

FINANCIAL PLAN

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) requires that a financial plan be part of the overall transportation plan for a region. The purpose of this requirement is to ensure that the recommended improvements included in the plan can be implemented and that the air quality benefits assumed for the implementation of the plan are realistic. These realistic estimates of emissions reductions are needed for the air quality conformity analysis required by SAFETEA-LU and the Clean Air Act Amendments of 1991.

Potential revenue sources are summarized and estimates of future revenues from these sources are made for the 2030 RTP. The costs to meet the projected needs of the Regional Transportation Plan through the year 2030 are estimated. These costs include those required to meet the needs identified in the 2030 RTP as well as the costs required for general administration and the operation and maintenance of the existing transportation system. This chapter summarizes the *Financial Plan of the Wasatch Front Urban Area Regional Transportation Plan: 2007-2030*. The *2030 RTP Financial Plan, Technical Report 47*, contains detailed information on the revenue and cost assumptions and projections used to determine the resources available to implement the 2030 RTP.

OVERVIEW OF REVENUE ASSUMPTIONS

7.1

The Wasatch Front Regional Council, the Utah Department of Transportation, the Utah Transit Authority, the Mountainland Association of Governments (MAG), the Dixie Metropolitan Planning Organization (Dixie-MPO), and the Cache Metropolitan Planning Organization (Cache-MPO) formed a financial committee to develop estimates of available revenues based on projected sources that will be available for transportation improvements through the year 2030. Included in these revenue estimates are federal, state and local sources for highway and transit improvements. Assumptions were made concerning revenue growth and new or increased sources of funds. The projections and assumptions used are discussed in the balance of this section. A more detailed description of potential federal, state, and local revenue sources for the Wasatch Front Urban Area Regional Transportation Plan: 2007-2030 has been provided in Appendix B.

HIGHWAY REVENUE SOURCES

7.2

Federal, state, and local government revenues will be available for the recommended highway improvements found in the Wasatch Front Regional Transportation Plan: 2007-2030. These revenues were estimated for the years 2007 through 2030. Separate efforts were made to estimate funds that will be available to the Utah Department of Transportation and funds that will be available for local jurisdictions.

Revenue sources for UDOT include federal funds and state funds. Federal funds are assumed to grow by two percent a year. State motor fuel tax revenues were assumed to increase at a two and a half percent rate per year, based on historical trends. State special fuel tax revenues were assumed to increase at a five percent rate per year, based on historical trends. In addition, a five cent per gallon increase in the fuel tax was assumed in 2016 and 2026. The Transportation Investment Fund (TIF) and Centennial Highway Fund (CHF) are currently funded with state auto-related sales tax and general fund monies. The TIF was enacted in 2005 with appropriations made from the Utah State Legislature. The CHF is a 13-year allocation of state and federal money for use in building capacity-



increasing transportation projects. The funds have been allocated for projects since 1997 and will continue to be available through 2009. The CHF bond is projected to be paid off by 2020. The remaining portion of the state auto-related sales tax, totaling approximately 16.6 percent, is assumed to be allocated by the Utah State Legislature in 2011 to fund the TIF. The main sources of revenue available for regional and local transportation projects are:

- Federal funds from the Salt Lake Area and Ogden – Layton Area Surface Transportation Programs (STP) and the Congestion Mitigation / Air Quality Programs (CMAQ);
- Class B and C Funds from state highway user revenues for counties and cities;
- Salt Lake County's 1/4 of 1/4 cent sales tax less .0125% (.05%);
- Salt Lake County's Proposition 3 sales tax (.0675%);
- \$10 vehicle registration fees in Salt Lake, Davis and Weber Counties;
- Future increases in local option sales taxes for transportation projects in Salt Lake (.12% in 2016 and .06% in 2026), Davis (.15% in 2008, .10% in 2016, and .05% in 2026), and Weber (.15% in 2008, .25% in 2016, and .08% in 2026) Counties; and
- Local general funds.



7.3

STATEWIDE HIGHWAY REVENUES

Working with the WFRC and the joint Finance Committee, the UDOT Planning Division developed estimates of the projected revenues that will be available to the UDOT between 2007 and 2030. These revenues come from federal revenue, state revenue, the TIF, and the CHF, as discussed below. Details of these projections are included in the Financial Plan for the 2030 RTP.

Federal Revenue

Intermodal Surface Transportation Efficiency Act (ISTEA), adopted in 1991, established several spending programs for federal funds for highway improvements, which are administered by UDOT and the State Transportation Commission. TEA-21, the federal transportation bill enacted in 1998, and SAFETEA-LU continued these programs with higher funding levels. These programs include Interstate Maintenance, National Highway System, Any Area Surface Transportation Program, STP Safety and Enhancement Programs, and Bridge Replacement Programs. A modest growth of two percent per year for each program was assumed for the period between 2007 and 2030.

State Funds

State of Utah revenues for transportation are primarily generated through highway user fees. These include motor fuel and special fuel taxes, vehicle control fees, motor vehicle registration, proportional registration, temporary permits, special transportation permits, highway use tax, and safety inspections and miscellaneous fees. In addition, the Utah Legislature has programmed state general funds to support UDOT projects. UDOT used historical growth rates for each of these sources to project future revenues.



State revenue projections also assume future increases in the state gas tax. The state gasoline and special fuel tax has increased a total of five times from seven cents per gallon in 1978, to twenty-four and a half cents per gallon in 1997. The latest increase was a five cent per gallon increase approved in 1997. In 2006, the Utah State Legislature approved the use of approximately half of the state's auto-related sales tax, approximately 8.3 percent of the total tax revenues, for highways, equivalent to about a thirteen cent gasoline and special fuel tax, to be put into the Transportation Investment Fund.

This trend would indicate that it is reasonable to expect that the Utah State Legislature would continue to raise revenues for highways every five to ten years. The 2030 RTP assumes the equivalent of a five cent gasoline and special fuel tax will be raised in the year 2016 and then in 2026. The 2030 RTP also assumes the remaining half of the auto-related sales tax to be designated for highways in 2011.

In establishing a Centennial Highway Fund in 1996, the Utah State Legislature greatly increased the amount of state general fund revenue going to UDOT. The CHF program initially assumed general fund revenues up to \$145,000,000 per year, but it had been reduced by the Legislature to approximately \$60,000,000 per year due to budget constraints. With the addition of half of the auto-related sales tax in 2005, approximately \$150,000,000 per year with a growth rate of about five and half percent per year, the Centennial Highway Fund funding is now close to initial projections. When the funds are no longer needed to pay off the CHF program, they will be placed in the TIF.

Transfers Appropriated To Other State Agencies

Not all of the highway user revenues are available to Utah Department of Transportation. In the past, approximately three percent of these funds have been diverted to other agencies, such as Highway Patrol, Driver's License Division, and the Utah State Tax Commission. Of the remaining amount, 25 percent is transferred to cities and counties in the form of Class B and C funds. UDOT estimated that future amount of diversions to other agencies will continue at the same rate as in previous years. The total amount of transfers and diversions from 2007 through 2030 is approximately \$5,332,000,000. Table 7-1 summarizes the amount of statewide highway revenue projected through the year 2030.

TABLE 7-1

PROJECTED STATEWIDE HIGHWAY REVENUE 2007-2030

SOURCE		AMOUNT
Federal Revenue		
Highway Trust Funds		6,196,000,000
State Revenue		
Highway User Funds		16,678,000,000
Transfers Appropriated to Other State Agencies		(5,332,000,000)
Transportation Investment Fund		6,848,000,000
Centennial Fund – Bonds & Other Revenue		7,498,000,000
Total Statewide Revenue Available		31,888,000,000



7.4

LOCAL REVENUES

There are three main sources of local revenues for transportation projects: (1) federal funds from the Salt Lake Area and Ogden – Layton Area Surface Transportation Program and the Congestion Mitigation / Air Quality Program; (2) Class B and C Funds from state highway user revenues for Counties and Cities, including the 1/16th cent sales tax for park access, and corridor preservation; and (3) local general funds. In addition, other innovative sources will need to be used in the future to help finance specific highway improvements recommended in the 2030 RTP. The following section describes the various funds that are available to local cities and counties within the region.

Federal Funds

ISTEA established several spending programs for federal funds for highway improvements in urban areas, which the WFRC administers. TEA-21 and SAFETEA-LU continued these programs with higher funding levels. These programs are the Salt Lake Area and Ogden - Layton Area Surface Transportation Programs (STP) and Congestion Mitigation / Air Quality Programs (CMAQ). As with the other federal program revenues, a modest growth rate of two percent per year for each program was assumed for the period between 2007 and 2030. These funds can be used for projects on the state highway system, as well as on local streets. Based on past trends, the RTP assumes that approximately 60 percent of STP funds will be used to build state facilities and the other 40 percent will be used to build local facilities. The CMAQ funding in the RTP is assumed to be split with 50 percent being used for state facilities, 10 percent for local facilities, and the remaining 40 percent for transit facilities.

Class B And C Funds

The Class B and C roadway funds are allocated from the highway user fees revenues. Currently 75 percent of the highway user fees are directed to UDOT and 25 percent are diverted to the Class B and C funds. The Class B and C funds are then split on a ratio of population and road miles for counties and cities in the state. Based on the current allocation formula, the Wasatch Front Urban Area currently receives approximately 41 percent of the Class B and C funds. Although the allocation formula may change in the future, the current percentage was maintained for the projection of future funding for this category.

General Funds

Cities and counties along the Wasatch Front program a significant amount of local general funds for highway maintenance and improvement. Current and past general fund spending on highways by counties and cities was examined to project future revenues. Based on the information provided in a survey of Wasatch Front communities, local governments are projected to spend about \$93,000,000 on highway improvements in 2007. These local expenditures are projected to grow by three percent a year through 2030.

Innovative Sources

Local governments will need to consider several innovative highway funding programs in the future. Many already levy transportation impact fees on new developments. In addition, developers are a source of funding for major projects which benefit their development. These and other innovative sources will provide funding over the next twenty-four years for local highway projects. A total of approximately \$480,000,000 is assumed.

Local Option Funds

UDOT was to have received a one-quarter of the one-quarter cent transit sales tax in Salt Lake County in perpetuity, which was approved in November of 2000. The one-sixteenth of a cent sales tax was designated for state highway projects in Salt Lake County. However, UDOT's portion was



reduced to .05 cent in 2006 to compensate for the loss of sales tax on food to transit. The WFRC is estimating that this sales tax will generate approximately \$460,000,000 between 2007 and 2030. Additionally a portion of the \$10 vehicle registration fee for corridor preservation, approved in Salt Lake County in 2006 and projected to be approved in Davis and Weber Counties in 2007, could be used for state facilities. Vehicle registrations were projected to grow at one percent per year. The Utah State Legislature authorized the use of local option sales taxes for both highways and transit. Based on the Salt Lake County Council of Governments (COG) ranking and rating process for the third quarter sales tax, UDOT will receive a portion of the one-quarter cent sales tax approved in Salt Lake County in 2006. Approximately a quarter of the one-quarter percent sales tax is projected to be used for state highways from this recent local option sales tax. The 2030 RTP predicts this trend to follow in Davis and Weber Counties in 2008 and about .15% will be used for roadways projects based on the respective county COG recommendations.

The 2030 RTP also assumes that an additional 1/4 cent sales tax will be approved in all three Counties in 2016, with about .12% for highways available in Salt Lake County, .10% for highways in Davis County, and .25% for highways in Weber County, based on the respective county COG recommendations. The Plan also assumes that an additional .20 cent sales tax will be approved in all three Counties in 2026, bringing the total amount available in Salt Lake and Davis Counties to .30% for highways and .48% in Weber County for highways, which was also based on the respective county COG recommendations. Table 7-2, gives a more detailed split of the local option sales tax. Sales tax was projected to grow at five and a half percent per year. Local general funds were projected to grow at three percent per year. Table 7-3 summarizes the amount of regional and local highway revenue projected through 2030.

TABLE 7-2**LOCAL OPTION SALES TAX – SPLIT BY MODE**

QUARTERS	YEAR	TRANSIT	HIGHWAY	TOTAL
Salt Lake County				
1st, 2nd, 3rd	Current	$0.62 + 0.0625 = 0.6825$	0.1175	0.80
4th	2016	0.1300	0.12	0.25
5th	2026	0.1400	0.06	0.20
Total		0.9525	0.2975	1.25
Davis County				
1st, 2nd	Current	$.50 + .05 = 0.55$	0.00	0.55
3rd	2008	0.10	0.15	0.25
4th	2016	0.15	0.10	0.25
5th	2026	0.15	0.05	0.20
Total		0.95	0.30	1.25
Weber County				
1st, 2nd	Current	$.50 + .05 = 0.55$	0.00	0.55
3rd	2008	0.10	0.15	0.25
4th	2016	0.00	0.25	0.25
5th	2026	0.12	0.08	0.20
Total		0.77	0.48	1.25



TABLE 7-3
PROJECTED REGIONAL AND LOCAL HIGHWAY REVENUE 2007-2030

SOURCE	AMOUNT
Regional Revenue	
Surface Transportation Program (STP) (60%)	323,000,000
Congestion Mitigation / Air Quality (CMAQ) (50%)	185,000,000
Salt Lake County ¼ of ¼ percent sales tax less .0125% (.05%)	414,000,000
Salt Lake County Prop 3 Sales Tax (.0675%)	558,000,000
\$10 Vehicle Registration Fee – Salt Lake County	191,000,000
\$10 Vehicle Registration Fee – Davis County	54,000,000
\$10 Vehicle Registration Fee – Weber County	43,000,000
Salt Lake County Sales Tax (2016- .12%, 2026- .06%)	919,000,000
Davis County Sales Tax (2008 - .15%, 2016- .10%, 2026- .05%)	357,000,000
Weber County Sales Tax (2008 - .15%, 2016- .25%, 2026- .08%)	486,000,000
Total WFRC Programmed Revenue	3,529,000,000
Local Revenue	
Class B and C Program Funds	1,797,000,000
1/16 th cent sales tax	423,000,000
Surface Transportation Program (STP) (40%)	215,000,000
Congestion Mitigation / Air Quality (CMAQ) (10%)	37,000,000
Local General Fund Contributions	3,189,000,000
Innovative Funding Sources	480,000,000
Total Local Highway Revenue	6,141,000,000

7.5

TRANSIT REVENUE SOURCES

Revenues for transit service and improvements are available from several sources including federal funds, a local sales tax, fares, and others. Federal funds for transit capital and planning assistance are made available through the Federal Transit Administration (FTA). These funding programs are financed through the federal gasoline tax as well as from federal general fund monies. The Utah Transit Authority is the primary recipient of these funds, which are used to make system improvements, introduce new transit technology, increase service, and purchase new equipment.

In Weber and Davis Counties a 0.5 percent local option sales tax of all sales is currently dedicated to transit. In Salt Lake County a 0.62 local option tax of all sales is dedicated to transit. The 2007 Utah State Legislature approved a proposal to, among other things, eliminate the transit sales tax on food and replace most of the lost revenue to transit by adding an additional 0.05 cent on non-foods for transit in all transit counties and shifting 0.0125 cent from roads to transit in Salt Lake County, for a total of 0.6825.



The Regional Transportation Plan assumes that by 2027 the equivalent of 1.25 cent local option tax of non-food sales will be dedicated to transportation in each county. The allocation of the additional sales tax in each County will be based upon criteria and ranking determined by each county's council of governments. The Legislature will need to authorize any local option sales taxes above three-quarter cent. Then, ultimately, a referendum will be held for each local option sales tax increase and the specific highway or transit projects for which it will pay.



In addition, most federal formula grant funds available for transit were assumed to grow by three percent a year. Finally, fare revenue was projected to cover 20 percent of bus operating costs, just under five percent of paratransit operating costs, 40 percent of the Sandy light-rail, 30 percent of regional commuter rail and other extensions of light rail transit operating costs, and 25 percent of Enhanced Bus, Bus Rapid Transit operating costs.

Federal Transit Funds

Federal funds for transit capital and planning assistance are made available through the FTA. These funding programs are financed through the federal gasoline tax currently going to the Mass Transit Account of the Highway Trust Fund as well as from federal general fund reserves. These are discussed below.

- **Section 5307 Formula Grants**

This program provides a block grant to local transit agencies for capital improvements. These funds can also be used to support preventive maintenance and planning activities. Funding is distributed annually to the Ogden-Layton Urbanized Area and to the Salt Lake Urbanized Area by a formula based on population, population density, bus, and rail transit revenue miles of service. Urbanized Fiscal Year 2006 Section 5307 grants totaled \$19,000,000 and \$5,000,000 for the Salt Lake and the Ogden-Layton Urbanized Areas, respectively. Of note, the formula creates a minimum rail portion of the formula grant for Urbanized areas served by commuter rail. Because of this, the Ogden-Layton Urbanized area is anticipated to receive a \$7,000,000 jump in formula grants in about 2010. The WFRC assumed that the base formula grants annual amount would grow by three percent, with additional appropriations due to increases in revenue service miles but that the commuter rail portion would remain flat. A total of \$1,200,000,000 is projected to be available from Section 5307 between 2007 and 2030.

- **Section 5309 Discretionary Bus/Bus Facilities Grants**

This program provides discretionary funding for capital improvement projects such as the purchase of buses, the construction of park-and-ride lots, or the construction of operating and maintenance facilities. These funds are allocated by FTA to specific projects on the basis of merit. The federal share of these projects is up to 80 percent but the actual share typically is much lower. Because of their discretionary nature, Section 5309 funding for area transit projects varies from year to year. Projects in the WFRC area received \$7,000,000 in



2006 but only about \$4,000,000 in 2005 and 2006. Generally speaking the trend for this funding since 1990 has been to increase by yearly average of about 9 percent. For this 2030 Regional Transportation Plan analysis, the WFRC assumed that UTA would receive a total of \$313 million from this discretionary grant category for the Wasatch Front Urban Area. This is the equivalent of a 4.7 percent annual growth rate, starting in from the 2006 point in the 1990 to 2006 trend line (\$5,700,000).

- **Section 5309 New Starts and Small Starts Grants**

FTA also has separate Section 5309 programs for New Starts and Small Starts. New Starts are for new projects requesting federal funds over \$75,000,000. The federal share for New Starts projects generally range from 50 to 80 percent. Small Starts are for federally funded projects with total costs of less than \$250,000,000 and with federal participation of less than \$75,000,000. The federal share for these projects generally ranges from 30 to 80 percent.

The grants received by UTA in the past have largely risen and fallen in line with UTA's outlay for federally approved projects. Between 1995 and 2006, while UTA was constructing much of the existing rail system, the region received about \$43,000,000 each year (2006 dollars). The Regional Transportation Plan assumes that UTA will be awarded \$97,000,000 each year (\$874,000,000 total) to pay for the first phase projects, based upon FTAs response to UTAs aggressive first phase program, and \$70,000,000 each year (\$973,000,000 total) to pay for the second and third phase projects. If adjusted for year of expenditure dollars, the first phase is about twice the 1995 to 2006 rate of receipt and the second and third phases is about equal to the 1995 to 2006 rate of receipt. A total of \$1,800,000,000 is anticipated from this source, which equals about 40 percent of the total Enhanced Bus, BRT II, Streetcar, Light-rail, and Commuter Rail capital costs in the 2030 RTP.

- **Other Federal Grants:** FTA also has a separate Section 5309 program for fixed guideway modernization, which each project becomes eligible for after seven years in service. A total of \$263,000,000 was assumed for this program. Additionally, federal grants allocated by the WFRC for Congestion Management/Air Quality and the Surface Transportation Program were assumed to total \$14,000,000 over the planning horizon for the RTP. Still other Federal grants from various sources were assumed to be \$6,000,000.

Local Sales Tax Revenue

A portion of local sales tax revenues is used to support transit services. Since the dramatic success of first the Sandy TRAX line and then the University TRAX line, pressure from the general public, business, and policy makers has increased to make more serious strides in building a robust transit system. Many community leaders are embracing transit for their communities and have passed resolutions in favor of an additional tax increases to support transit.

In November 2000, residents in Salt Lake, Weber, and Davis Counties voted to raise their local option transportation sales tax from 0.25 to 0.50 cent. In 2006, Salt Lake County again raised its local option transportation related sales tax to 0.75 cent with 0.62 dedicated to transit. The 2007 State Legislature removed local option sales tax from food. However, to offset reductions in transit revenue, the Legislature increased the transit dedicated local option sales tax on non-food items by 0.05 in Weber and Davis Counties and 0.0625 in Salt Lake County. Davis and Weber Counties are currently preparing a ballot measure that, if approved would raise their local option transportation related sales tax. The RTP assumes in 2016 and 2027 all three counties will again raise their local option sales taxes related to transportation. The total rate assumed for transit in 2027 will be 1.25 cent in local option sales tax.



Based on guidance from each of the county councils of governments and the Regional Council, the RTP assumes, that local option sales tax rates dedicated to transit will be shown in Table 7-2, entitled "Local Option Sales Tax – Split by Mode."

In the past 28 years, taxable sales have grown at an average rate of about 6.3 percent per year. The Plan assumes that that rate of taxable sales growth will continue at the lower rate of 5.5 percent per year through 2030 due in part to the region's larger base. The total sales tax revenue derived from the existing sales tax levels through 2030 is projected to be \$8,100,000,000. The receipts assumed for the future from the increased sales taxes are projected to be \$1,400,000,000 by 2030.

User Fare Revenue

The UTA receives additional revenue through user fees from the daily operation of its bus and light rail system. The UTA's Strategic Plan states that it is the goal of the UTA to obtain 20 percent of its bus operating costs from patron fares. In 2006, UTA received a fare box return of 22.7 percent of its direct operating costs in its Salt Lake Business Unit which covers bus and Paratransit service Salt Lake and Tooele counties; 16.8 percent in its Ogden Business Unit which covers Brigham City, Weber County, and Davis County; and, 43.1 percent in the Rail Service Unit. However, direct operating costs have risen substantially since 2005 due in large part to fuel prices.



In updating the RTP, the WFRC staff assumed that UTA would receive fare revenue to cover approximately 20 percent of its bus operating costs and 5 percent of its paratransit operating costs. Light rail and commuter rail systems generally cover a greater share of their operating costs than regular bus operations. The WFRC assumes that fares would generate revenues equivalent to approximately 40 percent of Sandy TRAX, 30 percent of additional TRAX lines and regional commuter rail, and 25 percent of BRT and enhanced bus operating costs. The user fare revenue projection through 2030 equals approximately \$1,900,000,000.

Other Revenue

The Utah Transit Authority receives revenues from other sources, such as selling bonds, bank account interest, bus advertising, federal planning funds, and "joint development". The construction of the RTP projects in the phases covered by the plan will require the sale of nearly \$3,000,000,000 in bond debt, with most of these sales occurring in the first phase of the plan. UTA requires that its debt load not exceed three percent of its total asset value. Bank account interest, bus advertising, federal planning funds, and joint development in the region is anticipated to generate about \$605,000,000 between 2007 and 2030.

Table 7-4 summarizes the federal funding, local sales tax, fare revenue, and other sources of funds that will pay for the 2030 RTP's recommended transit improvements through 2030. Their revenue however, does not include \$2,026,000,000 in bonding required to meet the aggressive construction time table.



TABLE 7-4
PROJECTED TRANSIT CAPITAL AND OPERATING REVENUES 2007-2030

EXPENDITURES	2007-2015	2016-2025	2026-2030	TOTAL
Federal Formula	322,000,000	541,000,000	356,000,000	1,219,000,000
Federal Discretionary Bus	82,000,000	137,000,000	94,000,000	313,000,000
Federal New, Small, and Very Small Starts	874,000,000	567,000,000	406,000,000	1,847,000,000
Other Federal	77,000,000	152,000,000	113,000,000	342,000,000
Local Sales Taxes	1,902,000,000	4,093,000,000	3,474,000,000	9,468,000,000
User Fares	354,000,000	830,000,000	679,000,000	1,863,000,000
Other Revenue (Excluding Bonds)	183,000,000	288,000,000	140,000,000	612,000,000
Other Revenue (Bonds Sales)	2,502,000,000	0	452,000,000	2,954,000,000
Total Transit Revenues	6,295,000,000	6,609,000,000	5,714,000,000	18,618,000,000

7.6

PROJECTED COSTS OVERVIEW

The costs for making the needed improvements for both highways and transit as identified by the 2030 RTP were analyzed by the WFRC, UDOT, and the other MPO's in Utah. These costs include those required to meet the needs identified in the Plan as well as cost estimates for general administration and the operation and maintenance of the existing transportation system. Projected costs for highway improvements have been adjusted at an annual four percent inflation rate. Transit cost estimates include expenditures for bus and light rail operation and maintenance and capital costs. Projected costs for transit improvements have been adjusted at an annual four percent inflation rate.

7.7

HIGHWAY COST ESTIMATES

The Utah Department of Transportation estimated their current funding levels to operate, maintain, preserve, and administer the state highway system. In addition, through their Asset Management Program, UDOT estimated the additional revenues, beyond the current levels, needed to maintain their system. These non-historic funding levels were estimated for safety, bridge preservation, and pavement preservation. UDOT assumes that future construction projects will provide some maintenance and preservation aspects to the system. Based on UDOT's estimates, approximately 20 percent of new capacity construction costs can be credited to maintaining and preserving the roadway system. These various estimates are discussed below.

UDOT Operations

The Utah Department of Transportation operation costs include UDOT staff, planning and preliminary engineering, maintenance, snow plowing the highways, and other cost centers. UDOT estimated their administrative costs based on their past budgets. In 2006, UDOT's budget for Operations was approximately \$164,000,000 statewide. The operations costs were expected to grow at two percent per year. A total of \$5,089,000,000 has been estimated for UDOT operations expenses through the year 2030.



Contractual Maintenance

“Contractual maintenance” costs are the costs associated with short season maintenance projects that are contracted out such as: slurry seals, chip seals, and striping. UDOT estimated their contractual maintenance costs based on past budgets. In 2005, UDOT’s budget for contractual maintenance was \$45,000,000 statewide. These costs are projected to grow at five percent per year, including four percent for construction inflation and one percent for growth in the roadway system. A total of \$2,208,000,000 has been estimated for UDOT’s contractual maintenance costs through the year 2030.

Signals, Spot Improvements, Lighting, And Barriers

Signals, spot improvements, lighting, and barriers activities include signing, marking, and signal installation and maintenance. UDOT’s signal, spot improvement, lighting and barriers costs for 2006 were \$12,500,000 statewide. These costs are projected to grow at five percent per year, including four percent for construction inflation and one percent for growth in the roadway system. Based on these assumptions, UDOT will have approximately \$584,000,000 in expenses for signals, spot improvements, lighting and barriers between 2007 and 2030.

Bridge Preventative Maintenance

UDOT estimated its statewide costs for bridge preventative maintenance activities in 2005 totaled \$10,000,000. These costs are projected to grow at five percent per year, including four percent for construction inflation and one percent for growth in the roadway system. Based on the UDOT assumptions, about \$491,000,000 will be set aside for bridge preservation for the years 2007 through 2030.



Bridge Rehabilitation / Replacement

UDOT estimated its bridge rehabilitation and replacement costs for 2007 through 2030 based on the 2005 budget of \$10,500,000, statewide. These costs are projected to grow at five percent per year, including four percent for construction inflation and one percent for growth in the roadway system. Based on UDOT’s assumptions, \$515,000,000 will be used for bridge rehabilitation and replacement for the years 2007 through 2030.

Highway Rehabilitation / Replacement

UDOT estimated highway rehabilitation and replacement costs for 2007 through the year 2030, based on the 2005 budget, of \$50,000,000 statewide. These costs are projected to grow at five percent per year, including four percent for construction inflation and one percent for growth in the roadway system. Based on the Utah Department of Transportation assumptions, \$2,453,000,000 will be used for highway rehabilitation and replacement for the years 2007 through 2030.



Hazard Elimination, Safety, Enhancements

“Hazard elimination, safety, and enhancements” include hazard elimination, intersection upgrades, railroad crossing improvements, other similar projects, and the development of pedestrian facilities, bicycle facilities, and landscaping projects. The UDOT estimated their statewide costs for these activities at \$12,000,000 in 2005. Approximately 10 percent of STP funds are spent on enhancement projects. These costs are projected to grow at five percent per year, including four percent for construction inflation and one percent for growth in the roadway system. Based on the Utah Department of Transportation assumptions, the UDOT will spend \$589,000,000 for hazard elimination, safety and enhancement expenses between 2007 and 2030.

Region/Department Contingencies

UDOT Region and department contingencies are used for overruns on projects, spot improvements and other immediate but unanticipated needs. The UDOT estimated their statewide costs for these activities at \$3,500,000 in 2005. These costs are projected to grow at five percent per year, including four percent for construction inflation and one percent for growth in the roadway system. Based on the Utah Department of Transportation assumptions, the UDOT will have \$172,000,000 for region and department contingency expenses between 2007 and 2030.

Non-Historic Safety

UDOT estimated the amount of funds currently allocated to safety, as noted above. Through the Asset Management Program, UDOT has estimated a shortfall in needed safety funding. UDOT estimates that there was a shortfall of safety funding in 2006 of approximately \$7,400,000. These costs are projected to grow at five percent per year, including four percent for construction inflation and one percent for growth in the roadway system. UDOT estimates that between 2007 and 2030 an additional \$346,000,000 in safety funding will be needed statewide.

Non-Historic Bridge Preservation

UDOT estimated the amount of funds currently allocated to bridge preservation as noted above. Through the Asset Management Program, UDOT has estimated a shortfall in bridge preservation funds. UDOT estimates that there was a shortfall of bridge preservation funding in 2006 of \$33,475,000. The costs are projected to grow at five percent per year, including four percent for construction inflation and one percent for growth in the roadway system. UDOT estimates that between 2007 and 2030 the additional bridge preservation funding needed will total \$1,564,000,000.

Non-Historic Pavement Preservation

UDOT estimated the amount of funds currently allocated through the asset management program to pavement preservation listed above. UDOT estimates that there was a shortfall of pavement preservation in 2006 funding of \$64,075,000. These costs are projected to grow at five percent per year, including four percent for construction inflation and one percent for growth in the roadway system. UDOT estimates that between 2007 and 2030 the additional pavement preservation funding needed will total \$2,994,000,000.

Preservation of State System Funded Through Capacity Projects

UDOT also believes that future construction projects will have preservation benefits. The UDOT estimates that approximately 20 percent of the future construction costs for capacity projects will address system preservation. UDOT estimates that between 2007 and 2030 about \$3,977,000,000 of preservation benefit will come from future capacity increasing projects. Table 7-5 on the following page summarizes the projected state highway costs for 2007 through 2030 for each of the eleven expenditure categories and the credit categories described above.



TABLE 7-5

**PROJECTED STATEWIDE HIGHWAY
OPERATING AND PRESERVATION COSTS 2007-2030**

EXPENDITURES	AMOUNT
UDOT Operations	5,089,000,000
Contractual Maintenance	2,208,000,000
Signals, Spot Improvements, Lighting, Barrier	584,000,000
Bridge Preventive Maintenance	491,000,000
Bridge Rehabilitation / Replacement	515,000,000
Highway Rehabilitation / Replacement	2,453,000,000
Hazard Elimination, Safety, Enhancements	589,000,000
Region / Department Contingencies	172,000,000
Non-Historic Safety	346,000,000
Non-Historic Bridge Preservation	1,564,000,000
Non-Historic Pavement Preservation	2,994,000,000
Total Statewide Highway Operating and Preservation Costs	17,005,000,000
Preservation of State System Funded Through Capacity Projects	(3,977,000,000)
Total Statewide Highway Operating and Preservation Costs	13,028,000,000

Local Highway Cost Estimates

Six local cost categories were estimated, including administration, maintenance, pavement preservation, traffic operations and safety, and enhancements. The total costs estimated for the various types of costs are discussed below. These assumptions are based on a survey of local agencies concerning their expenses. Growth and inflation assumptions were applied to these cost totals from 2007 through 2030.

Administration

Administration costs are expenditures associated with administering transportation agencies and transportation sections of larger public works departments. These costs include such expenditures as local staff, planning, preliminary engineering, and so on. Cities and counties along the Wasatch Front are estimated to spend 15 percent of their revenues for transportation projects on administration. A total of approximately \$921,000,000 has been estimated for local administration costs through the year 2030.

Maintenance

Maintenance activities include snow removal, sweeping, weed control, crack sealing and pothole patching. Estimates of local spending for maintenance were calculated from city and county financial reports. Local maintenance costs were estimated to be approximately \$1,500 per lane-mile in 2001. These costs were estimated to have increased by four percent a year, while the number of lane-miles is estimated to have increased by one percent annually. Cities and counties along the Wasatch Front were responsible for approximately 8,875 lane-miles in 2001. A total of approximately \$931,000,000 has been estimated for local maintenance costs from 2007 to 2030.



Pavement Preservation

Pavement preservation actions are treatments for streets and highways, which are more extensive than maintenance. These treatments range from a chip seal up to a full reconstruction. Local pavement preservation costs were calculated based on experience from city and county financial reports. In 2001 local agency costs for pavement preservation were estimated, on average, at about \$4,100 per lane-mile per year for collector, arterial and local streets. These costs were estimated to have increased by four percent a year. The Wasatch Front Urban Area had 8,875 lane-miles of collector, arterial and local streets in 2001. The number of lane-miles was assumed to grow at one percent a year. A total of \$2,516,000,000 has been estimated for local pavement preservation costs for the years 2007 through 2030.



Traffic Operations And Safety

Traffic operations activity includes signing, marking, and signal installation and maintenance. Safety improvements include hazard elimination, intersection upgrades, railroad crossing improvements, and other similar projects. Local agency costs for traffic operations and safety in 2001 were estimated, on average, to be about \$2,100 per lane-mile per year for collector, arterial and local streets. These costs were estimated to have increased by four percent a year, while the number of lane-miles was estimated to increase by one percent annually. Cities and counties along the Wasatch Front were responsible for approximately 8,875 lane-miles in 2001. A total of \$1,263,000,000 has been estimated for local traffic operations and safety costs for the years 2007 through 2030.

Enhancements

Enhancements include development of pedestrian facilities, bicycle facilities, and landscaping projects. Local enhancement costs were estimated in 2001 to be approximately \$400 per lane-mile. These costs were estimated to have increased by four percent a year, while the number of lane-miles is estimated to increase by one percent annually. In 2001, cities and counties along the Wasatch Front were responsible for approximately 8,875 lane-miles. It is estimated that a total of \$251,000,000 will be spent for local enhancement costs through the year 2030. Table 7-6 summarizes the projected local highway costs for 2007 through 2030 for each of the six expenditure categories discussed above.

TABLE 7-6

PROJECTED LOCAL HIGHWAY COSTS 2007-2030

EXPENDITURES	AMOUNT
Administration	921,000,000
Maintenance	931,000,000
Pavement Preservation	2,516,000,000
Traffic Operations and Safety	1,263,000,000
Enhancements	251,000,000
Total Local Highway Costs	5,883,000,000



TRANSIT COST ESTIMATES

The costs for making the needed transit improvements as identified by the 2030 RTP were also analyzed. Cost centers include those required to meet the needs identified in the 2030 RTP, as well as cost estimates for general administration, debt service, and the operation and maintenance of the existing transportation system. The WFRC worked with UTA to estimate the costs to implement the 2030 RTP's recommended transit improvements in the Wasatch Front Urban Area. Recommended major capital investments include the construction of commuter rail, light rail transit, streetcar, BRT, and enhanced bus lines. Other significant capital investments are the purchase of replacement and expansion of bus and rail vehicles and the installation of improvements to increase the speed, comfort, and connectivity of transit services. These estimated costs are discussed below.

Operating And Maintenance Costs

Operating and maintenance costs are the total non-capital costs associated with transit services. Local and paratransit bus service costs were based upon revenue miles traveled because the specific nature of the routing was unknown. In 2006, the Wasatch Front Urban Area had about 14,000,000 revenue-miles in its regular bus service and another 3,400,000 revenue-miles in its paratransit service. The 2030 RTP anticipates regular bus service to increase by 25 percent and paratransit to increase by five percent by the year 2030, with the majority of these improvements happening in the latter half of the planning horizon. The projected total operating and maintenance cost for the existing and recommended regular and paratransit bus systems is \$3,288,000,000, in "year of expenditure" dollars, through 2030.

Total estimated operating and maintenance costs for the Commuter Rail North and the four core Light-rail transit lines were based upon the latest Utah Transit Authority estimates. However, Commuter Rail South, BRT II, express enhanced bus, and enhanced bus (BRT I) operating and maintenance costs were derived from the Weber County Commuter Rail Line cost estimates and from the Ogden/Weber State Transit Corridor Study, completed in October 2005. The projected total operating and maintenance cost of the existing and recommended rail, BRT II, and enhanced bus lines in the WFRC area is \$3,048,000,000, in "year of expenditure" dollars, through 2030.

Capital Costs

Capital costs are estimated future expenditures for construction and purchases. Local and paratransit bus capital cost estimates were based upon factors such as vehicle replacement. The projected total capital cost of the existing and recommended regular and paratransit bus systems is \$814,000,000, in "year of expenditure" dollars, through 2030.

The 2030 RTP recommends, and has allocated projected funding needed by 2030 for commuter rail, light-rail, streetcar, BRT II, and enhanced bus lines in the Wasatch Front Urban Area. The capital costs of Commuter Rail North and the four core light-rail transit lines were based upon the latest Utah Transit Authority estimates.

The capital costs for Commuter Rail South, BRT II, express enhanced bus, and enhanced bus (BRT I) were derived from the Commuter Rail North cost estimations and from the Ogden/Weber State Transit Corridor Study cost estimates. The Ogden/Weber State Transit Corridor Study capital costs itemized cost centers such as stations, vehicles, guideways, and maintenance facilities. Additional adjustments to the Ogden/Weber State Transit Corridor Study capital cost per-mile were made to account for the costs of exclusive lanes where they were anticipated, material cost inflation since 2005, and cost contingencies. All estimations were done in consultation with Utah Transit Authority. The base cost, in 2007 dollars, for each technology was estimated to be as follows:



- \$ 980,000 per mile for Express Enhanced Bus;
- \$ 1,340,000 per mile for Enhanced Bus;
- \$ 7,000,000 per mile for Bus Rapid Transit (BRT II);
- \$ 24,150,000 per mile for Streetcar;
- \$ 19,000,000 per mile for Commuter Rail; and
- \$ 52,430,000 per mile for Light Rail.

Additionally, \$2,430,000 per mile was added to Bus Rapid Transit and Streetcar for exclusive lanes where they were deemed a priority. Total major investment capital costs through 2030 are projected to be \$4,593,000,000 in year of expenditure dollars.

Other Capital And Operating Costs

The 2030 RTP recommends an aggressive project schedule which, in turn, requires incurring significant debt and debt payments. The 2030 RTP also recommends intermodal centers, transit hubs, regionally significant park and ride lots, and the purchase and preservation of several rights-of-way. The financial assumptions include these project costs, other non-regionally significant projects, payment of bonds through 2030, and operations related administrative costs. Bonds are not anticipated to be paid in full until about 2058. In total, it is projected that these items will cost \$6,854,000,000 through 2030 as shown in Table 7-7.

TABLE 7-7
PROJECTED TRANSIT CAPITAL AND OPERATING COSTS 2007-2030**

EXPENDITURES	2007-2015	2016-2025	2026-2030	TOTAL
Regular Bus Operations	687,000,000	1,214,000,000	889,000,000	2,790,000,000
Regular Bus Capital	213,000,000	327,000,000	224,000,000	763,000,000
Paratransit Operations	132,000,000	217,000,000	148,000,000	498,000,000
Paratransit Capital	17,000,000	19,000,000	14,000,000	51,000,000
BRT & Enhanced Bus Operations	28,000,000	240,000,000	408,000,000	677,000,000
BRT & Enhanced Bus Capital	179,000,000	558,000,000	647,000,000	1,384,000,000
Rail Operations	463,000,000	1,136,000,000	771,000,000	2,371,000,000
Rail Capital Costs	2,215,000,000	38,745,000	955,000,000	3,209,000,000
Other Capital and Operations (excludes bonding)	684,000,000	874,000,000	816,000,000	2,375,000,000
Other Capital and Operations (bond bonding)	996,000,000	2,094,000,000	1,389,000,000	4,479,000,000
Total Transit Costs	5,615,000,000	6,719,000,000	6,263,000,000	18,596,000,000

*Includes debt service through 2030

**\$1,192,000,000 in debt still outstanding at the end of 2030



Conclusion

Table 7-8 below shows the projected revenues both statewide and regional for highways; the costs required to administer, operate, and preserve the system; the funding available for adding capacity; and the projected cost of the RTP recommended projects.

UDOT statewide funding available for capacity improvement projects is assumed to be divided among the MPO's of the state based on each organization's share of the states populations. The 2030 RTP assumes that Wasatch Front Regional Council will receive 55.7 percent of the available funding between 2007 and 2015, 53.2 percent of the available funding between 2016 and 2025, and 51.2 percent of the available funding between 2026 and 2030. This equals approximately \$9,955,000,000 of the \$18,860,000,000 total new capacity funds available to UDOT. The region also will receive approximately \$440,000,000 for Centennial Highway Fund (CHF) projects between 2007 and 2009.

The Utah State Legislature allocated one-time funds for projects throughout the state for the Choke Points program, the Highway Construction program, and the Transportation Investment Funds (TIF) program. The Wasatch Front region will receive approximately \$44,000,000 of the Choke Point Funding, \$62,000,000 of the Highway Construction Program, and \$83,000,000 of the TIF program (between 2007 and 2010). This brings the total amount available to program for capacity projects from the UDOT to approximately \$10,583,000,000. The WFRC also estimates that approximately \$3,529,000,000 will be available from regional revenue sources and approximately \$265,000,000 will be available for local capacity improvement projects. The Wasatch Front Regional Council's total resources available for capacity improvement projects are anticipated to be approximately \$14,370,000,000.

For the highway portion of the 2030 RTP, cost estimates were calculated for new capacity improvements on collector and arterial streets needed to meet transportation demands in 2030. These costs are approximately \$14,393,000,000 in the Wasatch Front Urban Area. The cost for local street construction is not included in these estimates. It is assumed that private developers will construct these streets.

TABLE 7-8
STATEWIDE, LOCAL AND REGIONAL HIGHWAY REVENUE ALLOCATION 2007-2030

Source / Expenditure	Amount
Statewide Revenue Available	31,888,000,000
Statewide Highway Operating Costs	(13,028,000,000)
Available Funds for Capacity Improvements	18,860,000,000
WFRC's Available Funds for Capacity Improvements from State Funds	10,583,000,000
Regional Revenue Available	3,529,000,000
Local Revenue Available	6,141,000,000
Local Highway Operating Costs	(5,883,000,000)
WFRC's Available Funds for Capacity Improvements from Local Funds	258,000,000
Total WFRC's Available Funds for Capacity Improvements	14,370,000,000
Total WFRC Highway Project Costs 2007-2030	14,393,000,000



For the transit portion of the 2030 RTP, federal formula funding is assumed to increase by three percent per year. Federal New Starts and Small Starts discretionary funding is projected to provide about 40 percent of the capital costs of the major transit improvements such as enhanced bus, bus rapid transit, streetcar light rail, and commuter rail.

Local sales tax revenues are projected to grow at 5.5 percent per year. Fare revenues will increase so that fares will pay for 20 percent of the operating costs for bus service, and just under five percent for paratransit service. Additionally, fares are projected to pay for 40 percent for north/south light rail line, 30 percent of the costs of the regional commuter rail line services and 25 percent for other rail, bus rapid transit, and enhanced bus lines. Other revenues, including joint development and advertising, are also anticipated to increase.

The transit cost estimates for the RTP include an increase in revenue miles for both bus service and paratransit service, and increases in UTA's bus fleet in the Wasatch Front Urban Area. They also include the extension of commuter rail and light rail service; the development of a streetcar, bus rapid transit, enhanced bus lines, and other transit improvements. The other transit improvements include regionally significant park-and-ride lots and transit hubs, and support equipment. Table 7-9 below shows the projected revenues for transit and the projected costs of the RTP 2030 recommended transit projects.

The Financial Plan for the Wasatch Front Urbanized Areas provides adequate revenues to not only address the needs to operate and maintain the existing highway and transit systems, but to provide for future demand. A recognized need to increase long-range highway capacity is addressed in 210 funded projects designed to improve the overall highway system through increased capacity. The transit portion of the Plan allows for a small increase in the existing bus and paratransit service; the expansion of the Region's light rail system; the development of streetcar, bus rapid transit (BRT II), and Enhanced Bus (BRT I) corridors; and the implementation of regional commuter rail service from Ogden to Provo. Therefore, the 2030 RTP is financially constrained.

TABLE 7-9**PROJECTED TRANSIT REVENUES AND COSTS 2007-2030**

	2007-2015	2016-2025	2026-2030	TOTAL
Total Transit Revenues	6,295,000,000	6,590,000,000	5,717,000,000	18,602,000,000
Total Transit Costs	5,615,000,000	6,719,000,000	6,263,000,000	18,596,000,000

*Includes debt service through 2030

**\$1,192,000,000 in debt still outstanding at the end of 2030

