

Testimony of

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on

Improving and Reforming our Nation's Surface Transportation Programs

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Chairman Duncan, Ranking Member DeFazio, Members of the Committee, thank you for inviting me to testify at this hearing on improving and reforming our nation's surface transportation programs. NRDC is the nation's most effective environmental organization. Founded in 1970 by a group of law students and attorneys, we use law, science and the support of 1.3 million members and online activists to protect the planet's wildlife and natural places and to ensure a safe and healthy environment for all living things.

Introduction

Our outdated national transportation policy undermines America's safety, energy and climate security, and economy. Roads and bridges, transit systems, and other critical assets across the country have not been well maintained. This disinvestment, in addition to hurting the performance of the transportation network, is increasingly posing a safety hazard as we tragically saw on I-35 in Minnesota.

At the same time, even as Presidents from both political parties as far back as Richard Nixon have called for reductions in oil dependence, we remain as dependent on oil as ever, often imported from hostile countries. Our overwhelming reliance on oil as a transportation fuel coupled with few economical and convenient alternatives to automobiles for moving people and goods have kept America shackled to a volatile and costly global oil market.

Finally, while our transportation network has fostered tremendous economic growth, investments in the system, if not done right, can be unproductive or even wasteful. Inefficiencies – in the form of traffic congestion, high transportation cost burdens for businesses and families, and negative environmental effects from air and water pollution to climate change – further undermine the economic benefits.

While state and local transportation officials have a shared role in fixing our transportation system, reforming and improving federal transportation policy is critical to our success in

changing any of these trends. Now is the time to create a safer, smarter, and cleaner transportation network for the future, by:

- **Ensuring that transportation dollars are invested in projects that bring the highest returns by requiring performance-based planning and accountability for outcomes;**
- **Prioritizing the rehabilitation of aging roads, rail lines and bridges, and ensuring that all transportation facilities are well-maintained for optimal use and operation;**
- **Focusing improvements to the transportation system on projects that help to reduce our dependence on oil;**
- **Funding and financing maintenance, operations and growth of the system;**
- **Improving project development and delivery;**
- **Developing a national goods movement strategy; and**
- **Protecting our water quality and wildlife populations.**

These steps have broad public support. In February, 18 of America's largest environmental organizations, representing millions of members and activists across the country sent a letter to the leaders of the House and Senate committees with primary jurisdiction over federal transportation policy calling for many of these reforms. Next month, a similar set of organizations will have collected nearly 100,000 petition signatures calling for a reformed federal transportation bill that reduces our oil dependence.

By working together to develop and pass a strong, coherent national transportation policy, Congress and the Administration can enhance mobility, boost the economy, increase our security, and improve the environment.

Investing Wisely: Getting the Most Bang for Transportation Bucks

We've made tremendous investments in our transportation infrastructure over the years, and the resulting national network has fostered unrivaled economic growth and development. Today, the transportation system we've built continues to add significantly to our national economy. The transportation services we rely on to do business represent about \$1,114 billion (2000 dollars) in 2006, equal to 9.8 percent of GDP.¹ Transportation-driven GDP (a broader measure which attempts to capture all value-added generated to meet the economy's transportation demand, plus transportation services that contribute to non-transportation sector activity) was estimated at 16.5 percent of GDP in 1997.² More broadly, overall built infrastructure (e.g., buildings, roads, transit lines, etc.) accounts for about one-third of the value of U.S. assets.³

Many studies have found evidence of large private sector productivity gains from such public investments in the infrastructure, in many cases yielding higher returns than private capital investment.⁴ For example, the export of American-made goods, which requires efficient movement of freight to ports, accounts for jobs totaling 7 percent of the U.S. workforce.⁵

However, there is evidence that economic benefits of new transportation investments have dropped. For example, according to a study by a New York University economist the return on investment of new highway projects has been in decline for years.⁶ And inefficiencies -- in the form of congestion, high costs, and environmental impacts -- exacerbate matters further.

The flaws in our transportation system also have a broader impact on our economy. Long commutes and congestion impose real economic costs. The Texas Transportation Institute estimates that we lose \$87.2 billion dollars in productivity during the 4.2 billion hours Americans spend in traffic each year.⁷ Billions more in fuel is wasted. Moreover, economist Joseph Cortright has shown how sprawling metropolitan land use patterns make the problem worse.⁸ Cortright calculated that a typical traveler in the least-sprawling U.S. city spends 40 fewer hours per year in rush hour traffic than the average American, due to shorter travel distances.

Stubbornly high household transportation costs also show this inefficiency. Analysis by the transportation and land-use think tank Reconnecting America shows that transportation costs have been growing for years, and are now often the second highest expense for American families. The average household spends more on transportation than on food or health care.⁹ In highly automobile-dependent suburbs, transportation can consume as much as 25 percent of a household budget, compared to just 9 percent in neighborhoods with access to public transportation.¹⁰

Studies also show, however, that smart, strategic transportation investments can save consumers money, increase economic output, and boost employment. Some investments make smarter use of scarce taxpayer dollars than others. For example, repair jobs and public transportation investments typically have very high rates of return. Jobs are created directly as part of project construction, indirectly through the manufacturing supply chain (e.g., steel for rails, components for buses and rail cars) as well as through workers spending wages domestically.

The Apollo Alliance finds that dramatically increasing yearly investment in public transit and intercity rail to \$40 billion from the present _XXX would generate 3.7 million new jobs and boost annual gross domestic product by \$60 billion.¹¹ Such investments also have a ripple effect, benefitting, for example, small towns where buses are manufactured, or farms that rely on port cities for access to the global marketplace. At the same time, investing in public transportation will save consumers money. Consumers can save hundreds of dollars each month by taking public transportation, compared to driving. The American Public Transportation Association estimated that in March of this year individuals, on average, could have saved \$825 per month based on the March 4, 2011 average national gas price and unreserved monthly parking rate.¹²

In this fiscally constrained era we must collect and make good use of information regarding potential costs and benefits during the transportation planning and project selection and design processes. Resources should be focused on the projects that will yield the greatest return in terms of mobility, social, and economic benefits.

Policy Recommendation: A new transportation program should include a set of national policy objectives related to mobility and access, safety, economic impact, energy use and environmental quality.

- Federal programs must then be reformed and reoriented to direct funding to help states and localities make progress toward these objectives.
- National objectives should be complemented by commensurate state and regional objectives, explicitly written into long-range plans and transportation improvement programs.
- To hold states and regions accountable for objective-setting and achievement, Congress must offer incentives in the form of preferential matching and special funding for programs, projects and initiatives that contribute to these goals.
- As additional incentives for transportation officials, the new federal program should include large merit-based, competitive programs to leverage federal investments by spurring virtuous competition and driving innovation and reform among a large pool of applicants. Two programs are especially worthy as models: The Urban Partnership Agreement competition in the Bush Administration and the TIGER program in the Obama Administration.

Fixing It First: Addressing Failing Infrastructure

Chronic underinvestment in repair and maintenance of our transportation system is a national crisis. Five hundred bridges in America failed between 1989 and 2003.¹³ Today, nearly 8,000 bridges across the country are in disrepair.¹⁴

Deferred maintenance is crippling our road and transit networks as well. The American Society of Civil Engineers estimates that \$1.2 trillion is needed over the next 5 years to improve the condition of the system.¹⁵ Even at that investment level, America would still lag behind infrastructure investment rates of many other nations that are our international competitors.

Proper routine maintenance could have prevented tragedies like the I-35W bridge collapse in Minnesota. Unfortunately, state authorities often direct money into headline-grabbing new projects rather than critically needed maintenance. In fact, in a 2011 poll, 86 percent of respondents supported a “fix it first” policy that focuses on maintaining existing transportation systems before building new ones.¹⁶ The era of wasteful earmarks for flashy but foolish projects, must give way to a focus on fixing our creaky, decaying, and essential existing transportation infrastructure.

Such an approach reduces ongoing maintenance costs, supports business and residential investment in areas already served by transportation infrastructure, and creates more jobs per dollar than construction of new capacity.¹⁷ A new transportation law should include a clearer, more aggressive “fix-it-first” policy for all modes of transportation to reap these benefits.

Policy Recommendation: A new transportation law must adopt a “fix-it-first” approach to infrastructure.

- Substantial investment should be allocated exclusively to repairs.

- US DOT should develop a set of performance criteria related to state of good repair for transportation facilities.
- States and regions should be required to show how they will achieve progress toward state of good repair goals in their Long-Range Plans and Transportation Improvement Programs.

Breaking the Oil Habit: Delivering Mobility Choice

Transportation drives America's dependence on foreign oil. While we have weaned the electricity sector almost completely off oil, transportation remains 96-percent dependent on petroleum products, mostly gasoline and diesel.¹⁸ And nearly 70 percent of oil used in the U.S. goes to transportation. The biggest sub-sectoral oil consuming category is cars and light trucks, which account for about 60 percent of the total.¹⁹ Heavy-duty vehicles comprise about one-third that percentage, and aviation about half of that. The remainder is rail, marine and other uses.

Taken together, our oil consumption adds up to a 19 million-barrel-per-day habit. This tremendous thirst for oil is a concern because the vast majority of oil resources are held by other nations. In fact, oil production in the United States peaked circa 1970, despite tremendous investments in exploration and production. The U.S. has 526,000 producing oil wells, or more than the rest of the world combined, as well as thorough subsurface mapping.²⁰ To meet our gargantuan demand oil imports have risen steadily from 35 percent in 1973 to more than 50 percent now, a situation unlikely to change except via demand moderation since other countries have vaster reserves and therefore longevity of production capacity.²¹

The good news is that overall oil intensity of the U.S. economy – the amount of oil used per unit of GDP – has declined substantially since the 1970s due to greater energy efficiency and fuel switching. However, this has not been the case in the transportation sector, which remains shackled to global oil marketplace trends. Therefore repercussions of oil price increases and spikes can be severe and widespread.

High oil prices have an immediate impact on transportation costs for both households and businesses. As transportation costs rise, goods and services that must be transported also rise in price. Food, consumer goods, raw materials, and other fundamentals of our economy are all simultaneously affected. Our economy is therefore held hostage to a turbulent global oil market, which is influenced by diverse factors such as consumer behavior in other large growing nations such as China, supply decisions made by state oil companies organized in the OPEC cartel and political unrest and instability in the Middle East.

Apart from economic impacts, our oil dependence poses a national security concern for strategic military and defense reasons. Oil consumption by the transportation sector is a major source of heat-trapping pollution, accounting for approximately one-third of U.S. greenhouse gas emissions.

In addition to the numerous environmental impacts, climate change carries worrisome security implications. An increasing number of security experts at CNA Corporation, the Center for Strategic and International Studies as well as the Defense Department have identified climate change as a challenge to the nation. CNA describes a "threat multiplier" effect due to climate

change whereby regions of the world that are already stressed due to poor social, economic and/or political conditions risk degenerating into disaster and/or civil war zones with additional stress due to the unpredictable impacts of climate change.²² Asian, African and Middle Eastern countries are particularly susceptible to such a scenario. As CNA sums up:

Economic and environmental conditions in already fragile areas will further erode as food production declines, diseases increase, clean water becomes increasingly scarce, and large populations move in search of resources. Weakened and failing governments, with an already thin margin for survival, foster the conditions for internal conflicts, extremism, and movement toward increased authoritarianism and radical ideologies.²³

Transportation fuel use is also a primary driver of local air pollution that has been linked closely to both public health problems such as asthma and other respiratory diseases.²⁴ Some – such as the elderly and children – are especially vulnerable to the effects of air pollution. My three-year-old daughter is asthmatic, so I am keenly interested in reducing pollution from transportation and other sources.

How do we reduce our oil dependence? Raising the bar on fuel economy performance of our vehicles as the Administration is doing via rulemaking is one way. Providing consumers with more fuel choices by making cars pluggable is a second way. The third component of this three-pronged attack on oil dependence is greater mobility choice.

Studies show that strategic transportation investments can help cut oil use. In April of 2010, the Department of Transportation released a comprehensive report addressing strategies to reduce energy use and emissions in the transportation sector.²⁵ The report found that significant progress can be made through increasing the efficiency of our transportation system through operational improvements and infrastructure investments. A separate analysis by the Environmental Protection Agency published in March of 2010 reached the similar conclusion finding that such measures could reduce on-road oil use by 14 percent annually by 2030 and on-road GHG emissions 13 percent annually.²⁶

I am currently collaborating with an unusually broad set of energy and transportation experts as part of the *Mobility Choice* project initiated by the Institute for the Analysis of Global Security (IAGS), and our blueprint for transportation reform has ten elements as described below.

Ensure the Price of Fuel Better Reflects Oil Security Costs

To better reflect the hidden costs of oil, primarily those associated with its national security impact, an oil security fee could be levied either per barrel or at the pump. This fee would send a more accurate signal to consumers about the real cost of their gallon of gasoline or diesel. Reflecting the hidden costs of oil at the pump would enable consumers (assuming modal choices exist and vehicles are platforms on which fuels can compete) to make more economically informed transportation choices. **Implementing a fee equivalent to an additional 25 cents per gallon of gasoline in 2020 could generate annual savings of almost 240 million barrels of oil and generating \$44 billion of revenue.**

Deploy "HOT" lanes and Congestion Pricing

The concept of pricing to address congestion was first proposed by Nobel Laureate William Vickrey about fifty years ago and at present the federal program has supported more than 50 projects in more than a dozen states with more than 20 projects in operation.²⁷ The use of this tool helps to address a “tragedy of the commons” issue with transportation, whereby public goods are consumed inefficiently due to a lack of accurate price signals unlike, for example, time-variable prices for daytime cell use and midday electricity use.

Facility pricing strategies have been deployed more aggressively elsewhere in the world, including Singapore, London, Stockholm and the Netherlands. Political and public acceptance has been a challenge in many cases, with lessons that could be useful in the United States. Specifically, to earn support from the public and other stakeholders – including environmental groups – proposals must address a real problem that pricing would help resolve (such as oil savings), have a credible plan for the revenues including investments in transportation alternatives such as bus rapid transit, come from a trustworthy source, and start incrementally.²⁸ The last of these is particularly important. Launching modest-sized projects can offer the public “proof of concept” and build momentum towards wider use of pricing tools.

Together, such strategies could save nearly 80 million barrels of oil in 2020, and twice that in 2030 as pricing becomes more comprehensive.

Allocate Transit Dollars to Optimize Oil Savings

Providing transportation choices can be an effective way to reduce oil consumption. Taxpayer dollars allocated to transit can be focused on capital improvements that improve service on existing high load routes with an eye toward maintaining a consistently high load factor. For instance, this might mean more frequent service during peak usage hours; this would reduce travel times, which would in turn attract even more riders. Investments should also add new routes that are expected to be consistently high load.

Mobility Choice analysis shows that increasing the level of service on routes that have better than average load factors could save more than 4 million barrels of oil in 2020, and more than 6 million in 2030. Expanding service to reach new geographic areas, assuming again that only routes with better than average load factors would be funded, could save almost 21 million barrels of oil in 2020 and more than 38 million barrels in 2030.

Increase Insurance Choice

Car insurance is a fixed-cost for most drivers in the U.S. today – they pay the same amount per year regardless of how many miles they drive. Yet, all else being equal, the likelihood of an accident for a given driver increases as he or she drives more. As a result, low-mileage drivers are effectively subsidizing risk for high-mileage drivers; this results in distorted price signals for the costs of driving. Converting the variable portion of insurance costs into a per-mile cost for drivers – a system known as Pay as You Drive (PAYD) - would correct these price signals. Research shows that the majority of drivers in the U.S. would *actually save money* under such a system, since the current subsidy to the smaller pool of relatively high-mileage drivers would be eliminated.

In spite of increasing interest among states there are very few PAYD policies available. The overwhelming majority of Americans continue to drive with one-price-fits-all policies and virtually no insurance companies offer PAYD (Progressive Insurance's Snapshot program is a notable exception). If PAYD policies were made an option for all drivers, between 20-40 percent of drivers could be expected to use it as a way to reduce auto insurance premiums. **This tool, if used by the states could generate savings of 56 million barrels of oil in 2020 and almost 60 million in 2030.**

Provide Transit Vouchers for Mobility Choice for Low-Income Households

While lowering transit fares is a proven way to increase ridership, this comes at a cost to transit agencies in the form of lower farebox revenues – undercutting agencies' ability to maintain service in the long run. To allow transit agencies to become more self-sustaining while meeting mobility goals, subsidies can be focused on helping the people that actually need financial support. To this end, transit vouchers could be provided for low-income households. This policy would help transit agencies avoid some farebox losses by charging higher fares for consumers who can afford it. Policies could be designed so that vouchers could be redeemed with either existing transit agencies or private entrepreneurs running private sector buses, shuttles, vanpools and jitney buses. **Mobility Choice analysis shows that providing transit vouchers would also save nearly 700,000 barrels of oil each year.**

Increase Commuting Options and Telecommuting

A large share of trips are -- particularly at peak hours -- to the workplace. There are many strategies that can encourage commuters to choose travel options other than driving alone. For example, parking cash-out programs reward employees who find other ways to get to work by giving them the cash-equivalent to a parking benefit. On-line ride matching, vanpool services and guaranteed ride home programs provide commuters an alternative to driving alone. Extensive outreach programs by larger employers can be used to educate employees about the commute options available. Transit agencies can offer employers "bulk discounts" on monthly transit passes, providing incentives for greater transit use.

Telecommuting and compressed workweeks also offer opportunities to eliminate entirely some trips to the workplace. The choice to take the "broadband highway" to work, shop or run errands can save oil. As one energy expert put it, "consider the potential of virtualization as a disruptive energy technology. If for only one day a week the herd of stop-and-go business commuters was allowed to telework from home or from a networked satellite office near their neighborhood, over 30 million gallons a day of gasoline would be saved."²⁹ In fact, forty percent of IBM's employees telecommute, saving nearly \$2.9 billion in reduced office space needs (and millions more on energy costs) since 1995.³⁰

Improved commuting options could save 71 million barrels per year by 2020.

Return Gas Tax Revenue to Areas with the Most Traffic and Oil Savings Potential

Our nation's metropolitan areas have grown into hosts to most of the nation's population, employers, GDP and traffic. Any new program should suballocate a larger proportion of gas tax receipts – either through a brand-new program or through the existing Surface Transportation

Program – directly to metropolitan regions, with appropriate conditions to maximize efficient and transparent use of the funds.

Improve Local Land-Development Rules

Transportation choices and land use are inextricably linked. By creating more transportation-efficient land use patterns, people can choose modes other than driving for some trips, and reduce the number of miles they need to drive. Mixing commercial and residential land uses makes it possible for residents to walk or bicycle to neighborhood stores, and higher density development centered around transit stops can make public transportation a much more attractive and viable option for residents. Yet current regulations often stand in the way of neighborhood designs that allow minimal driving, with zoning codes that prohibit mixed-use developments and that do not allow for a mix of housing types and lot sizes. Government policies need to be revamped to encourage – rather than impede – efficient development patterns, and eligibility of municipalities for certain federal transportation funds should be conditioned on liberalization of rules to meet market demand.

Some recent analyses provide evidence of a mismatch between what the marketplace provides and changing consumer preferences. One analysis looked at Atlanta households and found that “the segment of the housing market that is interested in these alternatives is underserved—that is, there is unmet demand for alternative development in the Atlanta region.”³¹ Another analysis compared Boston and Atlanta, finding that 70% of Bostonians who wanted to live in a walkable suburb actually did while only 35% of the same in Atlanta did.³²

And a national survey of developers found that more than 60% agreed with the statement “In my region there is currently enough market interest to support significant expansion of these alternative developments,” with a high of 70% in the Midwest and a low of 40% in the South Central region. In terms of location within metropolitan regions (central city, inner suburb, outer suburb, or rural) the highest percentage (80%) reported an intent to develop more densely should land-use regulations be relaxed in inner suburbs.³³

Removing barriers to mixed-use development and providing incentives for regional and city planning agencies to plan for more efficient land use could save more than three million barrels of oil in 2020. This initial savings would more than triple by 2030 as these policies have more time to influence development, and pay larger dividends beyond 2030.

Deployment of Smart Traffic Management

Traveling on roads and transit in other industrialized nations, one witnesses a host of technologies that could improve operating efficiency of existing transportation modes, from variable signage providing real-time information to system users to traffic management centers to keep traffic flowing freely. Upgrading our current infrastructure with 21st-century technology is one of the first, most cost-effective steps we can take to save oil and cut pollution by reducing congestion and idling. These technologies save time, money, and frustration for travelers.

Congressmen Rogers and Carnahan will soon offer a bill endorsed by NRDC, the SMART Technologies for Communities Act, which will select six communities as part of a pilot intelligent technology deployment project. These communities will benefit from investment in

smart technology, serve as testing sites with clear performance objectives and measurement and model and refine best practices that can then be replicated in across the nation.

Together, these technologies could save almost 5 million barrels of oil in 2020 and almost 10 million barrels in 2030, while simultaneously improving traffic flow on arterials and freeways in the nation's congested urban areas.

Deploy Cost-Effective Intercity Rail Options as Justified by Cost Efficiency and Oil Displacement Potential

Intercity rail offers the opportunity to switch intercity auto and air trips to more energy-efficient trains. As with transit expansion, the greatest oil saving benefits can be gained by implementing service with relatively high load factors. Federal funds for rail can be targeted to expand service on lines that will attract enough ridership to operate with relatively high load factors.

Leveraged targeting of investments will require development of criteria and a phase-in approach for new capacity. One noteworthy white paper by America 2050 lays out a methodology for screening potential city pairs that could be linked by high-speed rail based on six criteria aimed at ensuring adequate ridership: Metropolitan size, distance, transit connections, economic productivity, congestion (for both auto and air travel) and whether or not pairs are part of one of 11 "megaregions" that are already interconnected in various ways. Based on these criteria, as part of a three-phase investment plan the group proposes first building new rail connections in Northeastern, Midwestern and California megaregions. This method is worthy of consideration whether or not new rail capacity is "high speed."³⁴

If funds are dedicated to expanding ridership on routes with at least 20 percent higher load factors than the Amtrak average, funding intercity rail could save half a million barrels of oil per year.

In order to ensure that the technologies and techniques described above are deployed expeditiously, Congress must enact a new transportation law with robust policies to drive them.

Policy Recommendation: The Federal government should establish a national oil-savings objective for our federal transportation program and require similar objectives for states and regions. The federal government should provide financial assistance to meet these objectives by:

- doubling annual funding for public transportation;
- expanding dedicated resources for other transportation facilities and strategies that reduce oil consumption, such as bicycle lanes, pedestrian improvements, and intelligent transportation systems; and
- establishing oil savings as one focus of all new, merit-based, competitive loan and grant programs.

Funding and Financing

One of the greatest challenges that we face in upcoming years is paying for the upkeep and expansion of our transportation system. As receipts from the federal motor fuel excise tax

continue to fall, and the Highway Trust Fund grows increasingly insolvent, we must consider new mechanisms to fund transportation.

Policy Recommendation: To finance a transition to a more robust, efficient, and cleaner transportation system, a variety of tools could be used such as methods to generate new revenue, including:

- an oil security fee as described above;
- gasoline tax increases; and
- increased tolling and pricing of transportation facilities.

In the long run, it may be desirable and possible to shift to a fee tied more directly to road usage than the gasoline tax, what is often referred to as a "VMT fee." This concept should be tested and piloted first, however, and structured carefully. For example, it should continue providing an incentive for consumers to invest in fuel-efficient car and truck technology by charging on a sliding scale depending on vehicle fuel economy.

We should also make aggressive use of innovative financing mechanisms that leverage public investments. Public private partnerships with clear public benefits agreements can take advantage of private resources to fund public infrastructure. A federal infrastructure bank is another promising public policy tool. The World Bank, which we helped create after World War II, has invested in infrastructure projects around the world, and in the 1980s began mobilizing private sector money with innovative partnerships.³⁵ An infrastructure bank should make loans to jurisdictions across the country so they can work with companies to build the roads and rail we need to excel economically. The bank would make loans based on a project's merit, such as whether it would increase economic productivity in a region, or bring greater transit access to rural areas.

Improving Project Development and Delivery

Both the current federal transportation planning process and the project review process can improve the quality of a transportation project in important ways to better achieve mobility improvements, as well as economic development, environmental, health, and energy goals. These processes ensure that all members of the public, including individuals and businesses, have the opportunity to have a say in the development of their communities. They ensure that scarce resources are directed toward the projects that the community needs the most. And they help planners and engineers identify and avoid or mitigate negative impacts to the community and its natural environment.

Unnecessary delay during the planning, design, and delivery of a sound transportation project can cost taxpayers, the economy, and the environment, in addition to local mobility and access. Some of the largest causes of delays in federally supported transportation project delivery are:

- project redesign or design additions;
- the need to relocate businesses;
- project complexity;
- lack of funding for the project;
- local objections to the project; and
- interagency communications problems.³⁶

On the other hand, delays related to environmental and preservation laws account for only a small share of total transportation project delays. In most cases delays from environmental review occur in the most complex and/or controversial projects, where thorough review is most warranted. Very few projects are actually required to complete an Environmental Impact Statement (EIS). In 2001, of all highway projects that received federal funds, only three percent accounting for 9 percent of funds, required an EIS.³⁷ Nearly all federally funded transportation projects have been eligible for Categorical Exclusions (CEs) or Findings of No Significant Impact (FONSI), both of which shrink review requirements substantially.³⁸

We must therefore be cautious about focusing too heavily on the environmental process when seeking to speed project delivery. In doing so, we would be failing to address the most widespread sources of project delay as well as potentially undermining key environmental protections that have served the nation well for more than 40 years.

A new transportation authorization bill should include targeted, thoughtful reforms focused on 1) improving the transportation planning and project development process, and 2) simplifying the project review process and while retaining safeguards that are designed to protect the environment and ensure that the public has an adequate opportunity for involvement in their local transportation plans and decisions. In particular, reforms can be made to reduce duplicate processes, increase the effectiveness of initial planning and transportation project reviews, create incentives for timely project delivery, and focus resources on the most effective transportation investments and solutions.

However, even without policy changes, many transportation agencies are finding that they can adjust their internal agency structures to better prioritize limited funds and staff time to focus on the projects that are most likely to move forward in the near term. Additional innovations that can and should be adopted more widely without changes to current law include new internal operating strategies such as development of templates for project categories, bundling of similar project analysis, and aggregating mitigation strategies for projects in relatively close proximity.

Policy Recommendation: The federal transportation bill should improve the transportation planning and review process to improve project delivery without compromising bedrock environmental review laws.

Steps to accomplish this include:

- Create new incentives for closer linkage between the transportation planning process and the project review process
- Increase the use of Mitigated CEs and FONSI
- Encourage greater design flexibility for transportation projects to avoid environmental impacts that would need mitigation

Congress should also consider further steps to integrate transportation planning with project reviews, building on initial steps taken in SAFETEA-LU.

- By focusing on more comprehensive planning initiatives, such have been undertaken in Sacramento and Salt Lake City, environmental impacts *and benefits* can be identified early in the process
- Projects and suites of projects could then be designed from the outset to avoid or mitigate environmental impacts and maximize benefits, reducing delays later during the project review process
- The data collected and used during these planning efforts could then be incorporated into the project review phase, further cutting down on the time needed to certify compliance for several projects at once
- Contingent upon completion of such a comprehensive planning process, identified benefits might also be used as documentation for CEs or FONSIs.

Orange County Transportation Authority Executive Director (and former Caltrans director) Will Kempton is developing a proposal for reducing barriers to timely project delivery. The proposal is in the final drafting stage, and having reviewed it I can confirm that many of his ideas are worthy of consideration by this Committee.

Moving Goods Faster, Cleaner, and Cheaper

Surface freight transportation – from rail to trucks to ships and barges – is the backbone of America’s economy. The system allows for the affordable movement of goods and services and creates a significant number of jobs. However, goods movement is a rising source of road and rail congestion, as well as environmental and public health impacts.

Despite freight transportation’s economic and environmental impacts, until recently, the freight system—*as a system*—has not received the attention it deserves in federal transportation planning and funding. It is possible to simultaneously modernize America’s freight system, improving its efficiency, while also reducing environmental impacts. The federal transportation law reauthorization provides an important opportunity to help America’s freight system meet growing demand while saving oil as well as reducing air pollution, water pollution and noise through targeted provisions.

Policy Recommendation: Congress should develop a comprehensive freight title to guide investment in and development of our freight network to facilitate affordable goods movement while reducing environmental impacts. Such a title should:

- Define project eligibility for Highway Trust Fund spending in a way that emphasizes system performance outcomes, including freight movement reliability and environmental performance.
- Establish freight reliability and environmental performance standards to help inform project eligibility for federal funding.
- Within one year, develop a national freight plan that identifies key hubs, ports, corridors and gateways whose improvement is essential to simultaneously meet pressing reliability and environmental and public health goals.

- Create an Office of Multimodal Freight within the office of the Secretary of Transportation.
- Establish a competitive grant program that recognizes innovation and encourages projects that simultaneously deliver system reliability and emissions and other environmental impacts reductions.

Protecting Water and Wildlife

Environmental impact from transportation and oil use are not limited to air quality and climate change. Transportation also has a substantial impact on water quality and wildlife.

Pollution from stormwater runoff threatens our communities' drinking water and the rivers, lakes and streams in which our children swim, fish and play. Highways and roads are a major source of stormwater runoff, which is a leading cause of water pollution in the U.S. Roads and related infrastructure, such as parking lots, comprise two-thirds of all paved surfaces, the primary source of stormwater runoff. Roads collect pollutants from tailpipe emissions and brake linings along with other contaminants that wash into rivers and streams during storms, polluting drinking water supplies and taxing downstream communities. One inch of rain that falls on one mile of road produces 55,000 gallons of polluted stormwater.³⁹

Smart stormwater mitigation strategies such as "green roads and highways" are a cost effective way to reduce stormwater runoff, flooding and help meet clean water requirements. Green roads and highways use innovative methods to reduce and clean runoff by protecting, restoring or mimicking the natural hydrology of an area to prevent runoff or divert it into natural areas instead of directly into local streams, rivers, and sewer systems. A single acre of wetland holding a foot of water will store up to 330,000 gallons of water and filter pollutants such as oil, sediments and other chemicals that otherwise run off our nation's roads and highways and into our streams, rivers and lakes.

Many cities are already using natural practices in stormwater mitigation to avoid more costly alternatives. In Seattle, the Street Edge Alternative project reported a 29% savings over traditional street retrofitting and a 49% reduction in paving cost by using green techniques. The California Department of Transportation found that comprehensive use of green infrastructure to control stormwater would cost \$2.8 – 7.4 billion compared to \$44 billion for conventional controls.

Policy Recommendation: The reauthorization of the Transportation Bill should require all new and rehabilitated federal aid highways and roads to meet a performance-based standard to reduce polluted stormwater runoff, flooding and meet clean water requirements.

The greatest cause of the destruction of critical wildlife habitat, which is the most significant threat to America's biodiversity, is sprawling development. This is oftentimes driven by poorly planned transportation investments. The rapid increase in wildlife-vehicle collisions on U.S. roadways is also a growing concern and has significant impacts on public health and safety,

incurs substantial property damage and injury costs, and reduces the health and viability of wildlife populations.

Better transportation planning can shape future growth, thereby determining the quantity and quality of habitat left for wildlife. Wildlife biologists and transportation planners and engineers have been working together for the last decade to mitigate the impacts of highways on wildlife. SAFETEA-LU included a provision requiring transportation planners to consult with natural resource and land management agencies to compare maps and consider potential conflicts early in the planning process.

Policy Recommendation: To build on progress in reducing impacts to wildlife, Congress should:

- standardize collection and analysis of wildlife-vehicle collision data collection, and facilitate sharing of this data between state transportation agencies and resource agencies;
- expand and improve section 6001 of SAFETEA-LU by supporting resource agencies' involvement early in planning through both process requirements and funding; and
- include consideration of developing wildlife passages during bridge assessments.

Conclusion: Getting it Done - The Time to Act is Now

Thank you for the opportunity to submit testimony on behalf of NRDC, our transportation team and our members concerning our mutual concern for how to reform the federal transportation program to deliver higher quality, safer, cleaner, more efficient, and more cost-effective transportation projects to taxpayers and communities across the country. I welcome the opportunity to discuss our policy recommendations and their possible development and implementation with you and your staff.

In this time of fiscal prudence, we cannot afford to sacrifice personal safety, national security, or economic recovery. We must press forward with wise investments in a smarter, bolder, greener transportation program. Let's get to work.

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² Table M-6, Transportation Statistics Annual Report 2006. U.S. DOT. BEA Accounts Data, 2005 to 2006.

³ Leinberger, Christopher B., *The Option of Urbanism: Investing in a New American Dream*, Island Press, Washington, D.C. 2007.

⁴ U.S. Department of the Treasury with the Council of Economic Advisors. *An Economic Analysis of Infrastructure Investment*. October 11, 2010.

⁵ Ibid.

⁶ Mamuneas, Theofanis and Ishaq Nadiri, "Contribution of Highway Capital to Industry and National Productivity Growth," prepared for Apogee Research, Inc., for the Federal Highway Administration Office of Policy Development, September 1996

⁷ Texas Transportation Institute. *Urban Mobility Report*. 2010.

⁸ Cortright, Joseph. *Driven Apart: How Sprawl is Lengthening Our Commutes and Why Misleading Mobility Measures are Making It Worse*. CEOs for Cities, 2009.

⁹ Treasury-CEA report, based on 2008 Consumer Expenditure Survey

¹⁰ *Realizing The Potential: Expanding Housing Opportunities Near Transit*. Reconnecting America's Center for Transit Oriented Development. 2007.

¹¹ "Make it in America: The Apollo Clean Transportation Manufacturing Action Plan," San Francisco, CA 2010.

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- ¹² http://www.apta.com/mediacenter/pressreleases/2011/Pages/110304_TransitSavings.aspx
- ¹³ Ibid.
- ¹⁴ LePatner, Barry B., *Too Big to Fail: America's Failing Infrastructure and the Way Forward*, Foster Publishing 2010.
- ¹⁵ American Society of Civil Engineers. *Report Card for America's Infrastructure*. 2009.
- ¹⁶ National survey of voters on behalf of the Rockefeller Foundation between January 29 to February 6, 2011 by Hart Research (D) and Public Opinion Strategies (R). The firms interviewed 1,001 registered voters, including 200 voters who have only a cell phone. The data's margin of error is +/-3.1 percentage points.
- ¹⁷ Bivens, Irons, and Pollack. *Transportation Investments and the labor market: How many jobs could be generated and what type?* Economic Policy Institute. 2009.
- ¹⁸ Energy Information Administration, *Annual Energy Review 2008*, Transportation Sector Energy Consumption, <http://www.eia.doe.gov/emeu/aer/txt/ptb0201e.html>
- ¹⁹ Energy Information Administration. *Annual Energy Outlook 2010* Early Release.
- ²⁰ Oil and Gas Journal database of oil-producing wells (2009), and Maugeri, L. 2006. *The Age of Oil*. Westport, CT: Praeger.
- ²¹ Import figure drawn from Jaffe, A.M. 2009. *The U.S. Energy Predicament*. The Aspen Institute Congressional Program Vol. 24, No. 2: 11.
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- ²⁴ American Public Health Association. *The Hidden Health Costs of Transportation*. 2010.
- ²⁵ U.S. Department of Transportation. *Transportation's Role in Reducing U.S. Greenhouse Gas Emissions*. 2010.
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- ²⁷ Buxbaum, J. N. 2009. Transportation Research Board. 2009. *Transportation Research News* 263: 4-7.
- ²⁸ Higgins, T. 2009. Transportation Research Board. 2009. *Transportation Research News* 263: 32-34.
- ²⁹ Tertzakian, P. and Hollihan, K. 2009. *The End of Energy Obesity: Breaking Today's Energy Addiction for a Prosperous and Secure Tomorrow*. Hoboken, NJ: Wiley.
- ³⁰ Janet Caldwell, "Working Outside the Box: A Study of the Growing Momentum in Telework, IBM, Jan 2009.
- ³¹ Levine, Jonathan, and Lawrence Frank. (2007) *Transportation and Land-Use Preferences and Residents' Neighborhood Choices: The Sufficiency of Compact Development on the Atlanta Region*. *Transportation* 34(2):255-274.
- ³² Levine, Jonathan; Aseem Inam and Gwo-Wei Tomg. (2005) *A Choice-Based Rationale for Land-Use and Transportation Alternatives: Evidence from Boston and Atlanta*. *Journal of Planning Education and Research* 24(3):317-330.
- ³³ Levine, Jonathan and Aseem Inam. (2004) *The Market for Transportation-Land Use Integration: Do Developers Want Smarter Growth than Regulations Allow?* *Transportation* 31(4):409-427.
- ³⁴ Hagler, Y. and Todorovich, P. 2009. *Where High-Speed Rail Works Best*. New York, New York: America 2050.
- ³⁵ Likosky, Michael, *Obama's Bank: Financing a Durable New Deal*, Cambridge University Press, 2010.
- ³⁶ See Dill, Jennifer, *What Influences the Length of Time to Complete NEPA Reviews? An Examination of Highway Projects in Oregon and the Potential for Streamlining*. Paper submitted for presentation at the 85th TRB Annual Conference (January 2006).
- ³⁷ Ibid.
- ³⁸ U.S. GAO, *Highway Infrastructure: Perceptions of Stakeholders on Approaches to Reduce Highway Completion Time*, April 2003.
- ³⁹ American Rivers factsheet. *Transportation Bill Reauthorization: Reducing Polluted Stormwater Runoff Using Green Infrastructure*. 2010.

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
Truth in Testimony Disclosure

Pursuant to clause 2(g)(5) of House Rule XI, in the case of a witness appearing in a nongovernmental capacity, a written statement of proposed testimony shall include: (1) a curriculum vitae; and (2) a disclosure of the amount and source (by agency and program) of each Federal grant (or subgrant thereof) or contract (or subcontract thereof) received during the current fiscal year or either of the two previous fiscal years by the witness or by an entity represented by the witness. Such statements, with appropriate redaction to protect the privacy of the witness, shall be made publicly available in electronic form not later than one day after the witness appears.

(1) Name: DERON LOVDAS

(2) Other than yourself, name of entity you are representing:

Natural Resources Defense Council

(3) Are you testifying on behalf of an entity other than a Government (federal, state, local) entity?

YES

If yes, please provide the information requested below and attach your curriculum vitae.

NO

(4) Please list the amount and source (by agency and program) of each Federal grant (or subgrant thereof) or contract (or subcontract thereof) received during the current fiscal year or either of the two previous fiscal years by you or by the entity you are representing:

see attached page titled "federal grants and contracts NRDC was received over FY 2009- FY 2011". information provided by NRDC's Accounting and Finance department.



Signature

3/28/11
Date

Federal Grants and Contracts NRDC Has Received Over FY 2009-FY 2011

1. US EPA

Market based approach-Green House Gases (Clean Air Act program)

Award \$1,150,123

2. US DOS

Expanding DSM Practice in China" Under the Asia-Pacific Partnership on Clean Development and Climates" (APP) program

Award \$750,000

3. US DOE

NRDC is subcontractor to Vermont Energy Investment Company develop best practices, fact sheets, webinars, and similar resources to offer ARRA grantees successful models to use as they implement their projects

Award \$100,000

4. USDA

NRDC is subcontractor to SureHarvest

NRCS Conservation Innovation Grant work

Award \$205,000

Deron Lovaas

Work Experience

Federal Transportation Policy Director,

Natural Resources Defense Council, Washington, D.C. – 2001-Present

- Conceived and led the design and production of *Moving Cooler: An Analysis of Transportation Strategies for Reducing Greenhouse Gas Emissions*, a groundbreaking Urban Land Institute publication
- Lead strategist for oil security, transportation and sustainable communities campaigns
- Draft federal policy proposals for saving oil and cutting greenhouse gas emissions from transportation via higher vehicle fuel economy, substitution of alternative fuels and private vehicle alternatives such as public transportation
- Reach out and dialogue with energy and transportation industry leaders about technology and policy issues
- Chief strategist on the 2005 Federal transportation bill and the clean vehicle provisions in the 2007 energy bill
- Research, analyze, and write book chapters, blog entries and other products about energy, transportation, environment and related issues
- Give public speeches and media interviews about energy, vehicles, transportation and environmental issues

Challenge to Sprawl Campaign Representative, Sierra Club, Washington, D.C. – 1999-2001

- Managed *Sierra Club's* "Challenge to Sprawl Campaign," one of four national priority campaigns
- Advocated for state policy reform, collaborating with Sierrans nationwide on reports, events and ballot measures
- Lobbied Members of Congress, state legislators, governors, and local elected officials
- Wrote and edited products including major national reports, white papers and fact sheets
- Crafted national media strategy and message and frequently gave interviews on television, radio, and in print
- Built new coalitions with energy transportation, planning, and community development advocates

Outreach Coordinator, Zero Population Growth (ZPG), Washington, D.C. – 1995-1998

- Coordinated "15 Cities" and "10 States" Campaigns, earning media and advocating for specific land-use, family planning, and environmental initiatives, featuring Executive Director and former Congressman Peter Kostmayer
- Organized events and speeches in cities across the country for both campaigns
- Coordinated ZPG's anti-sprawl activities, including event organizing, public speeches, and media work
- Managed the "Campus Organizing Project", involving thousands of students on hundreds of campuses nationwide
- Wrote for *ZPG Reporter*, the *Campus Organizer's Newsletter*, and fact sheets

Environmental Specialist, Maryland Department of Environment (MDE), Baltimore, MD – 1993-1995

- Assessed transportation projects and plans pursuant to the Conformity provisions in the Clean Air Act
- Researched and designed strategies and tactics to increase alternative transportation usage by Maryland citizens
- Assisted in the design and implementation of innovative economic incentive programs, including "Cash-for-Clippers," an MDE project that encourages citizens to trade old lawn mowers for electric and hand-powered ones
- Co-wrote State Implementation Plans and official Responses to Comments

Intern, National Wildlife Federation (NWF), Washington, D.C. – 1992-1993

- Organized events and trainings for seven issues organizers in the Office of Grassroots Action
- Wrote articles for *EnviroAction*, NWF's bimonthly activist newsletter
- Wrote and recorded NWF's weekly Legislative Hotline

Volunteer Experience

- Former Chair and Current Member, Air and Climate Public Advisory Committee of the Washington Council of Governments
- Member, American Planning Association's Speaker's Bureau (Current)

- Former Member, College Park (MD) Committee for a Better Environment

Congressional Testimony

- House Subcommittee on Highways and Transit hearing on H.R. 5455, the “Expediting Project Delivery to Improve Transportation and the Environment Act,” 10/8/02
- House Science Committee Energy Subcommittee field hearing on advances in vehicle and fuel technology that could strengthen U.S. security, 6/5/06
- House Select Committee on Energy Independence and Global Warming hearing on Aviation’s Impact on Global Warming, 4/2/08
- Senate Environment and Public Works Committee hearing on the Federal Role in Surface Transportation, 6/25/08
- House Subcommittee on Highways and Transit hearing on Energy Reduction and Environmental Sustainability in Surface Transportation, 1/27/09
- Senate Committee on Environment and Public Works hearing on Opportunities to Improve Energy Security and the Environment through Transportation Policy, 4/24/10
- House Democratic Steering and Policy Committee on Jobs Now: Protecting the Taxpayer & Securing Our Energy Future, 2/28/11

Education, Training and Other Experience

Steering Committee Chair, *Moving Cooler: An Analysis of Transportation Strategies for Reducing Greenhouse Gas Emissions* (2009)

Advisory Committee Member, *2009 Annual Attainment Report* on Transportation System Performance, Maryland Department of Transportation

Demand Task Group Member, *Hard Truths: Facing the Hard Truths About Energy*, National Petroleum Council (2007)

Graduate of Gap International’s “Breakthrough Intensive” Leadership Training (2005)

Frequent presenter to students for the *Close-Up Foundation* (1999-2002)

USDA Graduate School, Environmental Law, Dispute Resolution, and Legal Analysis courses (1994, 1999, 2001)

Representative on the Silver Spring Transportation Management District Citizens Advisory Committee (2001)

Facilitation, *Multicultural Community Service*, Washington, D.C. – 1998

Mediation, *Community Mediation Program*, Johns Hopkins University’s Safe and Smart Center – 1995

Regulatory Development, State of Maryland – 1993

Bachelor’s Degree, University of Virginia – 1992

Publications

2001-2010 Authored chapters on environmental issues in *Energy Security Challenges for the 21st Century: A Reference Handbook* (Korin and Luft, 2009) and *Plug-In Electric Vehicles: What Role for Washington?* (Sandalow, 2009); multiple reports and analyses at NRDC, including *Moving Cooler: An Analysis of Transportation Strategies for Reducing Greenhouse Gas Emissions* (2009), *Taking the Wheel: Achieving a Competitive Transportation Sector Through Mobility Choice* (2010), *Driving It Home: Choosing the Right Path for Fueling North America’s Transportation Future* (2007), four annual rankings of states based on oil use and transportation policy solutions (2007-2010), and *Paving Our Way to Water Shortages: How Sprawl Aggravates the Effects of Drought* (2002); articles published in *E Magazine*, *The Huffington Post*, *The Futurist*, *In Business* magazine, infrastructure.com, streetsblog.net, tompaine.com; and a professional blog at <http://switchboard.nrdc.org/blogs/dlovaas/>

Pre-2001 Coordinated and co-authored multiple reports and analyses at the Sierra Club, including the influential *Solving Sprawl: The Sierra Club Rates the States*, a ranking of states based on land-use, transportation, community revitalization and open-space protection criteria; conceived and drafted the National Wildlife Federation’s first *Organizer’s Guide*, an 80-page reference manual for that institution’s large grassroots