

2040 METROPOLITAN TRANSPORTATION PLAN

2011 - 2040

MOUNTAINLAND METROPOLITAN PLANNING ORGANIZATION

ALPINE CITY	MAPLETON CITY
AMERICAN FORK CITY	OREM CITY
CEDAR FORK TOWN	PAYSON CITY
CEDAR HILLS CITY	PLEASANT GROVE CITY
DRAPER CITY	PROVO CITY
EAGLE MOUNTAIN CITY	SALEM CITY
ELK RIDGE CITY	SANTAQUIN CITY
FAIRFIELD TOWN	SARATOGA SPRINGS CITY
GENOLA TOWN	SPANISH FORK CITY
GOSHEN TOWN	SPRINGVILLE CITY
HIGHLAND CITY	VINEYARD TOWN
LEHI CITY	WOODLAND HILLS CITY
LINDON CITY	UTAH COUNTY
UTAH DIVISION OF AIR QUALITY	UTAH TRANSIT AUTHORITY
UTAH DEPARTMENT OF TRANSPORTATION	

ADOPTED 5 MAY 2011

**MOUNTAINLAND ASSOCIATION OF GOVERNMENTS
REGIONAL PLANNING**

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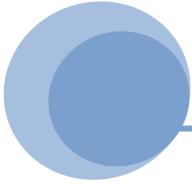


TABLE OF CONTENTS

METROPOLITAN TRANSPORTATION PLANNING

INTRODUCTION	1
METROPOLITAN TRANSPORTATION PLAN UPDATE	2
PLANNING ORGANIZATION AND PROCESS.....	3
LOCAL PLANNING COORDINATION	4
MOUNTAINLAND AREA CHARACTERISTICS	5
METROPOLITAN PLANNING AREA MAP	8

WASATCH CHOICE FOR 2040

WASATCH CHOICE FOR 2040 MAP	10
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2040 METROPOLITAN TRANSPORTATION PLAN

TRAVEL DEMAND	12
SOCIO-ECONOMIC GROWTH TRENDS	13
TRAVEL DEMAND MODEL OUTPUTS	16
PROPOSED SOLUTIONS	17
ROADS AND HIGHWAY SELECTION	18
ROADS AND HIGHWAY PROJECTS	18
TRANSIT SELECTION	24
ROADS AND HIGHWAY SELECTION MAP.....	25
TRANSIT PROJECTS	28
TRANSIT MAP.....	29
BICYCLE AND PEDESTRIAN IMPROVEMENTS	30
BICYCLE AND PEDESTRIAN IMPROVEMENTS MAP.....	31
FINANCIAL PLAN	33
IMPACTS AND BENEFITS.....	36
ENVIRONMENT JUSTICE / TITLE VI	45
TRANSPORTATION PROGRAMS AND SYSTEMS.....	48
CALL TO ACTION	58

APPENDIX

AIR QUALITY CONFORMITY DETERMINATION

- A - PHASE ONE PROJECT FACT SHEET
- B - TRAVEL DEMAND
- C - IMPACTS AND BENEFITS
- D - TRANSPORTATION SYSTEM PROGRAMS
- E - FINANCIAL PLAN
- F - EARTHQUAKE SCENARIO MODELING REPORT
- G - FREIGHT IN THE MPO
- H - PUBLIC PARTICIPATION

ACKNOWLEDGE

**“THE PREPARATION OF THIS REPORT HAS BEEN FINANCED IN PART THROUGH
GRANT(S) FROM THE FEDERAL HIGHWAY ADMINISTRATION AND FEDERAL TRANSIT
ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION, UNDER THE
METROPOLITAN PLANNING PROGRAM, SECTION 104(f) OF TITLE 23, U.S. CODE.
THE CONTENTS OF THIS DOCUMENT DOES NOT NECESSARILY REFLECT THE OFFICIAL
VIEWS OR POLICY OF THE U.S. DEPARTMENT OF TRANSPORTATION.”**

Metropolitan Transportation Planning

INTRODUCTION

Utah County is growing very quickly. Between 2000 and 2010, the population increased from 368,536 to 516,564, an unprecedented 40% expansion in only ten years. Projections show county population will be approximately 1.1 million by the year 2040. Such rapid growth places heavy demands on the transportation system and can subsequently reduce air quality.

The Utah County region is classified by the Environmental Protection Agency as non-attainment for particulate emissions (PM_{10}), and Provo is a maintenance area for carbon monoxide (CO). Large urban areas so designated must meet certain transportation planning requirements to be eligible to receive federal transportation funds. Federally established Metropolitan Planning Organizations (MPO's) perform these planning requirements.

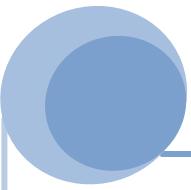
Mountainland Association of Governments (MAG) is the designated MPO for Utah County.

As one of four MPO's in Utah, Mountainland provides a forum where local officials, public transit providers, and state transportation departments come together and cooperatively plan to meet the region's current and future transportation needs. This effort results in the Metropolitan Transportation Plan (MTP), the document which lays out which major transportation projects are built, while conforming to the requirements of the Federal Clean Air Act (CAA).

The MTP specifies a coordinated system of capital-intensive roadway projects, pedestrian/bicycle facilities, and transit improvements needed during the next thirty years. The MTP attempts to minimize impacts to our society and environment while providing for enough capacity and transportation choices to ensure our region's economic competitiveness. In short, the MTP is a guide to maintain and enhance our regional transportation system and the economy that depends upon it.

UTAH VALLEY





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METROPOLITAN TRANSPORTATION PLAN UPDATE

The development and update of the Metropolitan Transportation Plan occurs every four years. The frequency of updates allows MPO decision makers to keep up on emerging trends. All of the sections of this document have been updated using current data with a planning horizon exceeding the required 20 years (to 2040). Project funding is phased in ten year increments, 2020, 2030 and 2040.

This iteration of the MTP follows the guidelines of the last federal transportation bill - Safe, Accountable, Flexible, Efficient, Transportation Equity Act - A Legacy for Users and embodies them philosophically as well as technically. The Federal Highway Administration (FHWA) requires each MPO to address eight specific planning factors, and the MTP incorporates those requirements.

PLANNING FACTORS

The continuing Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU) bill states that the metropolitan planning process shall be continuous, cooperative, and comprehensive. The process will also provide consideration and implementation of projects, strategies, and services to address the following factors:

- 1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.**
- 2. Increase the safety of the transportation system for motorized and non-motorized users.**
- 3. Increase the security of the transportation system for motorized and non-motorized users.**

- 4. Increase accessibility and mobility of people and freight. (See Appendix - Freight in the MPO)**
- 5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.**
- 6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.**
- 7. Promote efficient system management and operation.**
- 8. Emphasize the preservation of the existing transportation system.**

MPO PRIORITIES

In addition, locally determined priorities guide and inform the planning process. Over the next 30 years, Utah County's population will grow to 1.1 million. Other large metro areas such as Oklahoma City, Raleigh, Richmond, and Salt Lake City are at this size today. Each has multiple freeway networks and broad mass transit options.

VISION STATEMENT

Provide an intermodal transportation system that efficiently moves people and freight to fuel our economy while retaining the unique western character of the Wasatch Mountains.

LOCAL GOALS

Transportation in Utah County is evolving from a primarily rural to an urban system, and major facilities such as freeways, expressways, light rail, and bus rapid transit will be needed to supplement today's more limited choices that are tightly focused on single occupant vehicles. This evolution will focus on three primary areas:

- 1. Fund New Capacity:** Within the last two years a major infusion of funding has

Metropolitan Transportation Planning

greatly helped to reduce the backlog of needed transportation facilities created during the unprecedented growth of the last two decades. Projects completed or underway include I-15 CORE, Timpanogos Highway (SR-92), Redwood Road, Pioneer Crossing, North County Blvd, Geneva Road, Springville 400 South, and FrontRunner Commuter Rail. Total funding has exceeded \$3 billion. However, with continued growth, attention and focus will shift to keeping up with demand less intensive but steadier improvements to the system. The MTP indicates needs and demonstrates adequate funding scenarios for major system upgrades.

2. ***Build an intermodal transportation system:*** The MTP seeks to continue development of a coordinated intermodal system of highway, transit, and non-motorized improvements. Projects that are intermodal in nature were given added priority ranking during alternatives analysis. The plan provides for a non-motorized transportation system linking residential areas with major destinations, such as schools, shopping, employment, and services. This system connects to the transit system so that longer trips can be taken by walking or biking to the bus. This will enhance access to major destinations, reduce congestion, and improve air quality
3. ***Take Care of What We Have and Make it Work Better:*** Keeping Utah's bridges and pavements in good condition is the most effective way to extend the life of the transportation system.
 - a. UDOT maintains a multi-billion dollar system by:
 - Applying well-timed preservation treatments
 - Addressing critical needs first
 - Keeping Utah's roads open during storms

- b. Optimize traffic mobility by:
 - Making improvements that reduce delay on freeways, at intersections and along major corridors
 - Providing useful information to help people move more efficiently
 - Clearing crashes quickly to maintain the free flow of traffic

PLANNING ORGANIZATION AND PROCESS

The MTP is a major product of the Metropolitan Planning Organization and results from a process that integrates the efforts of all of the agencies involved in transportation and incorporates local priorities with state and federal resources.

MPO STAFF

The MPO staff is multi-disciplinary, and includes land use, highway, transit, non-motorized, air quality, and Geographic Information System professionals. They are responsible for producing the Metropolitan Transportation Plan for Utah County, and report to the Mountainland MPO Regional Planning Committee (RPC).

REGIONAL PLANNING COMMITTEE

The RPC is made up of local elected officials from each incorporated municipality and the Utah County Commission, a representative from the Utah Transportation Commission, Utah Transit Authority Board, and Utah Division of Air Quality. Representatives from the Federal Highway Administration, Utah State Legislature, Wasatch Front Regional Council's TransCom Committee, freight companies, private passenger carriers, and the airports are invited to attend meetings as non-voting members.

The RPC reviews and approves the MTP, Transportation Improvement Program (TIP), Air Quality Policy and Conformity Analysis, and all other urban transportation plans and programs for the metropolitan area.

Metropolitan Transportation Planning

TECHNICAL ADVISORY COMMITTEE

The RPC and MPO staff is advised by the Mountainland Technical Advisory Committee (TAC). The TAC is comprised of engineers, planners, and technicians who serve as staff members to local, state, and federal government as well as service district and private sector representatives from freight and passenger carrier providers. This committee is advisory in nature and serves as a forum for the discussion of transportation related technical issues and makes recommendations to the RPC.

UTAH VALLEY TRAIL PUBLIC ADVISORY COMMITTEE

This committee includes local city staff members and citizens; they meet regularly to discuss pedestrian safety, bike, and trail issues.

JOINT POLICY ADVISORY COMMITTEE

The member organizations of the Joint Policy Advisory Committee (JPAC) have joined to improve communication and coordination on transportation issues for the four urbanized areas in the State of Utah. JPAC functions as an advisory body to its member agencies.

Members agree to share information about current and future travel in urban areas, future funding needs, and other critical transportation performance measures and issues. Members have the opportunity to reach consensus on how to meet the transportation challenges facing the urbanized areas in the state.

Member Agencies:

- Mountainland Association of Governments
- Wasatch Front Regional Council
- Utah Department of Transportation
- Dixie Metropolitan Planning Organization
- Cache Metropolitan Planning Organization
- Utah Transit Authority

LOCAL PLANNING COORDINATION

In developing the metropolitan transportation plan the fundamental relationship between transportation and land use should be recognized and the effects that land use and growth have on transportation considered. As one of the fastest growing metropolitan areas in the United States, coordination with local land use plans is essential to the creation of an efficient and effective transportation system.

The linkage between land use and transportation is a complex issue. However on a much more simple level the linkage can be thought of as working in two ways:

- The spatial distribution and type of land use activity influences both the demand for travel and travel characteristics. Different types of land use generate and attract differing traffic rates. For example, retail land uses will generate more trips than residential land uses.
- Improving access by expanding the transportation system allows for the development of land at higher intensities or land that was previously inaccessible.

LAND USE PLANS

Comprehensive plans are the means by which local jurisdictions plan for their future growth and development. The development of these plans provides a process for anticipation and influencing the orderly and coordinated development of land. Each plan is required to have a land use element showing the general distribution and location of land for various uses, as well as a circulation element showing the street system and transportation routes. Local comprehensive plans are the basis for defining and integrating land use and transportation and are the foundation of this plan.

Metropolitan Transportation Planning

CURRENT CONDITIONS

The distribution of household population density is centered in the Orem/Provo area. The highest growth area over the last decade has been in the northeast county area straddling the I-15 Freeway, and in the northwest area of new developments in Eagle Mountain and Saratoga Springs. This is mainly attributed to the Salt Lake City and Provo/Orem Metro areas converging together. Growth has also accrued in the southern area of Utah County, but densities still remain at rural densities with the historic cores expanding. The far western and south west portions of the county have experienced no growth and have little or no population.

FUTURE GROWTH

By 2040, residential densities will continue to increase outside the Orem/Provo core resulting in population becoming more urban between northeastern and central portions of the county. The Orem/Provo area retains its core status as the population and employment center, but northward along the I-15 freeway and into Salt Lake County, similar densities occur. The northwestern county area adds more urban density, but is still emerging into self sustaining community. The southern area continues to have growth ringing out from the historic cores and become less rural, but densities remain low. Some growth is projected to occur in the southwest area of the county, but the far western area has little growth.

LOCAL JURISDICTIONS COORDINATION

In developing future land use development patterns for the traffic model, MPO staff use each municipal and the county land use plan as a first step in creating future countywide development patterns. Many land use plans only plan for the next 10 years leaving a gap between their planning horizon and the needs of the 2040 transportation plan. MPO staff met

with each municipality and the county to review their plans and to gain additional insight of where future growth could occur. Also, any major proposed developments are also designed in the future countywide generalized land use plan. Goals of the Wasatch Choices 2040 plan are also incorporated into future development patterns. The finalized land use plan for the transportation plan is used to develop the socio-economic data needed to run the travel model. This data includes population, households, and employment.

MOUNTAINLAND AREA CHARACTERISTICS

GEOGRAPHY

The Mountainland MPO is located at the southern end of the rapidly growing metro area along the Wasatch Front. The MPO planning area boundary encompasses all the Utah County municipalities and the contiguous unincorporated areas in between. The MPO area is bounded on the north by the Salt Lake County-Utah County line; on the east by the Wasatch Mountain Range; to the south by Utah-Juab County line, and extends west to Cedar Fort. (See MPO Map)

Land use and the locations of major transportation facilities are constrained by a peripheral boundary of steep mountain terrain and by the large, centrally located Utah Lake. The MPO is roughly bisected by I-15, the only freeway within Utah County. A number of smaller state routes complete the system of arterial routes and provide both East-West and North-South corridors. Existing conditions make selection and location of new facilities a real challenge.

ENVIRONMENT

Air quality is a major environmental concern in Utah County. The valley is surrounded by high mountains, which often create winter

Metropolitan Transportation Planning

temperature inversions that can trap pollutants in the area for days at a time.

Utah Lake and surrounding wetlands play an important role in the area's environment. Utah Lake is also a critical link in the migratory bird flight path from Canada to Mexico. The lakebed is so shallow a rise in the water elevation of a mere few feet can flood hundreds of acres of land and cause major impacts on housing, wildlife, agriculture, industry, recreation, and transportation facilities.



UTAH LAKE WETLANDS A MIGRATORY BIRD FLIGHT PATH FROM CANADA TO MEXICO

The proximity of Utah Lake and the Wasatch Mountains offer excellent opportunities for recreation and other uses, thus helping to attract and retain many residents, but limit developable land and constrain transportation facilities.

AIR QUALITY AND TRANSPORTATION CONFORMITY

Federal funding and approvals for transportation improvement projects in urban areas are required to be part of the planning process involving all affected local governments. The process is documented through the MPO's Metropolitan Transportation Plan and the 5-year Transportation Improvement Program. Since the passage of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A legacy for Users (SAFETEA-LU) and the 1990 Clean Air Act

Amendments, MPOs are required to comply with the requirements of these acts. The Metropolitan Transportation Plan and Transportation Improvement Program should conform to the State Implementation Plan for air quality.

Utah County is designated as moderate non-attainment for PM₁₀. Provo City is designated as a maintenance area for Carbon Monoxide. Conformity rules outline specific analysis requirements that non-attainment areas must follow depending on the severity of the non-attainment problem and the time frame established by the Clean Air Act to develop and implement plans to correct the air quality problem. These rules require the MPO to show air quality conformity for the life of the Transportation Plan, which is to the year 2030.

A detailed discussion of the analysis employed in the conformity determination is a section of the plan entitled Conformity Determination for the 2040 Metropolitan Transportation Plan. Based on the analysis consistent with these rules, a positive determination can be made for the Metropolitan Transportation Plan for the Utah County PM10 non-attainment area and for the Provo carbon monoxide maintenance area

APPLICABLE CLEAN AIR ACT REQUIREMENTS AND CONFORMITY RULES

SAFETEA-LU and the relevant elements of the 1990 CAAA Subsections 176(c)(1)(2) and (3), requires the MPO to develop a transportation plan that conforms with the applicable State Implementation Plan (SIP) for air quality.

The EPA Transportation Conformity Rules (40 CFR Part 93) and FHWA/FTA Metropolitan Planning Regulation (23 CFR Part 450) were employed in the preparation of this conforming Long Range Plan. The following list describes the appropriate subsections of 40 CFR Part 93 the plan must meet:

Metropolitan Transportation Planning

- 93.110 – Latest Planning Assumptions
- 93.111 – Latest Emission Model
- 93.112 – Consultation
- 93.113(b) – Transportation Control Measures
- 93.118 – Emission Budget(s) or
- 93.119 – Emission Reduction

COORDINATION WITH CLEAN AIR AGENCIES

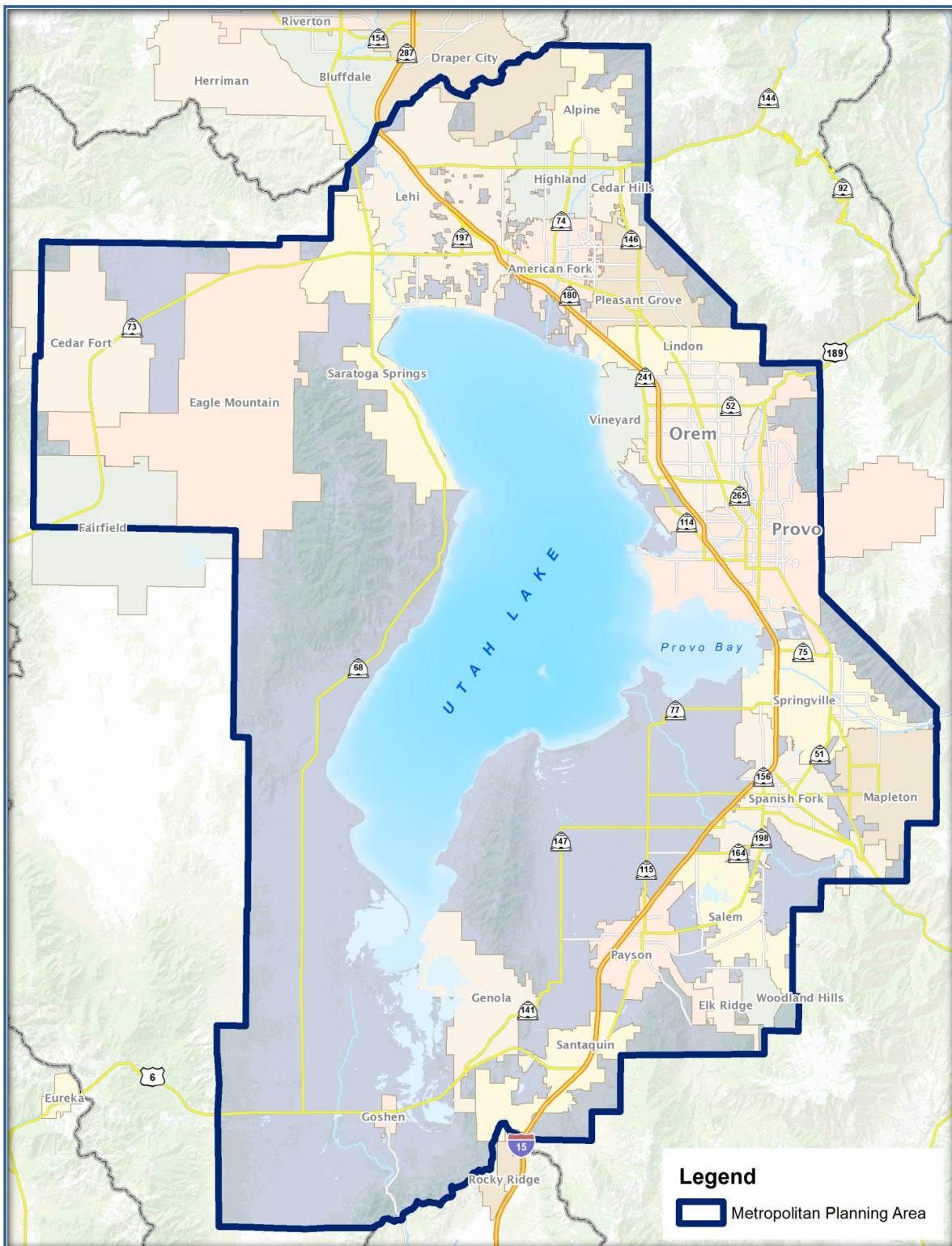
As stated in the Transportation bill, metropolitan areas which are non-attainment for ozone or carbon monoxide under the Clean Air Act are required in conjunction with the area's air agencies and transportation partners to coordinate the development of consultation procedures for a process of development of the transportation control measures of the State Implementation plans. A Memorandum of Understanding has been established between UDOT, Utah Division of Air Quality (UDAQ), and Mountainland to be followed by a State Consultation Procedures Plan that is currently under development.

The Mountainland Regional Planning Committee and UDAQ have agreed upon a committee structure for making air quality policy decisions for the region's transportation plans.

The presence of UDAQ on the Mountainland Regional Planning and Technical Advisory Committees has greatly improved communications between Air Quality and Transportation Planning activities. In conjunction with the conformity determination we have established an Interagency Coordination Committee that includes representatives of FHWA, UDOT, UDAQ, EPA, Mountainland, and WFRC. These meetings have improved the consultation process resulting in a successful plan consistent with the federal planning regulations and the SIP. For more detail see the Appendix - Air Quality Conformity Determination.

Metropolitan Transportation Planning

METROPOLITAN PLANNING AREA MAP



WASATCH CHOICE FOR 2040

BUILDING THE FUTURE WE WANT

The Greater Wasatch is one region, stretching from Weber County south to Utah County and from Tooele County east to the Wasatch Back. We compete economically with other regions, comprise one job and house market, and we share the same air and water. Where and how we shape tomorrow's neighborhoods, communities, and economic centers within our region will dramatically affect the quality of life, including how much time and money we spend getting around, the quality of the air we breathe, and the choices we have available to live, work, shop, and play.

The Wasatch Choice 2040 is a vision for how growth should unfold in our region. When compared with the baseline (a projection of current trends in the future), the Wasatch Choice exhibits distinct benefits.

HIGHLIGHTS

Walkable communities: new homes are about twice as likely as today's homes to have convenient access to places to work, shop, play, and learn.

- More growing up, less growing out: 40% more of our growth, compared to recent trends, fill in existing communities and revitalizes business districts. This enables more biking, shorter commutes, better air quality, and makes the most of existing infrastructure.
- Real options for commuters: Average household transit use in 2040 could be 45% higher than today, making commuting more affordable and providing residents with more ways to get around.
- More open land stays open: Over the next 30 years, 24 fewer square miles convert to buildings and streets enabling us to have more green

infrastructure and open land, with benefits ranging from more places for families to play, more local farmer's market food, better water quality, and more wildlife habitat.

CHALLENGE AND OPPORTUNITY

Utah is among the fastest growing states in the nation. Growth brings both benefits and challenges:

- Two-thirds of the buildings that will exist in 2040 have not yet been built
- Total investment in new development will approach \$700 billion
- More than 900,000 growth-related residential units will be constructed by 2040
- Nearly 1.9 billion square feet of new and rebuilt space will be needed to accommodate the projected 2.9 million jobs we'll have ob 2040
- The Wasatch Front has limited land available for development and building roads to serve widely dispersed populations will become increasingly impractical and expensive

Mountainland MPO encourages cities to explore a mix of activities and walkable development to reduce the need for long drives and provide residents with what they want out of life: more time for what matters most, affordability, family, improved health, and the pride of living in a world-class region.



The future is not some place we're going to, but a place we are creating. The paths to it are not found, they are made.

-Jane Garvey

WASATCH CHOICE FOR 2040

The Wasatch Choice for 2040 *Vision Map*

The Greater Wasatch is one region, stretching from Weber County south to Utah County and from Tooele County east to the Wasatch Back. We compete economically with other regions, comprise one job and housing market, and share the same air and water. Where and how we shape tomorrow's neighborhoods, communities, and economic centers within our region will dramatically affect the quality of our lives, including how much time and money we spend getting around, the quality of the air we breath, and the choices we have available to live, work, shop, and play.

Greenspace



Greenspace Greenspace rings our valleys, connects our cities, and provides space for civic and social functions in our towns and neighborhoods. The Wasatch Choice for 2040 affirms that our natural resources and working lands provide immense benefits. We should safeguard them to preserve our regional food system, protect our water quality, and maintain our recreational opportunities. These lands also provide needed wildlife habitat, help to clean our air, and provide relief from our urban environment. Even closer to home, our parklands and greenways provide critical gathering spaces, recreational amenities, and connection to the natural world.

Regional Greenways
The Bear River Shoreline Trail, the Jordan River Parkway, and the Provo River Parkway

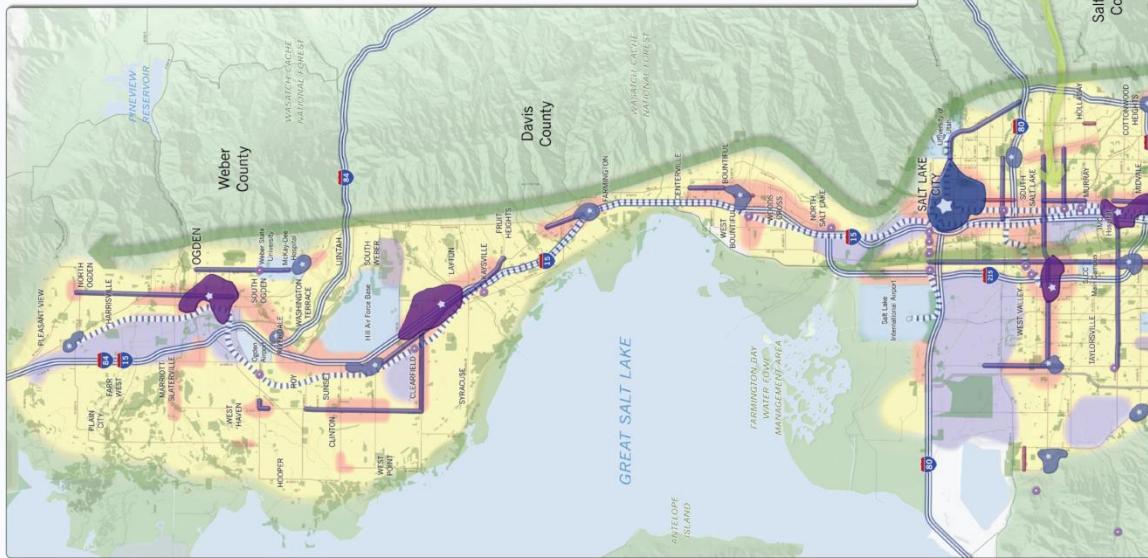
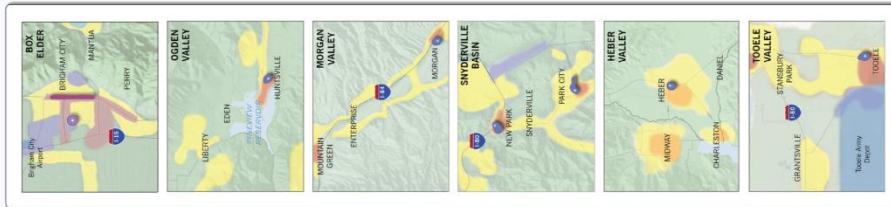
Regional Connections
Links between greenways and greenways and major population centers

Centers



Centers Centers are historical and emerging regional destinations of economic activity. The vision suggests that these centers should expand to provide ever broadening choices for residents to live, work, shop and play; a mix of all of these activities is welcome. Centers should work with the long-term market, helping provide opportunities to residents who want to live close to work, walk or bike to shop, and have both great transit and road access – desperately needed as our population ages, gas prices and congestion increase, and housing prices inch upward.

Metropolitan Center
Downtown Salt Lake City is the metropolitan center, serving as the hub of business and cultural activity in the region. It has the most intensive form of development for both employment and housing, with high-rise development common in the central business district. It will continue to serve as the finance, commerce, government, retail, tourism, arts, and entertainment center for the region.



WASATCH CHOICE FOR 2040

Urban Center



Urban centers are the focus of commerce and local government services benefitting a market area of a few hundred thousand people. Urban centers will be served by high-capacity transit and major streets. They are characterized by two- to four-story employment and housing options.

Floor Area Ratio 0.75 to 4
20 to 100 Housing Units per Acre



Town Center



Town centers provide localized services to tens of thousands of people within a two- to three-mile radius. One- to three-story buildings for employment and housing are characteristic.

Floor Area Ratio 0.5 to 1.5
10 to 50 Housing Units per Acre



Station Community



Station communities are geographically small, high-intensity centers surrounding high-capacity transit stations. Station communities vary in their land use: some feature employment, others focus on housing, and many will include a variety of shops and services.

Floor Area Ratio 0.5 to 2.5
20 to 100 Housing Units per Acre



MainStreet Community



Main streets are linear town centers. Each has a traditional commercial identity but on a community scale. Main-street communities prioritize pedestrian-friendly features, but also benefit from good auto access and often transit.

Floor Area Ratio 0.5 to 1.5
10 to 50 Housing Units per Acre

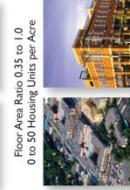


Boulevard Community



A boulevard community is a linear center coupled with a transit route. Unlike a main street, a boulevard community may not necessarily have a commercial identity but may vary among housing, employment, and retail along any given stretch.

Floor Area Ratio 0.5 to 1.0
0 to 50 Housing Units per Acre



Corridors



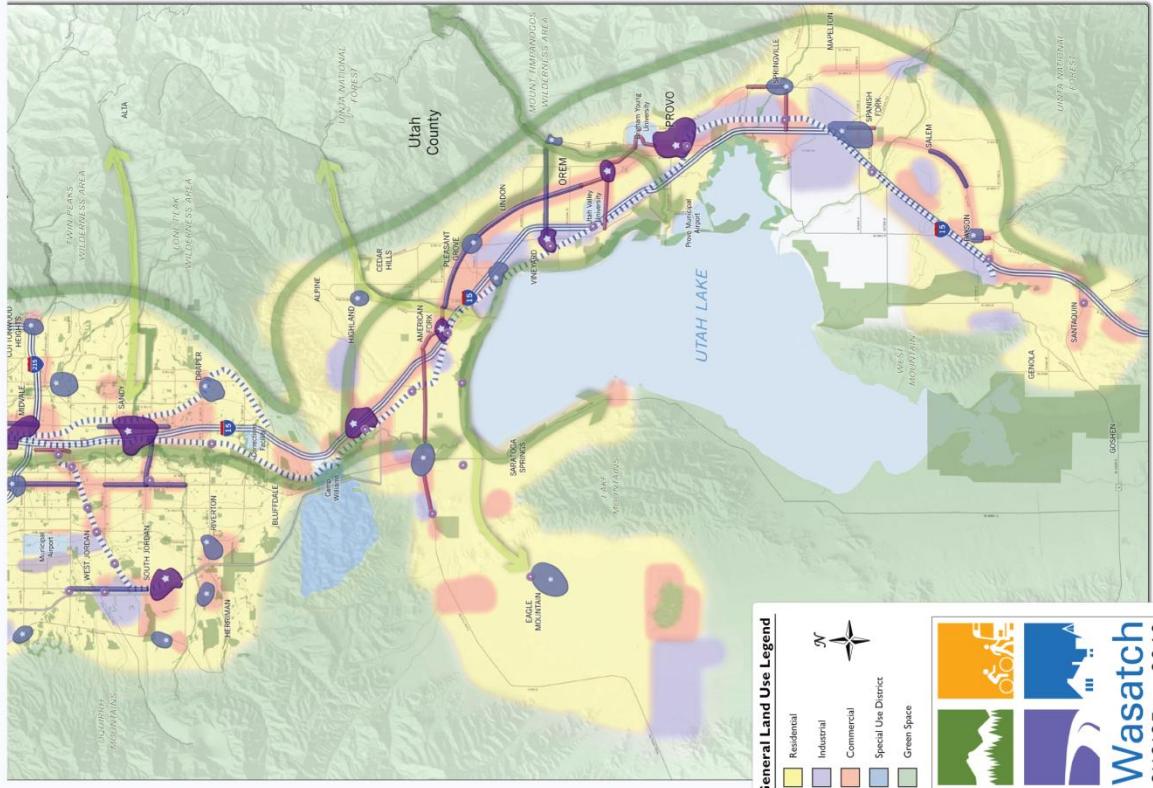
Corridors combine a mix of uses—retail, offices, and residences—with multiple transportation options (sidewalks, bike lanes, roadways, and public transportation). Two types of corridors are identified in the Vision: Boulevard Communities and Main Streets. Examples of Boulevard Communities might include State Street or Redwood Road—with higher traffic volumes, yet envisioned as multi-modal boulevards with public transportation systems supporting increased residential, office, and commercial development. Main Street examples might include Magna or Lehi—more historic in character with lower traffic volumes, wider sidewalks, and more on-street parking.

Commuter Rail / TRAX



Freeways





2040 METROPOLITAN TRANSPORTATION PLAN

TRAVEL DEMAND

The MPO uses a computer-based transportation model to determine current travel demand and then make forecasts of future travel volumes and locations. The model is calibrated using known trip rates, transit ridership and highway traffic counts to reasonably represent “base year” travel conditions and patterns (as of 2007). This is a process in which model output is checked against real-world data.

Using socio-economic and land use trends, along with input and feedback from member agencies, the model is used to test improvement scenarios and mode mixes for satisfying future needs. Model outputs are used to advise and inform decision makers how to best keep up with emerging trends and implement timely course changes. Good modeling helps local leaders answer some big questions, such as: Where are upgraded or new highways most needed? What effects will increased access to transit have on congestion or air quality? When are changes needed?

MODEL OVERVIEW

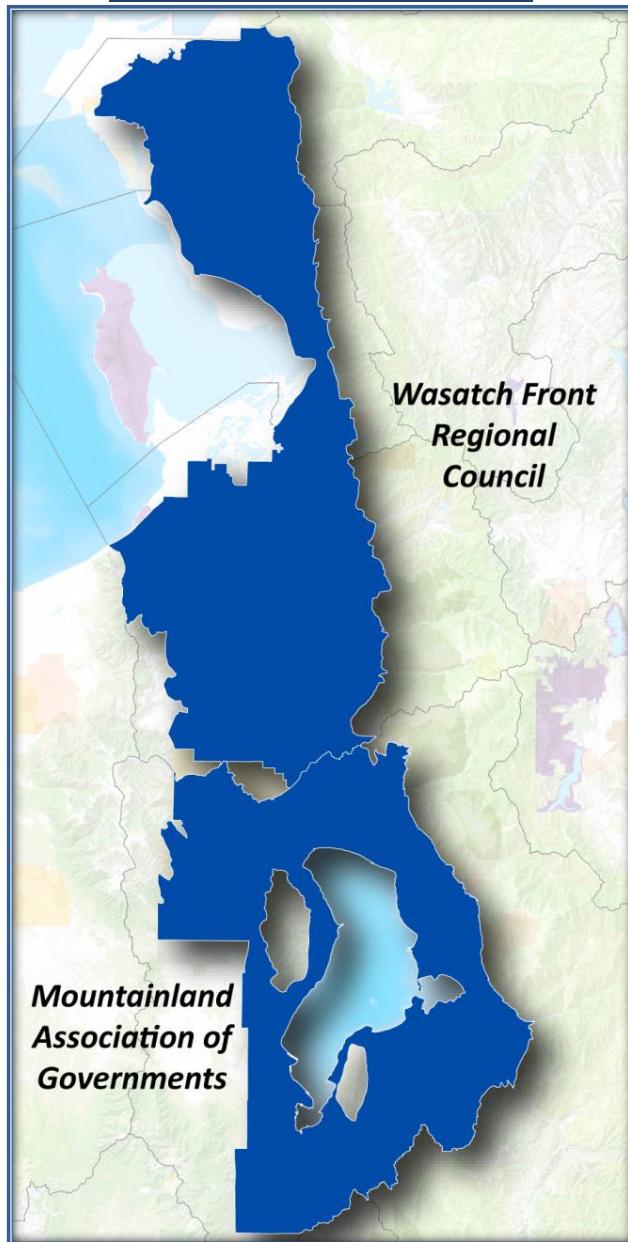
The MPO model covers the entire Wasatch Front, with approximately 31,000 road links. The transit network is created with local, express, Bus Rapid Transit, Light Rail, and Commuter Rail lines.

The software is an integrated land-use, socio-economic, transportation, and air quality model co-developed with the Wasatch Front Regional Council to satisfy the requirements of SAFETEA-LU and the federal Clean Air Act. Some of the most useful model outputs to aid in project selection include:

- Peak travel times demand
- Origin-Destination flows
- Vehicular travel times and speeds
- Transit ridership numbers

For details refer to Appendix - Travel Demand

TRAVEL MODEL COVERAGE AREA



2040 METROPOLITAN TRANSPORTATION PLAN

LAND USE MODELING

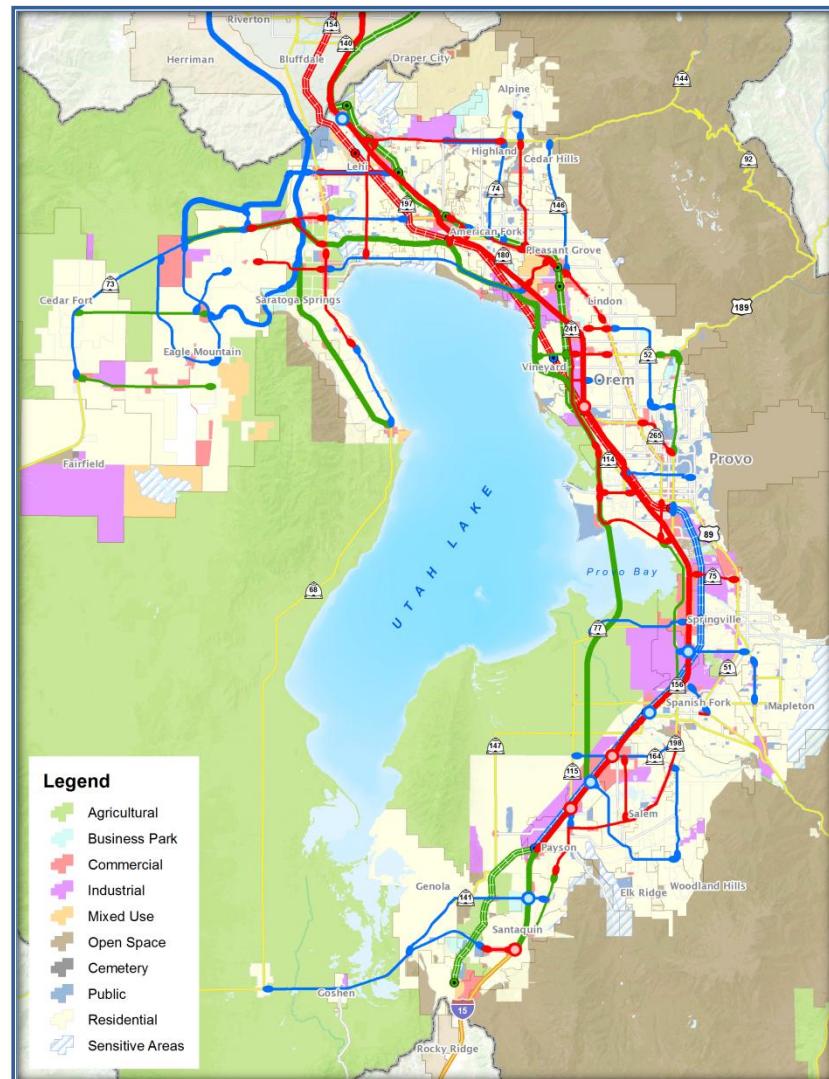
Each municipality and the county develop land use plans as part of the general plan process. These land use development patterns provide context for locating and modeling changes in socio-economic trends (population, households, and employment) that impact transportation demand.

SOCIO-ECONOMIC GROWTH TRENDS

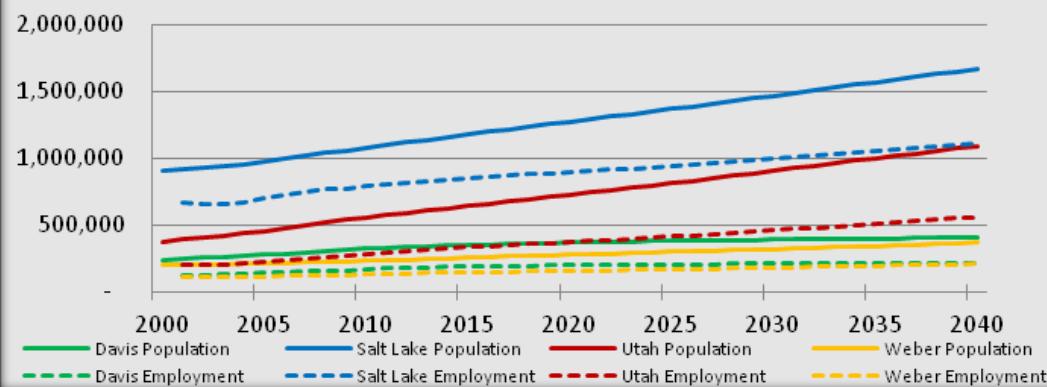
The Governor's Office of Planning and Budget (GOPB) forecasts Utah County's total population to double by 2040, to 1,092,450 (2.7% annual increase). Total employment follows a similar trend growing 97%, from 283,915 jobs to 560,058, or a 2.2% annual average rate of change.

For details on Land Use and Socio-Economic Growth see Appendix - Travel Demand

GENERALIZED LAND USE MAP



GROWTH BY WASATCH FRONT COUNTY

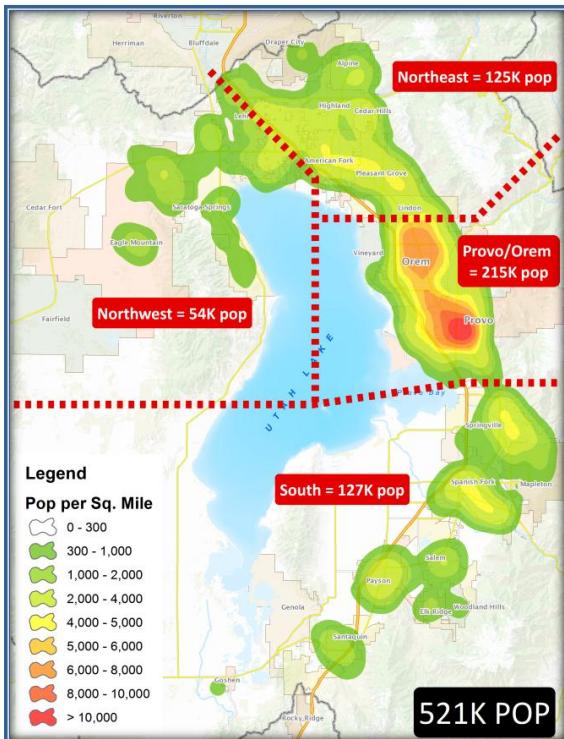


2040 METROPOLITAN TRANSPORTATION PLAN

SOCIO-ECONOMIC DISTRIBUTION

Population density in 2007 was centered in the Orem/Provo area. However, the highest growth over the last decade has been in northwest Utah County, particularly in Lehi, Saratoga Springs, and Eagle Mountain. Mainly attributed to a convergence of the Salt Lake City and Provo/Orem Metro areas, it is anticipated to continue to experience the highest growth into the foreseeable future. While population

2007 POPULATION DENSITY



increased in the southern county, densities still remain at rural levels with slowly expanding core areas. The Orem/Provo area will retain its core status as the population and employment center, but urbanization will spread northward along the I-15 freeway corridor.

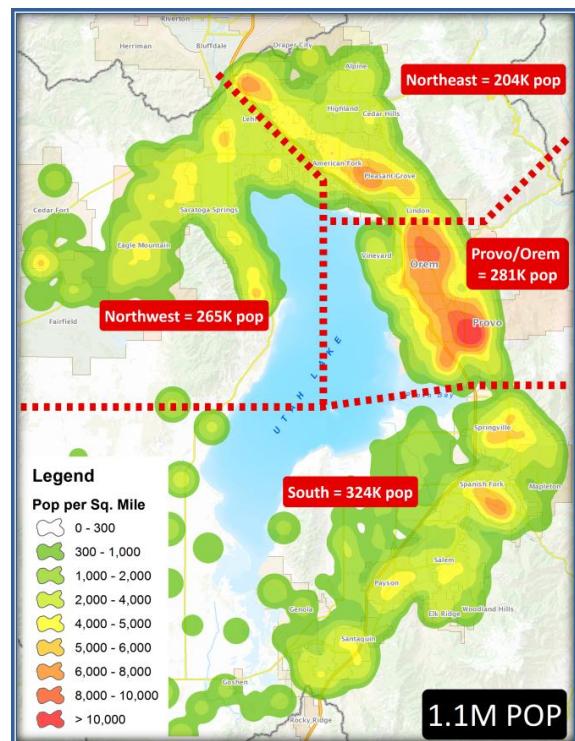
TRIP GENERATION

One of the key components of trip generation in the travel demand model is the relative placement of the households to employment.

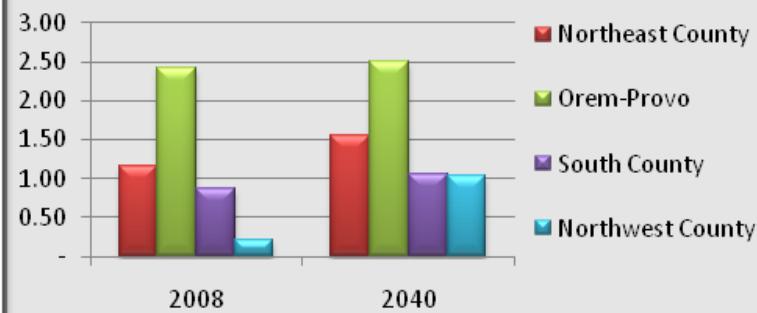
Rural areas tend to have a very low jobs/households ratio and more urbanized areas a higher ratio.

In 2007, the Orem/Provo area attracted the most work and non-work trips from all other areas of the county, reflective of a core urbanized area, with more than 2.4 jobs for every household. By 2040, changing patterns of urbanization will redistribute trip generation, but the Provo/Orem core will maintain the highest number of trip destinations.

2040 POPULATION DENSITY



JOBs PER HOUSEHOLD RATIO

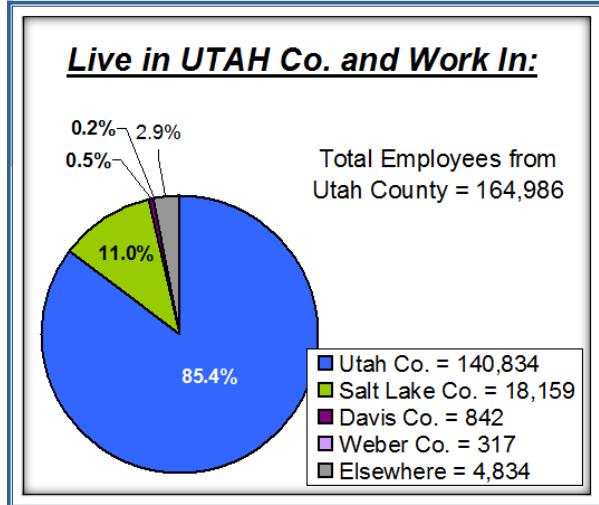


2040 METROPOLITAN TRANSPORTATION PLAN

INTER-COUNTY COMMUTING

While the large majority of working residents are employed within county boundaries, a significant and growing number travel north to Salt Lake County. This northbound commute is and has always been larger than the reverse southbound commute, but both are growing and contributing to the increasing demands on I-15.

As a result of the population growth in north Utah County, the inter-county commute, and the linear configuration of urban development along I-15, the freeway will reach capacity and become congested by 2030, even with the current major reconstruction effort.



MODE SPLIT

Work trips by automobile (either drive alone or car pool) account for the vast majority of all work trips at 87%, and these trips place the highest demand on the transportation system. Increasing highway capacity to meet future demand will be both extremely expensive and reduces air quality. The MTP actively seeks to spread demand to other travel modes to help mitigate these negative impacts.

Projected mode split change come about as a result of:

- Improvements listed in the MTP
- Further urbanization and densification of the area
- Convergence of Utah and Salt Lake Counties
- Other socio-economic trends

MODE SPLIT CENSUS 2000 DATA

Mode	2000 Percent
Drive Alone	72.5%
Car Pool	14.9%
Transit	1.4%
Walk	4.9%
Work at Home (Telecommuting)	5%
Other	1.3%

MODE SPLIT IRCAA 2030 DATA

Mode	2030 Percent
Drive Alone	62%
Car Pool in I-15 HOV Lanes	26%
Transit	12%

LEVEL-OF-SERVICE

Highway Level-of-Service (LOS) is a determination of the comfort and convenience experienced by travelers. Elected officials in Utah County have adopted a policy for planning of a Level-of-Service D, a balance between convenience and cost in view of the funding available. The national standard is to plan for a LOS C.

A		FREE FLOW: Low volumes and no delays
B		STABLE FLOW: Speeds restricted by travel conditions, minor delays
C		STABLE FLOW: Speeds and maneuverability closely controlled due to higher volumes
D		STABLE FLOW: Speeds considerably affected by change in operation conditions. High density traffic restricts maneuverability, volume near capacity
E		UNSTABLE FLOW: Low speeds, considerable delay, volume at over slightly over capacity
F		FORCED FLOW: Very low speeds, volumes exceed capacity, long delays with stop-and-go traffic

2040 METROPOLITAN TRANSPORTATION PLAN

TRAVEL DEMAND MODEL OUTPUTS

Model outputs illustrate the expected changes to travel demand over the next 30 years, and highlight those facilities that are or will become problematic, and approximately when. The following maps show how existing and proposed facilities fare as growth continues.

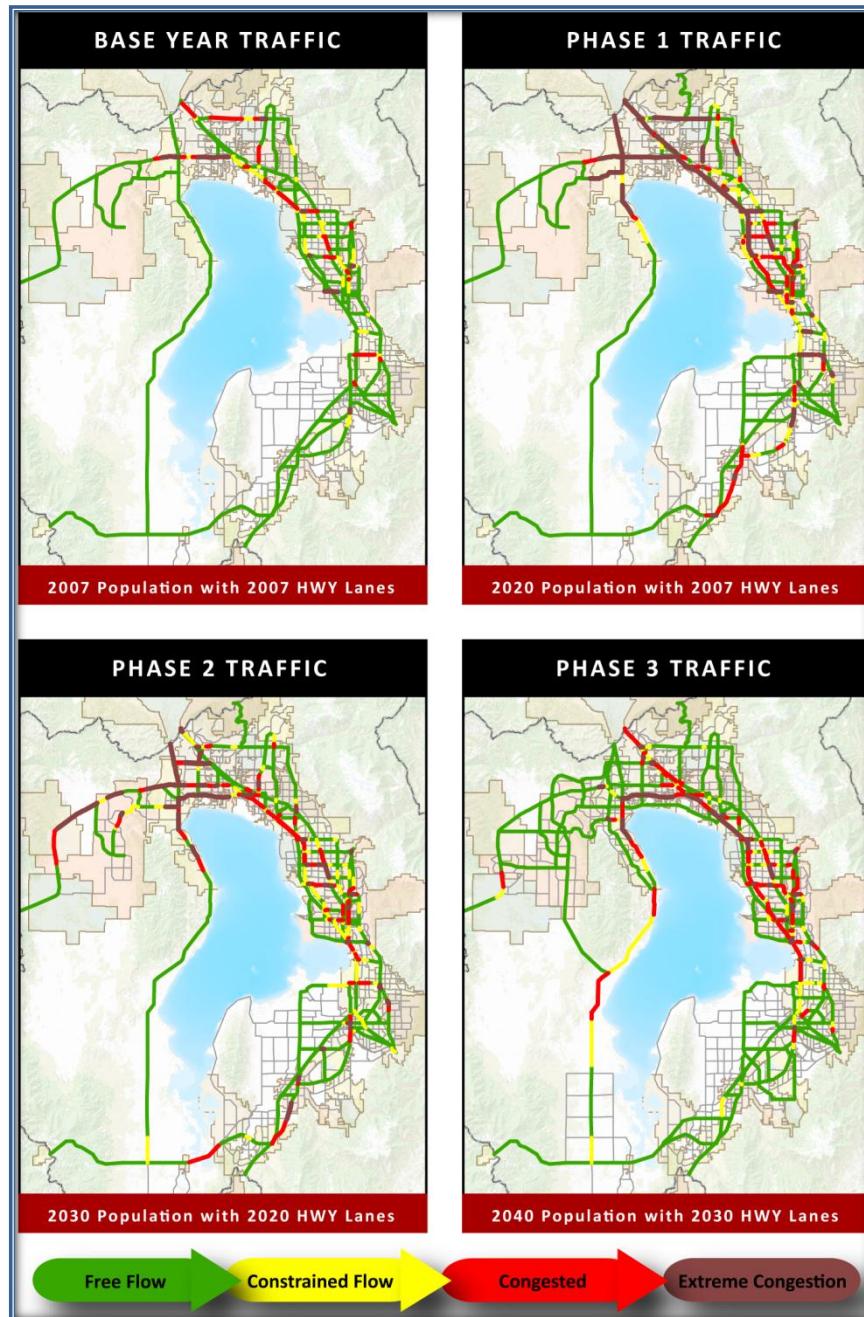
FUTURE PROBLEMS

By 2040, I-15 freeway at 12 lanes is heavily congested and has reached capacity. Many major arterials in the north county are experiencing high congestion levels. Two prominent bottleneck areas in the county, Lindon and Springville, cannot function without reliever corridors. An expansion of major highway facilities in the county is needed.

To identify needed highway projects for the plan, projects from the previous MPO MTP, city master transportation plans, and transportation studies are considered.

Staff then runs the region travel demand computerized model to see if the demand is met. Phase 1 is run using the socio-economic data for 2020 (population, employment, households) compared to 2007 (The Base Year model network). This illustrates where congestion will be in 2020 if no improvements are made to the highway network. It also allows the MPO to visualize where needed highway projects should be planned. Projects are

FUTURE TRAFFIC VOLUMES MAPS



proposed from the list mentioned above and the model is then run again for Phase One-2020, with the new projects added to see if the travel demand is met. This process is then repeated for each phase of the plan to 2040.

2040 METROPOLITAN TRANSPORTATION PLAN

Once the three phases of the plan are modeled and a draft listing of projects is created, MPO staff review the projects with each municipality, the county, and the Utah Department of Transportation gaining input on any needed changes. A major theme in the plan for this update was the need for additional large highway facilities by 2040.

PROPOSED SOLUTIONS

A major goal of the MTP is to build a diverse, comprehensive, and multi-modal transportation system that serves the needs of all Utah County residents. Proposed Solutions are those improvements in roads, transit, and bike-pedestrian facilities that will continue to move us in that direction.

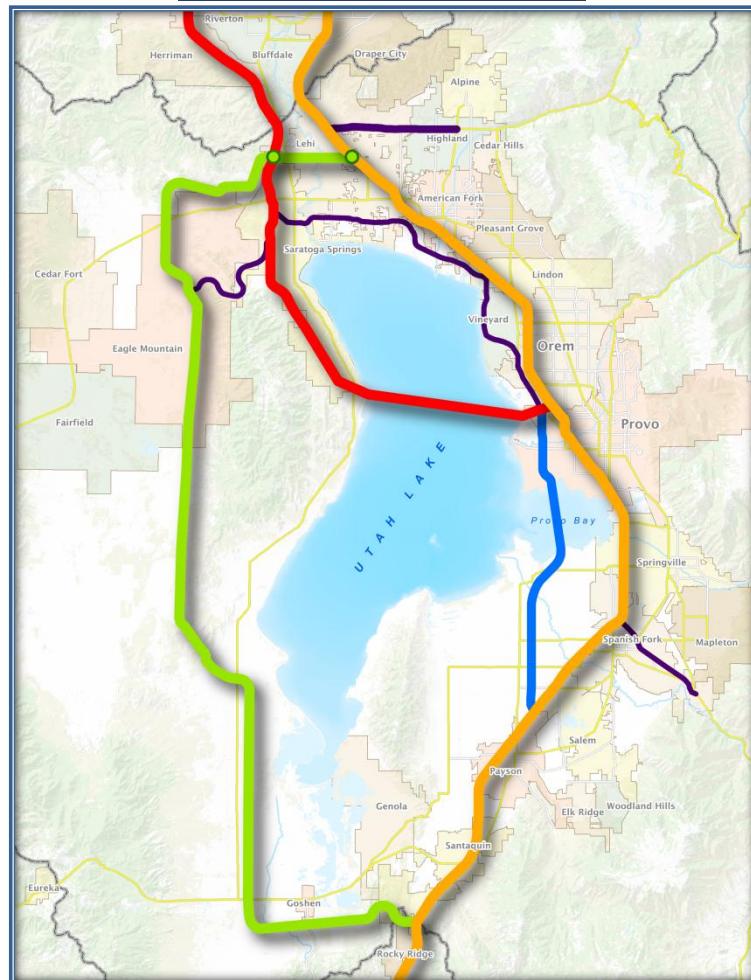
PREFERRED FREEWAYS

Congestion relief in all of the bottleneck areas is achieved by inclusion of the freeway preferred scenario projects, with all the modeled freeways carrying freeway levels of traffic by 2040.

- Lake Mountain Freeway - Mountain View Freeway Saratoga Springs via the north Cedar Pass alignment and east Eagle Mountain alignment south to Santaquin. (Green)
- Mountain View Freeway/Utah Lake Crossing - Continue Mountain View Freeway south through Saratoga Springs and across Utah Lake via a bridge connecting I-15 at about Provo 2000 North. (Red)
- Lehi 2100 North - Freeway connects I-15 to Mountain View Freeway (Green)
- South Wasatch Freeway - I-15 Payson to the Mountain View Freeway in Provo. (Blue)

- Vineyard Connector/Pioneer Crossing Expressway - Extends South Wasatch Freeway northward via proposed Vineyard Connector and becomes Pioneer Crossing. (Purple)
- Hidden Valley Expressway - Proposed southern corridor through the Cedar Pass area between Saratoga Springs. (Purple)
- Timpanogos Highway/SR-92 - Convert to an expressway (Purple)
- US-6 Spanish Fork - Convert to an expressway (Purple)

FREEWAY PREFERRED SCENARIO



2040 METROPOLITAN TRANSPORTATION PLAN

ROADS AND HIGHWAY SELECTION

In addition to freeways, improvements to lesser arterials and collector ROADS ADDRESS other micro regional mobility needs, as continuing population expansion and commercial

development requires increased access and capacity. The Final List of Road Projects provides a comprehensive view of needed roadway improvements.

HIGHWAY PROJECTS Projects Not Ranked		Phase 1	Phase 2	Phase 3	Vision	COST IN MILLIONS
FREEWAY / EXPRESSWAY PROJECTS						
1	I-15 Freeway CORE Reconstruction - Lehi to Spanish Fork Lehi Main Street to Spanish Fork River Reconstruct freeway, interchanges, add capacity, Carpool Lanes					1593.9
2	I-15 Freeway Reconstruction - Draper to Lehi Draper to Lehi Main Street Reconstruct freeway and interchanges, add capacity (cost UC portion)					480.0
3	I-15 Freeway Widening - Spanish Fork to Payson Spanish Fork River to Payson 800 South Reconstruct freeway and interchanges, add capacity					60.8
4	I-15 / Benjamin Interchange Reconstruct interchange					48.7
5	I-15 / Orem 800 South Interchange New HOV interchange connecting to Utah Valley University					124.1
6	I-15 / Payson Main Street Interchange Reconstruct interchange					48.7
7	I-15 / Santaquin Main Street Interchange Reconstruct interchange					36.5
8	Lehi 2100 North Frontage Roads Redwood Road to I-15 Freeway Phase 1 frontage roads with at grade intersections					120.6
9	Timpanogos Highway / SR-92 - Lehi to Highland I-15 Freeway to Alpine Highway Widen 2 lane sections to 4 lanes, add commuter lanes and trail					143.6
10	Hidden Valley Expressway / Freeway Mountain View Freeway, Saratoga Springs to Lake Mountain Expressway, Eagle Mountain					156.5
11	I-15 / Lehi 4000 North Interchange New interchange					81.4
12	I-15 / Nebo Beltway Expressway Interchange - Payson New interchange					72.0
13	I-15 / Spanish Fork Center Street Interchange New interchange					81.4
14	I-15 / Springville 1600 South/Sp Fork 2700 North Interchange New interchange					54.0
15	I-15 / Utah County 12400 South Interchange New interchange between Payson and Santaquin					54.0
16	Lake Mountain Expressway - Eagle Mountain SR-73 to Eagle Mountain Blvd New 6 lane expressway through Eagle Mountain					114.6

2040 METROPOLITAN TRANSPORTATION PLAN

17	Lake Mountain Freeway - Saratoga Springs to Eagle Mountain Mountain View Freeway to SR-73 New freeway originating at Mountain View/Lehi 2100 N via Camp Williams	666.3
18	Lehi 2100 North Expressway - Saratoga Springs to Lehi Mountain View Freeway to I-15 New 6 lane Expressway with 4 lane frontage road system	268.9
19	Mountain View Freeway - Salt Lake County to Saratoga Springs I-80 Salt Lake County to Hidden Valley Freeway (cost Utah County portion)	450.3
20	Nebo Beltway Expressway - Payson to Woodland Hills I-15 Freeway to Woodland Hills Drive Widen 2 lane portion to 4 and new 4 lane road	82.4
21	Timpanogos HWY / SR-92 - Lehi to Highland Lehi 1200 East to Alpine Highway, Highland Add express lanes	126.5
22	US-6 - Spanish Fork I-15 to Spanish Fork Center Street Widen to 6 lanes	21.5
23	I-15 Freeway Widening - Payson to Santaquin Payson 800 South to Santaquin Main Street Widen freeway and interchanges	717.6
24	Mountain View Freeway (Foothill) - Saratoga Springs Pony Express Parkway to Utah Lake Crossing Continuation of Mountain View Freeway to south	1,032.6
25	Pioneer Crossing/Vineyard Expressway Mountain View Freeway, Saratoga Springs to South Wasatch Freeway, Provo 6 Lane Expressway	376.5
26	South Wasatch Freeway - Payson to Provo I-15, Payson to Provo/Orem New Freeway to bypass I-15 Springville Choke Point	1,786.1
27	Cedar Valley Freeway Lake Mountain. Freeway, Eagle Mountain to I-15, Santaquin New Freeway on westside of county	NA
28	Lake Mountain Expressway Eagle Mountain Blvd to Cedar Valley Freeway New 6 lane expressway through Eagle Mountain	NA
29	Nebo Beltway Expressway Woodland Hills to Spanish Fork New loop road in southeast area of valley	NA
30	I-15 Freeway Frontage Road System/Provo 820 North Interchange Provo 900 South to Orem 800 South Both facilities will be studied, one chosen	NA
31	Point of the Mountain Freeway - Lehi I-15 to Mountain View Freeway New Freeway connecting I-15 to Mountain. View Freeway	NA
32	Utah Lake Crossing Freeway Mountain View Freeway, Saratoga Springs to I-15, Provo/Orem Opt. A - Proposed private crossing Opt. B - MPO modeled alt.	NA

2040 METROPOLITAN TRANSPORTATION PLAN

PRINCIPLE HIGHWAY PROJECTS

33	Geneva Road / SR-114 - Orem Orem 2000 South to Orem 1600 North Widen to 4 lanes, add RR bridge at Orem 400 South	113.9
34	Geneva Road / Pleasant Grove 100 East Connection Connect roads at State Street New 4 lane connector road	5.7
35	SR-73 - Saratoga Springs to Eagle Mountain Redwood Road to Ranches Parkway Widen 2 lane portion to 4 lanes, add trail	8.8
36	SR-198 - Spanish Fork to Payson Arrowhead Trail to Payson 1500 South Widen to 4 lanes	75.6
37	North County Blvd (Utah County 4800 West) SR-92 to State Street, American Fork Widen 2 lane section to 4	72.1
38	Orem 800 North / SR-52 Geneva Road to Orem 400 West Widen to 6 lanes	12.7
39	Pioneer Crossing Extension - Saratoga Springs Redwood Road to SR-73 New 4 lane road connecting Pioneering Crossing to SR-73	16.8
40	Pony Express Parkway - Saratoga Springs to Eagle Mountain Redwood Road to Smith Ranch Road Widen 2 lane portion to 4 lanes, add trail	22.0
41	Provo 500 West Provo 300 South to Westside Connector Road Widen 2 lane portion to 4 and new 4 lane road, add bike lanes	12.1
42	Redwood Road / SR-68 - Saratoga Springs Saratoga Springs 400 North to Stillwater Parkway Widen to 4 lanes, add trail	29.0
43	Santaquin Main Street / US-6 I-15 Freeway to Santaquin 500 West Widen to 4 lanes, add trail	10.3
44	State Street / US-89 - Orem to Pleasant Grove Orem 1800 North to Geneva Road, Pleasant Grove Widen 4 lane portions to 6	6.2
45	State Street / US-89 - Pleasant Grove to American Fork Pleasant Grove 200 South to American Fork 100 East Widen to 6 lanes	26.7
46	State Street / US-89 - American Fork to Lehi American Fork Main Street to Lehi Main Street Widen to 6 lanes	9.7
47	University Parkway / SR-265 - Orem to Provo State Street, Orem to University Ave, Provo Widen to 6 lanes	34.1
48	Westside Connector Road I-15 / University Ave interchange to Provo Center Street New 4 lane road	28.7

2040 METROPOLITAN TRANSPORTATION PLAN

49	Arrowhead Trail / 8000 South - Spanish Fork to Salem Spanish Fork Main Street to Utah County 3200 West Widen to 4 lanes	46.2
50	SR-73 - Eagle Mountain to Cedar Fort Ranches Parkway to Eagle Mountain 3400 North Widen to 4 lanes	134.5
51	Payson Main Street / SR-115 I-15 Freeway to Payson 100 North Widen to 4 lanes	8.3
52	Pleasant Grove 100 East / Canyon Road / SR-146 State Street, Pleasant Grove to SR-92, Highland Widen to 4 lanes	34.6
53	Pony Express Parkway - Eagle Mountain Ruby Valley Drive to Eagle Mountain 2500 North Widen 2 lane portion to 4 lanes, add trail	83.8
54	Pony Express Parkway - Saratoga Springs to Pleasant Grove Redwood Road to I-15 / Pleasant Grove Interchange Widen 2 lane portions to 4 lanes and new 4 lane road, add trail	163.5
55	Provo 800 / 820 North / 700 North Geneva Road to Provo 900 East Widen to 4 lanes, add bike lanes	51.3
59	Redwood Road / SR-68 - Saratoga Springs Stillwater Parkway to Mountain View Freeway Widen to 4 lanes, add trail	41.1
57	Springville 400 South / SR-77 I-15 Freeway to Palmyra Widen to 4 lanes	45.1
58	University Ave / US-189 - Provo Provo 900 South to 400 South Reconstruct Provo 600 South RR bridge	54.0
59	US-6 - Santaquin to Elberta Santaquin 500 West to Redwood Road, Elberta Widen to 4 lanes	53.2
60	US-89 - Mapleton Mapleton 1200 North to Mapleton 1600 South Widen to 4 lanes	24.4
61	SR-73 - Saratoga Springs to Eagle Mountain Mountain View Freeway to Lake Mountain Freeway Widen to 6 lanes	108.0
62	SR-198 - Payson to Santaquin Payson 1500 South to Santaquin Main Street Widen to 4 lanes	50.9
63	Orem 800 North / SR-52 Orem 1000 East to University Ave, Provo Widen to 6 lanes, interchange improvements	73.3
64	Orem 800 North / SR-52 Geneva Road to Pioneer Crossing / Vineyard Expressway New 6 lane road	25.7

2040 METROPOLITAN TRANSPORTATION PLAN

65	University Ave - Provo University Parkway to Orem 800 North Widen to 6 lanes	91.4
MINOR HIGHWAY PROJECTS		
66	Elk Ridge Drive - Salem SR-198 to Utah County 8000 South New 2 lane road	9.7
67	Lehi 2300 West SR-92 to Pony Express Parkway Widen 2 lane portion to 4 and new 4 lane road	78.0
68	Meadows Connection Road American Fork 200 South to State Street New I-15 Freeway crossing to American Fork commuter rail station	49.5
69	Orem 1600 North Orem 1200 West to Orem 400 West Widen 2 lane portion to 4	6.3
70	Orem Center Street Geneva Road to I-15 Freeway Widen 2 lane portion to 4	2.8
71	Pleasant Grove Blvd I-15 Freeway to State Street Widen to 4 lanes	10.9
72	Provo Center Street / SR-114 - Provo I-15 Freeway to Provo 3110 West Widen to 4 lanes	11.5
73	North West Connector Road - Provo Westside Connector Road to Geneva Road New 4 lane road	34.7
74	Spanish Fork Center Street Spanish Fork 900 East to US-6 Widen 2 lane portion to 4	1.6
75	Springville 1400 North / SR-75 I-15 Freeway to Springville Main Street Widen to 4 lanes	48.7
76	American Fork 100 East Alpine Highway / SR-74 American Fork Main Street to SR-92 Widen to 4 lanes, add bike lanes	43.0
77	Canyon Crest Drive - Highland to Alpine SR-92 to Alpine Highway Widen to 4 lanes	14.1
78	Eagle Mountain Blvd SR-73 to Lake Mountain Freeway Widen to 4 lanes	64.2
79	Lehi Main Street / SR-73 Redwood Road to Lehi 500 West Widen to 4 lanes	53.3
80	Orem 1600 North 800 East Orem 400 West to Orem 800 South Widen 2 lane portion to 4	51.4

2040 METROPOLITAN TRANSPORTATION PLAN

81	Orem 800 South / Provo 3700 North Orem 800 East to University Ave, Provo Widen to 4 lanes	19.5
82	Orem Center Street I-15 Freeway to State Street Widen to 6 lanes	22.7
83	Pacific Ave Bypass Road - American Fork State Street to American Fork 500 East to State Street Widen to 4 lanes	40.4
84	Ranches Parkway - Eagle Mountain SR-73 to Lake Mountain Freeway New 4 lane road	11.7
85	Springville 1600 South / Spanish Fork 2700 North Spanish Fork Main Street to US-89, Springville Widen 2 lane portion to 4 and new 4 lane road, add RR bridge	92.8
86	Utah County 12400 South SR-198, Santaquin to US-6, Genola Widen to 4 lanes	96.7
87	Woodland Hills Drive - Salem SR-198 to Utah County 11200 South Widen to 4 lanes	40.9
88	Eagle Mountain 3400 North SR-73 to Lake Mountain Freeway New 4 lane road	94.4
89	Eagle Mountain 5600 North SR-73 to Lake Mountain Freeway New 4 lane road	95.6
90	Spanish Fork Main Street / Provo 500 West Connector Road I-15 Freeway Spanish Fork to Provo Westside Connector Road Widen 2 lane portion to 4 and new 4 lane road	169.2

I-15 CORE: MOVING THE SAM WHITE BRIDGE INTO PLACE ON I-15 IN APPROXIMATELY 8 HOURS

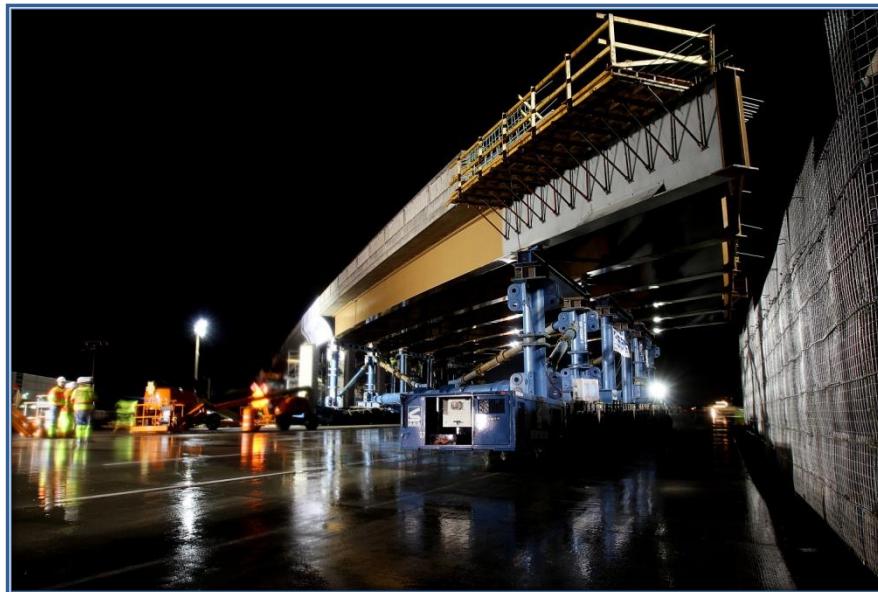


PHOTO COURTESY OF I-15 CORE / PRC

2040 METROPOLITAN TRANSPORTATION PLAN

TRANSIT SELECTION

The transit portion of the MTP identifies strategic scenarios for the development of the public transit system in Utah County. This plan identifies mass transit needs for local communities as well as intercity travel between Utah County and the Salt Lake Valley within a thirty-year horizon. Transit Planning details are covered in Appendix - Transportation System Programs.

Projects are determined with the following goals:

- **Ridership:** Increase ridership at a rate greater than population growth.
- **Quality:** Provide transit service that is fast, frequent, and reliable
- **Productivity:** Increase transit ridership per unit of service.
- **Efficiency:** Reduce the cost per passenger by maximizing ridership and minimizing operating costs.
- **Access:** Maximize access to the transit system

It is expected that as population and employment grow, more areas of the county will have densities to support internal, circulating transit routes.

KEY TRANSIT IMPROVEMENTS

BUS RAPID TRANSIT

Bus Rapid Transit (BRT) operates much like light rail with buses in designated bus lanes to avoid congestion and having traffic signal preemption to speed running times.

PROVO-OREM BUS RAPID TRANSIT LINE

This line is currently under study. Travel demands of residents and commuters in the study area are expected to exceed capacity of the existing transportation system in 2030. The needs result from:

- Increasing travel demand and insufficient roadway capacity
- Insufficient transit capacity
- Poor transit reliability and travel time
- Lack of high-quality alternatives to auto travel
- Lack of connectivity across I-15 and from I-15 to Orem and Provo



The Provo-Orem Bus Rapid Transit Project has completed an Environmental Assessment and is awaiting federal clearance.

OTHER PROPOSED BRT PROJECTS

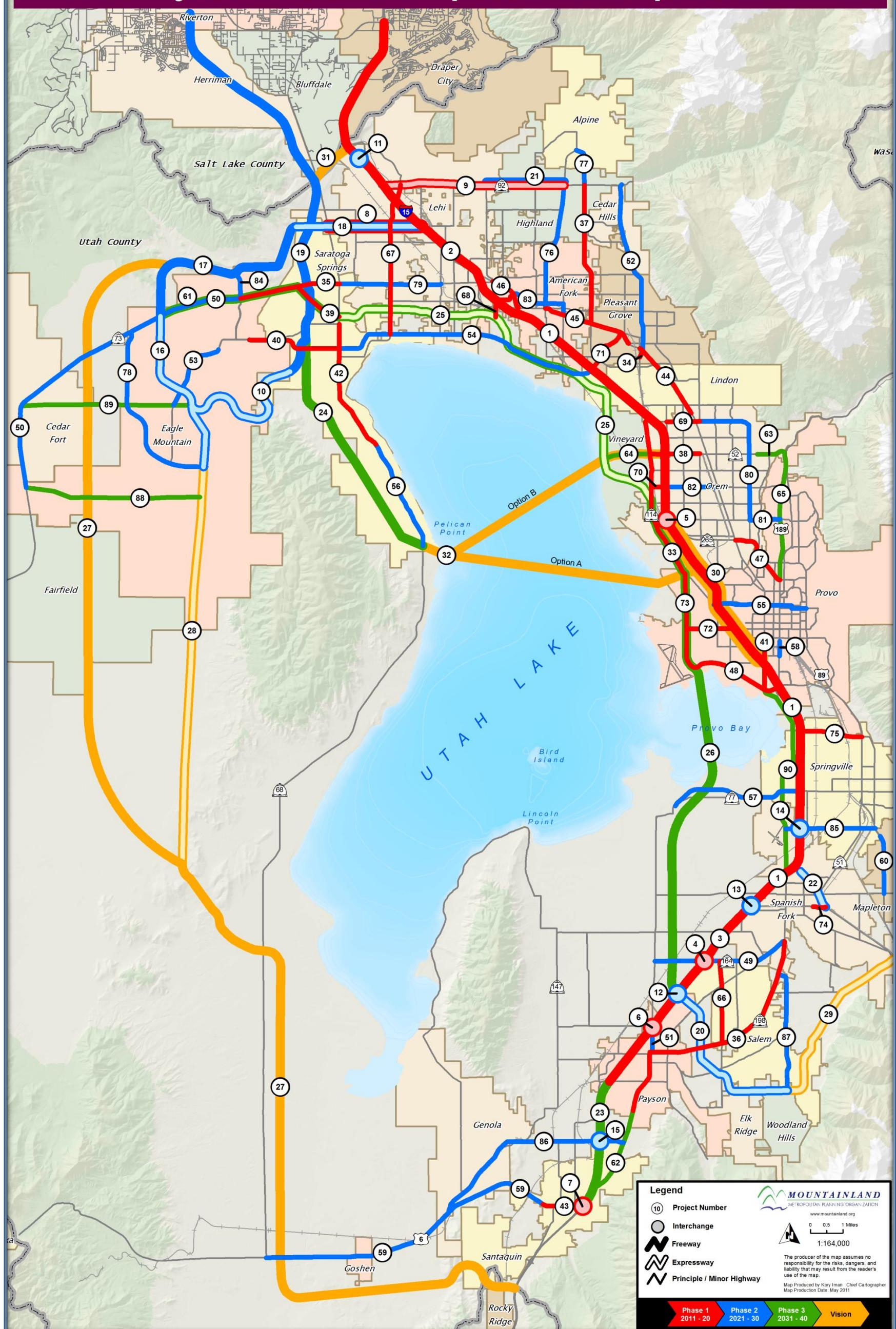
- Lehi to Lindon line
- Provo to Spanish Fork Line
- American Fork to Eagle Mountain Line
- Spanish Fork to Payson Line
- American Fork to Provo Line

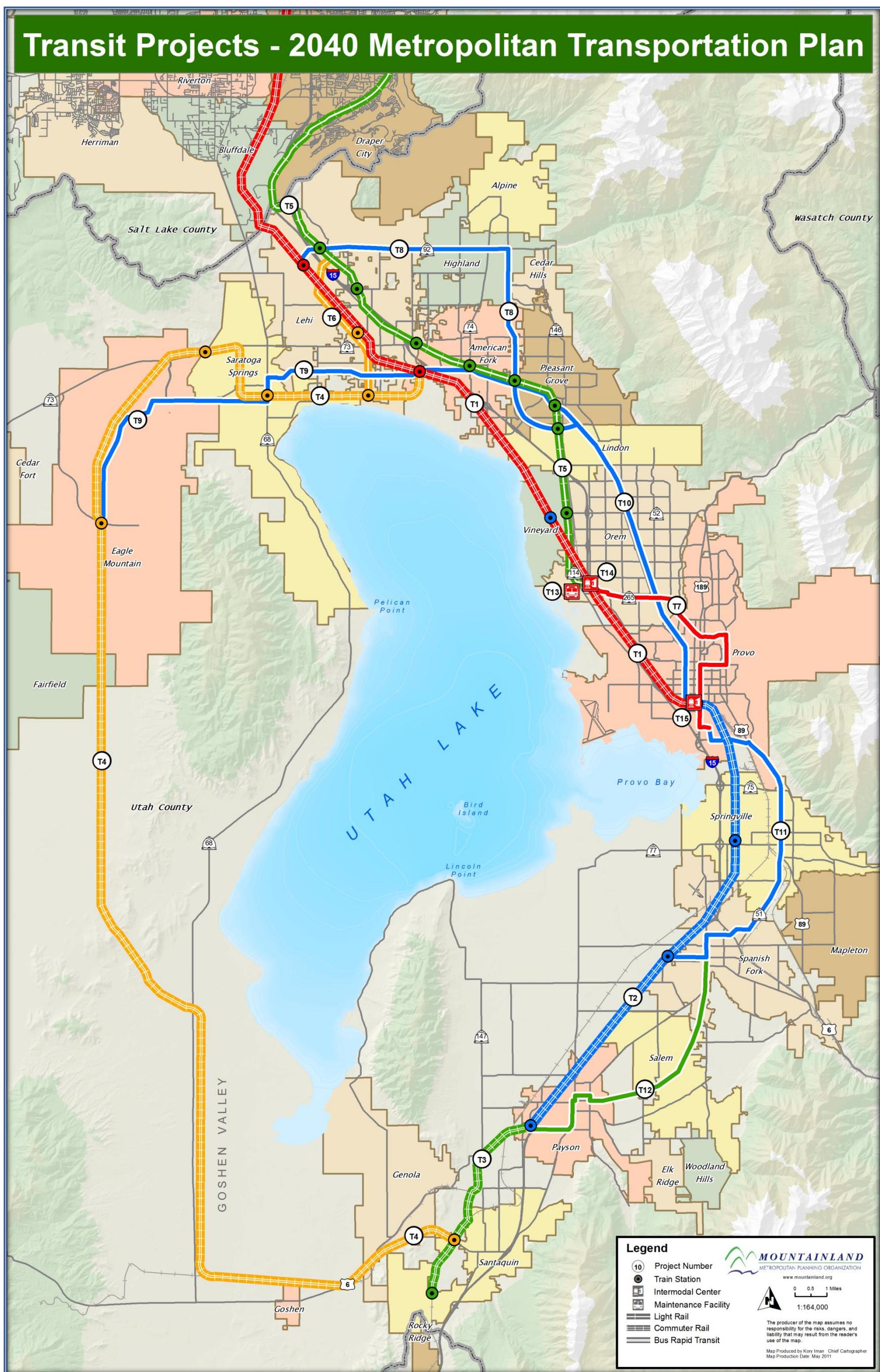
Bus Service

A new bus network has been developed in partnership with UTA. Transit stations in various parts of the county connect localized routes to high frequency core routes along the I-15 corridor.

2040 METROPOLITAN TRANSPORTATION PLAN

Road Projects - 2040 Metropolitan Transportation Plan





2040 METROPOLITAN TRANSPORTATION PLAN

Significant enhancements will be made through increased frequencies or headways on existing routes, adding reverse commute express routes, bus/HOV lanes on I-15 and additional high-capacity articulated buses. New park and ride facilities, commuter rail and light rail stations will increase both capacity and connectivity to local areas.

INTERMODAL CENTERS

Intermodal centers are being constructed in Orem and Provo. UTA bus, commuter rail, Bus Rapid Transit, Amtrak, perhaps local taxi companies, Greyhound Bus Lines, and bus tour operators could service the centers. Adjoining park and ride lots, transit oriented development, mixed use development, and bicycle and pedestrian connections are planned.

LIGHT RAIL

Commercial growth in North Utah County will make a 6.5 mile extension of light rail from the Salt Lake County line to the Orem Intermodal Center feasible. Anticipated operations would begin by approximately 2040.

Future Corridor for light rail would be shown as a vision project to extend through Lehi, Saratoga Springs, and Eagle Mountain. More study is needed to determine the location of this line and its timing.

COMMUTER RAIL

A new 44 mile long commuter rail line connecting Salt Lake City to Provo is under construction. Operations are planned to begin in 2013.

The second phase of Commuter Rail would expand the line from Provo to Payson. A third phase would continue the line to Santaquin.

PARATRANSIT

Paratransit offers transportation to persons who are prevented from using the fixed UTA routes available to the general public. Persons who are mentally, physically, or temporarily disabled may be eligible for the service. The future Paratransit system will need to implement if the following changes.

1. Replacement of worn out vans and older buses without wheelchair lift devices. All UTA regular service buses are wheelchair lift equipped.
2. Upgraded scheduling functions with a switch from manual to software based systems
3. Smaller wheelchair lift equipped vans for low-demand periods or trips that are removed from the central service area.

MOBILITY MANAGEMENT

Improved coordination of transportation services for special needs individuals is needed. The numerous service providers work in relative isolation, provide duplicate service, or are inefficient. Recently formed local area coordinating councils in both Utah and Salt Lake County are working to integrate and coordinate services.

VISION SCENARIOS

The Vision Scenario presents a plausible future based on principles of Smart Growth. Such outcomes are dependent on changes to local land use practices. While the MPO does not determine local practice, it does promote Smart Growth Principles as good planning practices.

FRONTRUNNER SOUTH



2040 METROPOLITAN TRANSPORTATION PLAN

Transit PROJECTS

Projects Not Ranked

Phase 1 Phase 2 Phase 3 Vision

COMMUNTER RAIL PROJECTS

T1	Salt Lake City to Provo Line
T2	Provo to Payson Line
T3	Payson to Santaquin Line
T4	American Fork to Santaquin Line (via Cedar Valley)

LIGHT RAIL PROJECTS

T5	Draper to Orem Line
T6	Lehi to Eagle Mountain Line

ENHANCED BUS OR RAPID TRANSIT PROJECTS

T7	Provo to Orem Line
T8	Lehi to Lindon Line
T9	American Fork to Eagle Mountain Line
T10	American Fork to Provo Line
T11	Provo to Spanish Fork Line
T12	Spanish Fork to Payson Line

OTHER TRANSIT PROJECTS

T13	Bus Maintenance Facility Expansion
T14	Orem Intermodal Center
T15	Provo Intermodal Center



OREM TRANSIT CENTER

UTA BUS WITH BIKE RACK



2040 METROPOLITAN TRANSPORTATION PLAN

BICYCLE AND PEDESTRIAN IMPROVEMENTS

Utah County leaders have embraced non-motorized transportation as integral to improving air quality, reducing congestion, and reducing travel costs.

While major highway and transit facility construction consume the vast majority of transportation dollars, bicycle and pedestrian access are low-cost and low-impact improvements to a truly multi-modal transportation system. Initial construction

outlays, especially where facilities are included in the design and construction of highway projects, is very low, at less than 5% of project costs.



**COLLEGE CONNECTER TRAIL
BESIDE UNIVERSITY PARKWAY**

The goal of the bicycle/pedestrian system is to reduce vehicle trips and mitigate traffic congestion. As Utah Valley continues to grow and urbanize, so the need and demand for multi-use paths, neighborhood connections, on-street bike lanes, sidewalks and pedestrian friendly development increases. Walking and biking are viable alternatives to driving for short trips, typically under two miles. For longer trips connections to transit are vital. The MTP identifies a network that connects population and employment centers to each other, based on projected densities through 2040.

The major impedance to implementing the region-wide, interconnected bike/ped system as envisioned in the MTP is funding. Estimated

costs to implement the MTP projects are nearly \$500 million over thirty years. While MAG and its partners have committed tens of millions of dollars to improvements, the \$16 million annual cost to create the needed system is beyond available funding sources. However, continued steady efforts at integration with roadway projects and proper use of available funds will make biking and walking increasingly viable over time.



**PROVO RIVER TRAIL AT
RIVERWOODS OUTDOOR MALL**

Bike/Ped projects for the MTP are based largely on adopted municipal bike/ped plans and input from the Utah Valley Trails Committee is used to help close gaps between cities and determine which facilities are of a regional nature.

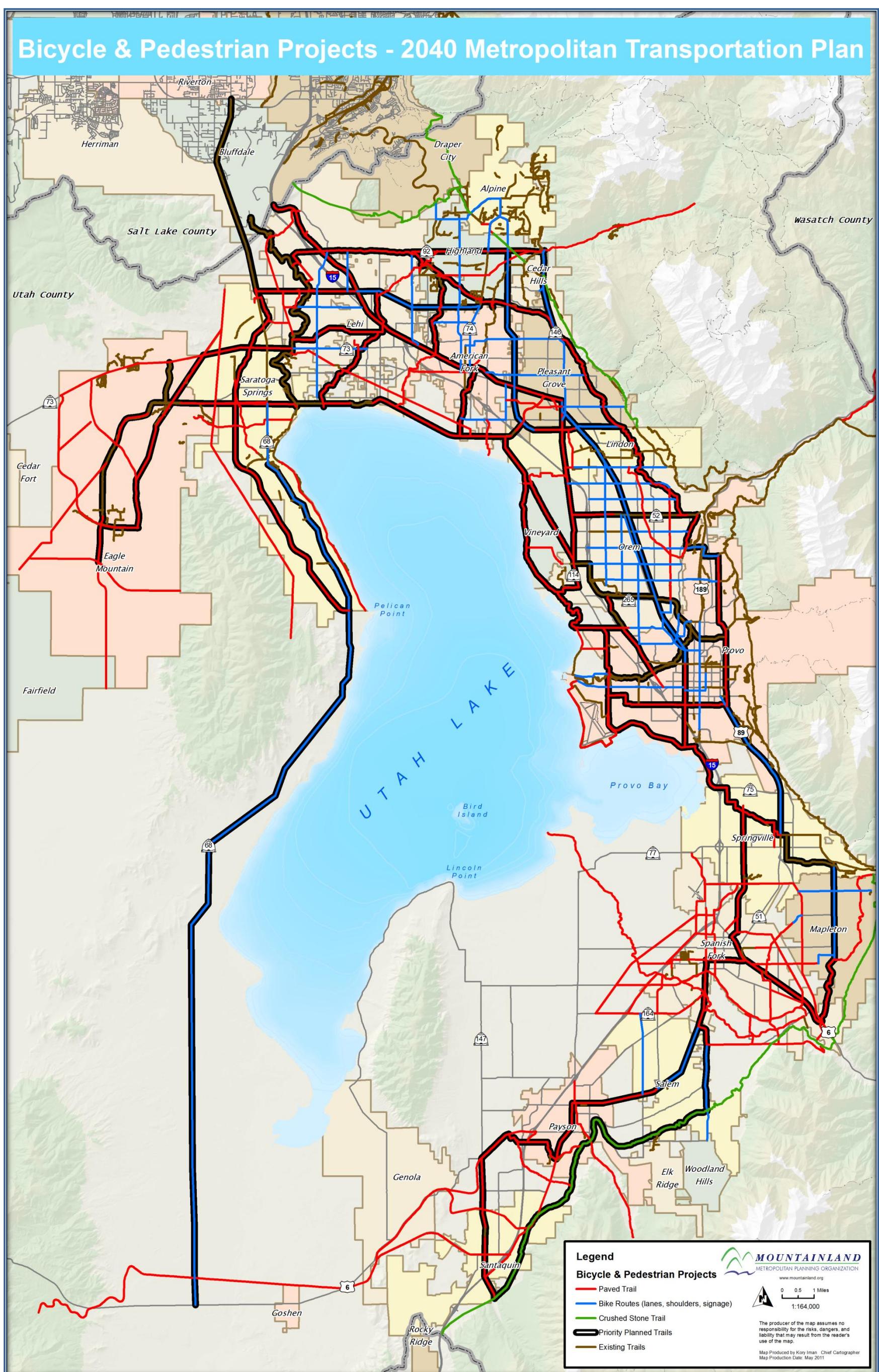


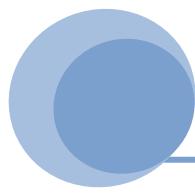
SHARE THE ROAD

2040 METROPOLITAN TRANSPORTATION PLAN



2040 METROPOLITAN TRANSPORTATION PLAN





2040 METROPOLITAN TRANSPORTATION PLAN

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2040 METROPOLITAN TRANSPORTATION PLAN

FINANCIAL PLAN

How is this all paid for? The MTP includes a fiscally-constrained financial plan that provides adequate resources for plan implementation and system operation and maintenance over a 30 year time frame. This includes reasonably expected revenues from FHWA and FTA, state government, regional or local sources, the private sector, and user charges.

The MPO participates in an advanced planning practice called the Unified Transportation Plan, a state-wide coordination of all MPO and UDOT planning. This also provides each agency and the legislature with common funding assumptions based on a universal set of demographic, revenue, and cost estimating data.

Funding assumptions are for planning purposes only. They do not suggest endorsement of any particular tax nor are they intended to craft optimal tax policy. Rather, they are based on past federal and state practices, and include one-time appropriations or bonding scenarios that may or may not materialize, depending on the priorities of elected officials.

Maintenance and Operations of the system is shown to be underfunded, and will remain so unless additional funds are made available.

Vision Projects are those identified as needed beyond the 2040 planning horizon, and are not included in the financial plan.

MPO FUNDING POLICY

Mountainland MPO transportation funding policy is:

- First grow the economy
- Second reallocation of existing funds
- Third entertain tax rate adjustments as a last resort.

SOURCES OF TRANSPORTATION

FUNDS

Transportation funds are generated from sales taxes, highway tolls, bonds, state, local, and federal excise taxes on various fuels, and credit assistance sources.

STATEWIDE 2040 FUNDING ASSUMPTIONS:

- All figures are presented in future year dollar values at 4% annual inflation.
- Federal funds and programs increase at 2% per year.
- The B&C Roads program continues at 30% of total fuel tax revenue.
- By 2017, 100% of auto related sales tax will be dedicated to transportation. (Currently at 50%).
- A 5-cent increase in statewide fuel tax (or other equivalent) in 2014 and each decade after.
- A \$10 statewide increase in vehicle registration fees in 2018 and each decade after.

LOCAL 2040 FUNDING - PLANNING

ASSUMPTIONS:

- A \$5 county increase in vehicle registration fees in 2018 and each decade after.
- Vehicle registrations grow at 2% per year.
- 1/4-cent sales tax in 2020 dedicated to transit.
- Local sales tax funds increase at 5.25- 5.50% per year.
- Increased transit fares and advertising income.

BONDS

Assume 4 percent interest rate with a 20 year retirement.

2040 METROPOLITAN TRANSPORTATION PLAN

REVENUE

Revenue includes all planned funding resulting from the funding assumptions used in the plan which include statewide, local and bonding assumptions.

Planned Revenue Funds in Millions Inflated to Planning Phase	Planning Funds	Phase 1 2011-2020	Phase 2 2021-2030	Phase 3 2031-2040
UDOT FACILITIES				
HIGHWAY REVENUE				
New Capacity Projects	6,837.1	616.3	2,120.6	4,100.2
Bond Revenue (less costs)	676.9	166.3	510.6	0.0
Current Projects & Federal Earmarks	2,389.7	2,115.7	127.0	147.0
Preservation and Operations	2,368.1	556.4	756.4	1,055.3
Total UDOT Revenue	12,271.9	3,454.7	3,514.6	5,302.5
ALL REGIONAL FACILITIES				
HIGHWAY REVENUE				
MPO Federal Funds	225.3	60.8	74.1	90.4
2nd 1/4-Cent Sales Tax (8% Roads / 92% Transit)	80.5	14.3	24.4	41.7
3rd 1/4-Cent Sales Tax (70% Roads / 30% Transit)	804.7	143.0	244.3	417.3
\$10 Vehicle Registration (Started in 2008)	141.2	38.3	46.5	56.4
\$5 Vehicle Registration (2018 and every 10 years)	225.6	6.3	53.8	165.6
B & C Funds - 10%	125.0	23.4	38.6	63.0
Municipal General Fund Contributions - 10%	188.2	45.3	60.9	81.9
Developer / Private Funds	686.0	165.3	222.2	298.6
Total Regional Revenue	2,476.4	496.7	764.8	1,214.9
Total Highway Planning Revenue	14,748.3	3,951.4	4,279.4	6,517.4
UTA				
TRANSIT REVENUE				
1st 1/4-Cent Sales Tax (100% Transit)	829.4	152.4	253.7	423.3
2nd 1/4-Cent Sales Tax (8% Roads / 92% Transit)	962.9	176.9	294.6	491.4
3rd 1/4-Cent Sales Tax (70% Roads / 30% Transit)	50.0	50.0	0.0	0.0
4th 1/4-Cent Sales Tax (100% Transit)	550.1	0.0	206.2	343.9
FTA New Starts Funds and Region Funds	1,781.8	234.0	189.0	1,358.8
Federal Formula Funds	286.5	59.7	90.2	136.6
Bond Revenue	1,000.0	0.0	0.0	1,000.0
Fare Revenue	1,011.2	105.9	287.6	617.7
Advertising Revenue	25.6	3.7	8.2	13.7
Total Transit Planning Revenue	6,497.5	782.6	1,329.5	4,385.4
Total Highway and Transit PLANNED REVENUE	21,245.8	4,734.0	5,608.9	10,902.8

2040 METROPOLITAN TRANSPORTATION PLAN

EXPENDITURES

Expenditures include total costs of operation and maintenance plus proposed capacity improvements to the transportation system.

System Preservation/Operations Funds in Millions to Planning Phase	Planning Funds	Phase 1 2011-2020	Phase 2 2021-2030	Phase 3 2031-2040
HIGHWAY PRESERVATION/OPERATIONS				
Bridge Preventive Maintenance				
Bridge Preventive Maintenance	27.0	9.0	9.0	9.0
Bridge Rehabilitation / Replacement	84.1	15.9	25.9	42.3
Contractual Maintenance	681.1	128.9	210.0	342.1
Hazard Elimination, Safety, Enhancements	181.6	34.4	56.0	91.2
Highway Rehabilitation / Replacement	81.6	27.2	27.2	27.2
Operations	1,114.6	300.8	366.7	447.0
Region / Department Contingencies	17.9	6.0	6.0	6.0
Signals, Spot Improvement, Lighting, Barriers	180.2	34.1	55.6	90.5
Total HWY Preservation/Operations	2,368.1	556.4	756.4	1,055.3
Unmet System HWY Preservation Needs	1,285.8	243.4	396.5	645.9
TRANSIT OPERATIONS/MAINTENANCE				
Operations and Maintenance	2,127.3	253.4	602.4	1,271.5
Total Transit Operations/Maintenance	2,127.3	253.4	602.4	1,271.5
Total Highway and Transit PRESERVATION / OPERATIONS	4,495.4	809.8	1,358.8	2,326.8

Transportation System Expansion Funds in Millions to Planning Phase	Planning Funds	Phase 1 2011-2020	Phase 2 2021-2030	Phase 3 2031-2040
HIGHWAY EXPANSION PROJECTS				
Freeway/Expressway Projects				
Freeway/Expressway Projects	8,802.9	2,656.9	2,233.2	3,912.8
Principal Highway Projects	1,573.9	484.5	740.0	349.4
Minor Highway Projects	1,162.6	253.7	549.8	359.1
Total Highway Expansion Costs	11,539.4	3,395.0	3,523.0	4,621.3
TRANSIT EXPANSION PROJECTS				
Commuter Rail	1,280.2	454.5	495.0	330.7
Light Rail	2,363.0	0.0	0.0	2,363.0
Enhanced Bus or Rapid Transit	401.2	125.0	235.0	41.2
Bus Improvements and Other Costs	340.4	91.8	150.4	98.2
Total Transit Expansion Costs	4,384.8	671.3	880.4	2,833.1
Total Highway and Transit EXPANSION PROJECTS	15,924.2	4,066.3	4,403.4	7,454.4

Financial details can be found in Appendix - Financial Plan.

2040 METROPOLITAN TRANSPORTATION PLAN

IMPACTS AND BENEFITS

Road and transit projects in the Metropolitan Transportation Plan will have both positive and negative impacts to the social and physical environment of the region. For example, highway and transit improvements will reduce congestion, increase accessibility, result in fewer accidents, and improve air quality; however the construction or upgrading of highways may result in increased noise, relocation of residential or commercial properties, and the destruction of wetlands. The MTP attempts to maximize the positive benefits while minimizing the negative impacts of all projects. Projects that could have major impacts were identified so that project sponsors can address potential impacts as they develop their plans.

SUMMARY OF PRESENT CONDITIONS

Most of the communities in Utah County have developed as rural, agriculturally based enclaves and most remain as low-density, suburban communities today. The 2010 GOPB projections estimate the MPO's current population to be 560,000. 2040 Utah County projections are estimated at 1.1 million, a doubling of our residents in 30 years. The growth of the county to date has had significant impact on the natural environment; the next 30 years of growth are predicated to have a similar level of impact.

PROJECTION OF CHANGE OR TRANSFORMATION

365 acres of existing wetlands may be impacted, 73 projects may increase noise near residential neighborhoods, 59 projects may relocate residential or commercial businesses, 20 projects may impact existing agriculture protection easements, 3 projects may impact or disturb an existing EPA study

sites, and projects may impact 587 historic or public recreation areas etc.

The MPO encourages local government projects to mitigate these impacts by working with UDOT, US Army Corps of Engineers, Utah DWR, US fish and Wildlife, and the State Historic Preservation Officer to mitigate impacts in concert with projects established by these organization in high value locations such as: The 120 acre Lindon Wetland Mitigation Bank, Utah Historic Bridge Survey and the June Sucker Recovery Program near Provo.

CURRENT AND EMERGING ISSUES

The MPO consults with federal, state and local agencies on the potential impacts of improvements called for in the MTP. The MPO compares its projects both individually and cumulatively with existing conservation plans as well as inventories of natural or historic resources. Both impacts and potential environmental mitigation activities are considered.

FORMAL CONSERVATION PLANS/ POTENTIAL ENVIRONMENTAL MITIGATION ACTIVITIES

JUNE SUCKER (FISH) RECOVERY

The June Sucker Recovery Implementation Program is a multi-agency cooperative effort designed to coordinate and implement recovery actions for the endangered June sucker, found only in Utah Lake and its tributaries. The June Sucker Recovery Implementation Program has two main goals: Recover the June sucker to the extent that it no longer requires protection under the Endangered Species Act, and allow for the continued operation of existing water facilities and future water development of water resources for human use.

2040 METROPOLITAN TRANSPORTATION PLAN

UTAH HISTORIC BRIDGE SURVEY

The bridge survey guides UDOT's environmental staff and consultants in determining whether a bridge is eligible for listing on the National Register of Historic Places, and requires protection during a construction project. A "property," as a bridge or building is known, must generally be 50 years old, although UDOT uses 45 years as a cut-off date in order to accommodate the length of time between the completion of environmental documents and the beginning of construction. Second, a property must have historical integrity, meaning that the features that render it historically significant are still intact and visible.

"Historical" integrity should not be confused with "functional" or "structural" integrity. And third, a property must be significant for its association with historic trends, important events or people, or noteworthy for its construction or design.

LINDON WETLAND MITIGATION BANK

The U.S. Army Corps of Engineers regulates wetland activities with guidance from the Environmental Protection Agency and the U.S. Fish and Wildlife Service. These agencies, along with UDOT have created a 120 acre Mitigation Bank that serves UDOT projects in Northern Utah County.

The Northern Utah County Mitigation Bank (NUCMB) will eventually provide 75 wetland credits that will serve UDOT projects such as Pioneer Crossing, I-15 Core, and Geneva Road expansion. The credits provide a cost effective means of mitigating wetland impacts as well as an efficient permitting method that will accelerate the permitting process by at least one year for each project. Ultimately the NUCMB saves UDOT millions of dollars in mitigation costs as well as years in delays due to permitting requirements.

UTAH LAKE WETLAND PRESERVE

The Utah Lake Wetland Preserve, a network of wetland and interspersed upland habitats near the southern end of Utah Lake, is being established to partially mitigate for past and anticipated impacts of Central Utah Project water development. The Preserve will provide habitat for wetland- and upland-dependent species and will ultimately be managed by the Utah Division of Wildlife Resources. The Preserve consists of Goshen Bay and Benjamin Slough.

PLANNING AND ENVIRONMENT

LINKAGES

FHWA encourages an attempt to link this early environmental work (mentioned above) to the ultimate construction of the project through an initiative called Planning and Environment Linkages (PEL). This approach considers environmental, community, and economic goals early in the planning stage and carries them through project development, design, and construction. The goal of PEL is to create a seamless decision-making process that minimizes duplication of effort, promotes environmental stewardship, and reduces delays from planning to project implementation. PEL lays the foundation for a broad consensus on goals and priorities for transportation related processes.

GOALS OF THE MPO PEL

The MPO Planning and Environmental Linkage efforts will concentrate on the following Goals:

- a. Create and maintain a Project File for each MTP Transportation Project from its inception. This documentation will explain the various activities including the public and resource management agency involvement that have occurred in the development of the project as part of the MPO planning process. The

2040 METROPOLITAN TRANSPORTATION PLAN

goal is to document any planning-level information to NEPA standards so this information can be used as a foundation for the NEPA scoping process and appended or referenced in any future NEPA document.

- b. During MPO studies the consultant or MPO staff will document other alternatives considered and why they were not moved forward. The planning level screening and evaluation is similar to that done in NEPA in order to select the preferred alternative. A solutions evaluation and documents screening done in planning can be summarized and incorporated by reference into NEPA without a need for the alternatives study to be “redone.” This information is summarized in the “Project File.”
- c. Develop a “Planning Level Problem Statement” of Transportation Project during MPO studies in the development of the MTP. This will be carried it into MTP then into NEPA as the Purpose and Need. Time and energy spent during the MPO MTP development can be used to reduce time and energy at the beginning of NEPA on this task. This planning level Problem Statement captures in a clear and succinct format, information from planning that NEPA practitioners can incorporate into their purpose and need. All first Phase projects will have a Planning Level Problem Statement summarized on the Project Fact Sheet that also includes AADT by Phase, purpose need, study origin, sponsor, impacts benefits, typical cross section and any proposed bicycle pedestrian improvements.

SECTION RECOMMENDATION

The impacts of these MTP projects need to be mitigated and coordinated to achieve the

highest value of the reinvestment. Projects that could have major impacts were identified so that sponsors can avoid, minimize, repair, restore, reduce over time, and account for the cost as they develop their plans.

STRATEGIES TO IMPLEMENT PLAN

RECOMMENDATIONS

Project fact sheets for all first phase projects will identify project impacts and provide a suggestion of potential environmental mitigation activities and potential areas to carry out these activities out. The project sponsor should be able to plan for and effectively mitigate any negative environmental impact of a project.

2040 METROPOLITAN TRANSPORTATION PLAN

COMMUNITY IMPACTS AND BENEFITS



NOISE IMPACTS

Noise impacts vary based upon the characteristics of traffic, roadway/transit facility, and adjacent land uses. By shifting the highway alignment away from noise sensitive land uses, depressing the roadway, or installing noise barriers between the highway and the sensitive areas, adverse noise effects may be significantly reduced.



SCHOOL IMPACTS

Transportation project impacts to school safety vary according to the nature of the new facility, the type of school involved, and the traffic exposure student pedestrian's encounter. This analysis is limited to identifying projects with immediate adjacent impacts (planned ROW intersects with school property) and road/transit projects within a half mile of an existing school center point of foot print.

Major 4-lane and above facilities carrying significant traffic volumes at relatively higher speeds could potentially affect school safety. Specific project impacts and mitigation measures should be identified in the environmental phase of the project's development. Potential mitigation measures may be identified during the specific project impact assessment phase and may include the provision of pedestrian overpasses and/or new busing areas.



LAND USE

Local governments, such as counties and cities, are responsible for land use planning in Utah. Past practices in land use have resulted in low-

density urban development patterns in Utah Valley. Low-density development is most conveniently served by the automobile and less effectively served by mass transit modes.

Anticipated land use development impacts are primarily associated with new arterial facilities that will provide development access to adjacent property. Existing roads that will be upgraded to primary arterials and new roadway facilities will also have measurable impact on adjacent residential zoned land uses.



RELOCATION IMPACTS

Neighborhood disruption and relocation impacts vary with each transportation project proposed. Relocation impacts are determined if insufficient right-of-way for the new project exist. Neighborhood disruption can also occur when homes, businesses, or community institutions are eliminated from the neighborhood or when the roadway becomes a barrier to neighborhood interaction.



VISUAL IMPACTS

Visual impacts can occur when a transportation project is located in a particular scenic area, when a project is located on a steep grade, when cut and fill practices are employed or when a project is located in an important view shed area.

2040 METROPOLITAN TRANSPORTATION PLAN

ENVIRONMENT IMPACTS AND BENEFITS



FARMLAND IMPACTS

The farmland of Utah County has significance beyond its local boundaries. While most of the alfalfa and feed grains such as, winter wheat, and sweet corn are used locally, the specialty crops of apples, pears, and cherries find their way into national and international markets.

In addition, Utah County has designated "Agriculture protection areas" which means a geographic area is granted specific legal protection for the production of "crops, livestock, and livestock products" or devoted to an agency of the state or federal government.

Several projects in the MTP will impact these unique and prime farmlands as well as the agriculture protection areas. These impacts include use of farmland for rights-of-way and the division of large contiguous pieces of farmland into smaller uneconomically viable units.



GEOLOGIC HAZARDS

LIQUEFACTION, DEBRIS FLOW, AND FAULT LINES
The Wasatch Fault runs the length of Utah County and highlights the geologic hazards in the area and the need to consider their potential impact on transportation facilities. Several geologic factors should be considered when planning a new highway project. Fault lines of known earthquake activity and its 1000' buffer, slope hazard or debris flow areas, and high potential liquefaction areas should be avoided. Safeguards may be implemented during the project's design phase to lessen the impact of these possible hazards.



EPA STUDY SITES

The potential for hazardous waste in project rights-of-way is a concern in the setting of transportation facilities, because the purchase of a contaminated site or the purchase of property split from a contaminated parcel may result in the public agency becoming financially liable for hazardous waste clean-up. The MTP compares the location of projects with the location of hazardous waste sites listed in the Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) and Leaking Underground Storage Tanks (LUST). CERCLIS is the database used by the EPA to track superfund progress at potential and confirmed hazardous waste sites.



BODIES OF WATER AND FLOODPLAIN MODIFICATION

Highway projects can impact a water body or flood plain in many ways including: disturbing ground within 20 feet of natural or semi-natural rivers and streams, realigning or channeling meandering rivers and streams, placing obstructions in floodplains and realigning or channeling meandering rivers and streams, and constructing in unstable floodplain crossings.



WATER QUALITY IMPACTS

Utah State's Non-point Source Management Plan, the federal Clean Water Act and various other governmental regulations require the monitoring of water resource impacts and management in the MPO area. Water quality impacts associated with roadway project vary according to traffic volumes, pavement width additions and the recharge capability of the surrounding soils.

2040 METROPOLITAN TRANSPORTATION PLAN



WETLAND IMPACTS

Wetlands serve critical environmental functions, including flood control, water purification and the provision of habitat for fish and wildlife. Wetlands generally include swamps, marshes, bogs, and similar areas.

The significance of roadway wetland impacts varies based upon the projects characteristics, the size and quality of the wetlands area, and the level to which the wetlands have already been disturbed by people. A project may generally impact wetlands by destroying the immediate footprint of the planned facility or by providing a barrier between adjacent wetland areas. The Utah Division of Wildlife Resources identified eight essential wetlands areas in Utah County:

- Utah Lake and associated wetland complexes (North Shore, Provo Bay, Skipper Bay, Goshen Bay, Benjamin Slough, etc.)
- Powell Slough WMA ownership conflicts
- Potential acquisitions within Utah Lake Wetland Preserve Boundary
- Isolated wetland complexes and wet meadows along east bench area
- Fairfield wetlands
- Holladay Spring
- American Fork Spring Complex (currently under construction for commercial development)
- Riparian areas along UDWR Priority Streams

UTAH LAKE WETLAND PRESERVE, PART OF THE UTAH RECLAMATION MITIGATION AND CONSERVATION COMMISSION'S

CENTRAL UTAH WATER PROJECT

Utah Lake, in Central Utah, is the largest naturally occurring freshwater lake in the western United States. Its wetlands have long been recognized locally and nationally for their

critical importance to fish and wildlife resources. The Utah Lake wetland ecosystem is important as a breeding area and stopover for many migratory birds in the Pacific Flyway. Approximately 226 species of birds are known to use Utah Lake wetlands, as well as 49 mammalian species, 16 species of amphibians and reptiles, and 18 species of fish. Utah Lake also provides feeding areas for birds nesting on the Great Salt Lake.

The Utah Lake Wetland Preserve, a network of wetland and interspersed upland habitats near the southern end of Utah Lake, is being established to partially mitigate for past and anticipated future impacts of Central Utah Project water development. The Preserve will provide habitat for wetland and upland-dependent species and will ultimately be managed by the Utah Division of Wildlife Resources. The Preserve consists of two units: Goshen Bay and Benjamin Slough. Special consideration should be given to avoidance, minimization or mitigation with the projects that intersect with this resource.

SECTION 4(F)

Section 4(f) of the Department of Transportation Act of 1966, stipulated that the Federal Highway Administration and other Department of Transportation agencies cannot approve the use of land from a significant publicly owned public park, recreation area, wildlife or waterfowl refuge, or any significant historic site unless there is no feasible and prudent alternative, and the action includes all possible planning to minimize harm to the property.



SECTION 4(F) HISTORIC

Transit and roadway projects can negatively impact cultural resources by creating noise, vibration, the need to relocate, vandalism, physical impacts, and others. Positive impacts

2040 METROPOLITAN TRANSPORTATION PLAN

may also result by providing improved access to important community cultural resource.

Impacts to all cultural resources will be identified and mitigation measures determined during the environmental phase of project development. If unknown cultural resources are encountered during the project development/construction phase, appropriate investigation should take place. Reasonable efforts should be made to provide access and information to the site during construction. Such mitigation might, for example, include the placement of historical information markers, in addition to providing the standard documentation.



SECTION 4(F) PUBLIC PARKS/ RECREATION AREAS

The Public Parks and Recreation Areas consists of the following: public parks, public recreation areas, public multiple-use land holdings, historic state parks, fairgrounds, school playgrounds, public golf courses, existing public non-motorized trails and future public trails of regional significance.

All existing and proposed trail facilities are or will be publicly owned; 4(F) facilities. Because trails make important non-motorized connections between major origins and destinations, it is essential that they exist as contiguous facilities. Highway and other transportation projects can adversely affect trails by interrupting existing or planned routes. Each of these projects should therefore provide for the continuity of both existing and planned trails with the incorporation of underpasses/overpasses or other appropriate connections.

In addition, the mountains east of the MPO area provide recreation and open space for the people of Utah County. The Uinta National Forest is a nationally recognized winter and summer recreation area for skiers and hikers; it contains three congressionally designated

wilderness areas of inspiring grandeur and is a source of water for the cities of the area. The MTP will need to minimize the impacts on these publicly owned recreational areas of significant value.



SECTION 6F PROPERTIES

Project impacts to 6(F) projects are problematic and should be avoided. Land and water conservation funded properties acquired or developed under the federal land and water conservation fund program must be retained in public ownership for outdoor recreation use in perpetuity or replaced in both quantity and quality.



SECTION 4(F) WILDLIFE/WATERFOWL REFUGES

The entire MPO area has been identified as important migratory waterfowl habitat described as the "Intermountain West Unit," by the U.S. Department of Interior in the 1994 update to the North American Waterfowl Management Plan. This plan's primary objective is to preserve habitat and increase duck, goose, and swan populations nationwide. Road and transit improvements should avoid or minimize any wetland or waterfowl habitat. In addition, sections of important farmland should be preserved to act as migratory rest and feeding areas.

The Utah Division of Wildlife Resources (UDWR) has also mapped the entire MPO area for Fish, Birds and Mammal important habitat. Primary areas of concern with this mapped habitat are the bench or foothill locations, riparian or wetlands and water bodies. Foothills occur where the urbanized area meets the Uinta National Forest in the eastern edge of the MPO area. These sagebrush and scrub oak covered hills provide critical habitat for the mule deer, elk, mink, snowshoe hare, rocky mountain big

2040 METROPOLITAN TRANSPORTATION PLAN

horn sheep, both for winter range as well as year round habitat.

Several species of birds such as California Quail, Ring Neck Pheasant, Ruffed Grouse, Sage Grouse use the foothill area for yearlong habitat, including brooding habitat. California Quail, Ring Neck Pheasant also have critical habitat in the valley locations that intersects with most road and transit projects.

Important fisheries in the MPO area are the upper portion of the Spanish Fork River, the entire stretch of the Provo and Jordan Rivers, portions of Hobble Creek near Springville, portions of the American Fork River, and Utah Lake. Selected species include the June Sucker, Utah Chub and the Bonneville Cutthroat Trout. The road and transit projects that intersect major naturally occurring rivers, streams and water bodies impact fishery and aquatic habitat.

Several threatened and endanger species, both flora and fauna, exist within the MPO area. Coordination with the U.S. Fish and Wild Life Service February 2011 determined the presence of the following threatened and/or endangered species In Utah County.

For more detail of how the MTP projects are affected by the various impacts and benefits, see the Appendix - Impacts and Benefits

CLIMATE CHANGE

The USDOT's Transportation and Climate Change clearing house states that the prospect of global climate change has become a major policy issue during the last decade. The transportation sector is currently responsible for approximately 28 percent of greenhouse gas emissions in the United States and is expected to be one of the fastest growing sources of greenhouse gas emissions in the foreseeable future, due to increased demand for motor gasoline, jet fuel, and diesel fuel.

In May 1999, the USDOT established the Center for Climate Change and Environmental Forecasting to play a leadership role in meeting these challenges. The Center promotes comprehensive multimodal approaches to reduce GHG emissions and prepare for the effects of climate change on the transportation system, while advancing USDOT's core goals of safety, mobility, environmental stewardship, and security.

Federal Highway Administration has four primary strategies to reduce Green House Gas (GHG) emissions from transportation. To be most effective, all four must be pursued together.

1. **Improve system and operational efficiencies:** Traffic flow improvements can be achieved through intelligent transportation systems, route optimization, congestion pricing, and improved intermodal links and system connectivity. Other improvements, such as auxiliary power units and truck stop electrification systems allow long-haul trucks to run air conditioning/heating and electrical appliances without having to idle their vehicles during rest periods, saving fuel and reducing emissions.
2. **Reduce growth of vehicle miles traveled:** Land use strategies that concentrate development reduces driving. Providing HOV lanes, transit options, pedestrian and bicycle facilities, and promoting travel demand management such as telecommuting reduces the number of vehicle trips. Pricing mechanisms such as road pricing, mileage-based car insurance, and gas taxes can motivate people to drive less.
3. **Transition to lower GHG fuels:** Replace gasoline and diesel with fuels such as biodiesel and natural gas which produce fewer GHGs over their lifecycle.

2040 METROPOLITAN TRANSPORTATION PLAN

4. **Improve vehicle technologies:** Promote the development of more fuel efficient vehicles, such as plug-in electric hybrids, via policy decisions, such as stringent Corporate Average Fuel Economy (CAFE) standards. Tax credit programs and "feebates" can also encourage the purchase of more fuel efficient vehicles.

The Federal Transit Administration states that public transportation can reduce greenhouse gas emissions by:

- Providing a low emissions alternative to driving.
- Facilitating compact land use, reducing the need to travel long distances.
- Minimizing the carbon footprint of transit operations and construction.

While the term "Climate Change" remains a controversial political subject for many of our elected officials the MPO and the State of Utah do promote many strategies that reduce GHG type emissions including:

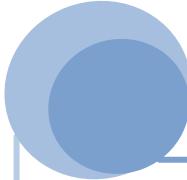
1. Investing approximately 20% of its \$19 billion 2040 MTP budget in Transit related capital projects, maintenance and operation.
2. Promoting adoption of compact land use policies in the Wasatch Choices for 2040 Vision Plan. More compact land use will save billions of dollars in infrastructure and transportation costs, improves air quality and reduces GHG emissions, and fosters continued economic growth.
3. Investing in the expansion of the High Occupancy Vehicle Lane on I-15 and Intelligent Transportation Systems along major arterials to improve capacity and reduce stop and go traffic.
4. The State of Utah provides credit for 35% of the purchase price of alternative fuel vehicles (up to \$2,500) and issues a Clean Air license plate (or "C" plate) to qualifying vehicles. The "C" plate allows owners to

drive in the HOV lane and to park for free in downtown Salt Lake City.

This community and environmental impact assessment is not complete environmental review for the project proposed, but it is a general indicator of potential problems. Early identification of problem areas should aid in the design phase of project development and help alleviate the costs associated with problematic alignments of corridors that could be adjusted in this early planning stage.

Higher density development is a major theme of the Wasatch Choices 2040, a voluntary and cooperative land use planning exercise intended to illustrate the impacts of current practices and identify alternative choices in land use. The MPO has participated in this effort and supports the adoption of land use policies that reduce the need for new facilities and subsequent societal and environmental impacts.

For more detail of how the MTP projects are affected by the various impacts and benefits, see the Appendix - Impacts and Benefits.



2040 METROPOLITAN TRANSPORTATION PLAN

ENVIRONMENT JUSTICE / TITLE VI

Environmental Justice is fair treatment and meaningful involvement of all people regardless of race, color, national origin, age or income with respect to the development, implementation, and enforcement of environmental laws. Environmental justice seeks to ensure that minority and low-income communities have access to public information relating to human health and environmental planning regulations and enforcement. It ensures that no population, especially the elderly and children, are forced to shoulder a disproportionate burden of the negative human health and environmental impacts of pollution or other environmental hazard. (U.S. EPA Department of Environmental Justice)

There are four fundamental environmental justice principles:

1. To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
2. To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
3. To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.
4. To certify compliance with Title VI and address environmental justice, MPOs need to:
 - a. Enhance their analytical capabilities to ensure that the long-range transportation plan and the transportation improvement program (TIP) comply with Title VI.
 - b. Identify residential, employment, and transportation patterns of low-income and minority populations so that their needs can be identified and addressed, and the benefits and burdens of transportation investments can be fairly distributed.

- c. Evaluate and - where necessary - improve their public involvement processes to eliminate participation barriers and engage minority and low-income populations in transportation decision-making.

MINORITY, LOW-INCOME, DISABLE, AND ELDERLY POPULATIONS

None of the analyzed populations will receive a disproportionate benefit or negative impact of the planned proposed transportation projects. Some populations may visually appear on the maps to be concentrated in the more rural area of the MPO; however that may be attributed to the large geographic size of the rural census blocks/TAZ in those areas. To analyze this, MAG looked at the census block groups within the county that had a higher than average population of minorities, low-income, disabled and elderly populations, and mapped locations that specifically cater to these demographics such as churches, community centers, shopping, government offices, and others common travel destinations. Compared travel times from the census blocks to the travel destinations were not significantly increased for any of these groups after the construction of the planned projects.

MINORITY GROUPS

Title VI of the Civil Rights Act prohibits discrimination on the basis of race, color, or national origin. The MPO area includes minority groups and persons identifying themselves as:

- *Black* - a person having origins in any of the black racial groups of Africa.
- *Hispanic* - a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

2040 METROPOLITAN TRANSPORTATION PLAN

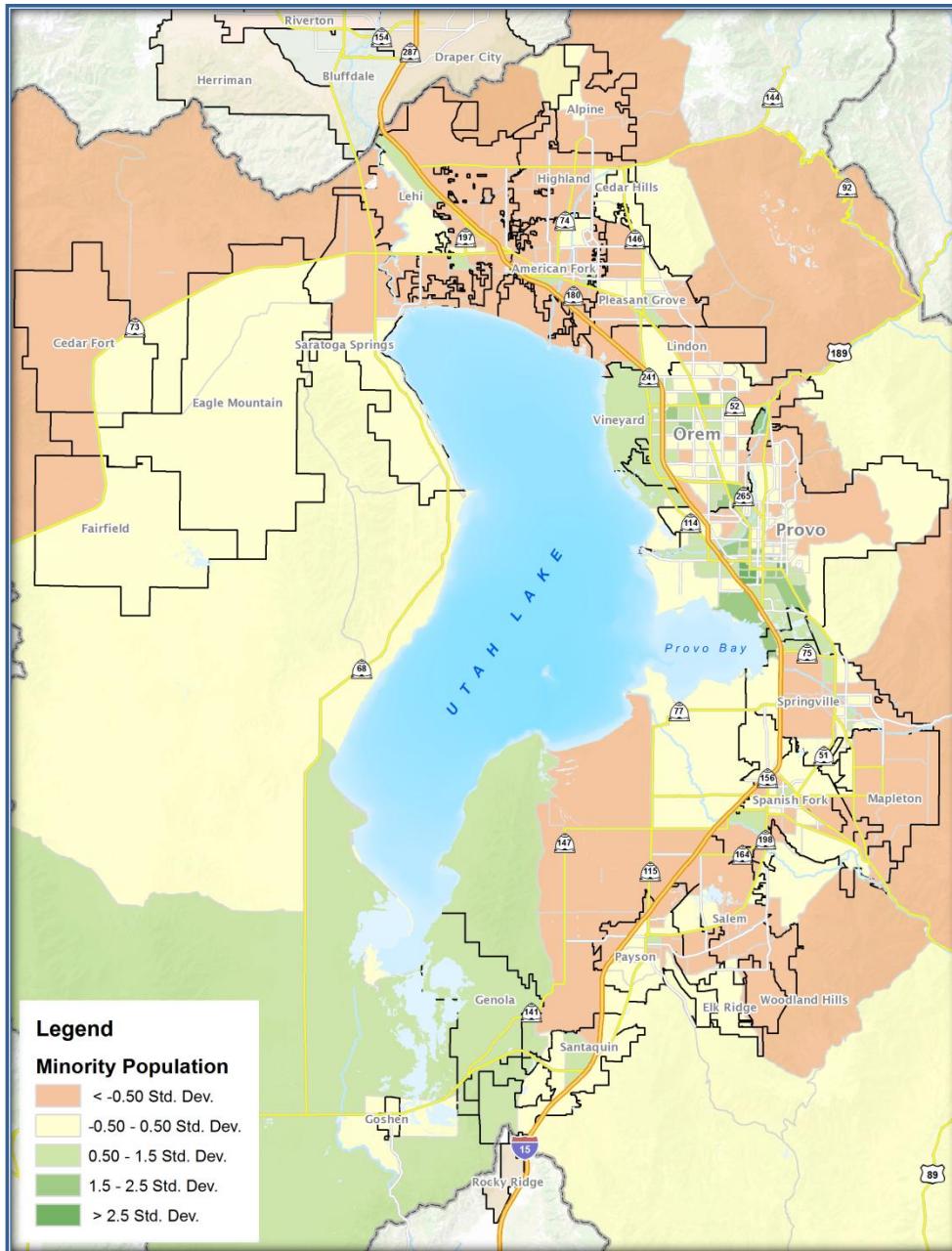
- *Asian* - a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent.
- *American Indian and Alaskan Native* - a person having origins in any of the original people of North America and who maintains cultural identification

through tribal affiliation or community recognition.

Utah County's minority population of 41,965 is approximately 11.5% of the total population. The minority population in Utah County appears to cluster in the Provo / Orem / Vineyard area. Due to the

distribution of this population and the planned projects in that area and other areas the effects of the projects on the minority populations does not appear to be significantly greater than the projected impacts on the area's population in general.

MINORITY GROUPS MAP



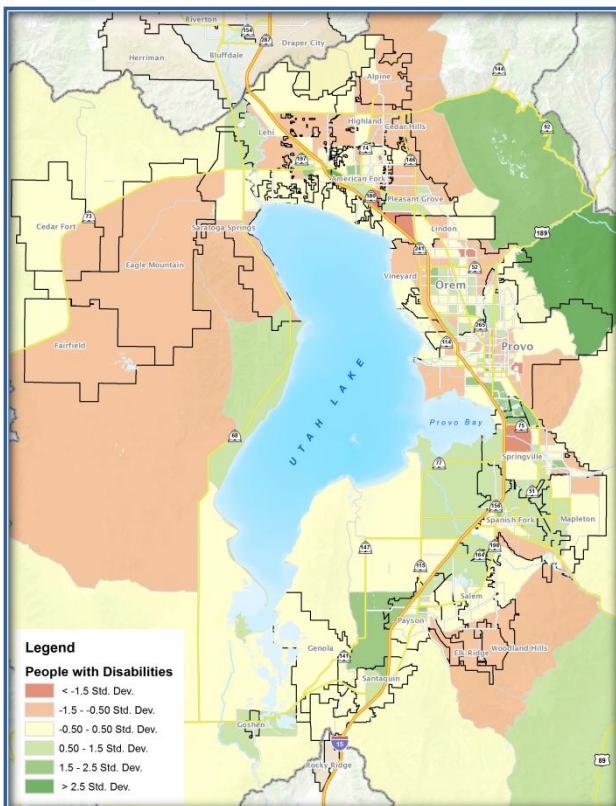
2040 METROPOLITAN TRANSPORTATION PLAN

LOW-INCOME GROUPS

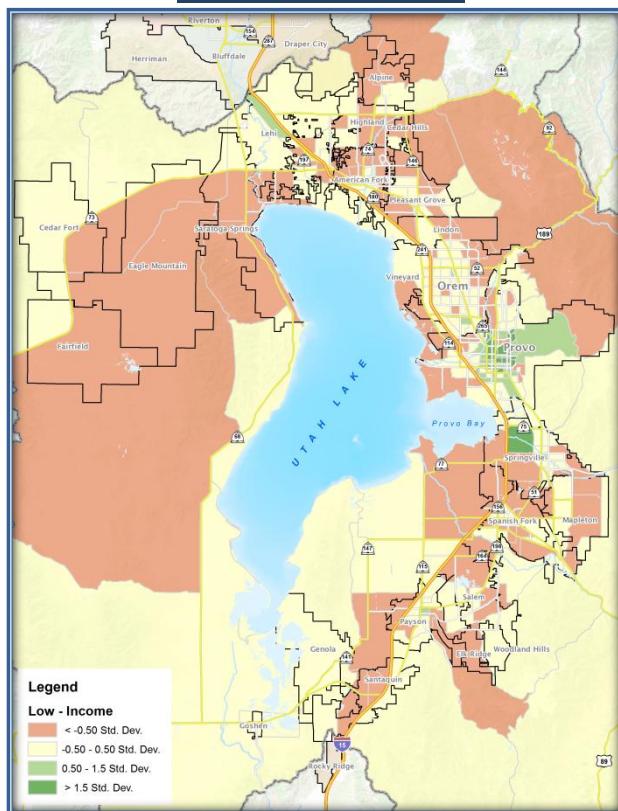
Low-Income residents with a 4 person household annual income of less than \$17,050 in the 2000 Census were used as an impact indicator as specified by the U.S. Department of Health and Human Services 2000 poverty guidelines. 12% or 43,270 of all individuals are reported at or below the poverty thresholds. The Low-Income population in Utah County appears to cluster in the Provo BYU area. Due to the distribution of this population and the planned projects in that area and other areas the effects of the projects on the minority populations does not appear to be significantly greater than the projected impacts on the area's population in general.

The Low-Income Group Map illustrates Low- Income Populations mapped by one standard deviation in intensity greater than the region average of 12%.

PERSONS WITH DISABILITIES MAP



LOW-INCOME GROUPS



PERSONS WITH DISABILITIES

People with disabilities are described in the 2000 Census data as non-institutionalized resident's with mobility limitations, age 5 years and older. Based on 2000 Census information, 38,248 people, or 11.7% of the total MPO area's population, were considered disabled with various kinds of limitations. The disabled population appears to be evenly distributed throughout the MPO. The Regional Plan projects impacts and benefits do not appear to be significantly greater upon the disabled population than that on the area's population in general.

The Persons with Disabilities Map illustrates disabled populations mapped by one standard deviation in intensity greater than the region average of 11.7%.

2040 METROPOLITAN TRANSPORTATION PLAN

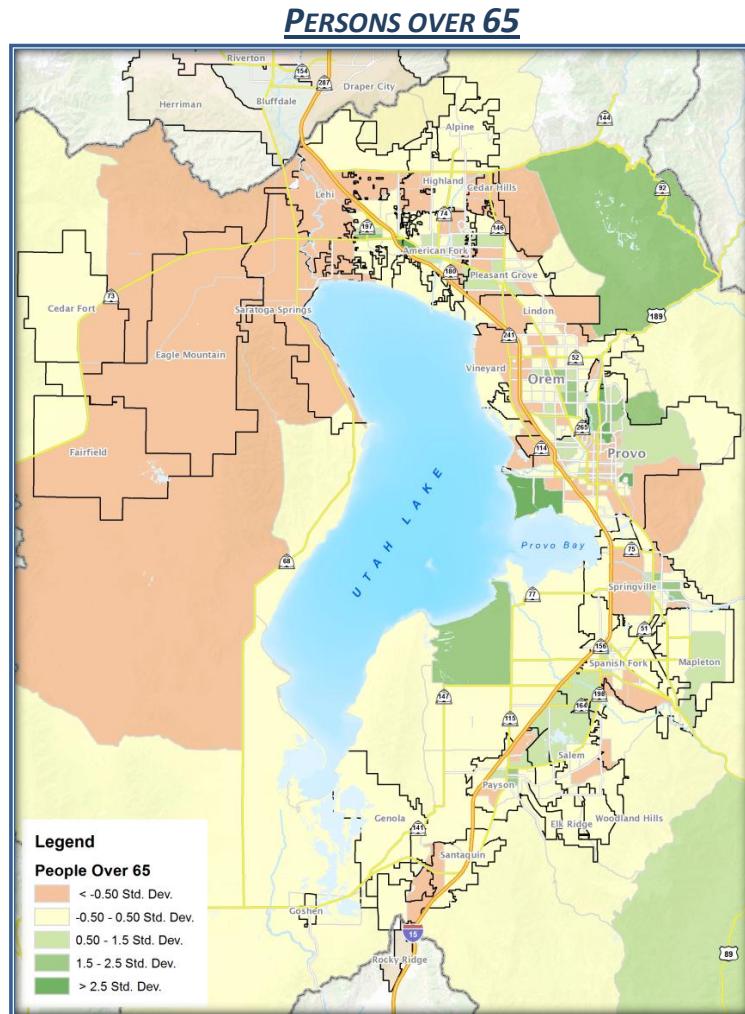
PERSONS OVER 65

Persons described as elderly in the 2000 Census data are 65 years and greater. They represent 6.4% of the population or 23,503 in Utah County. Census block groups/TAZ Zones were analyzed to see which ones had a greater than average concentration of persons over 65. The blocks were then layered over the Regional Plan projects. The elderly population in Utah County appears to slightly cluster in the Provo area. Due to the distribution of this population and the planned projects in that area and other areas the effects of the projects on the elderly populations does not appear to be significantly greater than the projected impacts on the area's population in general.

The Persons over 65 Map illustrates elderly populations mapped by one standard deviation in intensity greater than the region average of 6.4%.

CONCLUSIONS

- Many cities have general plans that outline neighborhoods as well as neighborhood councils, which can be helpful in designing transportation facilities that provide access without creating social barriers.
- Any Transportation Project that will create a barrier within a currently functioning neighborhood should be redesigned or relocated.
- Design for convenient access to shopping, medical services and employment should be provided with special consideration of the elderly and disabled. For example, wide street crossings need sufficient signalization and time allotted for slower moving citizens to cross.



- Uneven burdens for transportation negative impacts or benefits should be avoided through considering spatial distribution of disadvantaged groups in relationship to transportation facilities.
- A balanced system providing equal benefits and impacts throughout the area with all modes is included in the Regional Plan through GIS analysis. This balance should be carried forward through the implementation of the plan.

2040 METROPOLITAN TRANSPORTATION PLAN

TRANSPORTATION PROGRAMS AND SYSTEMS

SAFETY

Mountainland supports the goals of the current Utah Comprehensive Safety Plan produced by UDOT. Of the Emphasis, Continuing, and Special Safety areas identified, the MPO is concentrating on three most pertinent to its planning efforts – Improve Intersection Safety, Improve Pedestrian Safety, and Improve Bicycle Safety.

All three are interconnected, as the majority of pedestrian and bicycle accidents that involve major injury or death occur at intersections. Identifying specific accident locations, crash causes and countermeasures is beyond the broader planning level scope of the MTP, but by working in partnership with UDOT, MAG has identified ‘hot spots,’ generalized locations that stand out in the crash data for injury or fatality.

As MTP projects move forward, and as near-term Transportation Improvement Projects (TIP) are selected, MAG encourages sponsors to investigate these locales and incorporate safety improvements from the design stage. In particular, TIP projects with proposed safety improvements are given added priority scoring during the MPO’s bi-annual competitive selection and funding process.



**PEDESTRIAN
INTERSECTION
CROSSING**

This information is protected under 23 USC 409

INTERSECTION HOT SPOTS

2006 thru 2008 Hot Spot List
Serious Injury and Fatal Crashes Only

MOTOR VEHICLE ONLY

University Ave & 3700 North	7
University Ave & 4800 North	5
2230 North & University Parkway	5
US-89 500 West & 100 North, Provo	4
State Street & 1400 North, Provo	3
US 89 at 500 East, American Fork	3
University Ave & 900 South	3

2006 thru 2008 Hot Spot List
Injury and Fatal Crashes (Severity 2 thru 5)

INVOLVING A NON-MOTORIST

University Ave, 1450 North - University Parkway, Provo	7
University Ave, 900 South - 600 South, Provo	6
University Ave, 100 North - 400 North, Provo	6
University Av., SR-265 - 1990 South, Provo	6
State Street, 1230 North - 550 West, Provo	5
1600 South - 800 South, Orem	5
University Ave, 700 North - 900 South, Provo	5

This information is protected under 23 USC 409

2040 METROPOLITAN TRANSPORTATION PLAN

SECURITY

The security of the transportation system is a national and regional priority. The focus of the MPO is to support ongoing local, state, and federal initiatives to address transportation system security and emergency preparedness planning in Utah County. The MPO continues efforts to improve the security of our regional transportation system by working with leaders of local governments, UDOT, UTA, Utah Division of Homeland Security and various federal agencies to prepare for a regional incident.

Coordination meetings with these groups and MPO staff have identified the following security related plans, documents, and systems that currently exist.

- Mountainland Pre-Disaster Hazard Mitigation Plan
- Mountainland Interoperability Emergency Communications Plan
- Utah Division of Homeland Security(UHS) Critical Infrastructure Plan
- UHS Strategic Highway Military Plan
- Utah Traffic Operations Center
- UHS “Be Ready Utah” public information system.
- UTA Transit Security Plans.
- Community Emergency Management Plans.

In addition, to the coordination efforts, the MPO used its unique transportation modeling ability to simulate traffic after a major disaster to better understand system redundancy. As a portion of the Mountainland Pre-Disaster Hazard Mitigation Plan, staff used FEMA’s HAZUS model to simulate a 7.0 earthquake along the Wasatch Front. Included in the accompanying damage assessment report is a listing of bridges that may be susceptible to potential damages and the usable capacity of

those bridges at certain intervals after the event. A model run was done to simulate traffic 7 days after the event. A simple initial redundancy analysis was done to identify potential choke points in the event of a disaster. Appendix - Earthquake Scenario Modeling Report.

GOAL

The primary goal of the MPO is to improve the security of our transportation system throughout the region by supporting ongoing local, state and federal initiatives that address transportation system security and emergency preparedness planning in the Mountainland region.

STRATEGIES

- Continue coordination with local state and federal agencies to improve transportation system security.
- Integrate system security and redundancy into the project selection and construction process.
- Provide transportation modeling as a tool for security and emergency management planning.

2040 METROPOLITAN TRANSPORTATION PLAN

SYSTEM PRESERVATION

During the life of the transportation plan the network of highways, transit, pedestrian, bikeways, and other transportation systems will evolve into an urban transportation network. Proper maintenance and preservation can maximize the life and effectiveness of transportation system, and better extend lifespan and capacities. The proper management of pavement conditions and travel demand extends the life and effectiveness of the system by requiring less reconstruction costs and reducing the number of vehicles using the system.

A pavement management system consists of three major components:

- A system to regularly collect highway condition data
- A computer database to sort and store the collected data
- An analysis program to evaluate repair or preservation strategies and suggest cost effective projects to maintain highway conditions

Many of these systems are currently being developed and installed throughout the valley. As the regional system expands, these components can be combined with planning needs and political considerations to develop annual highway repair and preservation programs. See the Appendix - Transportation System Programs for more details.

SYSTEM MANAGEMENT

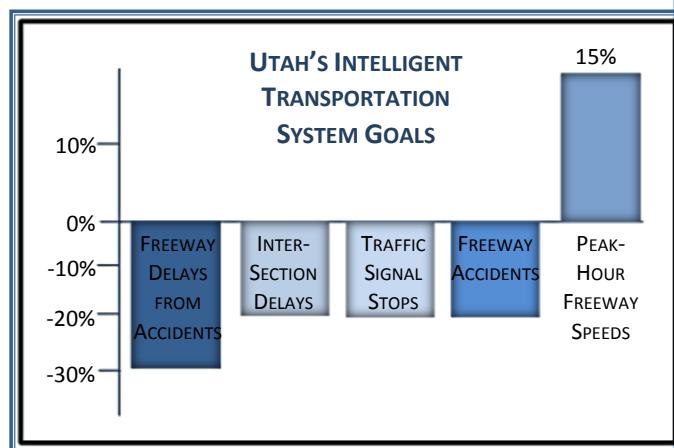
The MTP Local Goals include “make the system work better.” This can include installing sidewalks in areas that lack them, providing handicap access, the use of traffic sensors and cameras to monitor and measure traffic, and allowing transit to operate better when interfacing with automobile traffic. Local governments also give vital support to both system management and demand

management. Transportation System Management (TSM) strategies include incident management, ramp metering, High Occupancy Vehicle / Toll (HOV / HOT) lanes, signal coordination, access management, and Intelligent Transportation Systems (ITS), which overlaps several of the previous strategies. Most of these strategies are currently applied to some degree but need to be expanded or enhanced for greater benefit to the performance of the transportation system.

Transportation Demand Management (TDM) strategies include transit service in all its forms (bus, light rail, commuter rail, and bus rapid transit), ridesharing, flextime, telecommuting, pedestrian and bicycle accommodations, growth management, and congestion pricing. Many of these strategies are currently applied as part of the existing transportation network. Increased implementation of these strategies is needed. See the Appendix - Transportation System Programs for more details.

INTELLIGENT TRANSPORTATION SYSTEMS

“Non-recurring” congestion, such as that caused by traffic accidents, highway construction, or weather conditions, has been estimated to account for around 50 percent of traffic congestion in the region.



2040 METROPOLITAN TRANSPORTATION PLAN

Intelligent Transportation Systems (ITS) are a vital tool to manage the effects of nonrecurring congestion. One element of these systems includes dynamic message signs to alert motorists of upcoming incidents so that they can take an alternate route. Communication systems to speedily alert emergency management providers, traffic control centers, dispatch, incident management personnel, the media, and others about incidents are also part of ITS. Detectors and cameras further aid in verifying and managing these situations.

ITS can also be used to better manage recurring congestion, such as occurs during weekday peak commuting times. This is accomplished through means such as signal timing plans on arterial streets and ramp metering to improve freeway traffic flow. Coordinating signals can reduce delays by 20 to 30 percent. Ramp metering also has significant effects in decreasing delay.

The following are an example of ITS projects that are being planned for Utah County. A more complete list can be found in the Mountainland ITS Deployment Plan. See the Appendix - Transportation System Programs for more details.

- **Closed Circuit Television Camera Surveillance:** provides real-time picture of highway conditions and incidents on routes throughout the highway system.
- **Advanced Rail Crossing Warning:** alerts drivers of a blocked rail crossing well in advance so that the driver may take an alternate route.
- **Traffic Monitoring Stations:** provides vital, real-time information about traffic volumes and speeds.
- **Variable Message Signs:** provide the traveling public with information about road conditions ahead so that the driver can take appropriate action.

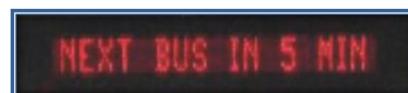


- **Road Weather Information System:** provides real-time information on weather and pavement conditions that can then be relayed to the traveling public.
- **Highway Advisory Radio:** provides traveling public advice about road and weather conditions via a car radio frequency.
- **511 Traveler Information Hotline:** Voice activated phone system that delivers real-time information on construction and maintenance projects, road closures, major delays, special events, weather and road conditions, and transit operations.
- **Transportation Information Website:** provides real-time information on



construction and maintenance projects, road closures, major delays, special events, weather and road conditions, and transit operations.

- **Hazardous Materials Management:** a computerized model that provides information about the movement of hazardous materials through the area.
- **On-board Passenger Counting System:** provides vital information about passenger boarding and alighting by location and time of day.
- **Electronic Reader Boards:** Located at train stations and at key bus stops, they give arrival times and traveler information for incoming buses and trains.



- **Traffic Signal Interconnect Projects:** Link traffic signals to allow better signal coordination along main corridors and better access to update signal timing plans.

2040 METROPOLITAN TRANSPORTATION PLAN

CONGESTION MANAGEMENT

PROGRAM

The MPO Congestion Management Program is under the direction of the MPO Technical Advisory Committee (TAC). This committee evaluates congestion problem areas, determines the possible causes of congestion, and identifies strategies to alleviate congestion and improve transportation efficiency. If congestion can be alleviated by congestion mitigation strategies alone, then these strategies are proposed in place of capacity-increases. Where additional general-purpose lanes are determined to be an appropriate strategy, congestion management strategies will be proposed along with the project.

Additional information is available in the Mountainland Congestion Management Process documents.

HIGHWAY FUNCTIONAL

CLASSIFICATIONS

Functional classification defines the role that each street, road, and highway will play in moving traffic from trip origins to destinations. Access is best served by streets with driveways and parking spaces convenient to the individual origin or destination of each traveler. Mobility is best served by controlled access highways where there is minimum interference with the main traffic flow from side traffic. Since it is impossible to build a freeway between each origin and destination a compromise is needed; one that will provide the best practical balance between serving access and mobility.

Though the transportation plan lists only the needs of the regional highway system that function as a Minor Arterial and above, the collector and local system are an important element of the system. This plan supports the collector road system that is listed on the Utah

Functional Class Road System Map and all programs that support it. Though the capacity needs are not listed in this plan, capacity and congestion relief projects remain eligible for MPO federal funding. See the Appendix - Transportation System Programs for more details.

REGIONALLY SIGNIFICANT CORRIDORS

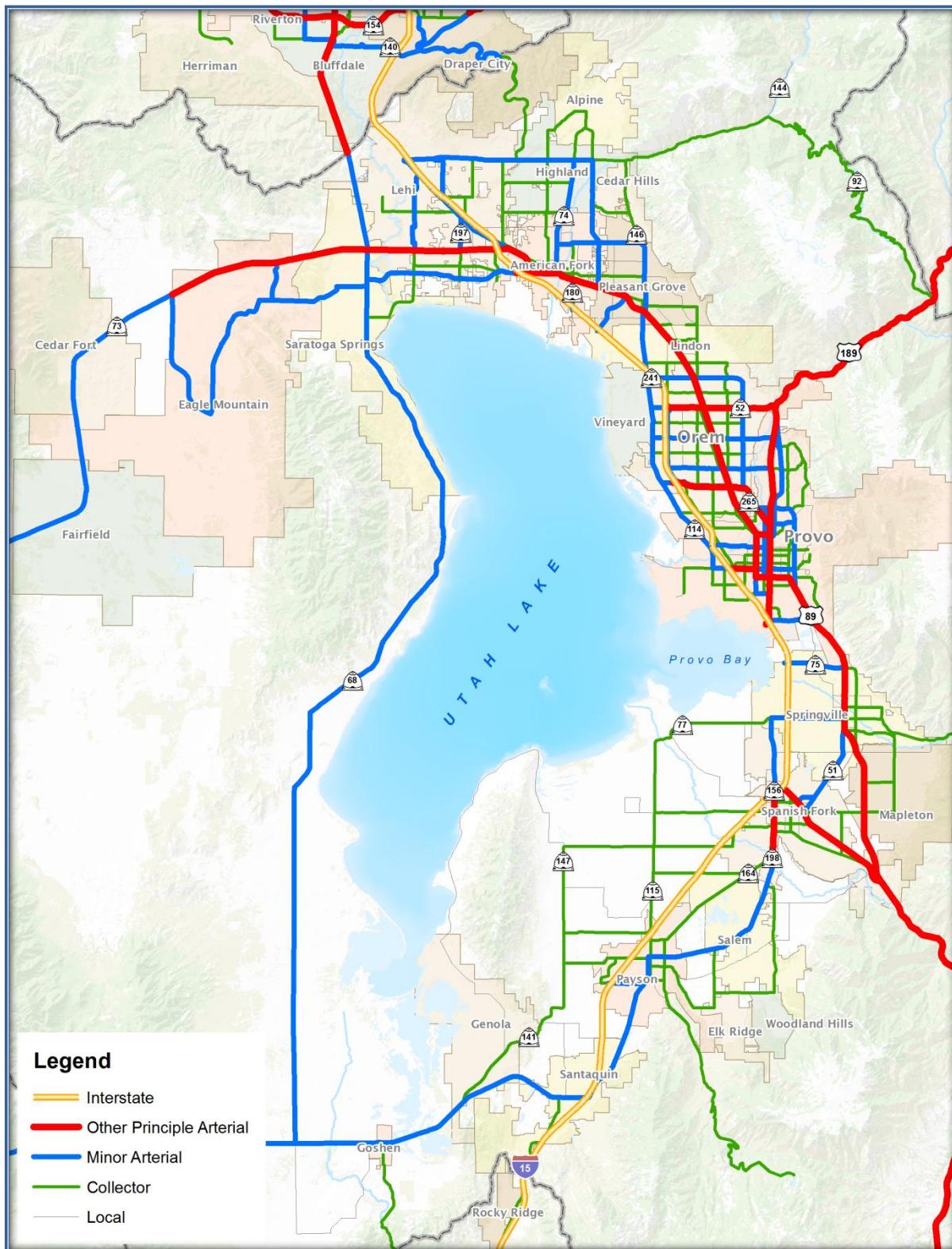
The following are principal highway corridors within the Utah County area today.

- I-15 Freeway
- Orem 800 North / SR-52
- Pioneer Crossing Blvd / SR-145
- Provo Center Street / SR-114
- Spanish Fork Main Street / SR-156
- Timpanogos Highway / SR-92
- University Parkway / SR-265
- University Ave / US-189
- US-89
 - State Street - I-15 Freeway, Lehi to American Fork Main Street
 - State Street / American Fork Main Street - I-15 Freeway, American Fork to Lindon 200 South
 - State Street - Orem 2000 North to Bulldog Blvd, Provo
 - Provo 500 West - Provo 300 South to Bulldog Blvd
 - Provo 300 South - Provo 500 West to Provo 700 East
 - South State Street / Springville Main Street
 - Springville to Mapleton

See the Appendix - Transportation System Programs for map and more details.

2040 METROPOLITAN TRANSPORTATION PLAN

HIGHWAY FUNCTIONAL CLASSIFICATIONS



2040 METROPOLITAN TRANSPORTATION PLAN

PARK AND RIDE LOT SYSTEM

Park and ride facilities are an important component in improving the air quality and traffic congestion problems that currently exist in Utah Valley. Park and ride facilities help decrease the number of single occupant vehicles on the transportation system by ensuring that people will have a transition point to ridesharing and mass transit. The resulting ridesharing and use of mass transit reduces fuel consumption, mobile source emissions, traffic congestion, and destination parking requirements.



LEHI PARK AND RIDE LOT

Existing park and ride lots fall into two categories: exclusive-use and joint-use. Exclusive-use lots are built for the specific purpose of providing park and ride functions. These lots are usually owned by UDOT and primarily serve traffic on interstates and major arterials. Joint-use lots share under-utilized public or private parking lot space that is being used for other purposes such as shopping or Sunday worship. The main advantage of joint-use lots is the cost, which is usually little, if any. Despite a lack of a formal agreement between private owners and UTA, many businesses have not objected to the use of their parking lots by commuters. However, some locations have so many commuters using the lots that the businesses' customers have trouble finding parking and conflicts arise.

The total number of improved and unimproved exclusive-use stalls currently in Utah Valley is 535, of which 447 are improved and 88 unimproved. The construction of commuter rail and light rail stations will significantly add to both the demand and number of stalls in Utah County.

TRANSPORTATION AND TRANSIT ENHANCEMENTS

UDOT manages the Transportation Enhancement Program for the entire state without sub allocation to the MPOs. This program provides opportunities to use federal highway dollars to enhance the cultural, aesthetic and environmental aspects of the nation's inter-modal transportation system. To qualify for funding, all projects must be related to surface transportation and fit into at least one of the following 12 federally designated activities:



PEDESTRIAN FRIENDLY PROVO CENTER STREET

1. Provision of facilities for pedestrians and bicycles
2. Provision of safety and education activities for pedestrians and bicyclists
3. Acquisition of scenic easements and scenic or historic sites
4. Scenic or historic highway programs and provision for tourist and welcome center facilities
5. Landscaping and other scenic beautification
6. Historic preservation



2040 METROPOLITAN TRANSPORTATION PLAN

7. Rehabilitation and operation of historic transportation buildings, structures or facilities
8. Preservation of abandoned railway corridors
9. Inventory, control and removal of outdoor advertising
10. Archaeological planning and research
11. Environmental mitigation of runoff pollution and provisions related to wildlife connectivity
12. Establishment of transportation museums

Utah's annual apportionment for this program is approximately \$6,000,000. Historically, \$2,000,000 has been programmed for local government projects and \$4,000,000 programmed on UDOT Transportation Enhancement Projects.

Recently funded projects under (SAFETEA-LU from 2005 to present) in the Mountainland MPO include the provision of facilities for pedestrians and bicycles and the provision of safety and education activities for pedestrians and bicyclists.

- Orem 800 South/UVU Extension Bike Lane Improvements
- Provo University Ave. Greenway Extension, US-189



PROVO RIVER BRIDGE

- Provo River Bridge Replacement
- Historic UP Rail Trail
- Point of the Mountain Trail - Draper City

- Construct Sidewalks on SR-198 at locations between Payson and Santaquin
- Sweetwater/Pony Express Trail Eagle Mountain

- Widen shoulders on SR-89; Springville to Provo
- SR-73 Trail Under Crossing near Jordan River
- Dry Creek Trail Pedestrian Underpass, Payson
- Bonneville Trail Underpass
- Art Dye Trail System, American Fork City
- Lindon Heritage Trail, East Phase
- Pleasant Grove Blvd Trail, I-15 to State Street
- Pedestrian Safety Santaquin City



The Utah Transit Authority the transit service provider and FTA grant recipient for this MPO spends 1% of FTA funds on Transit Enhancements Activities including: bus shelters, ADA compliance surfacing, bike lockers, bike racks on buses, etc.

In addition to these formal funding programs the MPO analyzes new capacity project during the MTP development for opportunities to enhance the planned capacity projects with bicycle/pedestrian community enhancements (e.g. adding shoulders for bike commuting, safe routes to school considerations), community and environmental impact reduction (e.g. sound walls, historic preservation) and transit system enhancements (e.g. bike racks on buses bike lockers). See the Appendix - Transportation System Programs for more details.

2040 METROPOLITAN TRANSPORTATION PLAN

PUBLIC PARTICIPATION

The Mountainland MPO believes public knowledge, participation, and input are key elements and a vital tool in all areas of its transportation planning efforts. Meaningful public involvement eliminates participation barriers and strives to engage target populations. Successful outreach enhances all plans and proposals and increases public acceptance of projects.

The MPO staff participates in and various community-based committees, organization, classes, and business groups where transportation issues are discussed. Staff members also make presentations to state, city, and county organizations; local area Chambers of Commerce; minority organizations and businesses; university classes, and local public officials on transportation planning activities.

OPEN HOUSES

The MPO staff conducts three annual Transportation and Community Planning Open Houses which includes UTA, UDOT, and the



municipalities within the MPO. Open houses allow the public to voice their opinions through written

comments, one-on-one exchanges, and group discussions. These exchanges are incorporated into proposed plans and reports. The general public is welcome at each open house, and MAG specifically invites interested citizens, local elected officials, identified minority groups, public agencies, private transportation providers, and segments of the community affected by transportation plans, programs and projects.

AGENCY COORDINATION

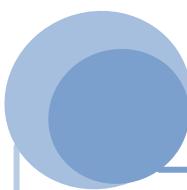
MPO staff works closely with the following state and federal agencies.

- Utah Division of Wildlife Resources
- Utah Division of Solid & Hazardous Waste
- Utah County Public Works & Assessor
- Utah Division of State History
- Utah State University Extension Service
- Utah Geologic Survey
- Environmental Protection Agency
- Utah Division of Water Quality
- Natural Resource Conservation Service
- Utah Division of Air Quality
- Wasatch Front Regional Council
- Utah Department Environmental Quality
- Utah Department of Transportation
- United States Forest Service
- Utah Transit Authority
- Utah State Parks and Recreation
- Jordan Valley Water Conservancy District
- United States Bureau of Reclamation
- US Fish and Wildlife Service
- Utah Governors Office of Planning and Budget
- Utah Environmental Response & Remediation
- Alpine School District
- Provo School District
- Nebo School District
- Utah Trucking Association
- Central Utah Water Conservancy District

Additional contacts may be made with these agencies while the plan is in the public review and comment period and as the plan is updated in the future.

OUTREACH EFFORTS

A complete summary of all the outreach events to include special studies can be found in Appendix - Public Participation Summary.



2040 METROPOLITAN TRANSPORTATION PLAN

CALL TO ACTION

Grow the economy by expanding the base and continue our investment.

Our population will double to 1.1 million people by 2040. Today 65,000 students at BYU and UVU seek a higher education, live and work in Utah County.

Utah County is changing from a rural agricultural based economy to an urban high technology intermountain leader with Adobe, Micron IM Flash, Novell, and the National Security Agency calling us home.

We are grateful for the recent investment in I-15, Commuter Rail, the Mountain View Freeway, Pioneer Crossing, and the Timpanogos Highway and acknowledge the wisdom of providing this infrastructure when construction and bonding prices are at our advantage.

We will continue to implement our vision of the Wasatch Choice for 2040 through the US Housing and Urban Development Sustainable Communities Regional Planning Grant.

A strong economy in the US is dependent on the key elements education and transportation. We need to continue our investment to retain and grow a strong economy by supporting this critical infrastructure.