce the economic incentive to overuse federal resources.

Savings/Program:

\$30 million	A. Eliminate Below Cost Timber Sales in 3 Forest Regions
\$60 million	B. Raise Fees on Hardrock Mining Claims towards Market Levels ⁵
\$15 million	C. Phase-in Market Values for Grazing Lands
\$180 million	D. Raise Recreational Fees on Public Lands to Cover the Direct Government Costs

³ Gross revenue estimates based on current energy use.

⁴ Gasoline tax increase is specifically ruled out in Putting People First.

⁵ Some fraction of these savings have already been achieved under the fee system written into the 1993 Interior funding bill.

IV. Close Tax Loopholes Regarding Mineral and Fuel Extraction

Rationale: Various tax preferences granted to producers of oil and gas and hardrock minerals (and other commodities) encourage over production of these resources. Repeal of these provisions would reduce the federal deficit (capture forgone revenues); reduce the bias towards fossil fuels; and lower the environmental damages associated with mineral and resource extraction.

Savings/Program:

\$900 million	A. Repeal Expensing of Certain Drilling, Exploration and Development Costs
\$900 million	B. Repeal Percentage Depletion of Gross Income
\$100 million	C. Deny Unprocessed Raw Log Export Subsidies ⁶

V. Close Tax Loopholes Relating to Commuter Parking Expenses

Rationale: Currently, parking benefits provided by employers are treated as non-taxable income below \$155 per month (approximately \$7.50 a day). This subsidy to commuters creates incentives for single-person commutes and adds significantly to urban traffic congestion. Reducing or eliminating this subsidy would: reduce the federal deficit by capturing foregone receipts; encourage car pooling and use of mass transportation; and lower congestion and environmental costs.

Savings/Program:

\$4.5 billion	Reduce the Cap for Tax-Exempted Employer Contributions to Parking ⁷
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⁶ This estimate comes from Rep. Stark's office and needs additional documentation.

⁷ This number requires further analysis. It is based loosely on WRI report, Paying the Going Rate.

TO: Reed Hundt
FROM: Marc Chupka
RE: Environmental Options Cross-Reference

Here is an initial list of some of the environmental options as they might relate to other issue categories. This is preliminary and somewhat arbitrary, but conveys the potential breadth of the environmental agenda in economic policymaking.

I Stage One: Near Term Economic Agenda

- Fund Energy Policy Act conservation & renewables
 - Federal energy management initiative
 - Renewable demonstration projects
- Increase funds for state and local assistance project (SLAP)
 - Low income weatherization
 - State energy grants
- Accelerate EPA Voluntary Programs
- Wastewater Treatment Projects
- Appropriate Transportation Projects

II Infrastructure and Military Conversion

- High speed rail/smart highways/urban mass transit
- Renewable energy systems
- Wastewater treatment
- Drinking water systems
- Habitat restoration
- National lab conversion
- Congestion pricing pilot studies

III Education and Training

- Green Corps (National Service)
- EITB Education/Science plan
- Energy management training

IV Technology and Manufacturing Policy

- Expand Energy Assistance & Diagnostic Centers (EADC)
- Manufacturing extension: environment & energy emphasis
- Cooperative research and development agreements
- Innovative financing/commercialization programs

V Energy, Environment, & Natural Resources

- Revenue-Neutral Economic Incentives
 - Gas Guzzler/Sipper tax and subsidy
 - Used Oil Deposit-refund
 - Auto battery deposit-refund
 - Household battery deposit-refund
 - National Bottle Bill

VI Banks

- Energy Efficient Mortgages Program (energy bill)
- Liability/Superfund Reform Program
- Enhanced environmental listing of RTC properties

VII HUD

Low Income Weatherization program
Municipal Recycling Initiatives
Fannie Mae efficiency finance reform

VIII Labor

IX Trade & International Investment

Environmental Technology Export Assistance.
NAFTA

X Health

XI Deficit Reduction

Green Taxes

Pollution

Water -- (possible tie to wastewater finance)
 Permit fees
 Effluent fees
Toxic Release Inventory
 air
 water
Pesticide/Fertilizer
Oxone Depleting Substances
 Methyl Bromide
 HCFCs

Energy

Carbon
Btu
Hybrid Carbon/Btu (EC tax)
Gasoline

Charge Market Based Prices for Federal-Owned Resources

Eliminate Below-Cost Timber Sales
Raise Fees on Hardrock Mining Claims
Increase Grazing Fees on Federal Land
Increase Recreation Fees to Cover Government Cost

Eliminate Natural Resource Subsidies or Tax Preferences

Repeal Expensing of Drilling and Exploration Costs
Repeal Percent Depletion of Gross Income
Deny Unprocessed Raw Log Export Subsidies

ENVIRONMENTAL DEFICIT REDUCTION PROPOSALS¹

All estimates are in billions of dollars annually and reflect savings or revenues in first full year of program implementation.

I. <u>Green Fees/Pollution Taxes</u>	\$34.6
Environmental Energy Tax (Carbon Tax, BTU Tax, Gasoline)	\$20 billion ²
Pesticide/Fertilizer User Fee	\$1 billion
Toxic Emissions Fees	\$10 billion
Expanded CFC Tax	\$1 billion
Automobile Emissions Fee	\$2.6 billion
II. <u>Closing Tax Loopholes</u>	\$6.4
Repeal Percentage Depletion Rules	\$.9 billion
Repeal Expensing	\$.9 billion
Repeal Unprocessed Log Export Subsidy	\$0.1 billion
Reduce the Cap for Tax-exempted Parking	\$4.5 billion
III. <u>Improved Market Pricing of Public Lands</u>	\$0.3
(Below Cost Timber Sales, Hardrock Mining and Grazing Fees, and Recreational Fees)	
IV. <u>Infrastructure User Fees</u>	\$8.1
Water Pollution User Fees (Wastewater Treatment Program)	\$2.0 billion
Inland Waterway User Fees	\$0.4 billion
User Charges for Airports/Services	\$1.7 billion
Road Maintenance User Fees (Heavy Trucks)	\$4.0 billion

¹ All of the following estimates are based on conservative assumptions concerning programs changes or tax rates.

² Total revenues after full phase-in period.

November 20, 1992

TO: Reed Hundt
FROM: Karl Hausker
RE: Recommendations on Spending and Program Priorities
in Energy

The prospects are good for pursuing two pillars of the energy policy set forth in Putting People First: energy efficiency and natural gas. The Energy Policy Act of 1992 (H.R. 776) created the authorizing laws to pursue vigorous energy efficiency programs. The challenge for the new Administration is make sure it has the necessary appropriations to carry out the programs. Focused efforts by the Administration could also result in legislation promoting natural gas.

ENERGY EFFICIENCY

The Administration should ensure adequate supplemental FY93 appropriations and FY94 appropriations in four areas, two of which have good potential for near-term economic stimulus and job creation.

(1) Federal Energy Management Program (FEMP).

[Marc Chupka is covering this program in detail.] This program is already in place and could make good use of FY93 supplemental appropriations. More efficiency investments in Federal buildings would occur; jobs would be created; and energy savings in the out years would reduce the deficit.

(2) State and Local Assistance Programs (SLAP).

SLAP consists of a State Energy Conservation Program, Low-Income Weatherization Assistance, and an Institutional Conservation Program for schools and hospitals. Once again, this program is already in place and could make good use of FY93 supplemental appropriations. The weatherization program works through community action groups and trains and hires low-skill workers to weatherize homes (pumping money into low-income areas, and keeping more money in consumers hands in the form of energy savings).

(3) Implementing the Energy Policy Act of 1992.

The omnibus energy bill just signed by the President enacts a virtual wish list of efficiency and renewable energy programs. The key now is to get the necessary appropriations and ramp up these programs at a reasonable speed. Programs to focus on include joint ventures, export assistance, the buildings program, and promotion of integrated resource planning at the state level.

(4) DOE Staffing.

Proper implementation of new and existing programs requires adequate staffing of the Office of Conservation and Renewable Energy.

Details on recommended appropriations and estimates of budget savings and job creation will be forthcoming.

NATURAL GAS

Much of the groundwork for policies promoting natural gas was laid in 1991 and 1992. Both the Senate and House passed bills that would have sped the development and certification of new natural gas pipelines and made other regulatory reforms aiding natural gas. Unfortunately, nearly these provisions were dropped in the House-Senate conference due to struggles over prorationing and consumer protections under FERC Order 636.

A worthy legislative goal would be to revive the proposals made in the 102nd Congress, and make them part of the infrastructure agenda. Gas pipelines are part of the nation's infrastructure; construction is good for jobs; gas is good for the environment; gas can displace imported oil.

TO: REED HUNDT

FR: RICK ADCOCK
617-628-5000 x2722

202-637-2201

- 11 pages follow -

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M E M O R A N D U M

TO: RH, KM, MC, DH, BS, JS, others

FROM: JPA

DATE: November 23, 1992

SUBJECT: Environmental Technologies -- First Progress Report

A key point of division between the Republican and Democratic campaigns centered on the issue of "jobs versus environment." More appropriately, the issue can be framed as a question of whether environmental protection has a positive, negative, or neutral effect on competitiveness and economic growth.

The Democratic campaign was clear in its message that a healthy environment and sustainable use of finite natural resources are essential to long-term economic prosperity. Coupled with this message was the assertion that U.S. policy must promote the development and commercialization of environmental technologies, because they not only protect the environment, but also often incorporate the technological innovations that will increase productivity and enhance competitiveness.

Many industrialized countries -- in particular some of our major OECD trading partners -- are realizing that environmental goals can spur the innovation that leads to increased economic production while solving environmental problems. These countries are devoting larger shares of public R&D resources to the search for environmental technologies, which are increasingly seen as "strategic" technologies in the sense that they will make a major contribution to long-term economic competitiveness.

Following is the first working outline of fiscal, institutional, and regulatory policy options that would promote environmental technologies within the context of economic policy packages designed for (1) short-term economic stimulus, and/or (2) long-term economic growth and debt reduction.

For the purposes of this memo, environmental technologies are broadly defined as technologies that (1) reduce pollution levels associated with current and future economic activities (for the most part by increasing the efficiency with which energy and raw materials are used), and/or (2) remedy sites contaminated with pollution left over from past economic activities. Environmental technologies find applications in all sectors of the economy, particularly industry, agriculture, transportation, residential and commercial buildings, and electric power.

Environmental -- and, for that matter, virtually all -- technologies enter into economic activity through some variation of a 3-phase process: (1) research and development, (2) demonstration,

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and (3) commercialization. The last phase, commercialization, may be further subdivided into commercialization in domestic markets, and commercialization in export markets. Of course, a key political debate stems from the question of the extent to which government should be involved in each of these phases.

The framework for analyzing policy options for environmental technologies begins by separating those options along the lines of fiscal, institutional, and regulatory policies (see Figure 1). This distinction is especially important for our purposes: fiscal policies are generally better suited to providing short-term economic stimulus, while institutional and regulatory policies are generally better at providing for long-term economic competitiveness and growth.

Fiscal, institutional, and regulatory policies are sub-divided into options that promote research and development, demonstration, and commercialization. Commercialization policies are sub-divided yet again, into options that develop domestic markets, and options that develop export markets.

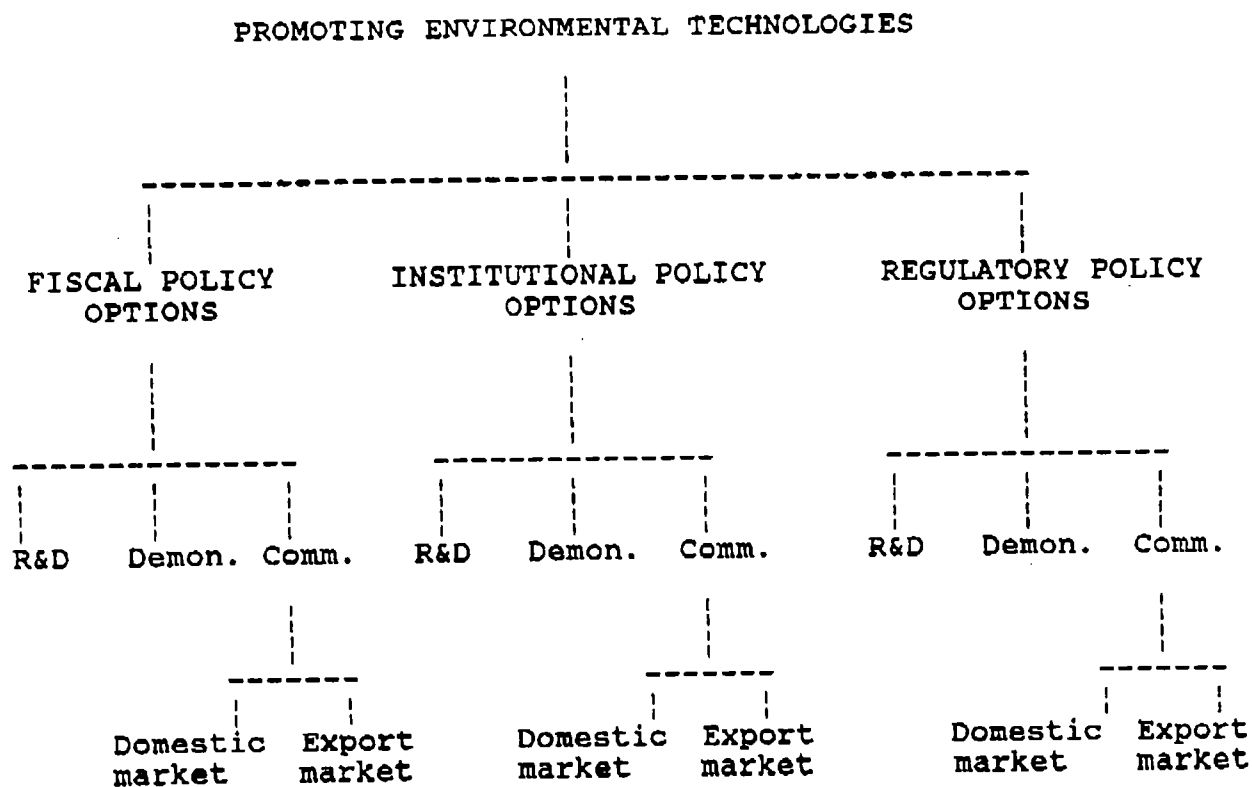
The various environmental technology policy options can then be placed within the context of the framework. An initial list of options appears in the outline below. I have organized a nationwide network of trusted experts in this field to assist me in preparing subsequent versions of this memo. Future generations of the memo will add superior policy options, delete inferior options, and -- in the final stage -- provide detailed analyses for those options that have been selected as most promising.

As usual, comments and suggestions are encouraged and welcomed.

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FIGURE 1

**STRUCTURE FOR LISTING AND ANALYZING VARIOUS
ENVIRONMENTAL TECHNOLOGY POLICY OPTIONS**

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ENVIRONMENTAL TECHNOLOGIES**Working Outline****I. FISCAL POLICY OPTIONS**

Fiscal policy options are those that involve alterations in government expenditures for goods and services, or changes in the level of tax rates. In general, fiscal policy options are better suited to providing short-term stimulus to the economy than are institutional and regulatory policy options.

One option that doesn't quite fit this framework is presented first:

- o Immediate enforcement of surface mine reclamation laws, elimination of the backlog of unplanted National Forest and BLM lands, and restoration of damaged wetlands and estuaries would create jobs and improve environmental quality. A low-tech, latter-day CCC.

A. Research and Development**B. Demonstration**

- o Demonstrate new remediation technologies at DOD and DOE sites in order to accelerate their commercialization. Using these sites allows technology developers in the private sector to short-cut regulations for demonstrations on non-federal properties that might otherwise impede the demonstration phase.

C. Commercialization -- Domestic Markets

- o An investment tax credit for new equipment. No green-screen; however, because an ITC would benefit commercialization of all new technologies, it would benefit environmental technologies. Policies up-stream to encourage research, development, and demonstration of environmental technologies would be needed to bring the technologies to the point that they could benefit from the commercialization leverage provided by a broad-based ITC.
- o Rapid implementation of the Energy Bill's production tax credits for renewables. (DH??)

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- o Preferential tax treatment for utility profits coming from demand-side management and renewable programs.

- o Establish a national energy auditor and upgrade implementation training program to survey buildings and assess best upgrade options. Train entry-level and skilled technical trades (carpenters, electricians, etc.) to do building upgrades. All three functions (surveys, assessments, upgrades) potentially a good second career for RIF'ed military personnel. (EPA/BK)

- o Establish a National Energy Bank, or Energy-Efficient Loan Buydown program, to increase volume of financing for energy efficiency. Minimizes transaction costs. Serve as secondary market for packaged energy efficiency loans (similar to the role of Fannie Mae). Interest rate buydown would reduce rate of interest on private sector loans meeting specific loan criteria. Capitalization with current year funds (with total energy upgrades costing \$2-\$4/sq.ft.): \$10-\$20 billion. Initial capitalization can be retired with profits from energy upgrades; surplus profits can fund new projects. At sunset of Bank, surplus profits used for debt retirement. (EPA/BK)

- o Accelerate EPA Voluntary Programs. EPA has initiated several programs aimed at maximizing cost-effective investment in energy efficiency through voluntary programs. Under the flagship Green Lights program, a company signs an agreement with EPA to retrofit its commercial office space with energy efficient lighting wherever it makes economic sense. Currently, these are among the most cost-effective government programs addressing climate change and increased energy efficiency. Given a minor increase in funding, these voluntary programs will accelerate near-term economic activity that will enhance energy productivity and reduce emissions of greenhouse gases over the long term. We should ... \$\$\$ supplemental and/or reprogramming, and/or FY94 request. We should accelerate ...(which programs)... in the near term. (MC)

- o Revise procurement codes to use the federal government as a market for environmental technologies. See MC's memo for more on this option, particularly as it regards energy-efficient end-use equipment. Be aware that the Tokyo Round Procurement Code (to which the U.S. is a party) specifically prohibits federal government procurement practices that favor domestic goods over foreign goods. Also note that technologies whose energy savings produce high rates of return will work in the near term (approximately 3-5 years) to lower operational expenses in the "current" budget. For the record, the OTA says that there are probably a few billion dollars worth of

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highly cost-effective energy efficiency investment opportunities (e.g., with returns on investment of 25% or more) in federally owned buildings alone, and another few billion dollars worth in federally assisted housing. But at the current low level of energy efficiency funding and staffing for individual agencies, it would take several decades to make all of the economically attractive investments. At the risk of repeating some of the options listed in MC's memo, here are some to consider:

- As an alternative to having agencies obtain investment funds for energy-efficient technologies through their respective budget requests, we might establish a government-wide revolving fund for Federal energy efficiency projects (could be modeled on the LoanSTAR Program in Texas). Because of the high returns on these investments, the fund could eventually become self-supporting. (OTA)
- The federal government spends about \$4 billion/year to subsidize the energy costs of low-income households. Increasing the efficiency of this housing stock through, for example, increased funding to the Federal Low-Income Weatherization Program would create community-based jobs in the near-term while reducing federal energy expense outlays in the long-term. (OTA)
- An expanded weatherization program could be coordinated with an expanded HUD lead abatement competitive grants program. Replacement of windows (including old window frames coated with lead paint) is often a key component of both lead hazard control and energy-efficiency retrofits. Integrating these efforts can achieve cost reductions and increased social benefits. (OTA)
- Over time, downsize the federal automobile fleet to create demand for more fuel-efficient vehicles. This would have not only environmental benefits, but would HELP AUTO COMPANIES TO MEET CAFE GOALS. (BM)
- Targeted purchasing of renewable and energy efficient technologies by federal power authorities (Bonneville, TVA). (BM)

D. Commercialization -- Export Markets

- o Ex-Im Bank
- o U.S. AID

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- o OPIC
- o Influence policies of multilateral lending organizations.

II. INSTITUTIONAL POLICY OPTIONS

The core thinking behind institutional policy options is that the U.S. has always had an "industrial policy," built around its national security objectives. However, in the current security environment, with economic competition moved to a primary position, that policy is seen as being internally inconsistent and incoherent. Therefore, if the U.S. is to be competitive in the post-Cold War era, we must reorganize our institutions and policies to pursue the directive of building a globally competitive economy, just as we successfully pointed all institutions and policies in the direction of containment during the Cold War.

This is where our institutional policy options for environmental technologies come in. One very important point for our purposes in this exercise is that institutional policy options are in general more applicable to long-term competitiveness and economic growth, rather than short-term economic stimulus.

One broad-based institutional policy option, to plan an overall strategy for multi-year institutional reform, might be:

- o Direct the Critical Technologies Institute (now with \$5 million appropriation, located at RAND, and reporting to OSTP) to develop a national strategy for research, development, demonstration, and commercialization of environmentally critical technologies. This strategy should include recommendations for identifying new programs; for improving agency coordination; for establishing new patterns of R&D cooperation, especially between the public and private sectors; for reorienting ongoing R&D programs; and for promoting exports of environmental technologies. (WRI)

A. Research and Development

- o Redirect existing technology programs. There is widespread support for redirecting and augmenting technology development programs like the Advanced Technology Program at NIST, DARPA R&D programs, NSF Engineering Research Centers, DOE's National Manufacturing Centers Program, and DOE lab research programs, with the idea of having these programs focus more on environmental technologies. One might have as a target devoting at least 10% of the budgets of these programs to environmental technologies; this would provide an immediate

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focus on environmental technologies within these important programs. (STS/WRI)

- Make environmental and commercial concerns major thrusts in the missions of the National Laboratories. The substantial resources of the federal laboratories, comprising about one-sixth of the nation's technical personnel, could be key to the development of environmentally critical and energy-efficient technologies. The initiative should make more of the laboratories' activities pay-off commercially, especially through cooperative agreements with the private sector. (WRI)

- o Create a small office at EPA to fund environmental technology development at other agencies. This was done successfully in the Carter Administration. Staff at EPA who know which environmental problems are most serious could provide funding to researchers at NIST, DOE, NASA, NSF, and other agencies who know how to develop the technology needed to solve them. Having EPA control the money (probably \$100-\$300 million) will guarantee that it goes for development of environmental technologies and not some other agency project. (STS)

- o Integrate an environmental technology component into the mission of any new or modified institutions designed to fulfill the campaign promise to develop a civilian technology program. According to the campaign, some \$7 billion will be transferred from defense R&D to civilian R&D over 3 years. Some of the options for the civilian R&D program follow:

- NARPA. Pull DARPA out of DOD, rename it the "National Advanced Research Projects Agency," place it under the OSTP Director, and make it responsible for dual-use technologies. (STS)

- Leave DARPA within the DOD, and allow it to work with dual-use technology (so that the civilian economy can harvest some of the fruits from DARPA.) Create a new, "civilian DARPA," based on the highly successful management structure of DARPA, devote it to civilian technologies, with a mission statement that places a high priority on environmentally superior technologies.

- Civilian Technology Agency. Create a new agency, perhaps out of NIST and other agencies. Adding NSF and one or more federal labs would create a National Science and Technology Agency. (STS)

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- Build on NIST. Expand NIST and rename its parent agency DOC's Technology Administration, as the Civilian Technology Administration. Link closely to industry-oriented programs at NSF, DARPA, and the DOE labs. (STS)
- o Create entirely new institutions to research and develop environmental technologies:
 - Create a National Environmental Technology Agency (NETA). Senator Mikulski proposed such an agency earlier this year. However, it is hard to build support for a new agency in this budget environment. In addition, the NETA proposal has been criticized because it would separate environmental technology programs from other federal technology efforts. (STS)
 - Create a NETA at EPA. Similar to a proposal by Representative Kennedy. There are concerns that EPA lacks expertise in technology development and about whether it would be given high enough priority by EPA management. (STS)
- o In addition to broad-based public-private technology programs, focus like a laser beam on critical environmental technologies with important economic and environmental components, which are not being adequately addressed in the private sector. These may include --
 - Non-CFC refrigeration and air conditioning technology.
 - Alternative vehicles -- EV's, fuel cell-powered vehicles.
 - Energy production technologies such as PV.
 - Advanced materials development (U.S. has a lead in this area), and the reuse of materials.

B. DemonstrationC. Commercialization -- Domestic MarketsD. Commercialization -- Export Markets

- o Establish and implement an environmental technology-export assistance initiative, to promote and expedite the export of environmentally superior technologies. Designate a lead

Environmental Technologies

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agency to coordinate export-promotion programs; locate environmental market specialists in U.S. service abroad to identify new markets; provide assistance to small and medium firms in exporting environmental technologies and services. See Biden-Wirth-Gore legislation, "The Environmental Aid and Trade Act of 1992," which requires agencies to emphasize exports of environmental goods and services.

o Establish environmental technology export development centers to support small- and medium-sized firms to develop international markets for environmental technologies, products, and services. Possibly locate in the Commerce Department. Cooperate with national labs (?). Three main functions would be (1) technology brokerage assistance, (2) project management assistance, and (3) assistance in arranging finance packages.

III. REGULATORY POLICY OPTIONS

Environmental regulation should be reformed or reoriented in order to promote or encourage technological change. Consistent regulatory support for technology innovation will require changes in focus, not purpose, of regulation. Many environmental laws favor old technologies (e.g., scrubbers and some pesticides) over new. Relying on "best available technology" standards has entrenched existing technologies at the expense of long-term innovation. Shifts toward pollution prevention and waste reduction approaches would promote upstream solutions and encourage innovations in process and design. An essential goal must be to use regulatory policy to create incentives for replacing inferior technologies of the past with today's environmentally superior technologies and processes.

A. Research and DevelopmentB. DemonstrationC. Commercialization -- Domestic Markets

o Encourage remaining state utility regulatory agencies to institute policies that encourage demand-side management, which will lead to increased demand for energy-efficient end-use technologies. About half of the states still have regulatory regimes that are not geared to favoring DSM. The Clean Air Act and the Energy Bill have incentives to encourage remaining regulatory regimes to do least-cost planning, etc. Once the regulatory climate is favorable, the utilities will receive enough return on investment to encourage them to

Environmental Technologies

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actively pursue demand-side management rather than increase supply capacity.

o Require progressive increase in the use of recycled material in all mailers sold at the post office. Provide special second- and third-class postage rates for that are based on the recycled content of magazines and junk mail.

D. Commercialization -- Export Markets

11 23 92 13:44

SEN WIRTH

001

TIMOTHY E. WIRTH
COLORADO

COMMITTEES
ARMED SERVICES
BANKING
BUDGET
ENERGY AND
NATURAL RESOURCES

United States Senate

WASHINGTON, DC 20510-0603

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FACSIMILE TRANSMISSION

Date: 11/23/92

To: REED HUNDT

Destination fax number: 637-2201

From: DAVID HARWOOD

Number of pages to follow: ~~5~~ 6

Message: I'VE ALSO INCLUDED PHONE #'S
FOR RICK ADCOCK

MEMORANDUM

TO: Reed Hundt
FROM: David Harwood
DATED: November 23, 1992
SUBJECT: Update

Attached is an introductory statement on environmentally-unsound tax subsidies and their relation to the economic policy options to be considered by the transition. Yesterday, Mark Chupka and I decided that it would make sense to integrate my comments into a more comprehensive summary of fiscal options with an environmental component. Mark kindly offered to put an integrated document together. Not having received a copy of his summary document, I am sending you a copy of my outline in advance of the 4 p.m. conference call. I am certain that Mark will deliver a combined summary, in which case you can toss this fax!

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BACKGROUND AND SUMMARY

Through tax and spending programs, the federal government has numerous policies that have implications for environmental quality. In particular, these programs impinge on energy and natural resource policy.

The general theory behind the emergence of these government program and tax policies is that the federal government serves the national interest by directing capital and other productive assets to certain industrial development and resource uses. The outlay of expenditures or loss of revenues by the federal government are ostensibly offset by the benefits derived from these policies.

It should be noted at the outset that the vast majority of these programs exist for powerful economic and political reasons. Many federal incentives have encouraged the development of rural economies with extremely limited investment alternatives. The short-term economic implications some of these subsidies should not be underestimated. Nor should the political implications, which could be complicated enormously by other domestic policy priorities (for example, the implications of eliminating below cost timber sales and proposing other timber-related policy reforms need to be coordinated and considered). At the macro level, it is also worth considering whether the benefits of removing subsidies (which are very marginal in terms of the federal budget) are worth the not insignificant political costs.

Notwithstanding the previous paragraph, in the context of the project underway, it is fair to say that there are opportunities to reduce government outlays and increase revenues by eliminating subsidies for environmentally-harmful activities. Over five years, a rough estimate of the potential savings is \$10-15 billion.

Environmentalists and economists argue that many energy and natural resource programs and tax policies represent unwarranted subsidies for environmentally destructive behavior and divert resources away from other potentially productive and less environmentally-destructive investments. Therefore, a number of proposals have been developed to make government programs and tax policies more neutral with regard to consumption and investment decisions that may have environmental implications. Market forces are relied on to more fairly dictate investment, production and consumption choices.

Federal programs and tax policies with environmental implications include: 1) tax policies that provide relief or preference to certain activities; 2) federal spending programs that cover costs that would otherwise be incurred by the private sector; 3) federal policies and programs that result in the provision of public resources at less than market rates. Specific examples and options are presented below.

EXPENSING OF EXPLORATION AND DEVELOPMENT COSTS FOR EXTRACTIVE INDUSTRIES :

- 3 -

Unlike other purchases of capital assets, oil and gas exploration and development costs, as well as hard rock mining costs may be expensed (written off in full immediately) rather than depreciated over time. Hard rock mineral entities and integrated oil and gas producers are limited to expensing 70 percent of these costs, with the remaining 30 percent deducted over a 60-month period. Repeal of this tax preference would yield \$4 billion over five years.

PERCENTAGE DEPLETION ALLOWANCE:

Percentage depletion allows independent oil and gas producers to 15 percent of gross income to be deducted, regardless of the actual capitalized costs. Hard rock mineral producers are also allowed to use percentage depletion at varying rates (from 5 percent for sand to 22 percent for uranium). Percentage depletion ties the producers tax burden to the value of production, rather than the cost of production. The subsidy is limited to 100 percent of net income. The incentive provides little incentive to develop or expand production from marginal properties because net income limits the amount of percentage depletion (the higher production costs associated with marginal fields reduces net income). Repeal of the percentage depletion allowance would yield \$4.5 billion over five years.

EXCLUSION OF INTEREST ON STATE AND LOCAL INDUSTRIAL DEVELOPMENT BONDS FOR ENERGY FACILITIES

The interest on State and local industrial development bonds sold to finance municipal energy facilities is not taxable. This provides an incentive for investing in supply-side energy options.

EXCLUSION OF PASSIVE LOSSES FOR WORKING INTERESTS IN OIL AND GAS PROPERTIES

The owners of working interests in oil and gas properties are subject to the alternative minimum tax, but exempted from passive income limitations. Thus, the working interest-holder may aggregate negative taxable income from the operation and development of wells managed by the interest-holder with income from all other sources. Thus, the working interest-holder is relieved of the minimum tax rules limit on tax deferrals. Yield estimated at \$80 million/yr.

LOG EXPORT SUBSIDIES (need more information) \$100 million/yr

Log exports from timber felled on private lands currently can be exported (exports of logs felled on public lands are illegal). Indeed, the federal tax code encourages the exportation of unprocessed timber products through tax subsidies. This incentive for the export of unprocessed logs restricts the availability of logs for domestic (value-added) processing and thus contributes to the complex array of forces that have led to the loss of jobs in the Pacific Northwest timber industry. According to the Joint Committee on Taxation, export subsidies for raw logs results in the annual loss of \$100 million in potential federal revenues.

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MINING LAW REFORM:

Under the 1872 Mining Law, holders of a mining claim are given right to mine and sell public domain minerals without paying fees or royalties to the federal government. Claimholders must pay a \$100 annual fee in order to maintain the claim. Claimholders may also patent claims if a legitimate mineral discovery can be proved for a fee of \$2.50 to \$5.00 per acre. Patenting transfers both mineral and surface rights to private ownership.

CBO estimates that raising fees on hardrock mining claims would yield approximately \$240 million over five years.

GRAZING FEES

The U.S. Forest Service and Bureau of Land Management oversee livestock grazing on 270 million acres of public land in the West. The 1990 appraised value of public rangeland in six western regions was between \$5.4 and \$9.8 per animal unit months. (There are approximately 17.5 million animal unit months of grazing annually at current lease rates). The Forest Service spends, on average, \$3.86 per animal unit month to manage its rangelands. The 1991 permit fee for ranchers was \$1.97 per animal unit month.

Proposals have been introduced in Congress to increase the federal grazing fee. The House approved a 33 percent annual increase as part of the FY'93 interior spending bill (the fee would increase over four years until a fee approaching "fair-market" value were reached). The purpose of the increase is to discourage overgrazing of public rangelands and to assess a fee closer to the fair-market value for grazing.

CBO estimates that increasing grazing fees would yield \$120 million over five years.

BELOW-COST TIMBER SALES:

The Forest Service manages timber sales from 119 national forests -- selling 6.4 billion board feet of public timber to private lumber companies in 1991. 8.5 billion board feet was harvested from the public lands in 1991, providing approximately \$1.1 billion in federal timber receipts. In the same year, the Forest Service spent approximately \$900 million on timber management, reforestation, roadbuilding and other timber program costs. Thus, net receipts to the Treasury were \$200 million.

The majority of Forest Service regions have consistently failed to produce federal receipts for timber sales in excess of the Forest Service's costs of preparing timber sales. By gradually reducing "below-cost" timber sales, the federal government could eliminate a source of deficit spending, destruction of recreational values and government interference in private timber markets. CBO estimates that eliminating below-cost sales would yield \$230 million over five years.

- 5 -

WATER SUBSIDIES

The Bureau of Reclamation provides water for industrial and agricultural uses in the western states, as well as supplying municipal water systems. Water is made available through long-term contracts with water district commissions. The prices charged under these contracts generally run much lower than the true market value of the water. The charges rarely cover the federal costs associated with water projects. Federal water is provided at less than full costs for agricultural commodities subject to price supports.

Raising the charges on agricultural uses of federal water would yield \$85 million over five years according to CBO.

DISASTER RELIEF and EMERGENCY ASSISTANCE

INTRODUCTION

The Disaster Relief and Emergency Assistance programs of the Federal Government are administered by the Federal Emergency Management Agency (FEMA) under authority of the Disaster Relief Act of 1974, as amended by P.L. 100-707, and which is now referred to as the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the Stafford Act).

The disaster relief and emergency assistance programs are activated by the request of the Governor of an affected state to the President based upon a finding of the Governor that the disaster or emergency is of such severity and magnitude that effective response is beyond the capabilities of the state and local governments and that federal assistance is necessary. The programs supplement assistance available through state and local programs and do not supersede it.

Disaster and emergency assistance falls into two categories: public assistance and individual assistance. The programs are largely state administered where FEMA provides no less than 75% of the cost of the programs. There is authority for assistance to be up to 100% federal. Individual assistance includes grants to individuals, temporary housing assistance, minor home repairs, disaster unemployment assistance, and crisis counseling. Public assistance includes the use of federal resources, repair and replacement of public properties, debris removal, communications, emergency public transportation, and repairs to highways, airports and transit facilities.

MAJOR ISSUES

Since the law was last amended in 1988, significant attention has focused on FEMA's response as a result of Hurricane Hugo, the Loma Prieta earthquake, and Hurricane Andrew.

FEMA's disaster relief and emergency assistance programs have been criticized for failing to prepare for upcoming disasters, such as hurricanes, and for being slow to respond to human needs following a disaster. FEMA has been accused of excessive red tape in processing applications for assistance, and delays in providing financial assistance.

Following Hurricane Andrew in particular, it has been suggested that FEMA disaster relief should be transferred to the Department of Defense because of a perceived greater capability to respond to needs quickly. Currently, FEMA is responsible for coordinating all federal response to a disaster, including that of the Department of Defense. It is expected that Congressional Committees will be reviewing FEMA's performance, particularly following Hurricane Andrew, and that serious proposals will be made to enhance the role of the military. State organizations have historically opposed military control of relief efforts.

FEMA has been criticized as a political "dumping ground" for unqualified political appointees. Its credibility with the Congress, the states, and the press has been seriously eroded.

INITIATIVES

The new Administration should state a commitment to reviewing federal disaster relief and emergency assistance programs to assure that a timely and effective response is available.

There should be a commitment to a highly qualified, professional FEMA and an end to the practise of unqualified political appointees.

Alaska Environmental Transition Organizing Committee

c/o The Alaska Environmental Lobby, P.O. Box 22151, Juneau, Alaska 99802

18 December 1992

President-elect Bill Clinton
Presidential Transition Office
P.O. Box 8086
Little Rock, AR 72203

Re: Alaska environmental initiatives for the first 100 days

Dear Mr. Clinton,

The Alaskan environmental community has identified seven issues critical to the conservation movement in the State of Alaska. Each can be substantially impacted by policy directives issued during your first one hundred days in office.

The local, grassroots organizations listed below are united in their support of the following policy initiatives:

Arctic National Wildlife Refuge

Withdraw the Interior Secretary's April 1987 recommendation to Congress that the 1002 area of the Arctic National Wildlife Refuge coastal plain be opened to oil and gas leasing and development.

Tongass Land Management Plan

The new administration should intervene as soon as possible to stop or delay the revision of the Tongass Land Management Plan (TLMP). The TLMP Revision will constitute the administrative context for all conservation work in the Tongass for the next decade. The current Forest Service "preferred alternative" will radically increase Tongass logging and will reduce all multi-resource standards and guidelines. Specifically, there should be no final Environmental Impact Statement prior to October 1, 1993.

Exxon Valdez Oil Spill Criminal and Civil Settlement Monies

Issue an executive order directing the federal Oil Spill Trustees to spend Exxon's \$50 million criminal restitution to buy and

protect private and public land in the oil spill area. Also direct the Trustees to support using 80% of the remaining funds from Exxon's civil settlement to acquire lands and habitat.

Tatshenshini and Alsek Rivers

Provide permanent protection in both Canada and the United States for the Tatshenshini and Alsek Rivers by issuing an executive order withdrawing lands and river bottoms from mineral entry and designating them a National Conservation Area and Wild River. Possible authorities include:

1. Federal Land Policy and Management Act
2. Antiquities Act
3. U.S. Constitution

Alternative actions could include:

1. Invoking an international Joint Commission to review the Windy-Craggy Mine Proposal.
2. Direct the State Department to pressure Ottawa.
3. Announce that protecting the Tatshenshini and Alsek watersheds is a top administration policy.

Wetlands

Reject the Bush Administration's "Alaska 1% Rule," which would exempt wetlands in Alaska (more than half those remaining in the United States) from the fundamental requirements of the Clean Water Act. Withdraw the proposal or, if necessary, overturn it if a final rule is promulgated prior to your Inauguration.

Bristol Bay Buy Back of Oil Leases

Ban drilling of off-shore oil leases in Bristol Bay and submit to Congress a budget including sufficient funds to buy Lease Sale 92 back from the oil industry. Bristol Bay is one of the most valuable fisheries in the world, and the oil lease buy-back is strongly supported by Alaskan fishermen, Native people, environmentalists, and the State of Alaska.

Aerial Wolf Hunt

Issue an Executive Order prohibiting the hunting of wolves from aircraft as part of a state-sanctioned predator control program and prohibiting same-day, land-and-shoot hunting of wolves on federal lands.

Thank you for your help and support.

Alaska Center for the Environment
Alaska Environmental Lobby
Alaska Society of American Forest Dwellers
Alaska Wildlife Alliance
Alaska Women and Trees
Alaskans for Juneau
Arctic Audubon Society
Balance of the Sea
Common Ground
Cook Inlet Vigil
Cooper Landing Environmental Action Network
Denali Citizens Council
Kachemak Bay Conservation Society
Kensington Coalition
Lynn Canal Conservation
Northern Alaska Environmental Center
Prince William Sound Conservation Alliance
Public Awareness Committee for the Environment
Science and Law Limiting Toxics
Southeast Alaska Conservation Council
Trustees for Alaska
Wrangell Resources Council

DRAFT

~~CONFIDENTIAL~~

INFRASTRUCTURE POLICY

DETERMINED TO BE AN ADMINISTRATIVE

MARKING INITIALS: MAY DATE: 2/14/2017

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INFRASTRUCTURE POLICY

General Background

The nation's core infrastructure systems -- highways, bridges, transit, rail and air networks, water treatment and drinking supply -- are essential conditions of economic growth, and the quality and quantity of these systems is an important factor in the economy's rate of productivity gains. Nevertheless, economics can not determine precisely what aggregate level or mix of infrastructure investments will produce a given level of wealth creation. Recent studies that purport to correlate infrastructure investment with precise levels of economic and productivity gains have been credibly criticized by many experts and by the Congressional Budget Office.

There also is broad skepticism about "needs" studies that purport to establish spending requirements needed to maintain or expand current infrastructure services. These studies typically represent wish-lists with little consideration of priorities, budget constraints, technological alternatives or innovative means of reducing congestion or pollution. For example, needs studies have classified thousands of older bridges as "structurally deficient" because they do not meet the highest current engineering guidelines. But if they do not normally carry heavy-truck traffic, they are adequate. These studies offer cost estimates for bringing all bridges up to current standards, but no information to help set priorities. Similarly, needs studies for wastewater treatment plants do not consider conservation measures that would reduce the volume of water needing treatment. Much is known about what we *could* spend, but little about what we *should* spend.

There is broad agreement, however, on the common sense view that federal assistance is warranted to produce more efficient transportation and environmental infrastructure. The most balanced statement of the situation appears in a recent Brookings study by Clifford Winston and Barry Bosworth:

...[a] strong argument can be made for raising investment in public infrastructure, but needs can easily be exaggerated. Current investment is roughly adequate to maintain the quality of the system. These estimates of investment needs, however, ignore the growing evidence of waste and inefficiency that plague the system. They are based solely on a projection of demand without a weighing of costs versus benefits. Furthermore, the evidence does not offer much support to the view that the overall system is currently suffering from a failure to maintain existing facilities....

The first priority of public policy should be improving the efficiency of infrastructure spending and use...The congestion problem cannot be solved by simply expanding the supply, and, at least in the areas of urban highways,

that choice would be prohibitively expensive. Efficient pricing and investment would produce immediate benefits at little costs.

We can purchase better planning, management and high-technology to help solve the problem. CBO recently concluded:

...studies indicate that the [public investment] returns are highest for maintaining existing assets and for expanding capacity at certain congested facilities. Substantial economic benefits also could be achieved through more efficient use of existing infrastructure assets, particularly highway and aviation facilities.

Principles for the Rebuild America Program

The policy options in infrastructure investment are based on the following principles and assumptions.

Needs and Capacities. The options provide funding for the highest-priority needs, but less called for by various needs studies. The options also constrain spending when government or private industry does not have the capacity to efficiently deliver more.

Long-term. The options attempt to take the long-term approach to infrastructure investment. While some options can produce quick results, the most significant problems can be addressed only over the medium and long-term. Moreover, the start-and-stop approach to infrastructure spending in the 1980s has encouraged local and state officials and their representatives in Congress to press for pork-barrel projects, "before the train leaves the station." Ensuring that federal funding is steady, reliable and adequate is a precondition of more efficient infrastructure spending.

Federal-State-Local roles. States and localities, not the federal government, plan, build and operate and chiefly finance infrastructure systems. Over 90 percent of federal infrastructure funds are spent by the states. Moreover, federal funds account for only 30 percent of all annual public infrastructure spending; states and localities raise and provide the remaining 70 percent. Therefore, the federal government's primary role should be to: 1) encourage technological and management innovations through measures such as user fees, congestion pricing and demand-reduction devices for promoting efficiency; 2) underwrite research and development; and, 3) provide additional aid where justified by local resource or equity considerations.

Sound-spending safeguards. The federal government cannot comprehend the vast array of local conditions that determine genuine infrastructure needs. The federal government can and should help states and localities make efficient choices. Federal programs should require state and local planning, and provisions for review and matching-fund contributions designed to encourage spending choices based on sound investment analysis and to discourage non-productive spending, whether based on politics or a failure to consider effective alternatives.

Environmental quality. In addition to promoting economic development, infrastructure investments can and should enhance, not degrade, natural and constructed environments.

Private market participation. Most state and local infrastructure investments are financed through private capital markets; federal assistance and tax rules should facilitate infrastructure lending and public-private ventures. At present, most analysts believe that states and localities, with few exceptions, have adequate access to the capital markets for infrastructure borrowing. However, increased infrastructure investment in the future could outstrip bond-market capacity, and there are ways of increasing the leverage of federal and other public infrastructure spending. Innovative federal inducements to private investment (such as revolving funds, infrastructure banks and credit enhancements) are appealing but require further fiscal and programmatic analysis.

Job creation. The policy options recognize the desire to create jobs as quickly as possible, within the framework of a productive, long-term infrastructure program. Within that framework, it is desirable first to carry-out tasks such as maintenance that are labor-intensive and can be implemented quickly. However, even in these cases, it may take months before work can begin.

It is important not to overstate the potential for job starts in the initial six months or year of any infrastructure program. Recent experience with counter-cyclical jobs programs indicates that many projects identified as "ready to go" are not as ready (or as productive) as advertised, and a recent study by DRI/McGraw-Hill suggests that under a well-crafted stimulus package proposed by Senator Frank Lautenberg, two-thirds of all new jobs would be created in its second year of operation. For maintenance portions of any given program, each \$1 billion in new spending can be expected to produce direct, indirect and ancillary job gains of 40,000 to 60,000 -- but only over several years.

Spending and Financing

The options reviewed below provide a range of possible spending and means of financing this spending. The major-funding options would increase spending over current baselines by \$75.7 billion over the four-year period of FYs 1994-97 plus supplementals for FY 1993: a four-year increase of \$59.12 billion over current baseline projections for FYs 1994-97 and \$16.58 billion in FY 1993.

- a) Highways/bridge/mass transit: A four-year increase of \$30.9 billion over current baseline projections for FYs 1994-97, plus \$6.3 billion in FY 1993: full funding of the ISTEA authorization, plus \$2 billion add-on in FY 1993 and \$4 billion/year additional in FYs 94-97, including R&D in new highway and transit modalities;
- b) Rail: A four-year increase of \$6.82 billion over current projections for FYs 1994-97, plus \$1.28 billion in FY 1993, including high-speed systems;
- c) Airports and Aviation: A four-year increase of \$1.4 billion over current projections for FYs 1994-97, plus \$1.0 billion in FY 1993;
- d) Wastewater Treatment: a four-year increase of \$12.0 billion over current projections for FYs 1994-97, plus \$2.0 billion in FY 1993;
- e) Drinking Water: A four-year increase of \$8.0 billion over current projections for FYs 1994-97, plus \$2.0 billion in FY 1993.

The modest-spending options would increase spending over current baselines by \$45.6 billion over the four-year period of FYs 1994-97 plus supplementals for FY 1993: a four-year increase of \$36.3 billion over current baseline projections for FYs 1994-97 and \$9.3 billion in FY 1993.

- a) Highways/bridge/mass transit: Full funding of the ISTEA authorization: \$14.9 billion over baseline projections for FYs 1994-97, plus \$4.3 billion supplemental in FY 1993;
- b) Rail: No additional spending, but assuming current-services spending for rail, including \$800 million in the current ISTEA authorization for development of magnetic levitation rail and other high-speed rail research;
- c) Airports and Aviation: A four-year increase of \$1.4 billion over current projections for FYs 1994-97, plus \$1.0 billion in FY 1993;

d) Wastewater Treatment: a four-year increase of \$12 billion over current projections for FYs 1994-97, plus \$2 billion in FY 1993;

e) Drinking Water: A four year increase of \$8 billion over current projections for FYs 1994-97, plus \$2 billion in FY 1993.

Financing: Financing either set of options would involve increases in the gas and other taxes that fund the ISTEA trust fund, general revenues, or spending cuts. In addition, there are a series of strategies for attracting greater private investment, both debt and equity, to infrastructure; all need further development and analysis.

It is important to note that the taxes dedicated to the Highway Trust Fund for highway, bridge and mass transit activities do not generate sufficient revenues to fund ISTEA at authorized levels.

INFRASTRUCTURE

Highways, Bridges and Mass Transit

Putting People First:

To create millions of high-wage jobs and smooth our transition from a defense- to a commercial-based economy, we will rebuild America and develop the world's best ... transportation ... systems. As part of our commitment to put people first, we will create a Rebuild America Fund, with a \$20 billion Federal investment in each year for four years, leveraged with state, local, private sector and pension fund contributions.

Background:

Traffic congestion is costly to the economy -- some \$120 billion a year, according to a recent federal study -- and a principal cause of poor air quality. Better regional transportation planning and more flexible federal spending rules could help address these problems.

There is wide consensus that the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) authored by Senator Moynihan and other congressional Democrats meets these criteria. ISTEA increases highway and mass transit authorization to \$155 billion for FYs 1992-97, emphasizes maintenance over new construction, extends federal aid to projects financed by tolls, improves state and local planning, and provides states and localities greater flexibility to allocate their federal aid on either highways or transit. The Bush Administration opposed full funding of ISTEA, and the FY 1993 appropriations fell \$4.3 billion short of the FY 1993 authorization of \$26.2 billion.

The revenues generated by the current gas tax and dedicated to highway and mass-transit investments will cover full funding of ISTEA only through mid-FY 1995, and up to \$7 billion in additional spending in FYs 1993 and 1994. Spending in excess of this level, including full funding of ISTEA through FY 1997, would require additional revenues from either an increase in the gas tax or from general revenues.

Options: Modest and Major Funding

Highways, Bridges and Mass Transit

Option 1: Modest Funding

1) Fully fund ISTEA in FY 1993 through a \$4.3 billion supplemental appropriation (and increase the obligation ceiling by \$1.5-\$2 billion) to support rapid start-ups for fiscal stimulus. Also, continue full funding under current authorizations through FY 1997, with additional spending over the current baseline of \$4.0 billion in FY 1994, \$3.4 billion in FY 1995, \$3.0 billion in FY 1996, and \$4.5 billion in FY 1997.

Over the five years, this option would provide \$134.6 billion for highways and mass transit. Under ISTEA, \$103.1 billion is authorized for highways programs, including \$5.7 billion for congressionally-mandated projects. The balance of the ISTEA authorization, \$31.5 billion, is solely for mass transit, although an additional \$20 billion in highway funds can be converted to mass transit programs at the discretion of the states through the innovative Surface Transportation Program (STP). In addition to the \$134.6 billion authorized for basic highway and mass-transit programs, \$2.9 billion is authorized under ISTEA for related safety and research and development programs, including Intelligent Vehicle Highway Systems (IVHS), high-speed rail and magnetic-levitation rail systems.

2) Require states and localities to obligate the FY 1993 \$4.3 billion supplemental on maintenance, bus purchases and other rapid job-producing measures; and require states and localities to obligate the supplemental funding within 90 days for highways and by September 30, 1993 for mass transit. Use existing ISTEA formulas to allocate the \$4.3 billion to states and localities.

3) Waive state matching-fund requirements (20% in most funding categories) for the remainder of FY 1993. ISTEA permits states to defer meeting their matching requirements in FY 1993, if they agree to repay in subsequent years.

4) To reduce pork barrel, offer states a one-time opportunity in FY 1993 to trade in funding for "demonstration" projects for funding for any other ISTEA-eligible activity. This could free-up as much \$6.2 billion for productive projects.

Costs (billions \$)

	<u>FY93</u>	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>
Current authorization	26.2	26.1	26.0	26.0	28.1
New spending	4.3	4.0	3.4	3.0	4.5

Financing: All but \$12 billion of the \$155 billion ISTEA authorization is financed through fuel taxes collected in the Highway Trust Fund; the remaining \$12 billion comes from general revenues. In FY 1993, \$2.4 billion would come from general revenues under full funding. ISTEA authorizations expire at the end of FY 1997.

The Highway Trust Fund is financed by the 14-cent per gallon federal-excise tax on gasoline and diesel fuel, and by the smaller excise taxes on gasohol and ethanol-methanol. Its unobligated, cash balances, currently about \$11 billion, are counted as offsets to the deficit; at the same time, authorized commitments were about \$23 billion greater than the cash balance. The 1990 budget accord raised the gas tax by 5-cents per gallon through FY 1995, with 2.5-cents per gallon dedicated to the trust fund and 2.5-cents per gallon to deficit reduction. These additional gas-tax revenues, more than \$3 billion per year, would be needed to fully fund ISTEA obligations in 1994 and beyond.

Political Feasibility

Full-funding of ISTEA would enjoy broad support from environmental and urban groups, and most governors and mayors. Even the "road gang" of highway trucking and construction interests, which have been skeptical of ISTEA's flexible-funding provisions, would support full funding. This option would require a new appropriation, but it could be enacted quickly. Infrastructure-interested groups, however, may be disappointed with funding that does not exceed the ISTEA authorization.

The process could be delayed, however, if the quick-start proposal reopened ISTEA to amendment; most members will try to achieve the same purpose simply through appropriations. The one-time waiver for state and local matching requirements would be opposed by critics of pork-barrel spending. Eliminating the state and local dollars would also reduce the total amount spent on infrastructure, reducing its job-creating potential.

No-cost administrative reforms:

- 1) Issue DOT regulations elaborating state-local planning requirements under ISTEA, to insure sound investments and environmental protection.
- 2) Revise DOT contracting requirements to consider life-cycle costs of construction and maintenance, not just initial costs. This would encourage use of more efficient, longer-lasting materials in paving and bridge construction.
- 3) Issue DOT clean-air quality goals, mandated under the Clean Air Act amendments of 1990. Failure to take this action could trigger a ban on highway spending.
- 4) Establish accelerated DOT process for certifying new construction materials and techniques.
- 5) Reorganize DOT to better coordinate its separate surface-transportation agencies, including the Federal Highway, Transit and Railroad Administrations. This proposal could meet significant opposition; as an alternative, DOT could increase the coordinating authority of the Office of Intermodalism established under ISTEA.

Recent legislation:

In early 1992, the House and Senate Appropriations Committees considered economic stimulus legislation increasing FY 1992 funding for highways and transit by \$2.5-\$3.5 billion and waiving state and local matching requirements. Neither was approved in Committee, based on budget constraints and Bush Administration opposition.

Congressional jurisdiction:

ISTEA highway and mass transit funding is authorized in the House by the Public Works and Transportation Committee (Surface Transportation Subcommittee). In the Senate, highway funding is authorized by the Environment and Public Works Committee (Water Resources, Transportation and Infrastructure Subcommittee) and mass transit funding by the Banking, Housing and Urban Affairs Committee (Housing and Urban Affairs Subcommittee).

Highways, Bridges and Mass Transit

Option 2: Major Funding

1) Fully fund ISTEA for FYs 1993-97 at \$132.5 billion (see Option 1), plus "add-ons" of \$2 billion in FY 1993 and \$16 billion for FYs 1994-97 (\$4.0 billion/year). Distribute these add-ons as follows:

65 percent, or \$11.7 billion for FYs 1993-97, for flexible spending under the Surface Transportation Program. This funding is distributed among the states by formula and is relatively immune to congressional special projects.

25 percent, or \$4.5 billion for FYs 1993-97, for Section 9 (urban) and Section 18 (rural) funding for mass transit. This would help offset past underfunding for mass transit, ease congestion and pollution, and help low-income populations.

5 percent, or \$0.9 billion for FYs 1993-97, for the Congestion Mitigation and Air Quality Program, providing flexible funding to support measures such as carpooling, HOV lanes and congestion-pricing programs in non-attainment areas under Clean Air Act regulatory deadlines;

5 percent, or \$0.9 billion for FYs 1993-97, for R&D programs, to accelerate development and testing of such innovations as Intelligent Vehicle and Highway Systems, including electronic-toll systems for congestion pricing on highways, improved construction materials, computerized-traffic signals, computerized-maintenance inventories and computerized-transit dispatch and tracking systems.

2) Allocate these additional funds among the states through existing ISTEA program formulas, but amend the Surface Transportation Program to increase from 50 percent to 75 percent the share a state must apportion to metropolitan areas (cities and surrounding counties). Maintain the state's matching requirement at the current 20 percent.

3) Require states and localities to obligate the additional FY 1993 funds on maintenance, bus purchases and other rapid job-producing measures; or require state and localities to obligate the supplemental funding by September 30, 1993.

4) To reduce pork barrel, offer states a one-time opportunity in FY 1993 to trade in funding for "demonstration" projects for funding for any other ISTEA-eligible activity. This could free-up as much \$5.7 billion for productive projects.

5) Reward states that reduce demand for highway capacity by providing bonus-funds in FY 1995 and beyond, through a reduced matching requirement or additional assistance, if they reduce their per-capita vehicle-miles-traveled.

Costs (billions \$)

	<u>FY93</u>	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>
New Spending					
ISTEA full-funding	4.3	4.0	3.4	3.0	4.5
Add-ons	2.0	4.0	4.0	4.0	4.0
TOTAL	6.3	8.0	7.4	7.0	8.5

A portion of these funds could come from general revenues or from a 3-to-5-cent increase in the gas tax.

Political Feasibility

Mayors and suburban leaders would strongly support the levels and priorities of the add-on; rural and highway interests would oppose the "tilt" against them in the add-on. Governors and mayors would prefer a waiver of their FY 1993 matching requirements, but doing so would open the door to funding less-productive projects. They also would prefer a provision permitting them to use add-on funding for all roads, not just primary roads currently eligible for federal funding; but doing so would channel federal aid to projects such as patching local streets.

State officials and contractors would support suspension of planning and environmental reviews in FY 1993 to speed-up job creation; but doing so would trigger opposition from environmental and other activists, which in turn could delay project starts.

The provision to reduce highway-use demand, which could be accomplished through measures such as HOV lanes and congestion pricing, would not be popular with many motorists, but would be supported by truckers, business shippers and operators of intermodal freight facilities (ports and truck transfer points).

The usefulness of FY 1993 add-on funding would be limited by the availability of ready-to-go projects and by the capacity of states and localities to manage the additional funds. Recent surveys suggest that many states would not be able to

handle a program that adds \$8 billion to current funding. The proposed \$2 billion FY 1993 add-on, on top of the \$4.3 billion full funding, comes close to this limit.

No-cost administrative reforms: Same as Option 1.

Recent legislation:

Senator Frank Lautenberg is considering reintroducing his 1992 infrastructure start-up program, which provides \$2.5 billion for highways and bridges and \$1.2 billion for transit, free of the matching requirements. Representative Norm Mineta is proposing a one-time FY 1993 add-on of \$5 billion for the Surface Transportation Program category, with a waiver of half the matching requirement.

INFRASTRUCTURE

High Speed and Other Rail

Putting People First:

We will focus on ... creation of a high-speed rail network linking our major cities and commercial hubs.

Background:

A 1991 report by the Transportation Research Board (TRB) of the National Research Council is the best current authority on high-speed intercity transport. It reports that the primary, potential market for high-speed rail (HSR) and magnetic levitation (maglev) systems lies in intercity trips of 150 to 500 miles in densely-populated corridors, where it could compete against short-haul air and automobile travel. According to the report, these systems could relieve congestion on those alternate modes and might thereby produce environmental benefits.

Conventional HSR is limited to top speeds of around 200 mph (the Japanese bullet train operates at a top speed of 125 mph); maglev can achieve velocities of about 300 mph. On short-haul trips, the difference in top speed may be inconsequential, while energy costs increase disproportionately to marginal increases in speed. Maglev and conventional HSR above speeds of 125-to-150 mph cannot use existing rights-of-way; instead, they require straighter, exclusive rights-of-way and better track. The costs of acquiring and improving these rights-of-way would far exceed the costs of new equipment.

There is no current U.S. manufacturer of either maglev or HSR equipment. There is a general consensus that at present, high-speed rail would not be commercially viable without public subsidies comparable to publicly-funded infrastructure for highway and air travel.

The early years of an HSR program would involve planning and acquisition of the rights-of-way. Each 150-to-500 mile corridor could cost \$3-8 billion.

ISTEA authorized \$725 million over five years for R&D on a maglev prototype, and directed DOT to report by Spring 1993 on the costs and benefits of proceeding to prototype testing.

On a number of existing rail routes, it would be possible to achieve speeds of around 125-150 mph -- speeds competitive with automobile and short-haul air travel - by using new equipment (to date, all foreign-made) and by improving existing rights-of-way, rails, and traffic controls. In October, DOT designated five such

potential corridors, as required by ISTEA: Vancouver-Portland, San Francisco-San Diego, Detroit-Chicago-St. Louis, DC-Charlotte, and Tampa-Miami. AMTRAK has tentatively proposed seven corridors, including these five.

The working assumption in all cases is that the initial capital investments for these corridors would be heavily subsidized but that, once operational, they could generate revenues to cover their operating costs. A federal commitment, therefore, would be necessary to attract private investment and encourage American technology and manufacturing companies to develop the systems. At present, only one American manufacturer makes rail cars suitable for the upgraded lines and none produce high-speed equipment.

According to the TRB report, for the short- and medium-term, improvements to existing services may offer the most cost-effective and practical means of providing better intercity transportation in most corridors.

Options: Modest Funding and Major Funding.

High Speed and Other Rail

Option 1: Modest Funding

- 1) Full-funding for ISTEA would cover the ISTEA authorizations of \$725 million over six years for development of maglev and \$75 million for research on other HSR issues. This funding would be sufficient to advance maglev research, but not to fully study other HSR technologies and identify existing rights-of-way with alignments suitable for high-speed operation.
- 2) Transfer some of these maglev funds to development of other HSR technologies.
- 3) Amend ISTEA project eligibility requirements under the Surface Transportation Program to permit greater funding for commuter and freight-rail improvements and for intermodal rail facilities.

Political Feasibility

Trucking would oppose subsidies or assistance for freight rail. Airlines would oppose aid for short-haul intercity passenger rail. Senator Moynihan would oppose shifting maglev funding to other research projects.

No-cost administrative reforms:

- 1) Direct DOT to create a High-Speed Rail Office and produce a plan for upgrading America's inter-city rail service, designate priority HSR corridors, plan for the acquisition and financing of rights-of-way and for long-term financing of operating deficits, and review federal-rail design and operating standards to accommodate HSR applications.
- 2) Direct DOT to consider intercity rail service in decision-making concerning federal highway, transit and air infrastructure programs.
- 3) Direct DOT to require that the needs of rail passengers and rail freight be incorporated in statewide and metropolitan planning regulations issued under ISTEA.

Congressional jurisdiction:

Maglev and high-speed rail are authorized by the Senate Environment and Public Works Committee and the House Public Works and Transportation Committee. AMTRAK is authorized by the Senate Commerce, Science and Transportation Committee and by the House Energy and Commerce Committee.

High Speed and Other Rail

Option 2: Major Funding

- 1) Full-funding for ISTEA authorizations of \$725 million over six years for development of maglev and \$75 million for research on other HSR issues.
- 2) Fund \$500 million in an FY 1993 supplemental for AMTRAK's Northeast Corridor Improvement Project to complete roadbed, signal and electrification improvements on the New York-Boston segment. These improvements would permit service in the 125 mph range, competitive with air. Also, provide a \$500 million FY 1993 AMTRAK supplemental for new cars and locomotives and station-upgrades. Also, provide a FY 1993 \$200 million ISTEA supplemental for highway-rail crossing safety improvements.
- 3) Provide a \$200 million/year additional capital subsidy to AMTRAK, to keep up with depreciation: AMTRAK has a favorable operating cost-to-revenue ratio, compared to the rail services in other nations. but AMTRAK's subsidy has been all but eliminated.
- 4) Fund \$200 million/year in FYs 1994-95 for further studies and design of right-of-way improvements of existing routes and research on signaling and safety technologies for higher-speed rail. Also, provide \$2 billion/year in FYs 1996-97 to begin work on upgrading rights-of-way for several corridors, which would require \$15 billion over a 15-year construction period.
- 5) Fund \$100 million/year in FYs 1994-97 for development of the steel wheel high speed technologies and for study and assistance for possible early acquisition of potential new rights-of-way.
- 6) Fund \$100 million/year in FYs 1994-96 to elevate clearances on rail overpasses to accommodate double-stacking containers, especially on routes west from the eastern ports, with 50-50 cost sharing with the railroads or states, to enhance competitiveness of American ports.
- 7) Establish a \$500 million line-of-credit under an existing authorization in the Rail Line Rehabilitation and Reconstruction Act for federal loan guarantees for private rail line and bridge rehabilitation and reconstruction.
- 8) Create a dedicated source of financing for railroads and rail passenger service, comparable to dedicated financing for air and road transport. One option proposed by AMTRAK; dedicate one-cent of the gas tax to a rail-trust-fund account in the Highway Trust Fund. This would generate about \$1.5 billion per year.

Costs (billions \$)

	<u>FY93</u>	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>
ISTEA R&D		0.13	0.13	0.13	0.13	0.13
Upgrade corridors		0.10	0.10	2.00	2.00	2.00
HSR R&D		0.10	0.10	0.10	0.10	0.10
AMTRAK-NECIP	0.50					
AMTRAK capital	0.50	0.20	0.20	0.20	0.20	0.20
Grade crossing	0.15	0.15	0.15	0.15	0.15	0.15
Double-stack			0.10	0.10	0.10	
TOTAL	1.28	0.78	0.78	2.68	2.58	2.45

Political Feasibility:

Once again, trucking interests oppose subsidies or assistance for freight rail. Airlines would oppose aid for short-haul intercity passenger rail. Rural interests would support increases in AMTRAK funding. Highway users, especially truckers, would oppose dedicating one-cent of the gas tax to rail. Experts may also object to funding higher-speed operations on AMTRAK, based on lack of reliable estimates of the capacity to accelerate high-speed rail development.

No-cost administrative reforms: Same as Option 1.

Recent legislation:

Senator Lautenberg's proposed stimulus package included \$450 million for Northeast Corridor Improvement Project signal and electrification equipment and an additional \$450 million for AMTRAK capital acquisition and station improvements. Also, earlier this year the Senate Commerce Committee leadership proposed to exempt from the current volume cap on tax-deductible bonds any public borrowing for rail projects. Representative Al Swift introduced legislation this year to set aside one-cent of the gas tax for a rail trust fund, and Rostenkowski seemed to be supportive.

INFRASTRUCTURE

Airports and Aviation

Putting People First:

... [W]e will rebuild America and develop the world's best ... transportation systems.

Background:

Federal aid is provided to publicly-owned airports, which includes virtually all airports used by scheduled airlines, through the Airport Improvement Program (AIP) funded by the Airport and Airway Trust Fund. This fund derives its revenue from the 10 percent federal ticket tax and from air-fuel and air-cargo taxes. Approximately one-third of Trust-Fund revenues are used for AIP, and the surplus at the start of FY 1993 was \$7.4 billion.

The fund allocates assistance by formula to large airports on a 80/20 matching basis. Small airports receive a small portion of trust-fund disbursements on a 90/10 matching basis through a separate discretionary program. The authorization for FY 1993 was \$2.5 billion, the appropriation was \$1.8 billion. The program expires at the end of FY 1993 and will have to be reauthorized.

AIP funds help finance construction of runways and some terminal-construction costs. Most terminal-construction and terminal-operating costs, however, are financed through bond offerings, which are serviced through landing fees charged by each airport to airlines and concession revenues. Since 1990, airports also are permitted to apply to the F.A.A. for authority to charge airlines a head tax on each passenger, which has become a significant source of airport revenues.

Analysts agree that there is little need for new airports, but there is need to improve the efficiency of some current airports by building parallel runways. Many large airports are experiencing significant peak-load problems, but they have been reluctant to charge peak-load landing fees at crowded times of day.

The Trust Fund also funds the facilities and equipment of the Federal Air Traffic Control System (ATCS); general revenues fund ATCS salaries and operating expenses. The AIP FY 1993 authorization for ATCS was \$2.7 billion; \$2.35 billion was appropriated. The ATCS needs to accelerate its equipment upgrades.

Options: One: Full Funding

Airports and Aviation

Option 1: Major Funding

1) Appropriate an additional \$250 million in FY 1993 to achieve the Airport Improvement Program authorization level. Also, provide an add-on appropriation of \$500 million in FY 1993 for job-intensive runway resurfacing and extensions and for terminal improvements. Also, reauthorize the trust fund for FYs 1994-98 at current levels plus \$500 million in FY 1994, \$400 million in FY 1995, \$300 million in FY 1996, \$200 million in FY 1997 and \$100 million in FY 1998.

2) Provide an FY 1993 supplemental of \$200 million from the airport trust fund for ATCS facilities, equipment and R&D; and reauthorize at the existing annual level of \$2.7 billion/year.

Costs (billions \$)

	<u>FY93</u>	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>
Current authorization						
AIP	2.5	2.5	2.5	2.5	2.5	2.5
ATCS	2.7	2.7	2.7	2.7	2.7	2.7
New spending	1.0	0.5	0.4	0.3	0.2	0.1

Political Feasibility

This is a popular program. Representative Norm Mineta will call for a requirement that supplemental funding for FY 1993 be obligated by the end of the fiscal year. He also may propose a reduction in the federal-excise tax from 10 percent to 8 percent, in order to attract passengers and save airline jobs threatened by declining revenues. This proposal would significantly reduce airport trust-fund revenues.

No-cost administrative reforms:

Reverse the current F.A.A. interpretation barring the use of revenues from the head-charge for improving off-airport road and transit connections, in order to relieve the serious problem of traffic congestion nearby but outside airport property.

Recent legislation: The Airport Improvement Program authorization expires at the end of this fiscal year, and will have to be reauthorized (see above).

Congressional jurisdiction:

Authorization is handled by the Senate Commerce, Science and Transportation Committee (Aviation Subcommittee) and by the House Public Works and Transportation Committee (Aviation Subcommittee).

INFRASTRUCTURE

Wastewater Treatment

Putting People First:

We will focus on ... environmental technology to create the world's most advanced systems to ... clean our air and water.

Background:

In the years prior to the Reagan Administration, the federal government provided the states with \$5 billion/year in grants for wastewater-treatment-plant construction. Under Reagan, this funding was gradually reduced to \$2.5 billion/year, and the grants program was replaced in 1987 by a state revolving fund (SRF) program. Federal contributions to the SRF were authorized at \$8.4 billion over the six years, and nearly all of this authorization has been appropriated. The authorization will expire at the end of FY 1993.

The SRF program provides the states with flexibility in determining much of the use of the money. States receive grants from the revolving fund according to a formula based on population and estimated needs. States must contribute an additional 20 percent in matching funds, which are used to help capitalize the federal fund. Thirty-five states use their grants to capitalize a state revolving fund that provides loans to communities to finance their public wastewater treatment projects. These loans must be repaid within 20 years, and the repayments go back to the state's revolving fund. Fifteen states use their federal grants as a capital reserve to leverage borrowing on the bond market, which is then used to capitalize the state revolving fund.

The SRF program is considered to be very successful. Some city officials would prefer grants that require no repayment, but states and environmentalists favor the program because the repayment requirement encourages the use of realistic user fees, which promotes conservation and technological efficiency.

The problem today is the vast size of most states' water pollution problems. There is clear need for expansion of treatment-plant capacity. In addition, there is need to address the larger problem of water pollution from non-point sources -- agricultural, road and stormwater runoff -- which is not collected for treatment. Analysts agree that funding for additional treatment must be accompanied by measures to reduce demand on treatment plants.

Options: One: Major Funding

Wastewater Treatment

Option 1: Major Funding

- 1) Authorize an additional \$2 billion in FY 1993 for the State Revolving Fund formula, and make funding available only for projects that have completed all planning, review and design.
- 2) Reauthorize the SRF program at \$3 billion/year for five years, or twice the existing federal capitalization.
- 3) Reform the new SRF program to promote conservation and reduce demand on wastewater treatment plans. Direct that the state SRF authority prepare statewide and metropolitan plans, requiring that conservation measures and land-use plans be considered in determining the need for treatment capacity. Also, require that user fees cover system costs except in rural and economically depressed areas, where a proportionately-discounted user fee would be required. Also, permit states to write-off loans to poor and rural localities, equal to up to 10 percent of their capitalized fund. Also, direct that conservation measures, combined sewer overflow, and non-point source control measures should be eligible for funding. Also, provide bonus grants or reduced matching requirements to communities that demonstrate success in water-conservation programs or otherwise reduce their cost of meeting clean water standards.
- 4) Amend the new SRF program to include an "enhancements" provision, similar to ISTEA, permitting 10 percent of funds to be used for landscape, streetscape, and visitor amenities related to water treatment and water-supply projects.

Costs (billions \$)

	<u>FY93</u>	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>
New spending	2.0	3.0	3.0	3.0	3.0	3.0

Political Feasibility:

Environmentalists, mayors and governors will all favor these proposals -- and will want higher funding. Higher funding, however, would outstrip most states' capacity to plan these projects, which require long lead times.

No-cost administrative reforms:

Reverse the EPA administrative ruling prohibiting SRF funding to be spent on water-conservation measures. This change, however, also could be made in the reauthorization legislation.

Congressional jurisdiction: The Water Quality Act is authorized by the Senate Environment and Public Works Committee (Superfund, Ocean and Water Protection Subcommittee) and by the House Public Works and Transportation Committee (Water Resources Subcommittee).

INFRASTRUCTURE

Drinking Water Supply

Putting People First:

We will focus on ... environmental technology to create the world's most advanced systems to ... clean our air and water.

Background:

The regulation of drinking water, a critical public-health matter, offers a prime example of the federal government imposing strict and costly standards on localities without providing assistance for meeting the requirements. There is a small aid program in the Farmers Home Administration for rural drinking-water systems, but otherwise no vehicle for federal aid.

The highest priorities in drinking-water quality today lie in consolidating small water systems that cannot individually afford to comply with water-quality standards, upgrading those systems when consolidation is impossible, and replacing lead-service lines and lead plumbing in homes in older urban areas.

Options: One: Major Funding

Drinking Water Supply

Option 1: Major Funding

1) Expand the SRF program to include drinking-water-supply programs and provide \$2 billion in additional SRF grants in FY 1993 and each year thereafter for these activities. Direct that states allocate their share of these funds in FY 1993 to urban areas for labor-intense projects to replace lead-service pipes and home lead plumbing and to consolidate or upgrade small systems. In subsequent years, permit states to allocate these funds for other drinking-water-supply activities, including conservation measures. Also, in FY 1993, defer or waive state matching and repayment requirements.

2) In FY 1995 and thereafter, introduce performance measures providing bonus grants or reduced matching requirements for states that demonstrate reduced drinking-water usage or increased water quality.

Costs (billions \$)

	<u>FY93</u>	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>	<u>FY97</u>	<u>FY98</u>
New spending	2.0	2.0	2.0	2.0	2.0	2.0

Political Feasibility:

This initiative would receive strong support from states, localities and environmentalists -- although all of them may call for higher funding levels and some would prefer a conventional grant program. These levels, however, should accommodate most areas' capacities to upgrade their systems. Since there is no current authorization that would permit use of SRF funds for drinking-water system investments, an FY 1993 supplemental would not be sufficient; a new authorization would be required. This could produce a jurisdictional conflict in the House, where SRF is authorized by the Public Works Committee and the Safe Drinking Water Act is authorized by the Energy and Commerce Committee.

Congressional jurisdiction:

The Safe Drinking Water Act is authorized by the Senate Environment and Public Works Committee (Superfund, Ocean and Water Protection Subcommittee) and by the House Energy and Commerce Committee and Public Works and Transportation Committee.

INFRASTRUCTURE

Local Public Works Program

Design Option

The U.S. Conference of Mayors, the Rebuild America coalition, and many members of Congress recommend a new block-grant program for cities to be used at their discretion for a wide range of public works, public buildings and housing projects. These funds would be allocated according to a formula based on population, unemployment rates, or similar measurements. Eligible activities would include road building and patching, mass transit, sewage and water supply projects, solid and hazardous waste disposal and environmental remediation, police and fire stations, parks, museums, libraries, schools, community centers, jails, and government office buildings.

Last spring, the Conference of Mayors issued a list of 7,252 such projects in 506 cities that the Conference called are "ready to go," at a cost of \$13 billion in the first year and total costs of over \$26 billion. The Mayors and other also call for deferring or waiving any matching requirements. Some suggest that such a program continue until the national unemployment rate declines significantly.

These proposals present several difficulties. The eligible activities are very broad and include projects that traditionally have been local responsibilities. Their relationship to productivity is problematic. Also, there is no necessary correlation between economically-disadvantaged areas and infrastructure needs. In addition, many projects on the Mayors' ready-to-go list would still require further design studies and other environmental approval requirements. By past experience in 1976-77 and 1983, relatively few projects actually began quickly, and many proved to be of questionable value. Moreover, the funding for these block grants would likely have to come from resources for economic infrastructure described in earlier options.

Political Feasibility:

Such a program would require new legislation. Previous local public-works programs were administered by the Commerce Department's Economic Development Administration; an alternative might be HUD. Under an EDA program, formulas and lists of eligible activities would have to be negotiated; under the existing HUD Community Block Grant program, the list of eligible activities would have to be negotiated. In either case, authorization and appropriation language would have to be drafted and enacted. All of these matters would be very controversial. Another alternative is a series of add-on appropriations for a variety of existing infrastructure, community-development and natural-resource programs.

A local public-works program would be popular with mayors and advocates of short-term job stimulus. It would attract criticism as scatter-shot spending unrelated to long-term infrastructure needs. Defenders of rural interests would further oppose a program administered by HUD. All three of these approaches by-pass state governments, and therefore could attract criticism from governors.

Congressional jurisdiction:

The Economic Development Administration is authorized by the Senate Environment and Public Works Committee and the House Committee on Public Works and Transportation. HUD is authorized by the Senate Committee on Banking, Housing and Urban Affairs and the House Committee on Banking, Finance and Urban Affairs.

INFRASTRUCTURE

Private-Sector Financing

Putting People First:

[W]e will create a Rebuild America Fund, with a \$20 billion Federal investment in each year for four years, leveraged with state, local, private sector and pension fund contributions.

Background

Most of the nation's publicly-owned infrastructure is financed today by state and local governments through the private-sector bond markets. These bonds are serviced and repaid through general revenues or dedicated user fees, such as tolls and sewer charges. A substantial share of state-and-local matching payments for federal aid also comes from proceeds from state-and-local bond offerings.

Analysts estimate that tax-exempt state and local issues in 1992 will reach \$233 billion in 1992, a 36 percent increase over 1991, and that the private-capital markets have adequate capacity and willingness to meet these borrowing demands in nearly all cases. Nearly two-fifths of this year's increase over 1991 reflects jurisdictions taking advantage of current low interest rates to roll-over existing, debt at higher interest rates, and analysts estimate that the total borrowing volume will decline 20 percent in 1993.

The federal government supports state and local bond financing of infrastructure projects by providing a federal tax exemption for income produced by these bonds. This tax exemption reduces the market interest rate on these issues, lowering the cost of borrowing for state and local jurisdictions, which in turn increases a jurisdiction's capacity to float bond issues.

A substantial increase in infrastructure investment over the next five years, however, could require new measures to attract additional private capital. The increased demand could be met either by a) attracting more private investment to public-infrastructure debt; or, b) attracting private equity investment to infrastructure projects. Meeting this demand will probably require government steps to address borrowing difficulties in both areas:

- 1) Public projects that lack a dedicated stream of revenues that would cover operating and debt-service costs, or are issued by jurisdictions that are not viewed as credit-worthy;

2) Private or public-private ventures, such as recent highway and high-speed rail projects, with projected incomes streams that fail to meet market sound-investment criteria.

Private or public-private equity ownership of infrastructure facilities usually requires user fees that generate revenues covering debt-service, operating expenses, and competitive profit levels. In many areas, such as public transit and small sewer systems, user fees at this level would be prohibitive. Moreover, federal law today bars private equity investment in projects receiving federal sewer or airport grants, and caps the use of tax-exempt financing for projects with private ownership.

In 1992, Congress enacted several provisions to encourage private investment in infrastructure. ISTEA eased restrictions on the use of federal funds in projects that also depend upon user-fee revenues. ISTEA also permits for the first time the use of federal funds in projects with private-equity investment, and permits projects to service private-equity investors before servicing bond lenders. ISTEA also created an Infrastructure Investment Commission to examine ways of facilitating greater pension-fund investment in infrastructure. The Commission is expected to issue its report in Spring 1993.

There are several options for further promoting private investment, both equity and debt, in infrastructure projects. The most prominent proposals have been advanced by the Rebuild America coalition chaired by Mayor Maynard Jackson, based on the 1989 Anthony Commission report to the House Ways and Means Committee. The Rebuild America proposals are supported by the U.S. Conference of Mayors and other city, county and state groups, the AFL-CIO, the Public Securities Association, and construction-industry groups.

Options: Three Design Options

Infrastructure Financing

Design Option 1: Rebuild America Proposal

- 1) Exempt private and public-private infrastructure projects from the volume cap on tax-exempt state and local bond issues with private participation.
- 2) Promote the issue of small-denomination municipal infrastructure savings bonds by easing current restrictions on arbitrage fees and bond-proceed expenditures.
- 3) Promote commercial-bank purchases of infrastructure bonds by allowing banks to deduct more bond-interest payments from the corporate-income tax.
- 4) Expand federal support for state revolving-loan funds, such as the EPA's wastewater treatment State Revolving Fund.
- 5) Create a Federal Infrastructure Bond Bank (see Option 3).

Political Feasibility:

It is impossible to estimate the costs of these general proposals, but any substantial steps would involve large revenue losses or additional spending. Most of these proposals would be very controversial. The proposal with the most support would be a carefully-restricted exemption from the volume-cap on tax-exempt bond issues with private participation, but the AFL-CIO opposes a cap relaxation applying to any projects that are not publicly-owned. Some analysts suggest that these measures would not be sufficient to attract substantial new private investment, especially if a new ITC raises the post-tax return on investment in private plant. Others argue that these measures would direct investment away from private capital needs of equal or greater importance to economic growth and productivity.

These proposals will require substantial additional investigation and analysis.

No-Cost Administrative Reforms:

Announce a comprehensive review by the National Economic Council of all existing studies and proposals, including the upcoming report by Infrastructure Investment Commission, with participation by Treasury, Transportation and EPA, to be completed by Fall 1993

Congressional Jurisdiction:

These measures would require action by the Senate Finance Committee, the Senate Committee on Banking, Housing and Urban Affairs, the Senate Committee on Environment and Public Works, the House Ways and Means Committee, the House Committee on Banking, Finance and Urban Affairs, and the House Committee on Public Works and Transportation.

Infrastructure Financing

Design Option 2: Additional Measures

- 1) Reduce the risk for private investors in commercial debt or equity in infrastructure projects by creating federal loan guarantees, or support projects' ability to guarantee a market return by creating stand-by equity, subordinated equity or debt, or gap financing.
- 2) Reform fiduciary rules for pension funds to permit them to invest in tax-exempt infrastructure debt and equity, lower returns than non-tax-exempt debt and equity.
- 3) Provide privately-developed infrastructure projects access to federal grants and revolving funds.
- 4) Extend accelerated depreciation rules and/or an investment tax credit to privately-owned infrastructure projects.
- 5) Provide private-infrastructure developers indemnity against tort, environmental and other liabilities.

Political Feasibility:

Once again, it is impossible to estimate the costs of these broad proposals, but most such steps would involve major revenue losses. There is substantial support for some step being taken, but particular measures will be controversial. Once again, all of these proposals require significant additional investigation and analysis.

No-Cost Administrative Reforms:

Announce a comprehensive review by the National Economic Council of all existing studies and proposals, including the upcoming report by Infrastructure Investment Commission, with participation by Treasury, Transportation and EPA, to be completed by Fall 1993

Congressional Jurisdiction:

These measures would require action by the Senate Finance Committee, the Senate Committee on Banking, Housing and Urban Affairs, the Senate Committee

on Environment and Public Works, the House Ways and Means Committee, the House Committee on Banking, Finance and Urban Affairs, and the House Committee on Public Works and Transportation.

Infrastructure Financing

Design Option 3: Federal Infrastructure Bank

Background

The Rebuild America coalition and others have urged the creation of a Federal Infrastructure Bank. There is a wide variety of proposed designs for such an institution, all seeking to leverage greater private investment -- debt, equity or both -- for infrastructure projects. An Infrastructure Bank could achieve this leverage by various means: provide federal guarantees or indemnities for private infrastructure lending or equity investments; support a secondary market in infrastructure securities by purchasing tax-exempt issues and repackaging and reissuing them; provide stand-by or "gap" financing for privately-owned infrastructure projects; and, create special debt instruments attractive to pension funds.

The Infrastructure Bank could invest in existing debt or equity offerings, or participate in new projects from their inception. Such a Bank could function solely as a funding source for infrastructure projects, or also as a source for federal infrastructure planning and technical assistance. It could be organized as an independent corporation, such as Fannie Mae, or as a federal agency.

Most infrastructure-bank designs envision a finite infusion of federal resources on the order of \$10-\$20 billion, financed through a direct appropriation, a new dedicated tax, or a special debt issue. Once capitalized, the Bank's operations would generate interest, fees or other earnings, and so could become financially self-sustaining -- assuming sound management, reasonable returns and acceptable losses.

Design Option:

- 1) Increase the federal gas tax by five-to-ten cents/gallon for five years to provide the Bank's capitalization; maintain a one-to-two cents/gallon increase to permit the Bank to offer below-market terms, accept riskier investments, and cover write-downs or write-offs; or,
- 2) Transfer the balances and revenues for existing trust and revolving fund programs to the Infrastructure Bank; or,
- 3) Authorize a special federal-debt issue to capitalize the Bank.
- 4) Authorize federal loan guarantees.

Political Feasibility:

As with previous infrastructure-financing proposals, the proposal to create a federal Infrastructure Bank will require significant additional investigation and analysis. The federal government already operates popular dedicated federal funds for highways, bridges and mass transit, airports, and wastewater treatment; and the constituencies for all of these programs might oppose ceding their separate status to a consolidated Bank. On the other hand, excluding these programs would leave the new Bank with responsibility for only a few areas of core infrastructure, such as railways or solid waste disposal. Some state and local officials will also be wary that a central Federal Infrastructure Bank could usurp their roles in selecting projects.

No-Cost Administrative Reform:

Announce a comprehensive review by the National Economic Council of all existing studies and proposals, including the upcoming report by Infrastructure Investment Commission, with participation by Treasury, Transportation and EPA, to be completed by Fall 1993.

Congressional Jurisdiction:

The Senate Finance Committee, the Senate Committee on Banking, Housing and Urban Affairs, the House Committee on Ways and Means and the House Committee on Banking, Finance and Urban Affairs would be involved. Depending on the mission of the Bank, jurisdiction could also extend to the Senate Environment and Public Works Committee, the Senate Education and Labor Committee, the House Committee on Public Works and Transportation, and others.