

HIGHWAY CONSTRUCTION FUNDING STUDY - BACKGROUND MEMORANDUM

Section 25 of 2009 Senate Bill No. 2012 (attached as [Appendix A](#)) provides for a Legislative Council study of options to match federal highway funds. This study was revised by the Legislative Council to provide for a study of general highway construction funding and was assigned to the Public Safety and Transportation Committee.

HIGHWAY MAINTENANCE AND CONSTRUCTION

There are approximately 86,842 miles of roads in North Dakota, including roads in the state highway system, county roads, rural roads, and city streets. Of the total amount, 7,385 miles are part of the state highway system. Included in the state highway system are 2,727 miles of roads on the national highway system, including 571 miles of interstate roads. The table below summarizes the miles of roads in North Dakota:

| Miles of Roadways in North Dakota - 2007 | |
|--|---------------|
| State highway system | 7,385 |
| County roads | 18,969 |
| Other rural roads | 56,621 |
| City streets | 3,867 |
| Total | 86,842 |

Maintenance and construction costs for roadways vary depending on roadway types and materials used. The table below summarizes the 2008 highway construction costs compared to 2004 costs:

| Estimated Highway Construction Costs Per Mile | | |
|---|-------------|-------------|
| | 2008 | 2004 |
| Interstate concrete paving (two lanes in one direction) | \$1,700,000 | \$1,300,000 |
| Two-lane road reconstruction (includes grading and asphalt surfacing) | \$985,000 | \$675,000 |
| Asphalt surface reconstruction (includes subgrade repair and resurfacing) | \$780,000 | \$450,000 |
| Three-inch asphalt overlay | \$350,000 | \$150,000 |
| Interstate seal coat | \$31,000 | \$21,000 |
| Non-interstate seal coat | \$28,000 | \$16,000 |

HIGHWAY FUNDING

Article X, Section 11, of the Constitution of North Dakota (attached as [Appendix B](#)) provides that revenue from gasoline and other motor fuels taxes and motor vehicle registration fees, except for those attributable to aviation, be used solely for the construction, reconstruction, repair, and maintenance of public highways and the payment of obligations related to those activities. Motor fuels taxes and

motor vehicle registration fees provide the majority of funds used for state highway purposes.

Highway Tax Distribution Fund

The majority of funds received from motor fuels taxes and motor vehicle registration fees are deposited in the highway tax distribution fund for allocation to the state and political subdivisions. During the 2007-09 biennium, only the state highway fund, counties, and cities received distributions from the highway tax distribution fund. Rather than receiving a distribution from the highway tax distribution fund, the township highway aid fund received one cent per gallon of motor fuels taxes and the public transportation fund received \$3 of each motor vehicle registration fee. In Sections 17, 18, 19, 22, 23, and 26 of 2009 Senate Bill No. 2012 (see [Appendix A](#)), the Legislative Assembly provided for the following changes relating to the highway tax distribution fund:

- Provided that \$13 of each motor vehicle registration fee currently deposited in the highway fund be deposited in the highway tax distribution fund.
- Repealed North Dakota Century Code (NDCC) Section 39-04.2-03 that required an additional fee of \$3 to be charged for motor vehicle registrations for deposit in the public transportation fund. Section 39-04-19 was also amended to increase motor vehicle registration fees by \$3 to offset the decrease in fees resulting from the repeal of Section 39-04.2-03.
- Provided that the one cent per gallon of motor fuels taxes currently deposited in the township highway aid fund be deposited in the highway tax distribution fund and allowed the deposits to be refundable.
- Provided that the first \$5.5 million deposited in the highway tax distribution fund each biennium be transferred to the highway fund for administrative costs.
- Provided for the following changes in the highway tax distribution fund distribution formula:

| | 2007-09 Biennium | 2009-11 Biennium |
|----------------------------|---------------------|---------------------|
| State highway fund | 63.0% | 61.3% |
| Counties | 23.0% | 21.5% |
| Cities | 14.0% | 13.0% |
| Township highway aid fund | 0.0% | 2.7% |
| Public transportation fund | 0.0% | 1.5% |
| Total | 100.0% | 100.0% |

For the 2007-09 biennium, a total of \$381.5 million was distributed to the state highway fund, counties,

and cities from the highway tax distribution fund. For the 2009-11 biennium, a total of \$387.5 million is estimated to be distributed to the state highway fund, counties, cities, the township highway aid fund, and the public transportation fund from the highway tax distribution fund. The schedule below details the distributions to each:

| Summary of Funding Provided From the Highway Tax Distribution Fund to State and Political Subdivisions (Amounts Shown in Millions) | | | |
|---|---|--|---|
| | 2007-09 Biennium - 2007 Legislative Forecast | 2007-09 Biennium - Actual Distributions | 2009-11 Biennium - Estimated Distributions |
| State highway fund | \$203.5 | \$240.3 | \$239.7 ³ |
| Counties | 74.4 | 89.9 | 82.1 |
| Cities | 45.3 | 51.3 | 49.7 |
| Township highway aid fund | 0 ¹ | 0 ¹ | 10.3 |
| Public transportation fund | 0 ² | 0 ² | 5.7 |
| Total | \$323.2 | \$381.5 | \$387.5 |

¹For the 2007-09 biennium, the township highway aid fund did not receive a distribution from the highway tax distribution fund. Instead, the fund received one cent per gallon of motor fuels taxes which are estimated to total \$10.2 million.

²For the 2007-09 biennium, the public transportation fund did not receive a distribution from the highway tax distribution fund. Instead, the fund received \$3 of each motor vehicle registration fee which is estimated to total \$4.7 million. The fund also received a \$1 million transfer from the highway fund.

³Includes \$5.5 million allocated from the fund for administrative costs.

The highway tax distribution fund also provides funding for other state agencies and programs. This funding is allocated prior to any distributions being made using the distribution funding formula. The table below summarizes the other state agencies and programs that receive funding from the highway tax distribution fund:

| | 2007-09 Biennium Estimate | 2009-11 Biennium Estimate |
|--------------------------------------|--|--|
| Highway Patrol | \$4,200,000 | \$4,500,000 |
| Ethanol production incentive fund | 3,200,000 | 3,400,000 |
| Tribal fuel agreements | 1,000,000 | 0 |
| Motorboat program and safety account | 200,000 | 200,000 |
| State snowmobile fund | 200,000 | 200,000 |
| Total | \$8,800,000 | \$8,300,000 |

Attached as [Appendix C](#) is detailed information regarding the distribution of motor fuels taxes and motor vehicle registration fees.

Allocation of Motor Vehicle Excise Taxes

For the 2009-11 biennium, the Legislative Assembly, in Section 21 of 2009 Senate Bill No. 2012 (see Appendix A), provided that 25 percent of motor vehicle excise tax collections, after the allocation to the state aid distribution fund, be deposited in the highway fund rather than the general fund. This is

estimated to result in \$30.5 million of additional highway fund revenue during the 2009-11 biennium. Section 13 of 2007 House Bill No. 1012, attached as [Appendix D](#), provided that 10 percent of motor vehicle excise tax collections, after allocation to the state aid distribution fund, be deposited in the highway fund rather than the general fund for the 2007-09 biennium. Total estimated deposits in the highway fund for the 2007-09 biennium as a result of this provision are estimated to be \$12.6 million.

2007-09 Weather-Related Cost-Sharing

Section 3 of 2009 Senate Bill No. 2012 (see Appendix A) provides a 2007-09 appropriation of \$59.9 million from the general fund to the State Treasurer for weather-related cost-sharing distributions. Of the total appropriation, \$7.5 million is to be distributed to the state highway fund, \$41.4 million to counties and cities in accordance with the formula used to distribute funds to counties and cities under NDCC Section 54-27-19(2), \$10 million to townships in accordance with provisions used to distribute funds to townships under Section 54-27-19.1, and \$1 million to the public transportation fund to be distributed to public transit programs in accordance with Section 39-04.2-04.

State Disaster Relief Fund

Section 4 of 2009 Senate Bill No. 2012 (see Appendix A) establishes a state disaster relief fund to provide funding for defraying the expenses of state disasters, including funds required to match federal funds for expenses associated with presidential-declared disasters in the state. Sections 5 through 8 of Senate Bill No. 2012 provide for a transfer of \$43 million from the general fund to the state disaster relief fund and the appropriation of the funding to the Adjutant General for emergency snow removal grants and emergency disaster relief grants.

Emergency Snow Removal Grants

Up to \$20 million of the \$43 million appropriated from the state disaster relief fund to the Adjutant General may be used for emergency snow removal grants. A county, township, or city may apply to the Department of Emergency Services for an emergency snow removal grant for reimbursement of up to 50 percent of the costs incurred by the entity for the period January 2009 through March 2009 that exceeds 200 percent of the average costs incurred for these months in 2004 through 2008. Each entity requesting reimbursement is to submit the request in accordance with the rules developed by the Department of Emergency Services.

Emergency Disaster Relief Grants

Up to \$23 million of the \$43 million appropriated from the state disaster relief fund to the Adjutant General may be used for emergency disaster relief grants. Any political subdivision receiving federal emergency relief funding relating to disasters

occurring from January 2009 to June 2009 may apply to the Department of Emergency Services for an emergency disaster relief grant of up to 50 percent of the local match required to receive the federal emergency relief funding. Each political subdivision requesting an emergency disaster relief grant is to submit the request in accordance with rules developed by the Department of Emergency Services. The Department of Emergency Services may provide up to \$13 million of emergency disaster relief grants and may seek Budget Section approval to distribute additional grants. Any funding not distributed to political subdivisions may be used to match federal disaster relief funds received for state purposes, subject to Budget Section approval. The Department of Emergency Services is to report to the Budget Section during the fourth quarter of calendar year 2009 and the third quarter of calendar year 2010 regarding emergency disaster relief grants awarded.

Total Highway Funding From State Sources

The table below details total highway funding provided to the state and political subdivisions from state funding sources for the 2007-09 and 2009-11 bienniums:

| Summary of State Highway Funding Provided to State and Political Subdivisions (Amounts Shown in Millions) | | | |
|---|--|---|---------------------------|
| | 2007-09 Statutory Funding ¹ | Weather-Related Cost-Sharing and Disaster Funding | 2009-11 Statutory Funding |
| State highway fund | \$234.3 ^{1,2} | \$7.5 ³ | \$274.8 ^{1,5} |
| Counties | 74.4 ¹ | 26.4 ³ | 82.1 ¹ |
| Cities | 45.3 ¹ | 15.0 ³ | 49.7 ¹ |
| Townships | 10.2 ¹ | 10.0 ³ | 10.3 ¹ |
| Public transportation fund | 5.7 ¹ | 1.0 ³ | 5.7 ¹ |
| Disaster relief funding | | 43.0 ⁴ | |
| Total | \$369.9 | \$102.9 | \$422.6 |

¹Funding provided from the highway tax distribution fund.

²Includes \$18.2 million of motor vehicle registration fees deposited in the highway fund and \$12.6 million of motor vehicle excise taxes deposited in the highway fund.

³Funding of \$59.9 million from the general fund was appropriated by the 2009 Legislative Assembly to the State Treasurer for distribution to the state highway fund and political subdivisions for weather-related cost-sharing before June 30, 2009.

⁴Senate Bill No. 2012 (2009) provided a \$43 million transfer from the general fund to the state disaster relief fund before June 30, 2009, and appropriated the funds to the Adjutant General for disaster relief funding during the 2007-09 and 2009-11 bienniums.

⁵Includes a \$4.6 million transfer from the general fund to the highway fund for Devils Lake area highway projects and \$30.5 million of motor vehicle excise taxes deposited in the highway fund.

Attached as [Appendix E](#) is a memorandum detailing state highway funding provided to the state and political subdivisions in 2009 Senate Bill No. 2012, including a comparison to 2007-09 funding amounts.

Federal Highway Funding

The state receives federal funding for the construction and maintenance of highways, emergency road repairs, safety projects, and other programs. For the 2009-11 biennium, the state is estimated to receive \$603.5 million of federal funding for transportation-related projects.

In addition to regular federal highway funding, the state is also anticipated to receive transportation funding through the American Recovery and Reinvestment Act of 2009. The 2009-11 legislative appropriations for the Department of Transportation include \$176,082,671 of federal fiscal stimulus funds for highway infrastructure projects (\$170,126,497) and grants to rural transit programs (\$5,956,174).

The schedule below details the amount of federal funding estimated to be received by the state for the 2007-09 and 2009-11 bienniums:

| Estimated Federal Highway Funding (Amounts Shown in Millions) | | | | |
|---|------------------|--|--|-----------------------|
| | 2007-09 Biennium | 2009-11 Biennium Regular Highway Funding | 2009-11 Biennium Federal Fiscal Stimulus Funding | Total 2009-11 Funding |
| Federal Highway Administration funding | \$453.7 | \$500.9 | \$0 | \$500.9 |
| Emergency relief funds | 2.5 | 33.7 | 0 | 33.7 |
| Federal rail funds | 8.6 | 2.3 | 0 | 2.3 |
| National Highway Traffic Safety Administration | 5.6 | 10.0 | 0 | 10.0 |
| Federal transit funds | 11.2 | 12.8 | 0 | 12.8 |
| Funding for Devils Lake area projects | 0 | 43.8 | 0 | 43.8 |
| Federal fiscal stimulus funding - Highway infrastructure | 0 | 0 | 170.1 | 170.1 |
| Federal fiscal stimulus funding - Transit programs | 0 | 0 | 6.0 ¹ | 6.0 |
| Total | \$481.6 | \$603.5 | \$176.1 | \$779.6 |

¹Does not include \$5,041,000 of federal fiscal stimulus funding distributed directly to transit programs in metropolitan planning areas.

OTHER RELATED RESPONSIBILITIES

The Legislative Council has assigned the following reports to the Public Safety and Transportation Committee relating to its study of highway construction funding:

- A report from the Tax Commissioner regarding information provided by counties, cities, and townships on funding and expenditures relating to transportation projects and programs. This report is provided pursuant to NDCC Section

54-27-26 which was enacted by the 2009 Legislative Assembly in Section 20 of Senate Bill No. 2012.

- A report from the Department of Transportation regarding the use of state, federal, emergency, and other highway funding pursuant to Section 11 of 2009 Senate Bill No. 2012. The Legislative Council directed the Public Safety and Transportation Committee to receive this report in addition to the Budget Section.

PREVIOUS STUDIES

2007-08 Interim

The 2007-08 interim Transportation Committee studied highway funding and transportation infrastructure needs, including needs resulting from energy and economic activities in the state pursuant to Section 6 of 2007 House Bill No. 1012.

The committee learned certain income sources have been increased or implemented during the 2005-07 biennium to match federal funds. Senate Bill No. 2012 (2005) increased motor vehicle registration fees \$10, classified pickups as passenger motor vehicles but limited the increase due to this reclassification to one-half for the 2005-07 biennium, and deposited \$13 of each registration fee in the state highway fund. The bill increased motor vehicle fuel and special fuels tax rates from 21 cents to 23 cents per gallon. The bill allowed for grant or revenue anticipation financing for the Liberty Memorial Bridge improvement project and the United States Highway 2 project improvements. Although the bill would have redirected money collected as motor vehicle excise taxes from the general fund to the state highway fund, this transfer was vetoed by the Governor because the "diversion of funds increases the risk of an allotment, or could force the calling of a special session of the legislature to deal with future revenue requirements." Section 13 of House Bill No. 1012 (2007) transferred 10 percent of motor vehicle excise taxes to the state highway fund for the 2007-09 biennium to increase matching funds.

The committee was informed that the state is very dependent on federal highway revenue. Historically, North Dakota has received more than \$2 in federal funding for each \$1 that has been contributed to the federal highway trust fund. North Dakota received a combined total of about \$454 million in federal funding for the highway program in 2007. Ninety percent of the revenue supporting the federal highway trust fund comes from motor fuels taxes. During the 2007-09 biennium, about 53 percent of the department's total budget was from federal revenue and over 80 percent of the construction program is federally funded. The committee was informed the department uses federal aid to the largest extent possible; however, many needs are unmet, especially due to inflation. The committee was informed that the federal highway trust fund will have a \$4.3 billion shortfall by 2009.

The committee was informed that the transportation revenue package provided by the 2007

Legislative Assembly was producing the intended revenue levels. However, the state cannot depend on federal funds in the future and states will have to be more responsible for funding highway projects.

The committee received testimony on factors affecting road and bridge quality. Oil development has a negative impact on the highway system. It is estimated that up to 400 truckloads of equipment and material are required to set up and service a vertical well site and 600 truckloads are required for a horizontal well. The increased heavy truck traffic associated with the oil industry was unknown when roads and bridges were designed, and as a result these roads and bridges were not designed with the structural capacity to handle the impact.

The committee learned of the negative impact on the highway system of ethanol and biodiesel production. It is estimated that a 100-million-gallon ethanol plant could generate as many as 71,000 truckloads per year. The potential impact on the local road network is a major concern because the roads were not built to handle these truck volumes.

The committee was informed of the negative impact railroad abandonments have on the highway system. The loss of rail service has led to the development of subterminal elevators which can load 100-car unit trains. These subterminal elevators change the traffic patterns and increase traffic in certain areas.

The committee did not make any recommendations regarding its study of highway funding and transportation infrastructure needs.

2005-06 Interim

During the 2005-06 interim, the Legislative Council chairman directed a study of federal highway appropriations and state matching requirements. This study was assigned to the Transportation Committee. The committee reviewed federal highway appropriations, which were greatly affected by the passage of the federal Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which the President signed into law on August 10, 2005. The Act provided funding through federal fiscal year 2009. The Act is a continuation of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Transportation Equity Act for the 21st Century (TEA-21).

The 2005-06 interim Transportation Committee received information on state funding sources and alternatives. The committee reviewed the impact of increased motor fuel prices on the consumption of motor fuel, and the collection of motor fuels taxes. The motor vehicle fuels tax is applied on a gallon basis, so an increased price per gallon does not result in more or less tax, unless people drive more or less because of the price of fuel. However, there is a tendency for people to drive less when the cost of fuel is high.

The 2005-06 interim Transportation Committee monitored the increase in bid amounts for projects

due to the increase in prices for raw materials and labor. As a result of increased costs, \$24 million in construction projects originally scheduled for 2006 were delayed and the Department of Transportation anticipated that over \$91 million in projects for 2007 and 2008 would be scheduled at a later date.

The committee received information on the impact of not spending money on or delaying road construction projects. The committee was informed that every \$1 million spent on road construction creates 47.5 jobs and for every \$1 spent on preventative maintenance, \$4 to \$5 is saved in construction costs in the near future. In addition, national studies have demonstrated that every \$1 invested in transportation yields approximately \$5.40 in reduced delays, improved safety, and reduced vehicle operating costs.

In addition to studying highway funding, the 2005-06 interim Transportation Committee monitored certain infrastructure projects, including the Liberty Memorial Bridge project. The committee was informed that bridges are monitored on a monthly basis and are thoroughly inspected every two years. At that time, the department had 59 certified bridge inspectors to inspect approximately 5,300 bridges. Before 2006 the last thorough inspection of the Liberty Memorial Bridge was in late 2003 or early 2004, and there was no indication of damage at that time. In January 2006 the department discovered problems on the outside of the columns, and the outside flaws warranted further testing that revealed internal problems.

The 2005-06 interim Transportation Committee also received a report from the Upper Great Plains Transportation Institute on the outcome of the institute's study of how improvements to the transportation infrastructure of this state might enhance the business climate and the state's competitive position in economic development. Senate Bill No. 2018 (2005) provided a general fund appropriation of \$360,000 to the Upper Great Plains Transportation Institute to conduct this study. The study included the following recommendations:

- A preservation program that keeps pavement in good condition generates substantial economic benefits.
- Highway access to key industrial and agricultural facilities should be analyzed on a case-by-case basis.
- The benefits and costs of eliminating or mitigating spring load limits on key highway segments should be analyzed on a case-by-case basis; however, load limit elimination on highway segments serving key agricultural and manufacturing locations may be cost-effective.
- New mechanistic pavement analysis techniques offer potential for improved forecasting of pavement lives and may make it possible to shorten the durations of spring load restrictions in some cases and identify more cost-effective designs. As such, it is important to develop

data and input to fully utilize these advanced procedures.

- Selective case studies should be undertaken of highway load limits in counties so that a cost-effective analysis plan can be developed. A great deal of information must be developed in order to assess the benefits and costs of uniform county load limits.

The 2005-06 interim Transportation Committee received information on the taxation of coal, oil, and gas as a potential source of highway funding. The committee received testimony on present proceeds from the oil and gas gross production tax proceeds which are transferred to the oil and gas impact grant fund and are used for road repair and maintenance. The oil and gas impact grant fund is administered by the Energy Development Impact Office. The office provides financial assistance for basic governmental services to local units of government affected by energy activity. The state does not share in impact funding for state roads.

The committee did not make any recommendations regarding its study of federal highway funding and state matching requirements.

2001-02 Interim

During the 2001-02 interim, the Budget Committee on Government Administration studied highway construction and maintenance funding, including revenue sources and distribution formulas for the state, cities, and counties. The committee reviewed other states' methods of financing highway projects. The majority of states' highway revenue is generated from fuels taxes and motor vehicle registration fees. In addition, states generate additional funding for highways from a variety of other sources. The following schedule summarizes select revenue sources that are used for highway purposes in other states in addition to fuels taxes and registration fees:

| Revenue Type | State |
|----------------------------|--|
| Sales tax - General | Arizona, Illinois, Kansas, Nevada, Utah, and Virginia |
| Motor vehicle excise tax | Iowa, Kansas, Michigan, Missouri, Nebraska, North Carolina, and South Dakota |
| Motor fuels sales tax | California, Georgia, and Michigan |
| Automobile parts sales tax | Michigan |
| Gaming tax | Colorado |
| Rental car tax | Florida, Hawaii, Iowa, South Dakota, and Utah |
| Severance tax | Arkansas, Kentucky, New Mexico, Oklahoma, Tennessee, and Wyoming |
| Corporate income tax | Maryland |
| Lubricating oil tax | Alabama, Mississippi, and Texas |
| Contractor tax | Mississippi |

The 2001-02 interim Budget Committee on Government Administration reviewed information prepared by the Florida Department of Transportation regarding alternative transportation revenue sources. Alternative revenue sources identified include:

1. Vehicle miles of travel fees - An annual assessment based on the number of miles traveled in the preceding year.
2. Weight distance fees - An annual assessment based on factors, including miles driven and vehicle weight.
3. New vehicle or automobile parts sales tax - Taxes on new or used vehicle purchases or on sale of automobile parts.
4. Emissions fees - An annual fee based on a vehicle's emissions characteristics and on the annual number of miles traveled.
5. Highway right-of-way lease income - Collections from leases of highway right of way for fiber optic cables, cell phone towers, or other purposes.
6. Road-branding fee - A fee charged for naming a segment of a highway for an individual or business.

The committee recommended 2003 House Bill No. 1031 to authorize the director of the Department of Transportation to enter agreements with counties or cities for the cooperative or joint administration of an activity that will enhance the efficiency and effectiveness of the state highway system.

STUDY PLAN

The following is a proposed study outline for the committee's consideration in its study of highway construction funding:

1. Receive and review information regarding sources of funding available for highway construction projects.
2. Receive and review information regarding the distribution of highway funds to the state and political subdivisions.
3. Receive and review information regarding the costs of maintaining and constructing highways.
4. Receive a report from the Tax Commissioner regarding information provided by counties, cities, and townships on funding and expenditures relating to transportation projects and programs.
5. Receive reports from the Department of Transportation regarding the use of state, federal, emergency, and other highway funding during the 2009-10 interim.
6. Receive testimony from other interested persons, including cities and counties, regarding the committee's study of highway construction funding.
7. Develop recommendations and any bill drafts necessary to implement the recommendations.
8. Prepare a final report for submission to the Legislative Council.

ATTACH:5