



Statewide Transportation Improvement Program

VI. REVENUE AND EXPENDITURE PROJECTIONS

State Revenue Projections:

The foundation of the STIP is available revenue, both federal and more importantly State. A review of Figure # 5 indicates that State revenues from four components (Motor Fuel Tax, Privilege Tax, Registration Fees, and Miscellaneous) contributed \$700 million to the State Road Fund in FY 2008. The WVDOT relies on the expertise of individuals at the Department of Revenue as well as internal staff for the development of its short-range revenue forecasts. Revenue forecasts are predicated on a number of underlying factors and assumptions. Some of the most important assumptions deal with the anticipated cost and consumption of oil and motor fuel and to a lesser extent their impact on human behavior (i.e., if fuel costs remain high will individuals continue to buy larger more expensive cars or smaller more fuel efficient vehicles, will they carpool or continue to drive alone, utilize public transit more, etc.). Ideally, the underlying factors for developing State revenue projections would not fluctuate dramatically; however, the conditions for projecting the State's transportation revenues has been far from ideal in recent years. Recent changes in the cost of oil and motor fuel coupled with looming legislative issues surrounding the State's Motor Fuel Tax rates have made the development of reliable long-range and even short-range forecasts nearly impossible.

As discussed previously, a portion of the State's Motor Fuel Tax is variable and is contingent on the wholesale price of fuel. Since 2005, steep increases in the purchase price of oil have translated into higher wholesale fuel costs. As a result, the variable rate portion of the State's Motor Fuel Tax has increased 5.2¢ per gallon (80%) from 6.5¢ in CY 2005 to 11.7¢ in CY 2008. Initially it was assumed that higher costs were due only to supply shortages caused by Hurricane Katrina and would be short lived. It now appears that the cause is more systemic and that oil prices and in turn fuel prices will remain relatively high during the forecast period. The most recent estimates by the Revenue Department reflect the temporary freeze imposed for CY 2009. When the freeze expires in January 2010 the variable rate is anticipated to initially increase to 17.5¢ and then trend lower over time, ending at 13.8¢ in January 2014.

In addition to higher oil prices and the current legislative freeze in variable rates, the current revenue forecast is also being affected in the outermost year by looming changes in the flat rate portion of the State's Motor Fuel Tax, which will automatically revert to 15.5¢ per gallon on August 1, 2013 from 20.5¢ per gallon without legislative action. While the potential drop in the flat rate portion of the Motor Fuel Tax is a number of years away, it will impact long term revenue forecasts, which in turn will drive the Agency's six-year program. The effect of the reduction will have greater impact on forecasts as the time of its implementation nears.

The most recent revenue forecast projects that consumption will remain steady despite the higher than average cost of fuel. After the freeze expires, projected increases in the variable rate portion of the Motor Fuel Tax will initially more than



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offset the fact that consumption is not increasing. As such, Motor Fuel Tax revenue is anticipated to increase from \$380 million in FY 2009 to \$459.6 million in FY 2011. After FY 2011 Motor Fuel Tax revenue will trend lower annually, ending at \$391.3 million in nominal terms in FY 2014.

While many of the changes in State revenue projections surround the flurry of activity regarding the treatment of Motor Fuel Taxes, revised projections for Privilege Tax, Registration Fees, and Miscellaneous Revenue have also been needed. If fuel costs remain relatively high for an extended period as currently projected, it is anticipated that individuals will attempt to offset those increases by purchasing smaller, less expensive, and more fuel-efficient vehicle. These changes in spending patterns will influence revenues collected from each of the other sources in addition to Motor Fuel Taxes. Since the impacts to the other sources of revenue are driven by changes in human behavior, revenue changes are not anticipated to occur suddenly, but shift slowly over time. Like Motor Fuel, revenue growth from the other State revenue sources (i.e., Privilege Tax, Registration Fees, and Miscellaneous Sources) is projected to be largely stagnant. Privilege Taxes are projected to decrease from \$169.5 million in FY 2009 to \$166.3 million in FY 2014.

Registration Fees are projected to increase very slightly in nominal term, rising from \$91.7 million in FY 2009 to \$91.8 million in FY 2014. Revenue from Miscellaneous Sources is projected to decrease by nearly 30% in nominal terms, dropping from \$37.5 million in FY 2009 to \$27.4 million in FY 2014. Table # 3 and Figure # 6 show the breakdown of the State sources of revenue from FY 2008 through FY 2014.

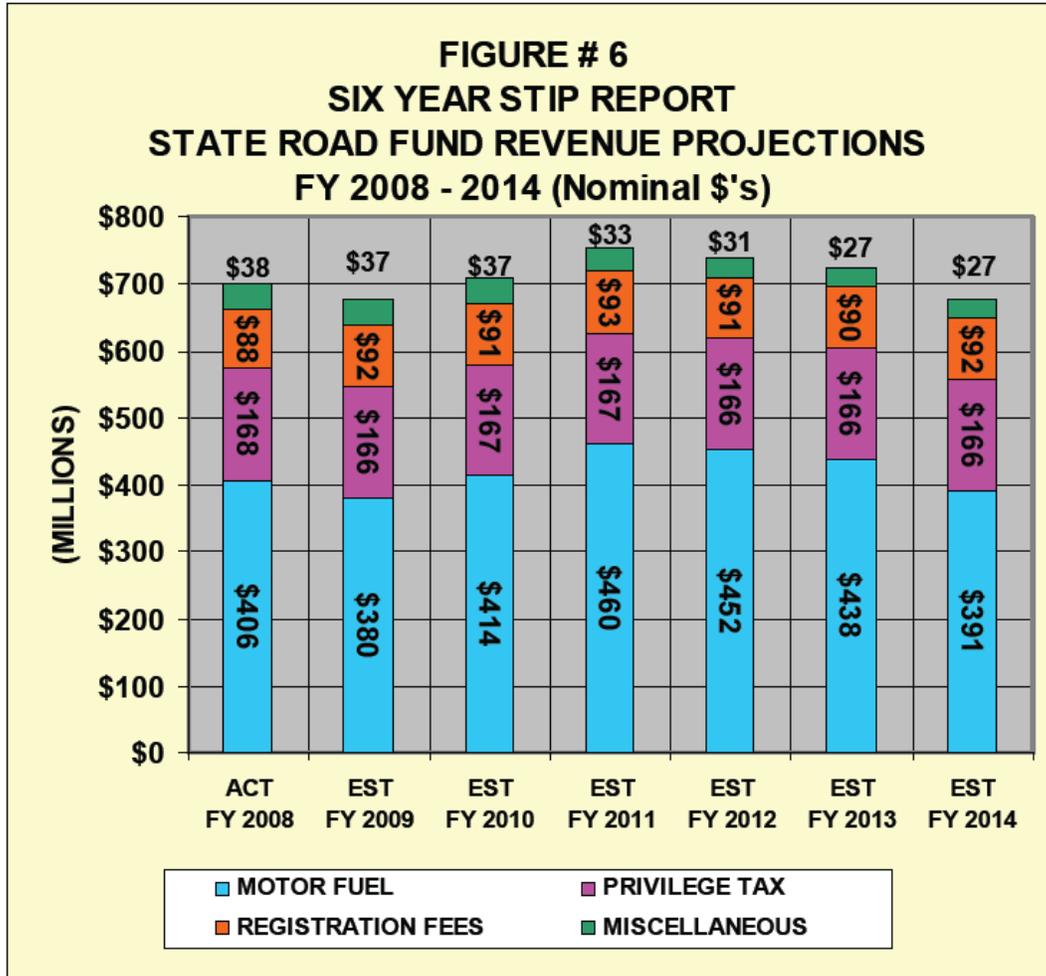
TABLE # 3
STATE REVENUES ACTUAL & FORECAST FY 2008 - FY 2014

REVENUE SOURCE	ACTUAL FY 2008	EST FY 2009	EST FY 2010	EST FY 2011	EST FY 2012	EST FY 2013	EST FY 2014	EST FY 09-14
MOTOR FUEL TAX	\$404.2	\$380.0	\$413.6	\$459.6	\$451.7	\$437.9	\$391.3	\$2,534.0
PRIVILEGE TAX	\$169.5	\$166.4	\$166.6	\$166.5	\$166.4	\$166.4	\$166.3	\$998.7
REGISTRATION FEES	\$88.3	\$91.7	\$91.1	\$93.5	\$91.2	\$89.9	\$91.8	\$549.2
MISCELLANEOUS REVENUE	\$38.4	\$37.5	\$37.2	\$33.5	\$31.3	\$27.3	\$27.4	\$194.2
TOTAL RECEIPTS	\$700.4	\$675.6	\$708.5	\$753.1	\$740.7	\$721.5	\$676.8	\$4,976.5

VALUES AS OF AUGUST 2008



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A review of Table # 3 and Figure # 6 indicates that under the current forecast, State revenues into the Road Fund would average \$829.4 million per year and equal \$4.98 billion over the six-year period. Despite the fact that system usage and costs are increasing, overall State revenue is projected to be less in nominal terms in FY 2014 than in FY 2009. This lag will make it difficult for the WVDOH to move forward with needed projects. The lag will be exacerbated when the impact of inflation on purchasing power is taken in to account.

Beginning in December 2007, new federal guidelines require all project costs contained in the STIP to be shown in year of expenditure dollars. In order to adjust capital costs to year of expenditure dollars, it was necessary to develop a yearly project adjustment/inflation factor. While numerous indexes exist for calculating inflation, staffs of the WVDOT and FHWA agreed to use a 20-year rolling average of the composite index of FHWA's Price Trends for Federal-Aid Highway Construction. Unfortunately, FHWA ceased producing the index data after 2006. In the absence of national data, the WVDOH has developed a highway construction index using its Average Unit Bid Prices Based on Contracts Awarded documents. In



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order to continue to calculate a 20-year rolling average, assumed FHWA values are developed that are equivalent to the change in the WVDOH index. Using a combination of the WVDOH index and FHWA's national composite index, the current 20-year rolling average is 4.43% for the 1987 to 2007 period. The use of a 20-year rolling average provides a good indication of cost trends in the highway construction industry and helps mute the impact of sharp spikes or downturns in costs. The value of the 20-year average will by necessity be recalculated each year to reflect new information.

MANDATED WVDOH PRIORITY EXPENDITURE PROJECTIONS:

Debt Service:

As has been discussed throughout this document, before WVDOH can initiate any improvement projects, it is required to address its top three priorities: debt service, administrative support, and routine maintenance. Of the three priorities, only debt service can be predicted with exact certainty. If no new bonds are issued for road-building activities, WVDOH will have to make level debt service payments of \$50 million from FY 2007 to FY 2012, which will drop to \$38 million in FY 2013 and \$37 million in FY 2014.

Administrative support:

WVDOH currently projects that its administrative support costs, which include general operations, buildings and grounds, equipment and inventory costs, will be \$68 million in FY 2009. As discussed previously, Administrative support costs fluctuate but trend upward. In FY 2008, administrative support costs were 4.6% of total WVDOH expenditures. Recent budgets have provided only minimal funding for the repair and renovation of WVDOH buildings and the replacement of the WVDOH's equipment fleet. As part of the current forecast of expenditures, WVDOH anticipates higher funding levels for its buildings and grounds initiative as well as new equipment purchases. Due to the inflationary pressures related to personnel and equipment costs, for the purposes of this report, it was assumed that Administrative Support costs would continue to increase during the six-year period. It was assumed that growth of these expenditures will be limited to a rate of 2.2% per year from FY 2011 through FY 2014, which is in line with future estimates of overall inflation as measured by the Consumer Price Index (CPI), which posted changes of 2.4% and 5.5% for FY 2007 and 2008 respectively. Using these assumptions, Administrative Support costs are projected to be \$77 million in FY 2014.



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Routine Maintenance:

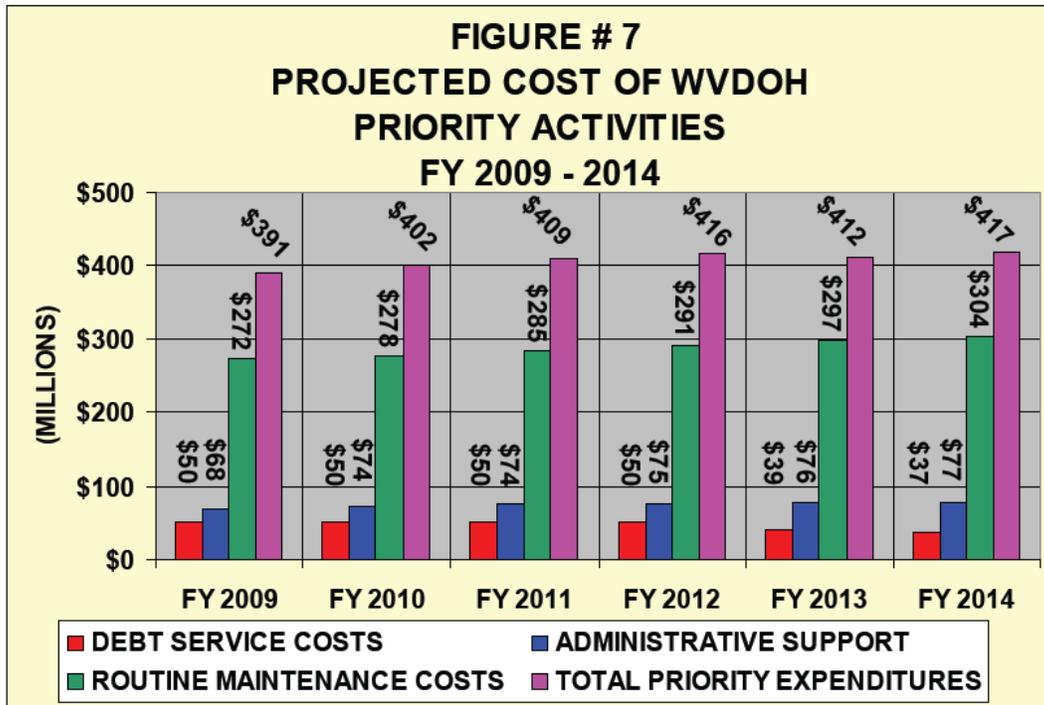
Like Administrative Support costs, Routine Maintenance costs tend to fluctuate but overall trend upward as the size of the network and demands upon it increase. WVDOH is anticipating maintenance expenditures of \$272 million in FY 2009, which is 9.2% (\$22.9 million) above FY 2008 expenditures, but only 2.2% above FY 2008 budgeted values. Despite higher than anticipated fuel and material costs, Routine Maintenance expenditures have come in below budgeted values due to personnel vacancies. The Agency has been struggling to fill a large number of vacancies in the maintenance field. At projected levels, Routine Maintenance expenditures will be 22.7% of the agency's total expenditures in FY 2009, which demonstrates the WVDOH's strong commitment to preserving its assets. The 2.2% increases in Routine Maintenance funding is needed to partially offset spikes in fuel costs that occurred in CY 2007 and early CY 2008. Higher gas prices have increased the cost of operating the State's equipment fleet for snow and ice removal as well as other day-to-day activities. In addition, the cost of materials used for maintenance work (gravel, salt, etc.) has also increased as suppliers have passed on their higher energy costs.

The WVDOH forecast anticipates continuing to increase maintenance funding by 2.2% per year from FY 2010 through FY 2014, which is less than both the long-term estimate of yearly inflation for highway construction costs (4.4%) and recent yearly changes in overall inflation as measured by the CPI, which posted changes of 2.4% and 5.5% for FY 2007 and 2008 respectively. The change in the cost of highway construction is a better gauge of the trend in maintenance cost than the CPI. As such, the WVDOH desired to increase Routine Maintenance funding at a rate equal to the long-term estimate of highway construction inflation (i.e. 4.4%), but fiscal limitations made such funding levels impractical. Despite committing to future increases, funding for Routine Maintenance is well below its historical averages in terms of real purchasing power. The limitations in purchasing power will force WVDOH to offset these higher costs by either reducing the amount of maintenance work conducted or seeking operational efficiencies. While maintenance funding can be increased at less than the normal rate of cost growth and even decreased for a short period, unless WVDOH can generate significant internal efficiencies, the result will ultimately be lower roadway and bridge condition levels.

Based on the assumptions used, WVDOH's total expenditures for its top three priority activities (debt service, administrative support, and routine maintenance) will increase over the six-year time horizon from \$391 in FY 2009 to \$417 million in FY 2014 (see Figure # 7).



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Set-Asides:

In order to come up with working totals of funds available to WVDOH for improvements, an estimate of the yearly set-aside costs also must be made. For estimation purposes, the current estimates for PSC and State Police pass-through funds reflect the Administration’s proposal that those activities cease to be funded by the Road Fund beginning in FY 2008. While other set-aside costs have been relatively stable over time, the cost of WVDMV internal operations has been more volatile. In recent years, WVDMV internal operating costs have increased dramatically, growing from \$6.2 million in FY 1990 to \$29 million in FY 2004, which represents a compound growth rate of approximately 11.2% per year. Much of the increased cost was attributed to legislatively mandated openings of regional WVDMV facilities and their staffing.

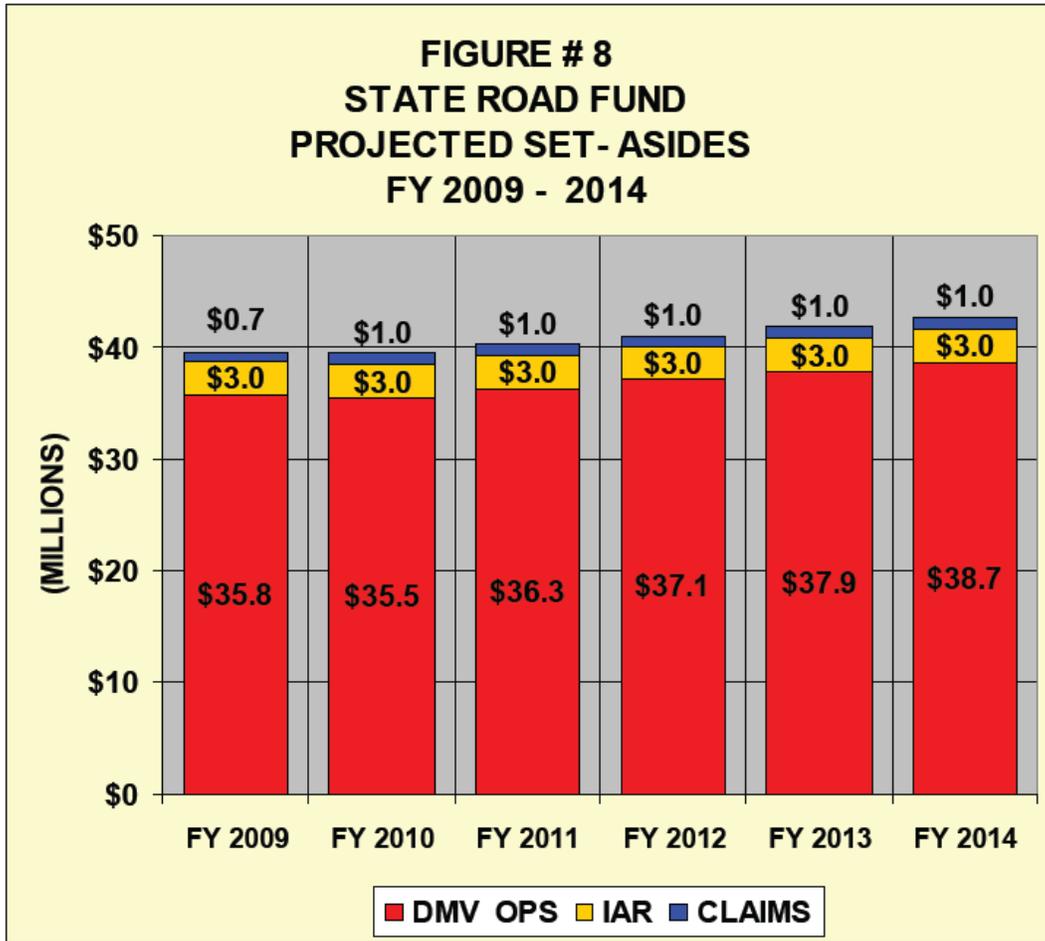
Fortunately, in conjunction with a moratorium on opening additional offices, the growth in WVDMV costs has reversed in recent years, actually increasing at an average of only 1.2% per year from FY 2004 to FY 2008. The current forecast reflect an anticipated jump in WVDMV operations expenditures due to the purchase of new equipment necessary to meet federal requirements of the REAL I.D. ACT and costs associated with the relocation of the WVDMV’s central office. As a result, FY 2009 expenditures are projected to be \$35.8 million, which is \$5.4 million above FY 2008 actual values. After the initial jump in spending, it is anticipated that the growth in WVDMV operations expenditures will be limited to 2.2% per year ending at \$38.7 million in FY 2014. The current forecast assumes that no changes will be made



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regarding the legislative mandate of IAR Fund transfers and therefore would remain static at \$3 million per year.

Similarly, costs associated with legal claims were assumed to remain at \$1 million or less from FY 2009 forward. Using the assumptions, described Set-Asides would increase from \$39.6 million in FY 2009 to \$42.7 million in FY 2014 (see Figure # 8).

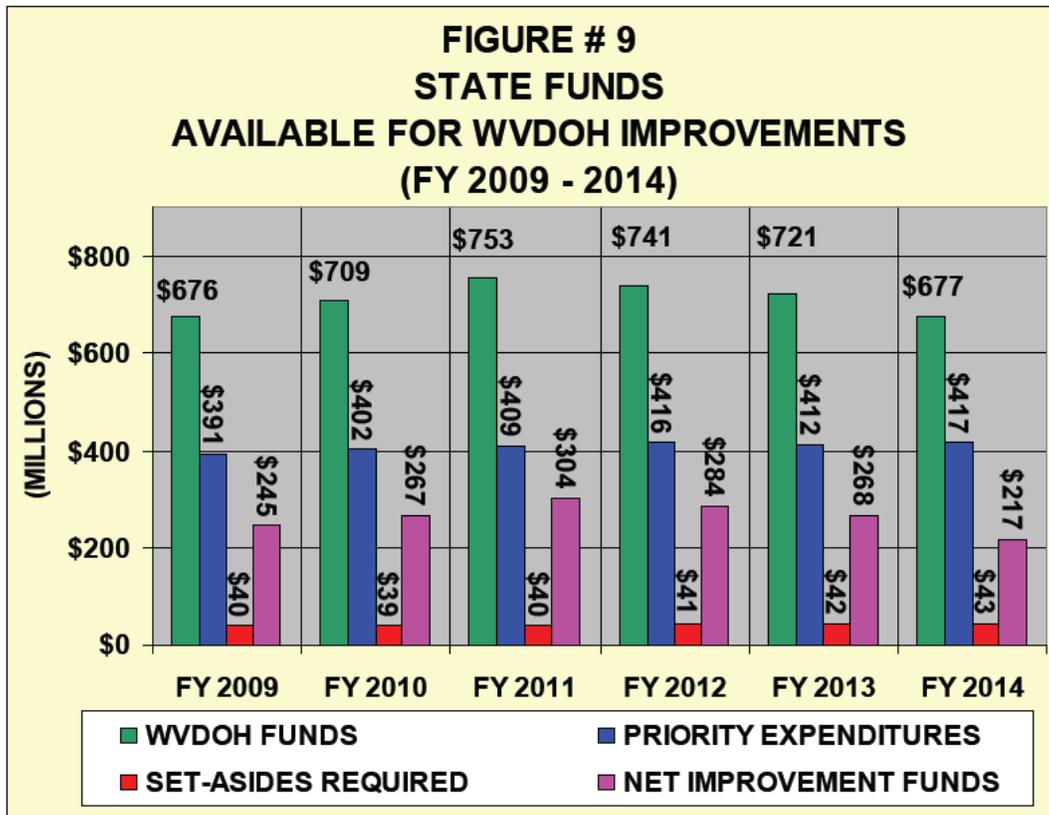


Improvements:

A review of Figure # 9 indicates that after the Agency’s mandated priorities and Set-Asides are taken into account, WVDOH anticipates having an average of \$264 million annually for highway improvements or roughly \$1.59 billion over the entire six-year period.



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The remaining State revenue is what is projected to be available for matching federal-aid funds and conducting “improvement” work on State highway facilities not eligible for federal-aid. Since the agency is prudently forecasting modest growth in its priority expenditures despite shrinking revenues, the amount of funds available for improvements will in turn shrink during the six-year period.

SPECIAL OBLIGATION NOTES:

As mentioned previously, the preponderance of revenue available to WVDOH for its operations and improvements comes from the State Road Fund. Typically, a reasonable estimate of State funds available to WVDOH for improvements would be determined by subtracting the cost of the agency’s mandated priorities and set-asides from the State revenue components of the Road Fund as shown in Figure # 9; however, the agency occasionally sells bonds or notes to supplement those amounts and uses future funds to service the debt on those issues.

As shown above in the discussion on the agency’s mandated priorities, WVDOH will be required to make debt service payments between \$37 and \$50 million per year over the next six-year period. Those debt service payments are needed to cover \$550 million in general obligation bonds approved by voters in 1996. In order to address some of the immediate funding issues facing WVDOH, the Administration has directed that \$200 million in Special Obligation Notes be sold to expedite expansion



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work on US 35. \$76 million of the Special Obligation Notes were sold in October 2006 and an addition \$33 million were sold in April 2007, the remaining \$91 million are anticipated to be sold sometime before the end of FY 2009. While the proceeds from the notes will increase the amount of improvement money available to WVDOH in the short run, the revenue will not flow to the State Road Fund. As such, the values shown in Figure # 9 will be used as the basis for this STIP.

WVDOH in cooperation with FHWA is using two innovative financing tools to pay debt service on these Notes. First, by utilizing a Grant Anticipation Revenue Vehicle (GARVEE) WVDOH can use future federal-aid funds to pay 80% of the debt service associated with the notes. Second, by utilizing “toll credits” that the State has accumulated as a soft match for the State’s portion (20%) of the debt service, the debt service payments will essentially be paid with 100% federal funds. The downside to this arrangement is that the federal-aid portion of WVDOH’s improvement program in future years will be reduced by an amount equal to the debt service payments during those years, which is currently estimated to be \$168 million based on annual payments of \$28 million annually through FY 2015. Any delays in the final issuance will obviously impact the amount of payments required. Since the funding does not technically flow into the State Road Fund, these payments are not reflected as one of WVDOH’s mandated priorities (i.e., Debt Service), but are reflected as a reduction in available federal-aid funds for new improvements. The financial documents associated with the sale of Notes requires WVDOH to utilize the first eligible obligation authority it receives during the FFY to cover this commitment. WVDOH is using a combination of National Highway System (NHS) and Surface Transportation Program (STP) funds, which will be described below, for this purpose.

Federal-Aid Obligations Projections:

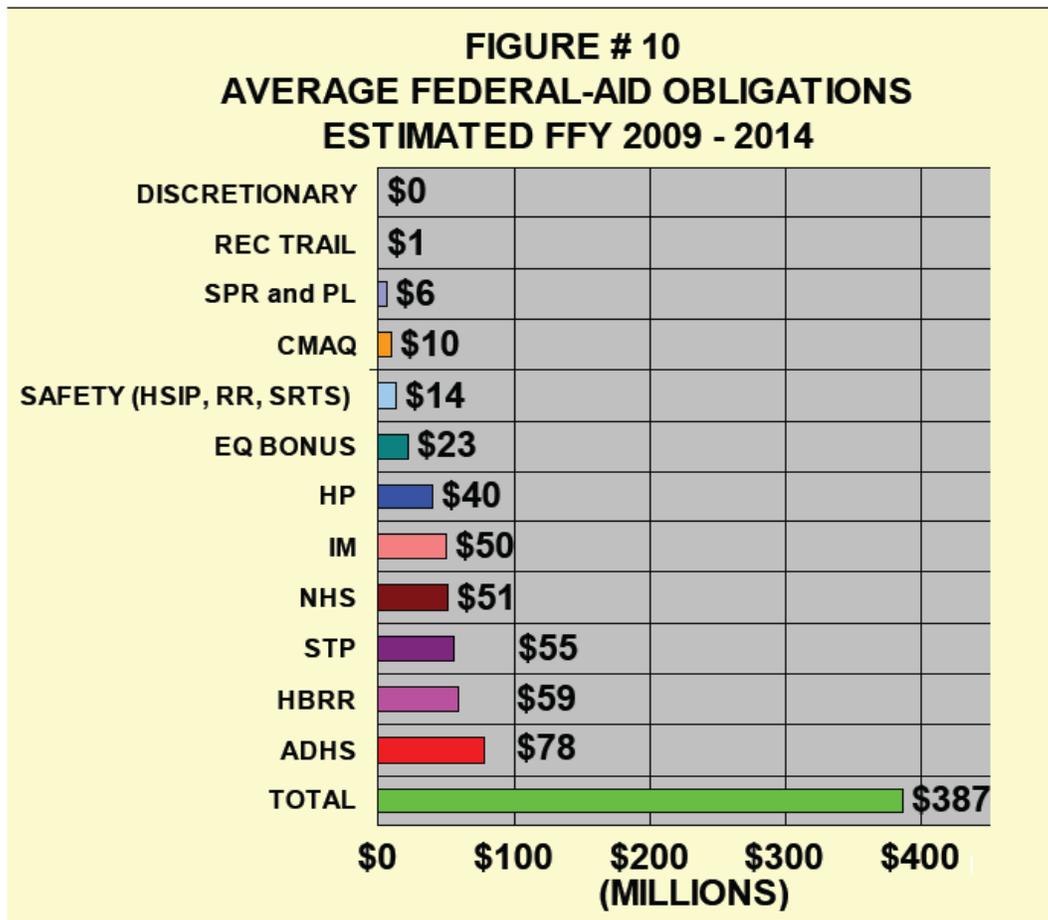
As indicated previously, the federal government’s financial participation in highway construction is governed by a multi-year highway authorization legislation. The current authorization, SAFETEA-LU, only extends through FFY 2009. It must be stressed that there is no guaranty of federal participation in highway construction beyond that point, but the likelihood of the federal government divesting itself entirely from such an integral part of the nation’s economy is extremely remote. However, the ability of the primary funding mechanism for funding the federal aid highway program, the Highway Trust Fund (HTF), to keep pace with the needs of the country’s aging infrastructure has come into questions. Several sources have projected that the HTF will be unable to meet a portion of its financial commitments to states as early as FFY 2009. Given the fact that SAFETEA-LU expires in FFY 2009 and revenue levels of the HTF are in question, projections of federal obligations over the next six years should be conservative in nature.

Given the ambiguity that exists regarding the level of federal funding beyond FFY 09, WVDOH staff decided that a reasonable course of action would be to assume that federal apportionments after FFY 09 would at least be equivalent to the values provided during the final year of SAFETEA-LU and that obligation authority would be established at 90% of those levels. Estimates of FFY 09 funding levels were



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predominantly based on the advance notification of federal-aid highway funds to be apportioned on October 1, 2008, which was issued by FHWA on June 30, 2008. For the High Priority Program and Statewide Planning and Research (SPR) Program, which were not identified in the June 30th notice from FHWA, assumed obligation authority levels of \$40 and \$5.6 million were used. In addition, while the State has traditionally benefited from additional “special” or discretionary highway funding as part of the yearly appropriation process, the ongoing war on terrorism and recent natural disasters has greatly limited the availability of discretionary funds for transportation. As such, current forecasts of future federal-aid obligations do not anticipate any funding of that nature during the six-year period from FFY 2009 to FFY 2014. At the present time, federal obligations are projected to average \$387 million per year and total \$2.3 billion during the forecast period (see Figure # 10).



A description of SAFETEA-LU’s major funding programs and the average amount of OA West Virginia anticipates receiving annually during the six-year period based on forecast assumptions is as follows:

Interstate Maintenance (IM) Program:



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The IM Program finances projects to rehabilitate, restore, and resurface the Interstate System. Funds are apportioned based on Interstate System lane miles and the VMT on the Interstate System. IM federal funds are matched on a 90% federal and 10% state basis. From FFY 2009 to FFY 2014 West Virginia anticipates receiving roughly \$50 million per year in IM obligation authority.

The Interstate System is the premier highway network of the nation, providing the highest level of service to the traveling public. Construction of the Interstate System began in 1956. West Virginia has eight Interstate routes (I-64, I-68, I-70, I-77, I-79, I-81, and I-470), totaling 555 miles. The West Virginia Parkways, Economic Development and Tourism Authority (WVPEDTA), rather than WVDOH, is responsible for 86 of those miles. Construction of the Interstate System in West Virginia was completed in 1988. As portions of the system are approaching an age of 50 years, significant rehabilitations are needed to preserve the high level of service offered by these roadways.

National Highway System (NHS) Program:

With the Interstate System nearing completion nationwide in 1991, the federal government sought to identify a larger network of roadways of national significance that should receive dedicated federal-aid funds. The network as envisioned would consist of over 160,000 miles of major roads throughout the United States. The NHS, which was designated in 1996, encompasses all Interstate System highways and a large percentage of the nation's highways that are functionally classified as a Principal Arterial. A large majority of the non-Interstate roadways that make up NHS are in need of major improvement in order to meet current highway design standards. Upgrading NHS roadways has become a major focus of the nation's highway improvement initiatives.

West Virginia's NHS roadways total over 1,867 miles, of which 555 miles are Interstate roadways. Many people believed that designation of NHS signaled a renaissance of federal-aid highway construction. Many DOTs across the nation initiated numerous planning and design projects for NHS facilities in their states in anticipation of major increases in federal transportation funding. It was thought that the NHS program would be pursued with the same vigor that the Interstate System had been. Unfortunately, these expectations were proven false. While dedicated federal funding has been made available for NHS routes, the levels have been inadequate for major progress. Despite the fact that many of the over 1,300 miles of non-Interstate NHS routes in West Virginia are in need of major improvement to conform to modern design criteria, federal-aid funds dedicated to these efforts have been limited. During the next six years West Virginia anticipates receiving \$51 million annually. NHS funds must be matched on an 80% federal/20% state basis. WVDOH will utilize some of its future NHS funds to pay debt service related to the sale of Special Obligation Notes for US 35 projects, which are either currently underway or will be underway in the near future. If the full \$200 million in Special Obligation Notes is sold, the WVDOH currently estimates that roughly \$14 million (27%) of its NHS OA would be used for this purpose annually during the six-year period.



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Given the high cost associated with improving these roadways and the limited federal matching funds dedicated to these initiatives, in the seventeen years since NHS was conceived, WVDOH has been able to make only modest headway on these proposals. It is the lack of significant amounts of federal funding and State revenue needed to match those funds that have left WVDOH in the unenviable position of having to place many of these highway improvement initiatives on hold while waiting for sufficient funding to proceed.

Surface Transportation Program (STP):

STP funds are very flexible because they may be expended on any of the State's 10,368 miles of federal-aid-eligible roadways (any road that is not functionally classified as either Local or Rural Minor Collector). As such, STP funds may be directed upward to higher-priority roadways as necessary. While STP funds may be expended on the 1,867 miles of NHS routes in the State, they serve as the principal federal-aid funding mechanism for the remaining 8,501 miles of federal-aid-eligible roadway. The WVDOH anticipates receiving an average of \$55 million per year in obligations for general STP purposes. Like most federal-aid funds, they must be matched on an 80/20 percentage basis. As was the case with NHS funds, WVDOH has committed to using a portion of its future STP funds to pay debt service on Special Obligation Notes during the six-year period. If the full \$200 million in Special Obligation Notes is sold, the WVDOH currently estimates that roughly \$14 million (25%) of its STP OA would be used for this purpose annually during the six-year period.

Although they are some of the most flexible funds to use, Congress placed additional restrictions on how STP funds must be expended. Each state must set aside at least 10% of its STP funds for Transportation Enhancement (TE) activities. TE initiatives encompass a broad range of environmental, historical, and scenic projects. TE projects typically are not spent directly on a roadway, but on ancillary items such as sidewalks, streetscapes, and highway beautification. Although TE set-asides limit funding that could be used for "true" highway improvements, they have become extremely popular with local governments and community service groups. During the six-year period West Virginia anticipates using \$5 million per year of its STP OA for TE activities. It should be noted that unlike most federal-aid programs, the required matching funds for TE activities typically come from local rather than state sources. The WVDOH oversees the distribution of program funds and ensures that local entities meet federal requirements.

Highway Bridge Replacement and Rehabilitation (HBRR) Program:

The HBRR Program, like the IM and NHS Programs, is another attempt by Congress to target highway funding to solve a specific need - in this case, bridges. Roads are crucial to the mobility of the nation; however, one deficient bridge, if it impedes traffic, can render miles of highway useless. Unlike the majority of federal-aid programs, HBRR funds are not completely tied to



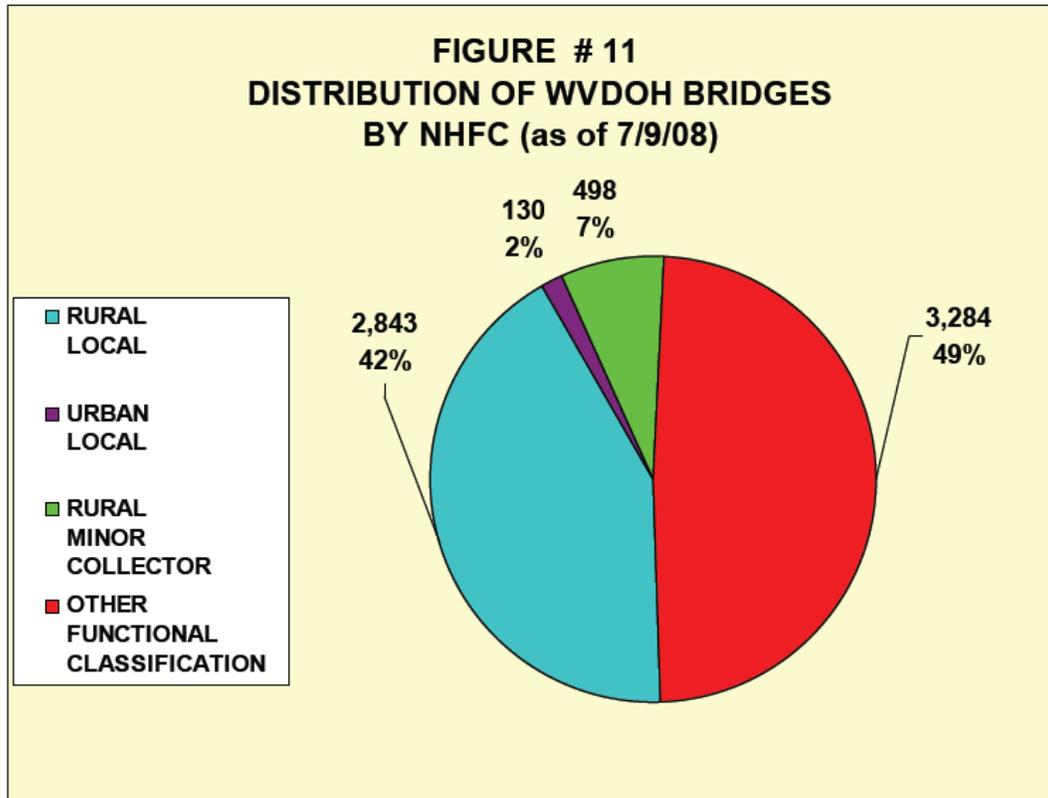
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functional classification. Since bridges are critical to the operation of all roadways, a portion (15-35%) of HBRR funds must be expended on non-federal-aid public structures (i.e., Rural Local, Rural Minor Collector, Urban Local routes). In addition to major rehabilitation or replacement, other types of work (painting, seismic retrofits, calcium magnesium treatments, etc.) are also eligible for HBRR use. HBRR funds require an 80/20 federal to state matching ratio. It is anticipated that \$59 million per year in HBRR Program funds will be available to West Virginia during the six-year period.

West Virginia has 7,349 bridges open to some form of public traffic. The vast majority, 6,750 (92%), are owned by WVDOH; 99 (1%) are owned by West Virginia Parkways Economic Development and Tourism Authority (WVPEDA) and the remaining 495 (7%) are owned by a variety of public and private entities. Five bridges that are located on roads under the jurisdiction of WVDOH are owned by other entities (3 railroads, 1 US Forest Service, and 1 private owner), which brings the total number of bridges on WVDOH highways to 6,755. Of those 6,755 bridges that must vie for HBRR Program funds, 49% (3,284) are located on roads with a NHFC that makes them eligible for other forms of federal-aid funds (see Figure # 11). The larger and more expensive bridges tend to be located on roadways with higher NHFC's, whereas the bridges on the lower-priority systems tend to be shorter and less expensive. In order to maximize its available funding and the benefits obtained to highway users, WVDOH tends to direct the maximum allowable percentage (85%) of its HBRR funding towards the more expensive and heavily traveled structures. Remember that, while highways with a NHFC higher than Rural Minor Collector only make up 29% of the highway mileage, they carry about 92% of all highway traffic. Therefore, smaller bridges that are used less frequently are generally funded without the assistance of federal-aid matching funds.



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Appalachian Development Highway System (ADHS) Program:

ADHS is a network of high-speed roadways throughout a 13-state region of the United States that is intended to provide highway service to areas with the potential for economic development where commerce and communication have been inhibited by lack of adequate access. All of the State's ADHS highways are part of the NHS. ADHS funds are apportioned each year among the states located within the Appalachian Region (as defined by Congress) based on the federal share of the cost to complete each state's portion of the system in relation to the total cost to complete the system of roads. Under SAFETEA-LU the federal government has made \$470 million per year available for ADHS facilities.

Based on the 2002 cost to complete document prepared by the Appalachian Regional Commission, West Virginia received 18.4% of all ADHS obligation authority (approximately \$78 million per year). Based on the 2007 cost to complete document, West Virginia's share of ADHS apportionments is supposed to shrink to 6.9% starting in FFY 2009 (approximately \$29 million). The primary reason for the difference is that Congress added a 65-mile long ADHS Corridor in the State of Alabama, which dramatically impacted that state's cost to complete. The WVDOH has been informed that the projected reduction in ADHS funding would be offset by a corresponding increase in Equity Bonus funding. While the WVDOH remains committed to moving



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forward on ADHS facilities, due to the high cost of these facilities the Agency does not intend to utilize federal-aid funds that are not specifically dedicated to those roadways for expansion purposes. At the time of this document's preparation, FHWA funding information for FFY 09 still projects West Virginia to receive an apportionment of \$87 million. As such, for the purposes of this report, it will be assumed that West Virginia's share of OA for ADHS facilities will remain steady through FFY 2014 at \$78 million annually at an 80/20 matching ratio. When the exact impact of the funding formula is known, the WVDOH will realign its program accordingly.

Historically, West Virginia has received a large portion of the total ADHS funds primarily because it is the only state wholly within the Appalachian Region and has a larger portion of uncompleted miles. Since ADHS's inception in 1965, WVDOH has been working toward completion of the State's six corridors (D, E, G, H, L, and Q), which total 425 miles. Four of the corridors (E, G, L, and Q), totaling 209 miles, have been completed. The remaining two corridors are in various stages of development. Corridor D, which totals 82 miles, is nearly complete with only a single interchange remaining. Corridor H, the longest corridor in the State at over 133 miles, is roughly 45% complete. The remaining 72-plus miles to be constructed traverse some of the most difficult terrain in the State; as the result, it is anticipated that it will cost nearly \$870 million to finish.

Equity Bonus Program:

Federal-aid funding redistributes the nation's transportation funding resources by collecting funds from each of the states and then allocating it to them to address their specific needs. Some states are donor states that contribute more to the Highway Trust Fund than they get back, and some states like West Virginia are donee states that receive more than they contribute. Equity Bonus Program funds (formerly named Minimum Guarantee Funds under TEA-21) are a control mechanism instituted at the federal level to ensure that the disparity between donor and donee states does not become too large. Under TEA-21, the specific share of federal-aid funds apportioned to the states was adjusted to ensure that each state's share of apportionments for specified funding programs was at least 90.5% of its percentage contributions to the Highway Account of the Highway Trust Fund. Under SAFETEA-LU, the minimum amount returned to states gradually increases to 92% by FFY 2008, which will reduce the amount of funds received by donee states. Since Equity Bonus funds are an amalgam of various federal-aid program funds, they may be used on any project that would otherwise be eligible for federal-aid and must be matched on an 80/20 percentage basis. West Virginia received roughly \$10 million per year in Minimum Guarantee funds under TEA-21. Despite the shift in return rates, as a result of apportionment formula changes, West Virginia has been receiving approximately \$25 million annually in Equity Bonus apportionments under SAFETEA-LU. As mentioned above, if there is a reduction in ADHS funding, West Virginia anticipates a corresponding increase in Equity Bonus apportionments. However, until the FHWA formally notifies the WVDOH regarding new levels of ADHS and Equity Bonus funding, the most recent



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information from FHWA will continue to be used. Based on 90% of the apportionment shown in the June 30th 2008 advance notification of federal-aid, the WVDOH estimates that Equity Bonus funding will be \$23 million during the forecast period.

High Priority Projects (HP) Program:

In 1991 under the Intermodal Surface Transportation and Efficiency Act (ISTEA), which was the federal highway reauthorization legislation prior to TEA-21, Congress created the HP Program and designated 45 High-Priority Corridors across the nation that would be eligible for these funds. These 45 corridors were in essence a precursor to NHS, developed by Congress in 1996. Four of the corridors (Transamerica, I-73/74, Coalfields Expressway, and the Mon- Fayette Expressway) are located at least partially in West Virginia. Portions of the I-73/74 Corridor located in West Virginia frequently are referred to as the King Coal Highway (Williamson-Bluefield), and the Tolsia Highway (Huntington-Williamson). Later, each of these High-Priority Corridors were incorporated into the NHS. When ISTEA expired and was replaced with TEA-21, rather than replacing the HP Program with the NHS Program, Congress decided to provide two separate programs. In addition, the High-Priority Corridor Program was revised to a High-Priority Projects Program. Under TEA-21, the HP Program greatly expanded in scope, incorporating not only the original 45 High-Priority Corridors developed in ISTEA, but also an additional 1,805 individual highway projects. Unfortunately, while Congress increased the number of projects eligible for funding under the HP Program by over 4,000%, the actual amount of available HP funds saw little change. Under SAFETEA-LU, the number of individual earmarked projects under the HP Program increased further to 5,173. In addition to six earmarked projects located on West Virginia's High-Priority Corridors, several other projects in West Virginia will receive earmarked HP funds under SAFETEA-LU, including:

- Shawnee Parkway;
- New River Parkway;
- WV 10 Upgrade;
- Fairmont Gateway Connector;
- US 35 Upgrade;
- East Beckley Bypass;
- New Ohio River Bridge, Brooke County;
- WV 9 (Martinsburg Bypass); and
- WV 601 Connector

Although the list of projects eligible for HP funds will undoubtedly change when the next multi-year federal reauthorization occurs, it is reasonable to assume that some level of support will continue for projects of this nature. WVDOH has conservatively forecasted obligations for HP projects to average \$40 million annually and require an 80/20 matching ratio through FFY 2014.



Statewide Transportation Improvement Program

Congestion Mitigation and Air Quality Improvement (CMAQ) Program:

The CMAQ Program is designed to target highway funds to areas with high traffic and air quality non-attainment issues. While West Virginia is fairly rural and does not typically experience the traffic congestion problems prevalent in major metropolitan areas, it does have some air-quality non-attainment problems. Use of CMAQ funding, like TE funding, is not restricted to specific roadways, but to projects or programs that solve air quality problems. Examples of eligible CMAQ projects are those that improve traffic flow, improve signalization, and improve intersections. WVDOH has generally spent about half of its CMAQ funds in non-attainment areas of the State. During the next six years, the WVDOT anticipates receiving \$10 million annually in CMAQ OA. CMAQ Program funds are unusual in that the matching ratio for the funds is variable. Some CMAQ funds may be 100% federal (they require no matching funds) when utilized for qualifying project types, such as signal systems; whereas, other CMAQ matching ratios are determined by the type of project and federal-aid system upon which the funds are used.

Highway Safety Improvement Program (HSIP):

The HSIP is a new funding program, created under SAFETEA-LU, which began in FFY 2006. HSIP is intended to achieve a significant reduction in traffic fatalities and serious injuries on all public highways. Under previous multi-year authorizations and for the first year of SAFETEALU, safety projects were initiated through a mandatory 10% set-aside of STP funds. Those funds could be expended only on federal-aid-eligible facilities. Like HBRR funds, HSIP funds will not be tied to any system of functionally classified highways and can, if needed, be expended on publicly owned bicycle and pedestrian pathways or trails. While projects typically will require a 90/10 matching ratio, some activities are eligible for 100% federal funding. Embedded within the HSIP program are the Highway-Rail Grade Crossings Program, and Safe Routes to School Programs, which are intended to reduce the number and severity of train collisions with vehicles and pedestrians and to improve the ability of students to walk or bicycle to school. West Virginia anticipates receiving approximately \$14 million annually in safety related obligations during the forecast period.



Statewide Transportation Improvement Program

State Planning & Research and Metropolitan Planning Program:

Realizing that adequate planning is essential to the development of an efficient and effective transportation network, the federal government has for some time mandated that states follow a cooperative, continuous and comprehensive process for making transportation investment decisions. In addition, the federal government has also recognized the ongoing need for a research component to the national highway program. To this end, federal legislation uses a 2% set aside to each state's apportionments from the Interstate Maintenance (IM), National Highway System (NHS), Surface Transportation Program (STP), Congestion Mitigation and Air Quality (CMAQ), Bridge (BR) and the Highway Safety Improvement Programs (HSIP) to fund the State Planning and Research (SPR) Program. Unless a state requests an exception, federal provisions dictate that not less than 25% of SPR funds must be expended on research, development and technology (RD&T) transfer activities with the remaining funds used for statewide, metropolitan and other planning activities. Similar to SPR funding, federal legislation uses a 1.25% set aside of the funds authorized to be appropriated from the IM, NHS, STP, CMAQ and BR programs nationally to provide funding specifically for Metropolitan Planning Organization (MPO) activities. These funds are known as PL funds and are apportioned to each state by formula. West Virginia receives the minimum apportionment of PL possible. While both SPR and PL funds require an 80/20 matching ratio, the State covers the full 20% of the match required for SPR funds, but only 10% of the match on PL funds. The remaining 10% match required for PL funds is provided by the local governmental entities represented by the MPOs. West Virginia anticipates receiving \$6 million annually for planning purposes during the next six years.

Recreational Trails Program:

Federal-aid highway OA has been available for the Recreational Trails Program since the early 1990's. It is intended to aid in the development, maintenance, and construction of trails and trail support facilities. The program operates on an 80/20 matching ratio. Since funding is extremely limited for this program, individual requests for project funding are limited to \$5,000 minimum and \$100,000 maximums. The WVDOT anticipates \$1 million per year in OA will be available for projects of this nature. Like the TE Program, matching funds are typically provided by local sources not state sources.

Miscellaneous Programs:

The obligation levels associated with the list of programs discussed previously represent the lion's share of federal highway funds that WVDOH can anticipate on a yearly basis as the result of SAFETEA-LU. While West Virginia may receive annual federal-aid funds for other smaller initiatives such as Direct Federal funding for forest highways and Other Allocated Funds, these programs are not considered in this document.



Statewide Transportation Improvement Program

Discretionary or “Special” Federal-Aid Funds:

Beyond the sources of federal aid that WVDOH can predict with relative certainty, it frequently receives additional “special” or discretionary federal-aid funds on a yearly basis. Unlike the program funds described above, “special” federal aid cannot be predicted with any certainty. These funds typically come in the form of “earmarks” contained in yearly federal appropriation bills, which can be used by WVDOH only for the specific project described. Matching ratios for discretionary funds frequently are specified in legislation. In the past, much of the discretionary funding received by WVDOH required no state match (i.e., had a 100/0 matching ratio); more recently, funding typically has required standard 80/20 match. WVDOH has no way to predict what the match requirement will be in the future.

Since members of West Virginia’s Congressional Delegation are strategically located on both the Transportation and Appropriation committees, the amount of “special” federal-aid funds that was directed to West Virginia in past years has been considerable. More recently, national funding needs for the war on terror and for recent natural disasters have severely limited the amount of discretionary funding available for transportation purposes. To be conservative in the development of its transportation program, WVDOT has assumed that no funding of this nature to be available from FFY 2009 through FFY 2014. If the recent funding trend reverses, WVDOT may need to revise its estimate upward, which would in turn impact the size of the agency’s improvement program.

If all funds were expended in the year they were obligated, the WVDOT would anticipate needing matching funds of \$86 million per year based upon the matching requirements for programs and allocations outlined above. On virtually every federal-aid eligible project, there are individual activities and items that are deemed ineligible for federal-aid reimbursement. As such, the State share of funds required to complete federal projects is almost always greater than projected when using the matching ratios described above. Individually the impact of ineligible charges would have a negligible effect on the State’s federal-aid program, but as a group this disparity can significantly alter the amount of State matching funds required on an annual basis.

FEDERAL-AID REIMBURSEMENT PROJECTIONS:

As mentioned previously, the distinction between obligations and expenditures is important. WVDOH anticipates it will have the ability to obligate \$2.3 billion in federal-aid funds during the next six years. Since projects generally take longer than one year to construct, the amount of funds expended in any given year can be higher or lower than the amount obligated. The WVDOH’s current forecast of federal-aid reimbursements is \$2.6 billion during the six-year period, which is \$283 million above assumed OA levels for the period. The current forecast estimates that reimbursements will be \$455.3 million in FY 2009 and then decrease in nominal terms to \$360 million in FY 2012 million, which represents the assumed OA level for the period less GARVEE payments, and remain at that level throughout the remainder of the six-year period.

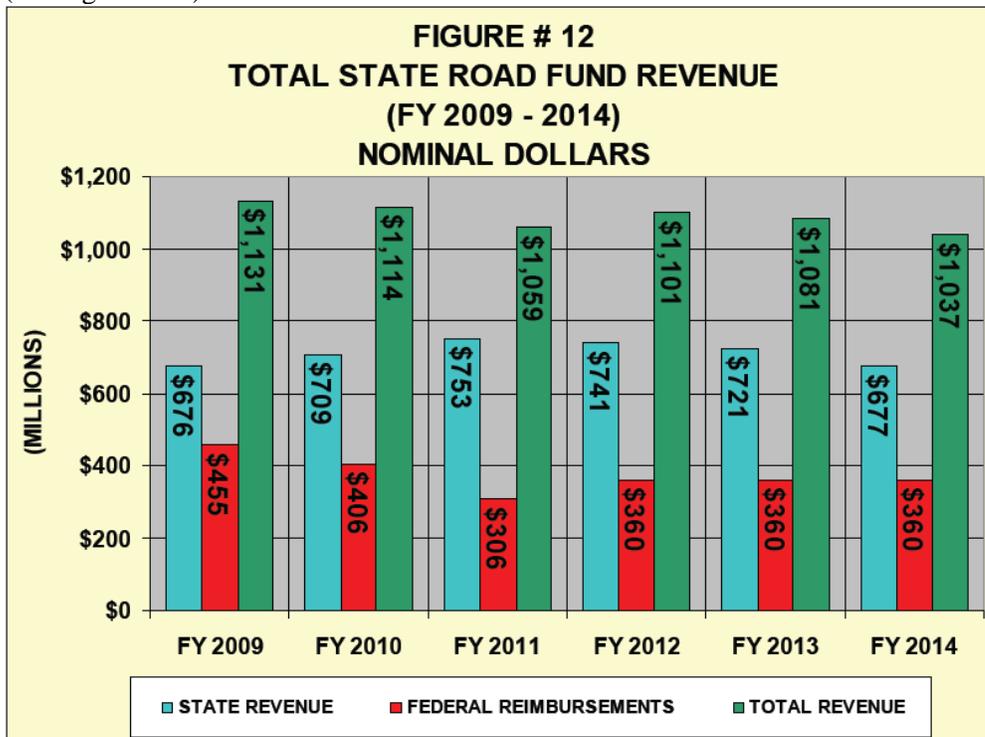


Statewide Transportation Improvement Program

The present forecast was developed under the assumption that the agency would continue to make matching all available federal-aid its top priority after its priority expenditures and set-asides are addressed. The forecast assumes that the federal-aid highway expenditures will be \$2.7 billion during the six-year period and average \$453.3 million annually. Using the forecast values, the agency would need to provide \$472.5 million in State matching funds during the six-year period, which is an average of roughly \$79 million per year. If these projections hold true, State matching requirements for federal-aid funds will consume 30% of the State revenue available for improvements. If State revenue continues to decline, the agency may be forced to forgo some federal-aid funds to bolster its maintenance and preservation programs. The need for this action has not been established at this time, but will be explored in detail as the agency conducts a baseline analysis of its maintenance and system preservation needs as part of a revision of its Long Range Statewide Transportation Plan.

COMBINED REVENUE (STATE & FEDERAL)_PROJECTIONS :

Based upon the current forecast, total State Road Fund revenue will be \$6.52 billion over the six-year period. Revenues are projected to be essentially flat in nominal terms; starting at \$1.31 billion in FY 2009 and ending at \$1.14 billion in FY 2014 (see Figure # 12).

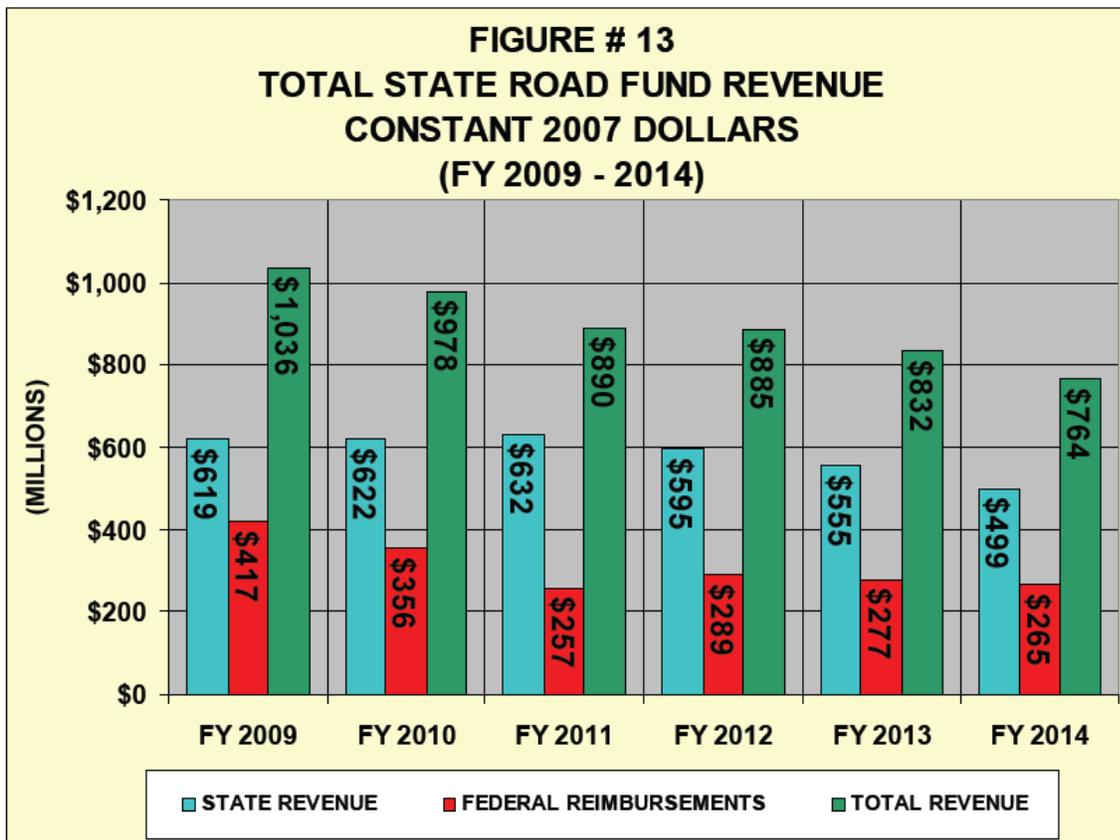


Over time, purchasing power will be reduced due to inflationary pressures (i.e. it will cost more in the future to purchase the same amount of goods). As mentioned



Statewide Transportation Improvement Program

previously, SAFETEA-LU requires STIP costs to be placed into year of expenditure dollars. The WVDOH is using the 20-year rolling average of a combination of the WVDOH Construction Price Index and a modified FHWA construction Price Index and (currently 4.46% per year) as its measure of inflation. When project costs are inflated, the amount of work that can be programmed with projected revenue will be decreased. Figure # 13 presents the forecast revenues in constant 2007 dollars and demonstrates the impact inflation will have on the STIP. At projected levels, the agency's purchasing power will shrink roughly 16% during the six-year period from FY 2009 to FY 2014. This loss in buying power will make it difficult for significant gains to be made in the State's highway and transit programs unless efficiencies are found. An example of efficiencies is that beginning in FY 2008, some of the historic diversions from the State Road Fund (transfers to the State Police and funding for the PSC) ceased. As such, even though actual revenue to the fund did not increase, more is available for true highway and transit purposes. Several other recent legislative actions will help mute the effects of inflation, but not eliminate it.





Statewide Transportation Improvement Program

REVENUE & EXPENDITURE PROJECTIONS SUMMARY:

In order to determine the total amount of funding projected to be available to WVDOH from FY 2009 through FY 2014 for improvements, the following information was used:

- State revenues will decrease from \$693 million in FY 2009 to \$652 million in FY 2014.
- Federal-aid reimbursement are projected to equal \$2.25 billion over the six-year period and remain constant (\$360 million) on an annual basis from FY 2011 to FY 2014 in nominal terms.
- Total State Road Fund revenue is projected to be \$6.52 billion over the six-year period in nominal terms. When adjusted for inflation, total State Road Fund revenue is projected to be \$5.4 billion in constant 2007 dollars.
- Set-aside costs for WVDMV, IAR and Claims will increase from \$39.5 million in FY 2009 to \$42.7 million in FY 2014. The forecast assumes that funding diversions for State Police and PSC will not recommence during the forecast period.
- Debt service payments will require \$50 million per year from FY 2009 through FY 2012 and decrease to \$38.6 million in FY 2013 and \$37.0 million in FY 2014.
- Administrative support costs in FY 2009 will be increased above FY 2008 expenditure levels to supplement the agency's buildings and grounds program and replacement of its equipment fleet. Beginning in FY 2010, administrative support costs will be increased at a rate of roughly 2.2% per year through FY 2014, growing to \$77 million.
- Routine maintenance expenditures in FY 2009 will be \$272 million, which is an increase of \$22.9 million (9.2%) above FY 2008 actual expenditures, but only 2.2% above FY 2008 budgeted values. The increase is needed to help offset steep increases in highway material and fuel costs. The WVDOH anticipates increasing routine maintenance expenditures at only 2.2% per year, growing to \$304 million in FY 2014. Despite these increases, routine maintenance expenditures will remain well below historical averages in terms of true purchasing power.
- The remainder of \$200 million in Special Obligation Notes (\$91 million) will be sold in FY 2009 to fund additional projects on US 35. The debt service associated with these notes over the six-year period will be paid for using \$168 million in future federal-aid funds (\$84 million in NHS and \$84 million in STP).
- Under the above assumptions, the total amount of State funds available for road and bridge improvements during the six-year period will equal \$1.8 billion in nominal terms, which will decrease on an annual basis from \$285 million in FY 2009 to \$259 million in FY 2014.
- Federal-aid obligation authority is projected to be \$387 million per year from FY 2009 to FY 2014. A portion of which (7%) has been committed to the repayment of Special Obligation Notes.
- Matching available federal-aid funds will be a top priority for usage of State funds available for improvement projects. Based on the current forecast, State funds needed to match federal-aid funds will consume 30% of all State funds available for improvement during the six-year period.