

FINANCIAL PLAN

FINANCIAL PLANNING

The Transportation Equity Act for the 21st Century (TEA-21), though expired, is the current 6-year federal transportation bill that funds and regulates all federal transportation activities. One requirement of TEA-21 is that the long range transportation plan be fiscally constrained. The purpose of this requirement is to ensure that the recommended improvements included in the long range plan can be implemented and that the air quality benefits assumed for the implementation of the plan are realistic. Estimates of emission reduction are needed for the air quality conformity analysis required by TEA-21 and the Clean Air Act amendments of 1991.

This chapter documents the financial plan for Mountainland Metropolitan Planning Organization Long Range Transportation Plan. To allow for air quality requirements, the long range plan study area includes all of Utah County. Potential revenue sources are summarized and estimates of future revenues from these sources are made. The costs to meet the projected needs of the transportation plan for the study area through the year 2030 are estimated. These costs include those required to meet the needs identified in the long range plan as well as the costs required for general administration and the operation and maintenance of the existing transportation system.

PROJECTED TRANSPORTATION REVENUE

Mountainland Association of Governments, in cooperation with the Utah Department of Transportation, and the Utah Transit Authority developed estimates of projected revenues based on revenue sources that should be available for transportation improvements through the year 2030. Included in these estimates are federal, state, local, and private sources for highway and transit improvements. All projects that are regionally significant (highways on the Functional Class Highway System, major transit, etc.) are listed in the plan. Since air quality conformity is based on the Utah County boundary, funding projections are derived using countywide data instead of the MPO planning boundary area data. Separate efforts are made to estimate revenue available to Mountainland, UDOT, UTA, and the local municipalities.

Revenue sources available to UDOT include federal funds, state gas tax, state general funds, and private sources such as new development and impact fees. TEA-21 increased federal highway funding in Utah by approximately 50 percent over the previous transportation bill. Federal and state funds allocated in 2003 are used as a base with a 3% annual growth rate thereafter. In addition, a five-cent per gallon increase in the gas tax was assumed every six years. It is assumed that state general funds will contribute to pay off the current bonding for the Centennial Highway Fund program through 2017 with projects from the program being completed by 2007. After 2007 an additional 100 million per year statewide from the general fund is projected to be implemented to fund new capacity needs. A proposed ¼ cent transportation sales tax, with 2/3rd going to new capacity highway projects is planned for 2005.

Revenue sources available for transit include federal funds, transit sales tax, fare collection, and other sources. Assumed in the plan is the ¼ cent transportation sales tax mentioned above with 1/3rd of the tax available for transit in 2006. Also proposed is an additional ¼ cent transit tax in 2006 that will raise the total transit sales tax in Utah County to 7/12 cent per dollar spent. Federal transit funds are assumed to grow by 4.25% per year for federal formula transit funding with another \$340 million in capital new starts federal funding.

Local transportation projects generally have four sources of revenues available: federal funds through Mountainland and the Joint Highway Committee; Class B and C funds from state highway user revenues for counties and cities; local general funds; and private funding.

Using past revenues as a basis and using the proposed future increases listed above, it is proposed that the MPO area will receive the following revenues from 2005 to 2030:

- **TOTAL AVAILABLE HIGHWAYS REVENUE IN UTAH COUNTY = \$7.7 BILLION**
- **TOTAL AVAILABLE TRANSIT REVENUE IN UTAH COUNTY = \$2.24 BILLION**
- **TOTAL HIGHWAY AND TRANSIT REVENUE AVAILABLE IN UTAH COUNTY = \$9.94 BILLION**

STATEWIDE HIGHWAY REVENUE

The UDOT planning division developed estimates of the projected revenues that will be available to UDOT statewide through the year 2030. Using this statewide data allows for a more uniform way of planning among all the MPO's and UDOT. These revenues come from federal funds, state highway user revenues, state general funds, and other sources.

1. **State Revenue:** State of Utah revenue for transportation is primarily generated through highway user fees. The user fees include motor fuel taxes, special fuel taxes, license and other registration fees, a tax on rental cars, and sales taxes. In addition, through the Centennial Highway Fund (discussed below) the state legislature has programmed state general funds to support major UDOT construction projects through 2007. After 2007, for planning purposes, \$100m general fund per year is programmed into this plan. Based on historical growth rates on motor fuel consumption, a growth rate of 3% is used for projecting all state generated future funds.

State revenue projections also assume future increases in the state gas tax. The state gas tax has increased from seven cents per gallon to 24.5 per gallon over the last 30-years. The latest increase was a five-cent per gallon increase approved in 1998 (this additional 5-cent tax was used entirely for the Centennial Highway Fund program). This trend would indicate that it is reasonable to expect that the state gasoline tax will be raised by 5 cents per gallon every half decade or so. Based on the past trends, the motor fuel tax was assumed to increase by five cents per gallon every six years, beginning in the year 2005. This will result in a total tax increase of \$0.25 per gallon by 2030.

Of the total highway revenue generated, not all state revenue is available to UDOT. A set amount of state revenue for transportation is transferred to other departments and programs. These include; the Utah Highway Patrol, State Tax Commission, Class B & C funds to the municipalities and counties, Centennial Highway Fund program (only through 2017), the match required on federal funds, and other activities.

- **STATE REVENUE AVAILABLE STATEWIDE AFTER TRANSFERS = \$20.0 BILLION**

2. **Federal Revenue:** Even though the federal transportation bill TEA-21 lapsed in 2003, for the planning operations of the MPO continue as if still under that bill. TEA-21 established several spending programs for the funding of highway improvements. They include; Interstate Maintenance, National Highway System, Any Area Surface Transportation Program (STP), Safety and Enhancement, and Bridge Replacement. TEA-21 allocated amounts for 2003 were used as a base assumption. A modest growth rate of 3% per year for all federal funds was assumed annually thereafter. Also included as part of federal revenue is the state match required on all federal funds that was transferred from state revenue and is included as part of the total federal revenue.

As with state revenues, not all of the federal revenues are available for general UDOT activities. A set amount of federal revenue is transferred to the Centennial Highway program, though 2007 to supplement the current CHF program.

- **FEDERAL REVENUE AVAILABLE STATEWIDE = \$7.3 BILLION**

- 3. Centennial Highway Fund:** The state legislature in 1997 established the Centennial Highway Fund. This was a major transportation policy decision creating about \$2.7 billion for highway funding. It has since grown to \$3.2 billion. The list of projects in the CHF program was a collaboration of UDOT, MPOs, and the legislature with the final approval by the legislature. The passage of this program was originally for the reconstruction of I-15 in Salt Lake County. To obtain consensus in the legislature for the program, other projects were added throughout the state. Utah County received 4% of the total CHF funding. This limited amount of funding has drastically impacted the ability to address the current transportation needs in the county.

The CHF fund includes; federal and state transportation funds, state general funds, and car registration fees. The remainder of CHF funds available from 2005 to 2007 for projects is \$1.1 billion. The legislature has not proposed a continuance of CHF after 2007. Current budget issues have extended the retirement date of the CHF program bonds to 2017 extending the bond costs to \$2.3 billion. It is assumed that general funds will continue to pay off the CHF bond through 2017 at \$60m per year. For planning purposes, \$100m per year after the CHF program ends in 2007 is programmed statewide into this plan but is not proposed as part of the CHF program.

- **CENTENNIAL HIGHWAY PROGRAM FUNDS AVAILABLE STATEWIDE = \$2.8 BILLION.**

- 4. Total Available Revenue:** The total revenue available statewide from state, federal, and Centennial Highway Funds is used for administration and operation of the system, maintenance and preservation of the highways and other facilities, and other programs within UDOT, and the MPOs. The municipalities and counties can also use a small amount of federal funds distributed by the MPOs and the Joint Highway Committee. These revenues are also used for new capacity projects, though administering and preserving the highway system require an extensive amount of the available revenues. This has resulted in a large deficit toward meeting the statewide new capacity needs.

- **TOTAL AVAILABLE REVENUE STATEWIDE = \$30.1 BILLION**

HIGHWAY REVENUE AVAILABLE IN UTAH COUNTY

Projecting highway revenue that will be available in Utah County is done by using the statewide data produced by UDOT and making assumptions of the amount that will be available in the county. These amounts are what should be available for projects, programs, and activities throughout Utah County using the assumptions laid forth in this plan. These include state and federal revenue, local revenue, and private funds.

- 1. State, Federal, and Private Revenue to UDOT:** Estimating what state and federal funds will be available to the area is based on Utah County's proportionate population in the state, which is 18.7%. Though UDOT does not have a set percentage of how state and federal funds are distributed, using the prorate share of funding is a prudent way to project revenue for a 30-year planning document. Developers are a source of funding for major projects that benefit their development. These and other innovative sources will provide funding over the next twenty plus years for state highway projects.
- **STATE REVENUE AVAILABLE TO UDOT IN UTAH COUNTY = \$3.7 BILLION**
 - **FEDERAL REVENUE AVAILABLE TO UDOT IN UTAH COUNTY = \$1.0 BILLION**
 - **PRIVATE AND INNOVATIVE SOURCES AVAILABLE TO UDOT IN UTAH COUNTY = \$164 MILLION**
- 2. Centennial Highway Fund:** The amount of funds available in Utah County is based on what the legislature programmed in the original CHF program of 1997. Utah County received only 4.1% of the total program funds. This disproportionate amount of funding adversely affects Utah

County due to the 40% growth experienced in the county during the 90's. Basically the first half decade of the plan is underfunded due to the main funding source of new capacity projects (CHF) not funding the needs.

- **THE AMOUNT OF CHF FUNDS AVAILABLE TO UDOT IN UTAH COUNTY = \$115 MILLION.**

- 3. Federal Revenues to Mountainland MPO:** Federal funds available to the Mountainland MPO are derived by what was allocated in 2003 and then using a 3% annual inflation rate. Mountainland MPO received \$6.9 million or 19% of the total statewide MPO federal funds in 2003. There are three specific federal funds available to Mountainland; Provo/Orem Urban STP, Congestion Mitigation/Air Quality (CM/AQ), and Any Area Spanish Fork STP. These funds are distributed by formula and are administered by UDOT. The MPOs Regional Planning Committee programs these funds on an application basis.

Provo/Orem Urban STP funds can fund highway improvements on the Functional Class Highway System (both state and local owned), trails and pedestrian facilities, and transit improvements within the MPO boundaries. CM/AQ funds can be used on specific projects that benefit air quality and can be used throughout the county. Any Area Spanish Fork STP funds can be used similar to Urban STP funds and can be used within the MPO boundary area. Mountainland federal revenues are spent primarily on local highways, studies, and programs. Historically only a small percentage of these funds have gone to state highways.

- **MOUNTAINLAND MPO FEDERAL REVENUE AVAILABLE IN UTAH COUNTY = \$282 MILLION**

- 4. Federal Revenues to Joint Highway Committee:** The Joint Highway Committee is charged with recommending the placement of certain federal funds that are available to local jurisdictions. These include; Any Area Non-Urban STP, Any Area Small Urban STP, Bridge Replacement funds, and Railroad Crossings funds. All projects are evaluated on a statewide basis. It is assumed that Utah County will receive a proportionate share of 18.7%. These funds can go to local jurisdictions as well as UDOT.

- **JOINT HIGHWAY COMMITTEE FEDERAL REVENUE AVAILABLE IN UTAH COUNTY = \$61 MILLION**

- 5. Local Revenue:** Municipalities and counties play a large role in funding the transportation infrastructure in their jurisdictions. There are basically three revenue sources available for local activities, they include; Class B and C Funds, Local General Funds, and Private and other sources. Bonding is also available, but no attempt to project future funding is made in this plan with regard to local bonding.

- a. Class B and C Funds:** Class B and C funds are distributed by the state to the municipalities and counties and are derived from gas tax revenues. The gas tax revenue, less transfers, is divided as follows; 75% to UDOT, 25% to B and C fund. B and C funds are allocated on a ratio of population and road miles for counties and municipalities in the state. B funds go to counties, C funds to municipalities. These funds can go to any transportation related activity on any local road and is a major source of funding for the municipalities. Based on the current allocation formula Utah County receives approximately 12.7% of the Class B and C funds available statewide. It is assumed in the Long Range Plan that Utah County municipalities and the Utah County will use 40% of the available B and C funds for projects on the Functional Class Highway System.

- **CLASS B AND C FUNDS AVAILABLE IN UTAH COUNTY = \$2.6 BILLION**

b. Local General Fund Revenue: Municipalities and the county program a significant amount of local general funds for highway maintenance and improvement. Current and past general fund spending on roads and highways by municipalities and the county was examined to project future revenues. Local governments in Utah County were estimated to program about \$5 million of their general funds in 2004. Local expenditures are projected to grow by three percent a year through 2030.

- **LOCAL GENERAL FUND REVENUE AVAILABLE IN UTAH COUNTY = \$204.5 MILLION**

c. Private and Innovative Sources: Local governments will need to consider several innovative highway funding programs in the future. Many already levy transportation impact fees on new development. In addition, developers are a source of funding for major projects that benefit their development. These and other innovative sources will provide funding over the next twenty years for local highway projects.

- **PRIVATE AND INNOVATIVE SOURCES AVAILABLE IN UTAH COUNTY = \$40.9 MILLION**

The Statewide and Mountainland MPO Projected Highway Revenue table summarizes the amount of revenues projected to be available in the MPO to 2030.

STATEWIDE AND MOUNTAINLAND MPO PROJECTED HIGHWAY REVENUE 2005 - 2030

Statewide Revenue	Phase			Total
	1	2	3	
State Revenue	4.2 b	8.4 b	7.4 b	20.0 b
Federal Revenue	1.7 b	3.1 b	2.5 b	7.3 b
Centennial Highway Fund	2.3 b	0.5 b	0	2.8 b
Revenue Available Statewide	8.1 b	12.0 b	10.0 b	30.1 b
Mountainland MPO Area Revenue	1	2	3	Total
State UDOT Revenue	780 m	1571 m	1.4 b	3.7 b
Federal UDOT Revenue	216 m	436 m	371 m	1.0 b
Centennial Highway Fund	93 m	22 m	0	115 m
Federal MPO Revenue	84 m	113 m	86 m	282 m
Federal JHC Revenue	18 m	24 m	18 m	61 m
County Transportation Tax	100 m	188 m	184 m	473 m
Innovative/Private Sources - State	49 m	65 m	50 m	164 m
Class B and C Funds - Local	284 m	937 m	1.4 b	2.6 b
Local General Funds	61 m	82 m	62 m	205 m
Innovative/Private Sources - Local	12 m	16 m	12 m	41 m
Revenue Available Countywide	1.7 b	3.5 b	3.6 b	8.7 b

Phase 1 = 2005-2014, Phase 2 = 2015-2024, Phase 3 = 2025-2030

PROJECTED TRANSIT REVENUE

Revenue for transit service and improvements is projected in corporation with UTA and UDOT. Revenue sources are available from several resources including federal revenue, transit sales tax, fares, and others sources. Federal revenue 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 general fund monies. Utah Transit Authority (UTA) is the primary recipient of these revenues that are used to make system improvements, introduce new transit technology, increase service, and purchase new equipment.

Revenue for transit improvements was projected anticipating the voter approval of two sales tax referendums in 2006; one as a ¼ cent transportation sales tax when 1/3 of the tax would benefit transit and the other as a ¼ cent transit sales tax. In addition, federal formula grant funds available for transit are assumed to grow by 4.25% a year. It is assumed that federal funding for major transit improvements, such as Bus Rapid Transit (BRT) and Commuter Rail, will be made available through discretionary funds as a 50% federal match. Finally, fare revenue is projected to cover 20% of bus operating costs and 30% of the Commuter Rail operating costs. Additionally, fare revenues are projected to cover 25% of Bus Rapid Transit operation costs.

1. **Federal Transit Revenue:** Federal revenue for transit capital and planning assistance is made available through 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 general fund reserves. These are discussed below.
 - a. **Section 5307 Formula Grants:** This program provides a block grant to local transit agencies for capital improvements. This revenue can also be used to support preventive maintenance and planning activities. Funding is distributed annually to the Provo/Orem Urbanized Area by a formula based on population, population density, and transit revenue miles of service. Fiscal year 2004 Section 5307 grants were \$3.1 million annually for bus service. MPO staff assumed that this annual amount would grow by 4.25% each year.
 - **TOTAL SECTION 5307 FORMULA GRANTS IN UTAH COUNTY = \$152 MILLION**
 - b. **Section 5309 Bus and Bus Facility 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. FTA allocates these funds throughout the country on the basis of need. The federal share of these projects is up to 80%. Because of their discretionary nature, Section 5309 funding for area transit projects varies from year to year. For this plan analysis, Mountainland assumes that UTA will receive the amount they received in 2002 (\$440,000) with a 3% annual increase to adjust for inflation.
 - **TOTAL SECTION 5309 BUS AND BUS FACILITY GRANTS IN UTAH COUNTY = \$3 MILLION**
 - c. **Section 5309 New Starts Grants:** FTA also has a separate Section 5309 program for large new starts projects. These funds are proposed for construction of BRT and Commuter Rail. The federal share for these projects generally ranges from 50 to 80%. Mountainland assumes that 50 percent of the capital costs will be federally funded.
 - **TOTAL SECTION 5309 NEW STARTS GRANTS IN UTAH COUNTY = \$340 MILLION**
2. **State and Other Revenue:** Transit Sales Tax Revenue: Between 1985 and 1994 municipalities in Utah County gradually annexed into the UTA system. As those municipalities annexed, local sales tax was assessed at ¼ of one cent. In the past 5 years, sales tax revenue has grown at a rate of about 7.5% per year. In 1999, the Mountainland Regional Planning Committee approved for planning purposes that an additional ¼ cent sales tax would be placed

on the ballot for voter approval within 7 years. In 2004 this was decided by the Mountainland Regional Planning Committee to place a $\frac{1}{4}$ of one cent Transportation Sales Tax on the ballot with $\frac{1}{3}^{\text{rd}}$ of the tax going to transit and $\frac{2}{3}^{\text{rd}}$ to highways. The $\frac{1}{4}$ cent Transit Sales Tax that was proposed for 2004 along with the $\frac{1}{4}$ transportation tax is now proposed in the plan to occur in 2006. Current and new sales tax revenues are projected to grow annually by 5.5% per year.

- **TOTAL TRANSIT SALES TAX REVENUE IN UTAH COUNTY = \$1.4 BILLION**
- a. **User Fare Revenue:** UTA receives additional revenue from the daily operation of its bus system through farebox collections. UTA's strategic plan states that it is the goal of UTA to obtain 20% of its bus operating costs from patron fares. Mountainland assumes that UTA will receive fare revenue to cover approximately 20% of its bus operating costs. BRT and Commuter Rail systems generally cover a greater share of their operating costs than bus operations. It is assumed that fares will generate revenues equivalent to approximately 30% of BRT operating costs and 40% of Commuter Rail operating costs.
 - **TOTAL USER FARE REVENUE IN UTAH COUNTY = \$270 MILLION**
- b. **Other Revenue:** In Utah County, the revenue UTA receives from other sources is mainly from advertising space on buses.
 - **TOTAL OTHER REVENUE IN UTAH COUNTY = \$7 MILLION**

The Projected Transit Revenue 2005 - 2030 table summarizes the various federal, transit sales tax, user fares, and other revenues that will fund the long range transportation plan's recommended transit improvement for the next 26 years.

PROJECTED TRANSIT REVENUE 2003 - 2030

MOUNTAINLAND MPO AREA REVENUE	PHASE			TOTAL
	1	2	3	
Federal Section 5307 Fund	40 m	61 m	51 m	152 m
Federal Section 5309 Fund – Bus/ Bus Facility	11 m	14 m	11 m	36 m
Federal Section 5309 Fund – New Starts	190 m	150 m	0	340 m
Transit Sales Tax Revenue	305 m	589 m	538 m	1.4 b
Fare Box Revenue	45 m	117 m	108 m	270 m
Other Revenue	2 m	3 m	2 m	7 m
REVENUE AVAILABLE COUNTYWIDE	593 m	934 m	710 m	2.2 b

Phase 1 = 2005-2014; Phase 2 = 2015-2024; Phase 3 = 2025-2030

PROJECTED TRANSPORTATION EXPENDITURES

The costs for making the needed improvements for highways, transit, Intelligent Transportation System, pedestrian and trail, and park and ride improvements are all analyzed in the long range plan for Utah County. The costs in the long range plan through the year 2030 are estimated. These expenditures include the operations of the highway system, preservation, rehabilitation and replacement of highways, hazard and safety improvements, transportation enhancements (such as landscaping, pedestrian improvements, etc.), other transportation activities, and new capacity to the system.

Transit costs estimates include expenditures for bus, BRT, and commuter rail operation, maintenance, and capital costs. Projected expenditures for all improvements have been adjusted at an annual 4.25 percent inflation rate. Also included are the estimated costs required to meet the needs for general administration and the operation and maintenance of the transit system.

- **TOTAL HIGHWAY EXPENDITURES IN UTAH COUNTY = \$8.7 BILLION**
- **TOTAL TRANSIT EXPENDITURES IN UTAH COUNTY = \$2.4 BILLION**
- **TOTAL HIGHWAY AND TRANSIT EXPENDITURES IN UTAH COUNTY = \$11.1 BILLION**

UTAH COUNTY HIGHWAY EXPENDITURES

The highway and other related needs in Utah County are extensive. The current system is stressed with the high growth of the 90's and the first four years of this decade coupled with limited capacity expansion. The expenditures laid forth in this plan cover the costs for UDOT to administer and maintain the current highway network and for the local municipalities and county to administer and maintain their facilities that are a part of the Functional Class Highway System. These activities are the first priority of transportation administrators. Adding capacity is also a main importance. All new capacity projects listed in the plan are funded with proposed revenues either with available funds or with the freeway projects, though bonding.

1. Non-Capacity Highway Expenditures: UDOT estimated the cost to meet the needs for the administration and maintenance of the state highway system through the life of the long range plan. Mountainland estimated the cost to meet the needs for the local Functional Class Highway System roads and local streets. Expenditures are categorized into nine areas including; Operations, Signals / Spot Improvements / Lighting / Barriers, Bridge Preventive Maintenance, System Preservation, Bridge Rehabilitation / Replacement, Highway Rehabilitation / Replacement, Hazard Elimination / Safety / Enhancements, and Region / Department Contingencies. The total costs estimated for these expenditures are discussed below. These assumptions are based on current and historic data concerning these expenses.

- a. Operations:** Operational expenditures are the costs associated with administering UDOT region and central departments, support services, engineering services, maintenance management, region management, construction management, and equipment management. Operations for local jurisdictions include department administration, maintenance, consultant services, and other activities associated with the Functional Class Highway System. The Utah County area share of UDOT expenditures statewide is based on the region's share of statewide VMT or 13%. The local percentage of operations from revenue available for transportation is 24%. These expenditures were increase by a 4% annual inflation rate.
 - **UDOT OPERATIONS EXPENDITURES IN UTAH COUNTY = \$957 MILLION**
 - **MOUNTAINLAND OPERATIONS EXPENDITURES IN UTAH COUNTY = \$37 MILLION**
 - **LOCAL OPERATIONS EXPENDITURES IN UTAH COUNTY = \$681 MILLION**
- b. Highway / Road Preservation:** Pavement preservation actions are treatments for streets and highways that are more intensive than maintenance. These treatments range from a

- chip seal, up to a full reconstruction. UDOT estimated their costs for these activities. The Utah County share of these expenditures is based on the percent of state lane miles in the area or 17%. Local preservation is for activities on roads on the Functional Classified Road System.
- **UDOT HIGHWAY PRESERVATION IN UTAH COUNTY = \$309 MILLION**
 - **LOCAL ROAD PRESERVATION IN UTAH COUNTY = \$482 MILLION**
- c. **UDOT Highway Rehabilitation / Replacement:** Rehabilitation and total replacement of a road is costlier than general preservation. These activities happen less often if adequate funding is provided to preserve the life of the system. Rehabilitation and replacement eventually must occur and is one of the most costly UDOT projects. For the long range plan, many replacement type projects are listed separately as new capacity projects and are not considered a part of this category. This is because many projects include both replacement and new capacity elements. The Utah County share of non-capacity rehabilitation / replacement projects is based on state road miles or 17%.
- **HIGHWAY REHABILITATION / REPLACEMENT IN UTAH COUNTY = \$287 MILLION**
- d. **UDOT Signals / Spot Improvements / Lighting / Barriers:** Included in these expenditures are maintenance and placement of new traffic signals, spot improvements that include intersection and other limited improvements, highway lighting, and barriers. Estimates for these expenditures were provided by UDOT based on current data. These costs were increased by 3% a year to account for inflation. Utah County's share of these expenditures is estimated based on the percent of state lane miles in the area or 17%. These expenditures were increased by 3% per year to account for inflation.
- **UDOT SIGNALS - BARRIERS EXPENDITURES IN UTAH COUNTY = \$85 MILLION**
- e. **Bridge Preventive Maintenance:** Keeping the current bridges maintained is one of UDOT's highest priorities. The cost of maintaining a structure is greatly less than total replacement. To estimate the expenditures for Utah County, the percentage of bridges within the county, both on the state road system and local bridges, as compared to total bridges statewide was used or 9%. These expenditures were increased by 3% per year to account for inflation.
- **BRIDGE PREVENTIVE MAINTENANCE IN UTAH COUNTY = \$42 MILLION**
- f. **Bridge Rehabilitation / Replacement:** Rehabilitation and replacement of bridges is costlier than general maintenance activities and is required less often if the funding for maintenance allows for the structures to be properly maintained. UDOT estimated their costs for these activities which includes bridges both on and off the state highway system. The Utah County share of these expenditures was estimated based on the percent of structures and bridges in the area or 9%. These expenditures were increased by 3% per year to account for inflation.
- **Bridge Rehabilitation / Replacement in Utah County = \$32 million.**
- g. **UDOT Hazard Elimination / Safety / Enhancements:** Safety improvements include hazard elimination, intersection upgrades, railroad crossing improvements, and other similar projects. Enhancements to the transportation system include development of trail and pedestrian facilities, bicycle lanes, and landscaping projects. Approximately 10 percent of STP funds are spent on enhancement projects. The Utah County share of these expenditures is based on the region's share of state road miles or 17%. These costs have a 3% per year inflation rate.
- **HAZARD ELIMINATION / SAFETY / ENHANCEMENTS IN UTAH COUNTY = \$57 MILLION**
- h. **UDOT Region / Department Contingencies:** Funding is set aside for each region director and for headquarters for completing tasks and projects that are small in nature or that are

unforeseen. In essence this is a discretionary fund to be used at the discretion of the region directors. The Utah County share of this expenditure is based on state road miles or 17%. These costs have a 3% per year inflation rate.

- **REGION / DEPARTMENT CONTINGENCIES IN UTAH COUNTY = \$22 MILLION.**

New Highway Capacity: Adding new capacity to the highway system in Utah County is vital in keeping up with the extremely high growth rate that has occurred within the last 14 years and what is projected in the future. Utah County is handicapped in that the majority of its transportation system was constructed when the area was rural. Most freeway interchanges lack sufficient capacity and new developments are taxing the many under capacity roads and interchanges in the valley. Addressing the problems of the inadequate highway network is daunting. Over the last 14 years when Utah County experienced 66% growth, very little funding was allocated to the area. Future funding projections for new capacity look bleak without bonding for freeway improvements.

As stated in the revenue section of the financial plan, there are five resources for new capacity projects, they include; state revenue, federal revenue, Centennial Highway Fund, local revenues, and private sources. The long range transportation plan estimates the cost to construct new capacity additions to the Functional Class Highway System only. These are the facilities that are eligible for federal funding. They include minor and principle arterials and collectors that will need improvements to meet the transportation demands to 2030. I-15 and the Mountain View Corridor in north Utah County are the two projects where funding is available with the 26 years of funding available to the area, but much use bonding to capitalize on future funding to construct the projects earlier. All other project have adequate funding available when the project is needed.

Project Costs Estimates: The cost of each new capacity project is derived in one of two ways; estimates from completed studies or on a cost per mile / facility type basis. Costs for I-15 projects were taken from the I-15 Corridor Management Study, costs for Lehi 2100 North and Lehi 1000 South/American Fork Main Street were taken from the North Valley Connector Study. All other project costs were based on a cost per mile, facility type, and right-of-way. All projects have a 3% annual inflation rate averaged to the mid-point of the phase in which the project is to be constructed.

New capacity expenditures listed below are a total of the proposed costs to construct the facilities listed in the LRP. All projects are listed in the plan in the phase they are needed. A major effort in the near future will be to identify funding to reconstruct I-15. Current modeling estimates show that the interstate will fail before 2010. Funding to construct the majority of I-15 will be through bonding.

- **NEW CAPACITY FREEWAY PROJECTS IN UTAH COUNTY = \$2.9 BILLION**
- **NEW CAPACITY STATE HIGHWAY PROJECTS IN UTAH COUNTY = \$1.0 BILLION**
- **NEW CAPACITY LOCAL HIGHWAY PROJECTS IN UTAH COUNTY = \$537 MILLION**

- **TOTAL NEW CAPACITY PROJECTS IN UTAH COUNTY = \$4.5 BILLION**

PROJECTED HIGHWAY EXPENDITURES 2005 - 2030

Utah Valley MPO Area Expenditures	Phase			Total
	1	2	3	
UDOT Operations	259 m	384 m	314 m	957 m
MPO Operations	11 m	15 m	11 m	37 m
Local Operations	83 m	245 m	353 m	681 m
UDOT Highway Preservation	107 m	122 m	80 m	309 m
Local Road Preservation	59 m	173 m	250 m	482 m
UDOT Highway Rehabilitation/Replacement	85 m	115 m	87 m	287 m
UDOT Signals - Barriers	25 m	34 m	26 m	85 m
Bridge Preventative Maintenance	12 m	17 m	13 m	42 m
Bridge Rehabilitation/Replacement	9 m	13 m	10 m	32 m
Hazard Elimination/Safety/Enhancement	17 m	23 m	17 m	57 m
Region/Department Contingencies	8 m	9 m	6 m	22 m
Centennial Highway Program (Original)	89 m	22 m	0	111 m
New Capacity Freeways	1.1 b	1.8 b	67 m	2.9 b
New Capacity State Highways	557 m	253 m	194 m	1.0 b
New Capacity FC Local Roads	168 m	280 m	89 m	537 m
New Capacity Non-FC Local Roads	138 m	408 m	589 m	1.1 b
Expenditures Countywide	2.7 b	3.9 b	2.1 b	8.7 b

Phase 1 = 2005-2014; Phase 2 = 2015-2024; Phase 3 = 2025-2030

PROJECTED TRANSIT EXPENDITURES

The transit and other related needs in Utah County are becoming more evident with higher congestion on the highway system. The current system of buses focuses on three areas; (1) Students; (2) Commuters; (3) Special Needs population. Future transit needs include an expanded and more reliable bus system, Bus Rapid Transit route connecting the two colleges to be used as the backbone of local transit in Utah County, and Commuter Rail to relieve congestion on the main interstate traversing through Utah County to Salt Lake City. The expenditures laid forth in this plan cover the costs for UTA to administer and maintain the current transit system. The main focus of this expansion relies on a local transit sales tax and federal participation.

1. Transit Expenditures: The costs for making the needed transit improvements through 2030 were analyzed and included in the long range plan. Cost estimates for general administration and the operation and maintenance of the existing transportation system are also included.

Mountainland worked with UTA to estimate the expenditure needed to implement the long range plan's recommended transit improvements within the Mountainland area. Included in these estimates are operating and maintenance costs as well as capital costs for both existing and expanded services. Recommended major capital investments are the purchase of replacement and expansion vehicles; the construction of the proposed BRT and Commuter Rail; and the installation of improvements to increase the speed, comfort, and connectivity of transit services. These estimated costs are discussed below.

- a. Operating and maintenance costs:** Operating and maintenance costs are the total non-capital costs associated with transit services. Local bus service costs were based upon revenue miles traveled and grown over time due to frequency enhancements and estimated expansion of the bus network. BRT and Commuter Rail are also based upon vehicle revenue miles because of the source material used. Bus corridor operating and maintenance costs, however, are based upon vehicle hours of service that takes into account projected travel speeds. In 2003 Utah County had about 2 million annual revenue miles in its regular bus service and another 75,250 annual revenue miles in its paratransit services. The long range plan recommends both of these services will more than double by 2030. The operating and maintenance costs of these services in 2003 were \$15.4 million. The projected annual cost of the recommended regular bus system, including a 4.25% inflation factor, is \$103 million in 2030. Commuter Rail operating costs are influenced by the economies of scale present in their operations. It is proposed that Commuter Rail will commence operations in 2012, with Phase 2 to Payson operational in 2020. To operate Commuter Rail for 18 years will cost \$10-37 million annually for the Utah County portion of the system including Phase 2. BRT operating costs will be \$3-8 million annually.

• TOTAL OPERATING AND MAINTENANCE EXPENDITURES IN UTAH COUNTY THROUGH 2030 = \$1.3 BILLION

- b. Capital Expenditures:** UTA system wide will need to replace its existing fleet of buses and expand its bus and rail fleet to provide the recommended levels of service in the year 2030. The average age of the current fleet is about seven years. Generally speaking, buses last about 14 years in service. The 2003 per bus cost ranges from \$255,000 for a 30-foot bus to \$575,000 for an articulated bus. In order to expand service as recommended, an additional 273 local buses, 21 transit-way, and 43 commuter rail vehicles will need to be purchased and housed. Factored into the cost of each expansion vehicle are the costs of its maintenance facility. UTA estimates these facility costs to be \$500,000 for each new rail vehicle and \$250,000 for each new bus.

- 1) Construction of Commuter Rail is proposed from Salt Lake City to Provo by 2012. A further extension is proposed to be built by 2020 south from Provo to Payson. The cost to construct these Commuter Rail lines from Payson to the Salt Lake County line is

approximately \$600 million. It is assumed that at least 50% of the capital costs will be federal dollars with the other 50% local funds.

- 2) Bus Rapid Transit is proposed to begin by 2008 and generally follow University Parkway/ SR-265 in Orem and University Ave/US-189 in Provo. It would serve Provo Town Center Mall, downtown Provo, BYU, University Mall, and UVSC. The estimated cost, which came from the Provo Orem Alternatives Analysis, to construct BRT would be approximately \$80 million. This would include a combination of dedicated and shared bus lanes, 15 vehicles, and 15 stations.

- **TOTAL CAPITAL EXPENDITURES IN UTAH COUNTY = \$680 MILLION**

- c. **Other Capital and Operating Costs:** Other capital costs include intermodal centers, transit hubs, new and expanded park and ride lots, bus stop improvements, and transit intelligent transportation system projects. Many of the miscellaneous costs associated with UTA operations as well as the rideshare operations are included in the operating and maintenance costs discussed above. Intermodal centers are recommended for Provo and Orem. The costs for these centers are estimated at \$7.5 million. A transit hub is recommended for downtown Spanish Fork and the cost for this hub was estimated to be \$2.3 million dollars. Park and rides are recommended for 14 locations. The Projected Transit Costs table summarizes projected transit capital and operating costs that will be needed between 2004 and 2030 to expand and improve the existing UTA system.

PROJECTED UTAH COUNTY TRANSIT COSTS 2003 - 2030

MOUNTAINLAND MPO AREA REVENUE	PHASE			Total
	1	2	3	
Bus Operating and Maintenance Costs	151 m	322 m	321 m	794 m
Bus Capital Expenditures	27 m	70 m	63 m	160 m
BRT Operating Costs	36 m	54 m	44 m	134 m
BRT Capital Costs	80 m	0	0	80 m
Commuter Rail Operating Costs	33 m	202 m	206 m	440 m
Commuter Rail Capital Costs	300 m	300 m	0	600 m
EXPENDITURES COUNTYWIDE	627 m	948 m	634 m	2.2 b

Phase 1 = 2005-2014; Phase 2 = 2015-2024; Phase 3 = 2025-2030

FUNDING SPREADSHEETS

Total funding available to the MPO is detailed in the Highway Funding Projections and Transit Funding Projections tables on the following pages. This data is derived on a collaborative basis between Mountainland, the Wasatch Front Regional Council, UDOT, and UTA. The spreadsheets are the technical documentation of the assumptions used to project future funding.

HIGHWAY FINANCIAL PROJECTIONS

Ref	Description	%	2005-2014	2015-2024	2025-2030	Total
STATE TRANSPORTATION FUNDS						
1	State Free Revenues	0.03	6,035.4	9,915.6	8,628.7	24,579.7
2	Add: Other State Revenues		60.0	60.0	36.0	156.0
3	Less: Transfer Out		-149.0	-165.0	-107.0	-421.0
4	Less: B&C Allocation		-1,471.6	-2,437.7	-2,130.4	-6,039.7
5	Less: CHF Transfer		-790.6	-280.7	0.0	-1,071.2
6	Less: F.A. Match (UDOT)		-157.9	-212.2	-160.9	-530.9
7	Registration Fees (after CHF)		0.0	153.3	139.2	292.5
8	General Fund (after CHF)		646.8	1,368.8	1,038.0	3,053.7
9	Available State Funds		4,173.2	8,402.3	7,443.6	20,019.1
FEDERAL PROGRAM						
10	UDOT Administered Programs	0.03	1,640.9	2,205.3	1,672.3	5,518.5
11	UDOT Special Programs	0.03	257.8	346.5	262.7	867.0
12	State Match	0.03	157.9	212.2	160.9	530.9
13	MPO Administered Programs	0.03	336.8	452.6	343.2	1,132.5
14	JHC Administered Programs	0.03	96.4	129.5	98.2	324.1
15	Less: CHF Transfer		-790.6	-280.7	0.0	-1,071.2
16	Available Federal Funds		1,699.2	3,065.3	2,537.3	7,301.8
NON-CAPACITY EXPENDITURES						
17	Less: UDOT Operations	0.040	-1,994.7	-2,952.7	-2,414.7	-7,362.1
18	Less: Preservation		-570.0	-650.0	-430.0	-1,650.0
19	Less: Signals, Spot Improve, Lighting, Barrier	0.030	-135.3	-181.8	-137.9	-454.9
20	Less: Bridge Preventive Maintenance	0.030	-137.6	-184.9	-140.2	-462.6
21	Less: Bridge Rehabilitation / Replacement	0.030	-104.3	-140.2	-106.3	-350.8
22	Less: Highway Rehabilitation / Replacement	0.030	-456.4	-613.4	-465.1	-1,534.8
23	Less: Hazard Elimination, Safety, Enhancements	0.030	-91.2	-122.6	-93.0	-306.8
24	Less: Region / Department Contingencies		-40.6	-47.0	-31.4	-119.0
25	Total Non-Capacity Expenditures		-3,530.1	-4,892.5	-3,818.5	-12,241.1
CENTENNIAL HIGHWAY FUND / OTHER						
26	Beginning Balance		0.0	0.0	0.0	0.0
27	State Free Revenues Transfer		790.6	280.7	0.0	1,071.2
28	Registration Fees		196.0	62.7	0.0	258.7
29	General Fund		595.9	178.8	0.0	774.7
30	Bonding		507.5	0.0	0.0	507.5
31	Dedicated Sales Tax	0.03	61.0	22.2	0.0	83.2
32	Other / Misc / Local		1.9	0.0	0.0	1.9
33	Federal Funds		101.8	0.0	0.0	101.8
34	Less: Debt Service Interest		-464.2	-22.7	0.0	-486.9
35	Less: Debt Service Principal		-1,126.3	-523.8	0.0	-1,650.1
36	Less: Project Expenditures		-570.7	0.0	0.0	-570.7
37	Available CHF Revenue		2,254.7	544.3	0.0	2,799.0
38	Total CHF Deductions		-2,161.2	-546.5	0.0	-2,707.7
39	CHF Totals (net)		93.5	-2.2	0.0	91.3

