



Local Host Update: 15th UITP
Sustainable Development Commission Meeting

November 2012





- Sustainability and UTA
 - » Air quality issues
 - » “Internal” solutions
 - » “External” solutions
- Current and future initiatives





Air Quality Along the Wasatch Front ■

- 25 - 75 air quality alert days per year
- Public health concerns
- Meeting standards required for federal funding

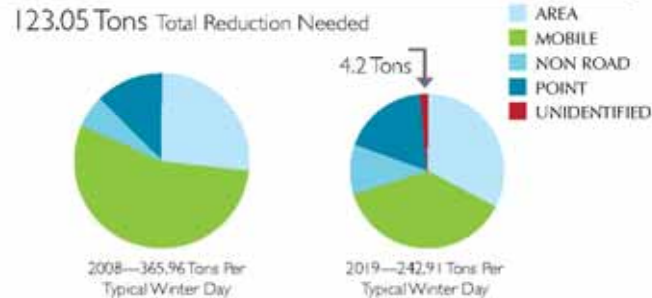


Utah Division of Air Quality

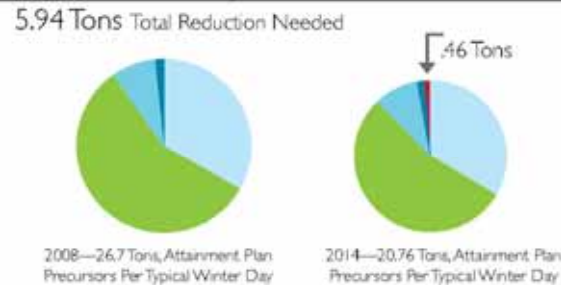
PM2.5 State Implementation Plan



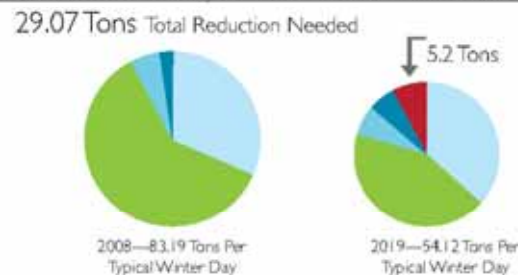
Salt Lake Non-Attainment Area



Cache County Non-Attainment Area



Utah County Non-Attainment Area



December 2012	The PM2.5 SIP will be submitted to EPA in December 2012.
End of 2013	Recommended control strategies must be implemented by the end of 2013.
End of 2014	Implemented strategies must demonstrate success in bringing emissions below the standard by the end of 2014.
End of 2019	If the standard is not in 2014 but the SIP is working and progress is being made, annual extensions may be granted through 2019 to allow more time for strategies to achieve reductions.
<i>Once success is demonstrated non-attainment designations will be reversed.</i>	

How Transit Reduces Emissions ■



Emissions Produced by Transit

Emissions from Transit

Tailpipe emissions from transit vehicles
Electricity use for traction
Maintenance yards, stations, offices and other stationary sources

Debit

Emissions Displaced by Transit

Mode Shift to Transit
Avoided car trips from private autos

Congestion Relief
Improved fuel efficiency from reduced congestion

Land-Use Multiplier
Compact land-use -> shorter trips, more walk/bike trips
Trip chaining
Lower/no car ownership

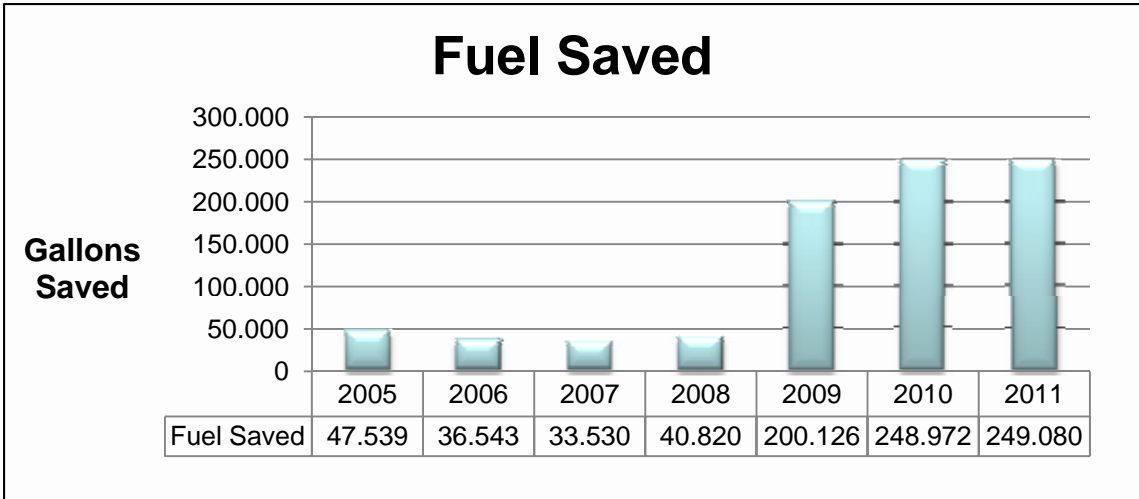
Credit

Air Emission Impacts of Transit

Excessive Idling ■



- UTA established its first SOP to reduce “excessive idling” in 2005, projecting a savings of 136,000 gallons of fuel.
- With the increased cost of fuel in 2008, reductions in fuel consumption rose by 490% and UTA approved policy no. 4.4.13 Vehicle Engine Idling.

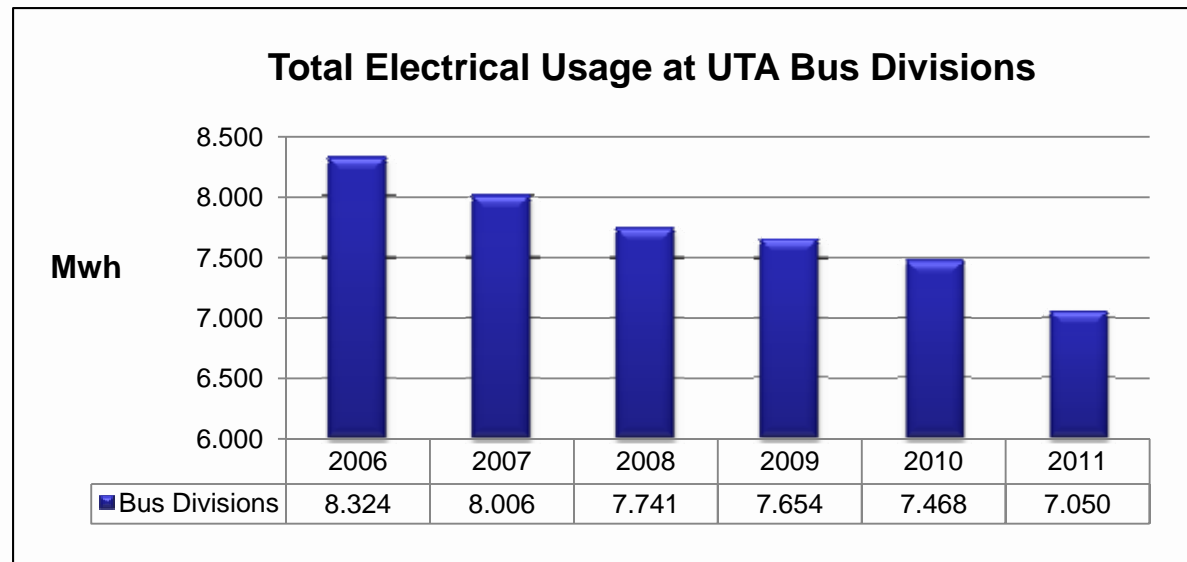


* Fuel savings are normalized to 2004 as a baseline.

Energy Conservation ■



- UTA initiated a project in 2006 to reduce electricity usage in our infrastructure, maintenance facilities, stations, and work places.
- Continued reductions demonstrates our commitment to energy management.

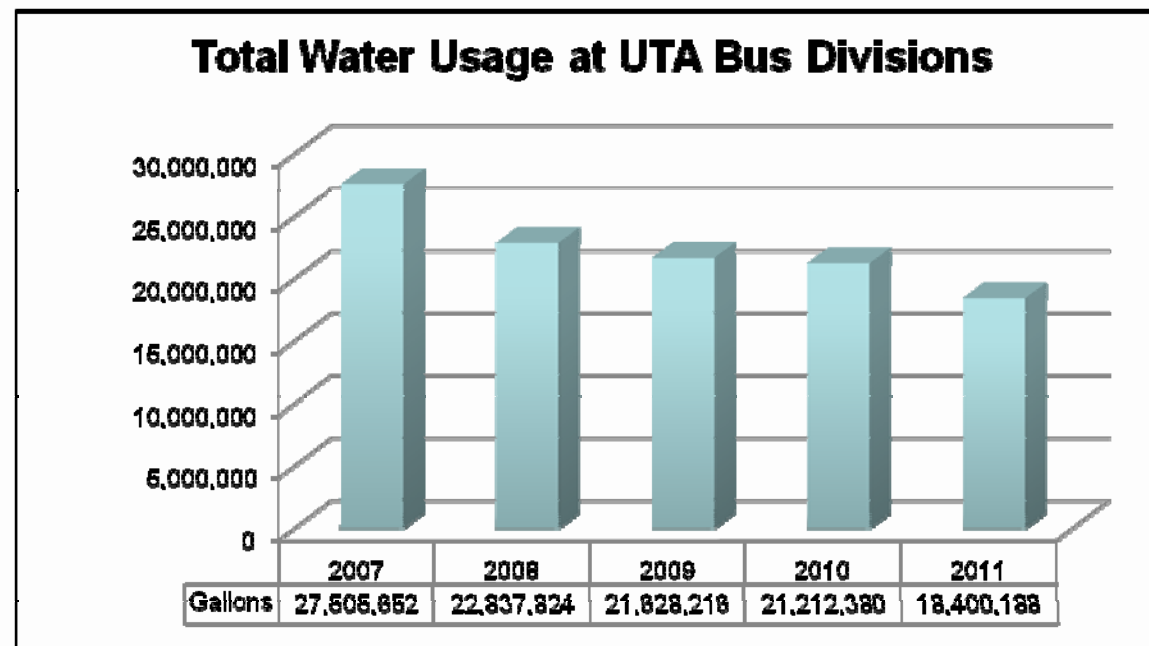


* Energy savings are normalized to 2006 as a baseline.

Water Conservation ■



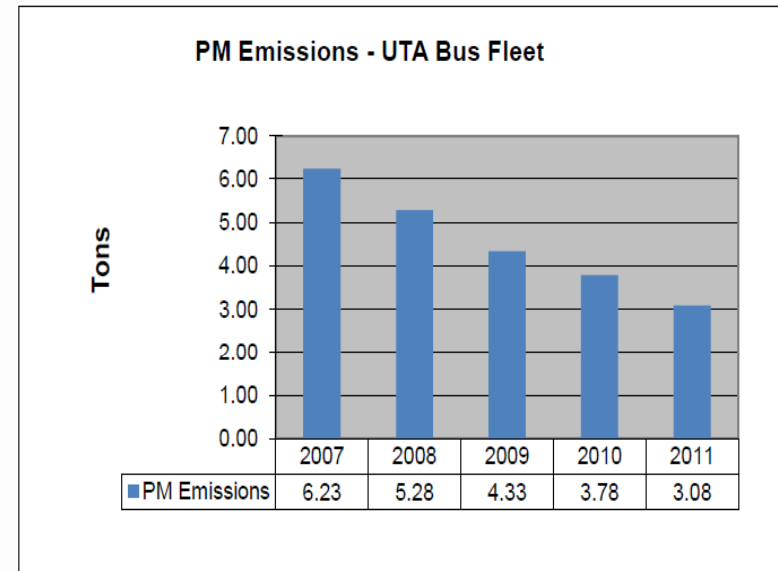
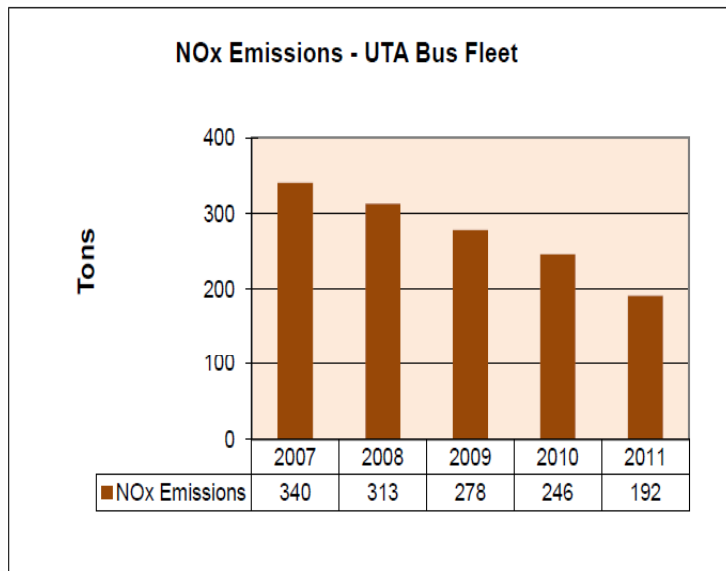
- UTA uses water recycling, as part of its sustainable design in its vehicle washes and incorporates “xeriscaping” where allowed.
- Between 2007 and 2011, UTA reduced water consumption by 33%.



Six Year Bus Replacement Program ■



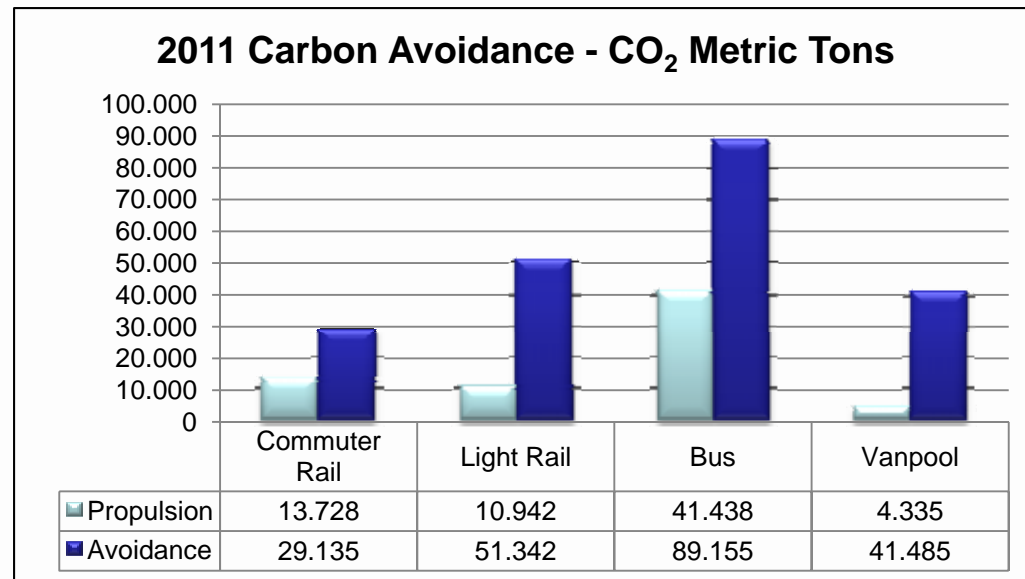
- NO_x reductions: 2007 – 2011: >43%
- PM reductions: 2007 – 2011: >50%
- It is estimated that the emissions of NO_x and PM will be reduced by 80% in 2015 from the 2007 levels, through the replacement of older buses.





CO₂ Neutral – CHG Reductions ■

- Emissions displaced or “carbon avoidance” from mode shift to transit, congestion relief, and compact land-use leads to displaced emissions as the use of private vehicles is reduced.
- Goal for the 2026 Olympic Games is to be “CO₂ neutral.”





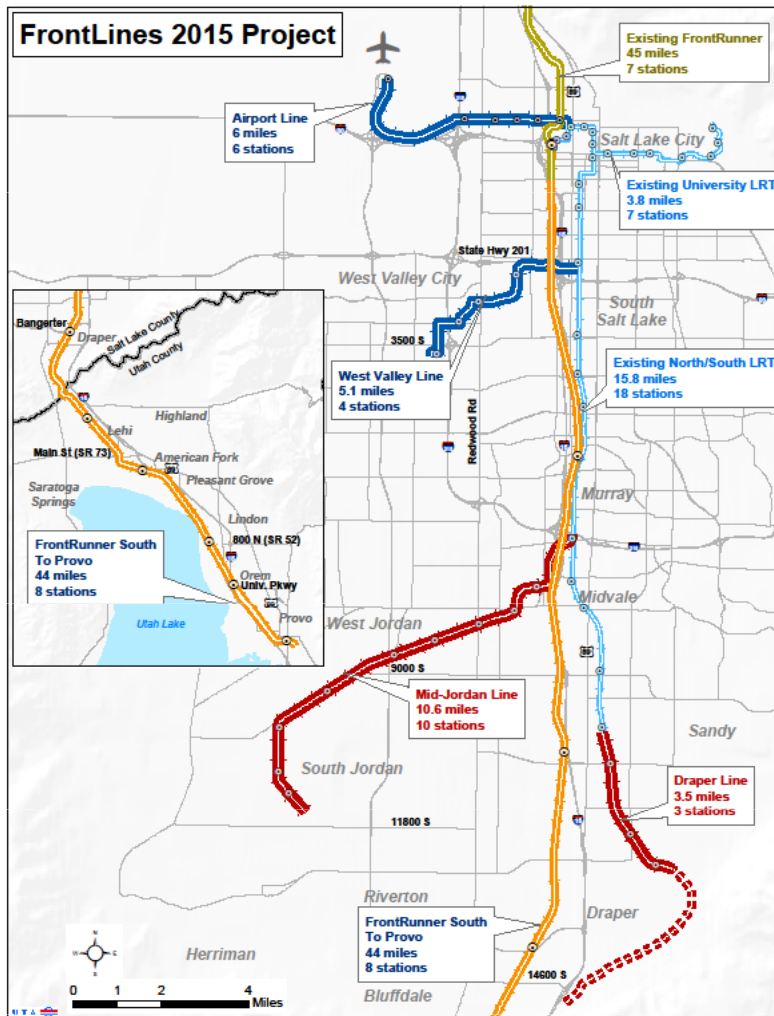
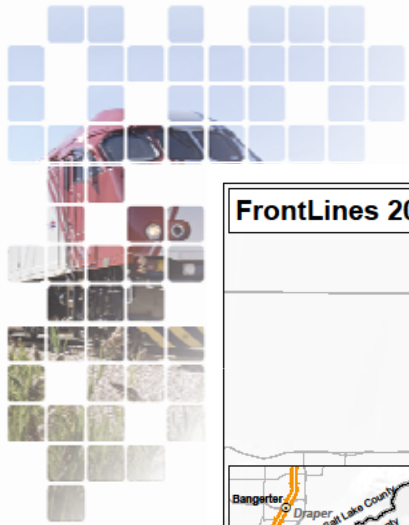
Regional Vision: ■ Wasatch Choice for 2040



Regional Growth Principles (developed by local elected officials):

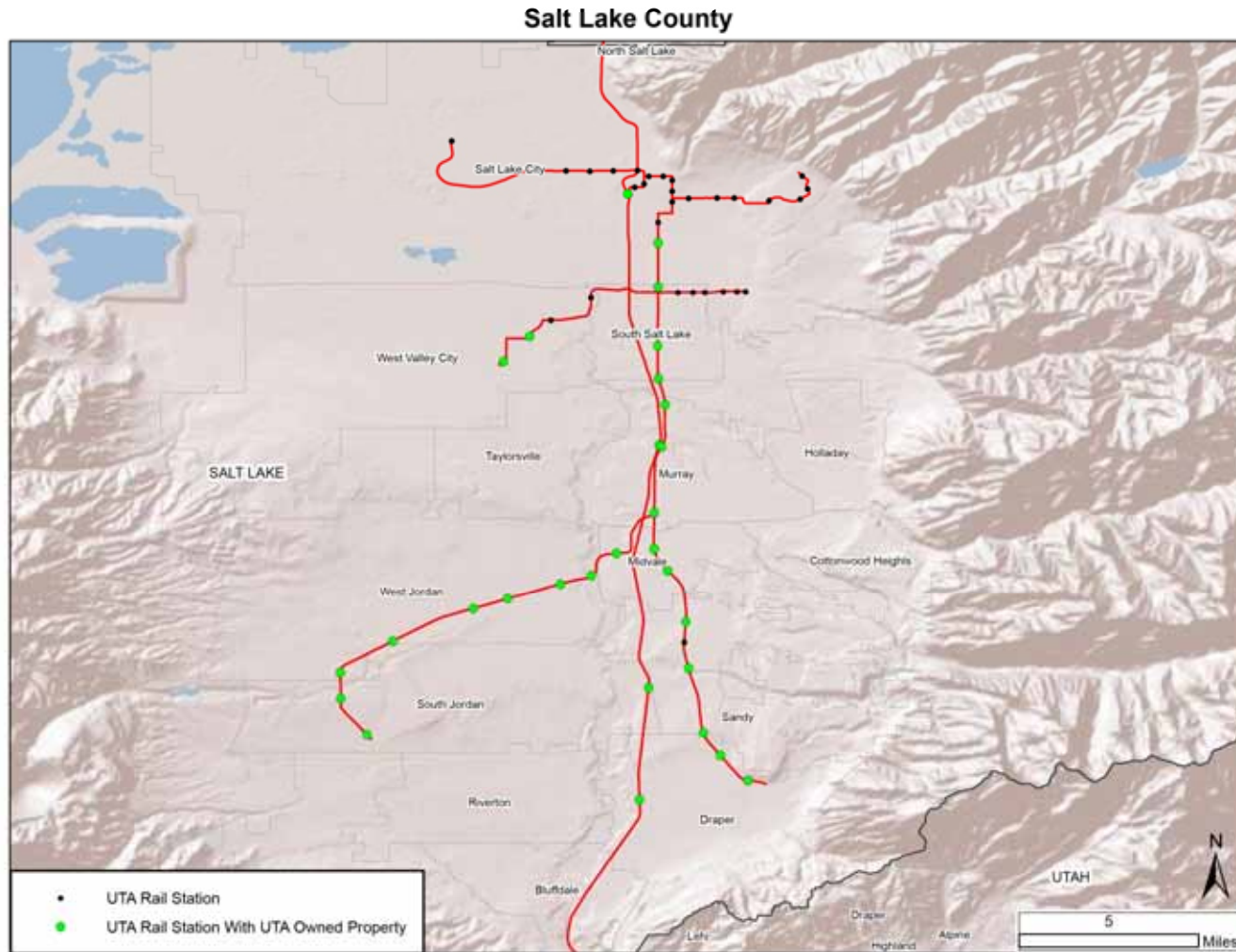
- Transportation choices
- Integrate land-use with transportation
- Housing choices
- Enhance the regional economy
- Strengthen sense of community
- Protect and enhance the environment

FrontLines 2015 Is Wrapping Up



- UTA's largest project in its history.
- Sixth largest rail project in U.S. and Canada.
- Building 70 miles of rail in seven years.
- One project that includes five light rail lines.
 - » Mid-Jordan TRAX
 - » West Valley TRAX
 - » FrontRunner South
 - » Draper TRAX
 - » Airport TRAX

Transit-oriented Development ■

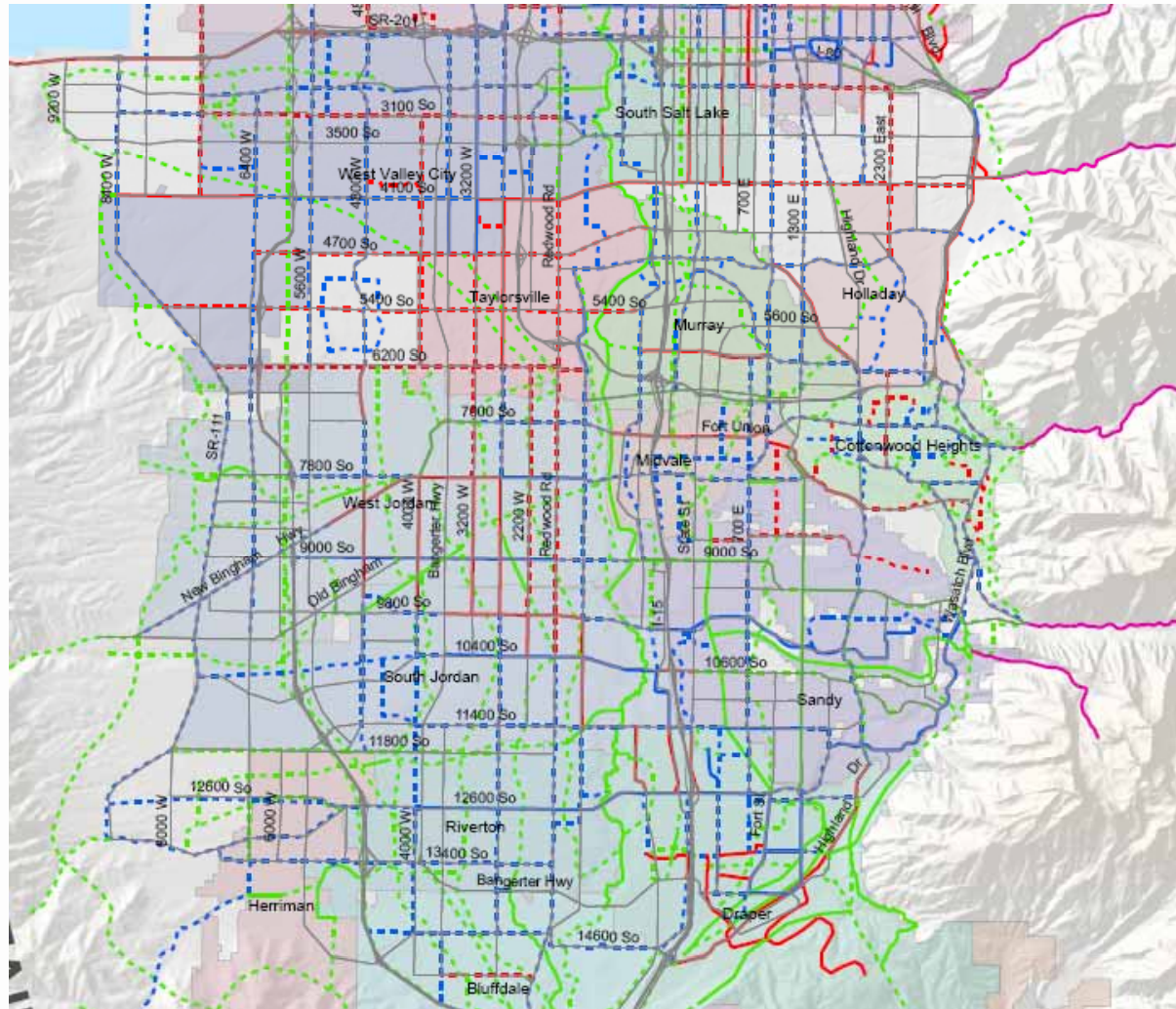




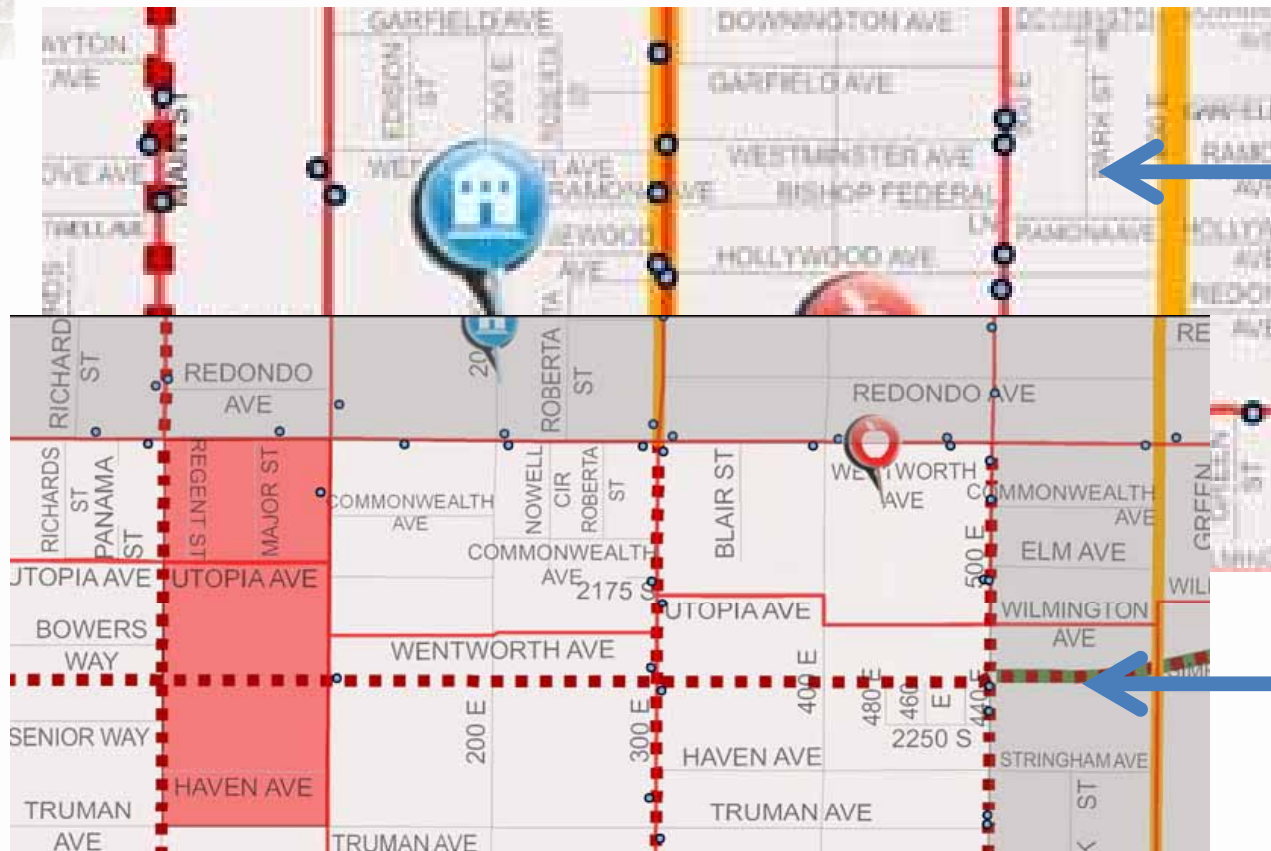
UCATS



Build the Hike and Bike Trails



The Problem ■



Salt Lake City

South Salt Lake

The Problem Continues ■



⊕ Bus Stop

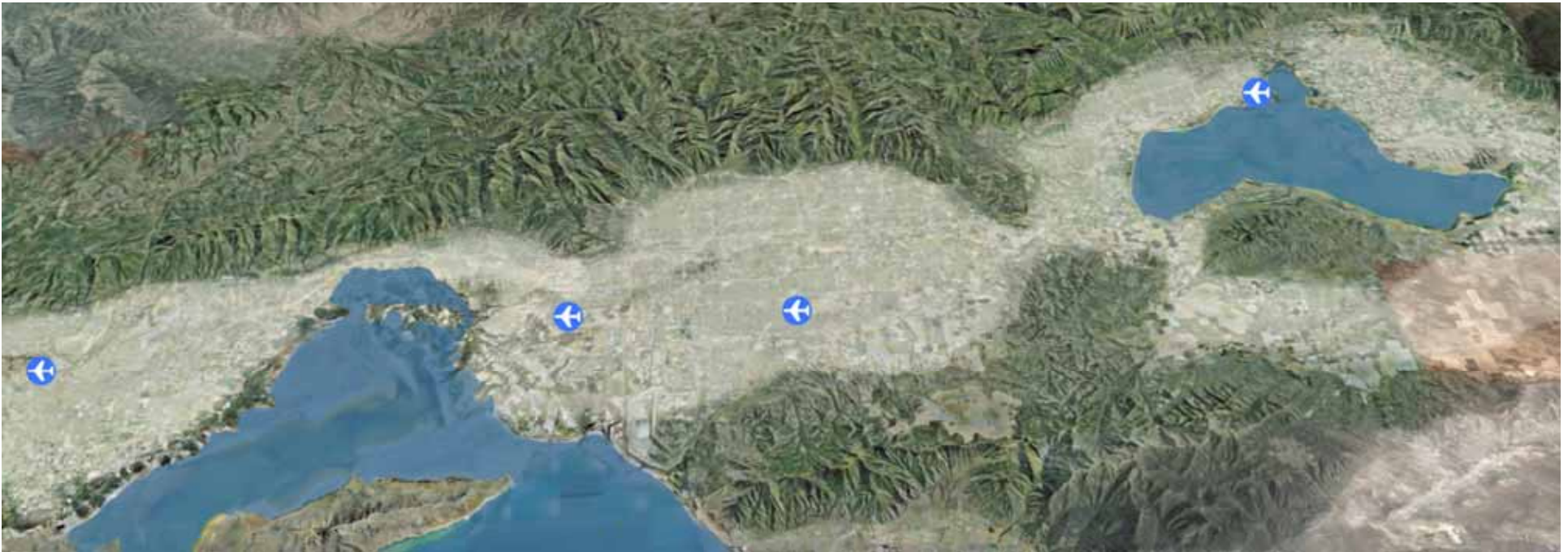
--- .6 miles

--- .13 miles

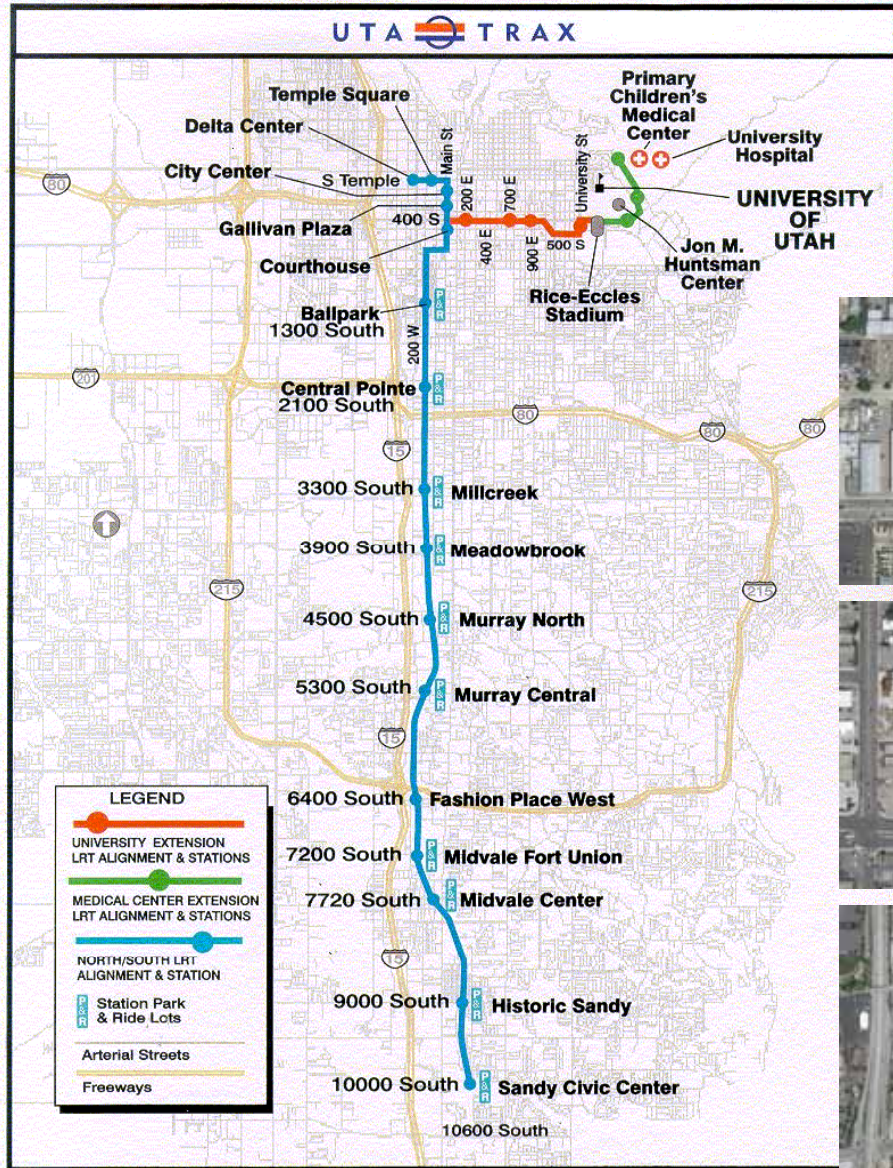
How do we provide safe and accessible routes to transit for pedestrians?

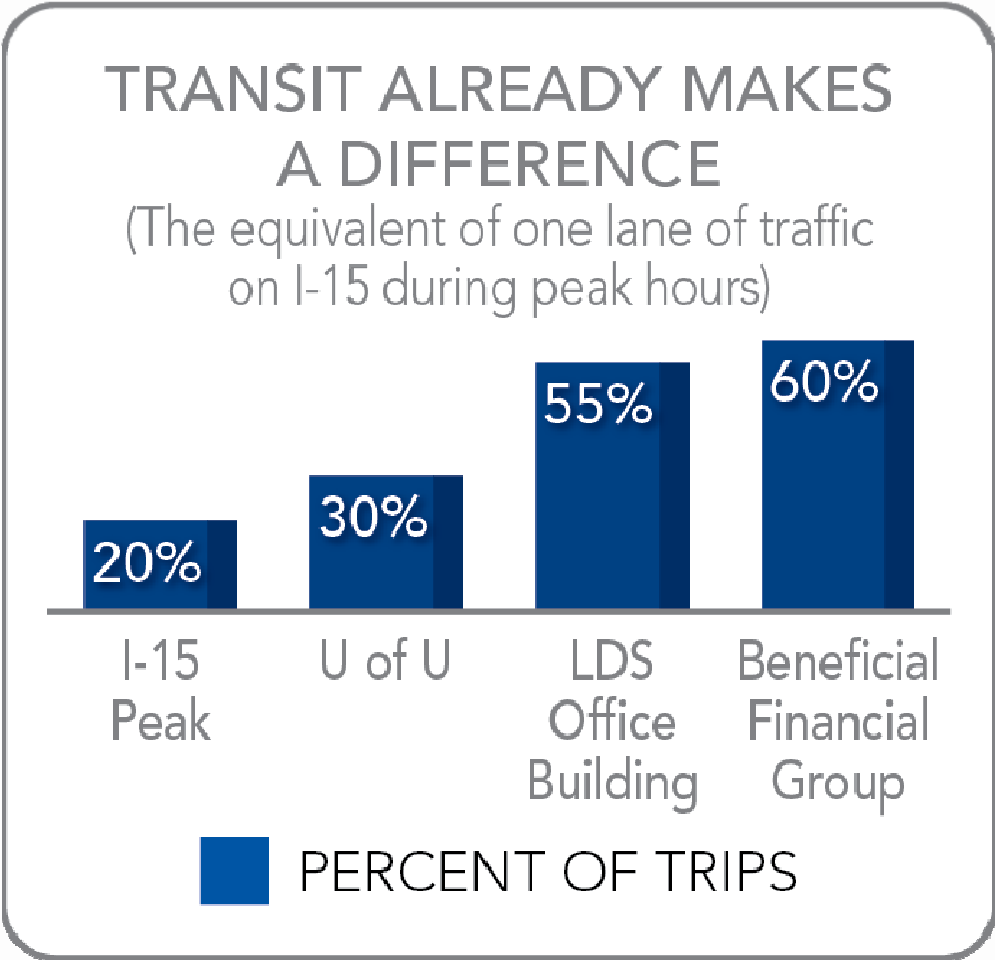


Unique Wasatch Front Geo–Economic Environment

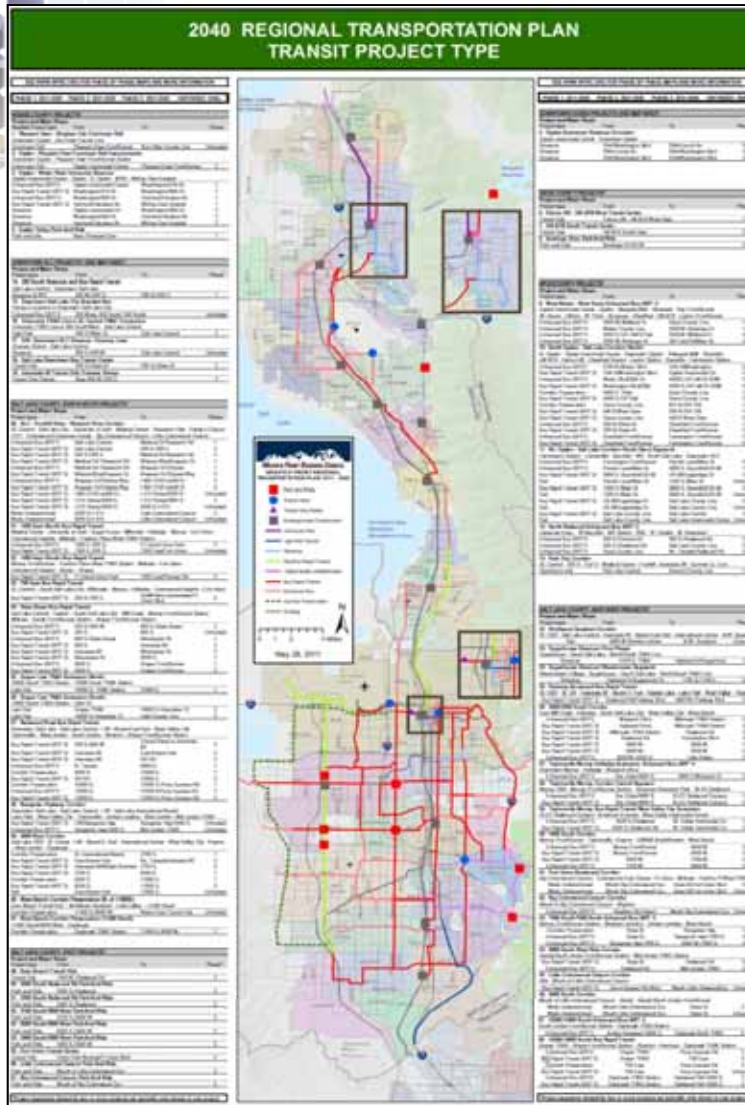


Light Rail Alignment





WFRC and MAG RTP: \$15B in Future Transit





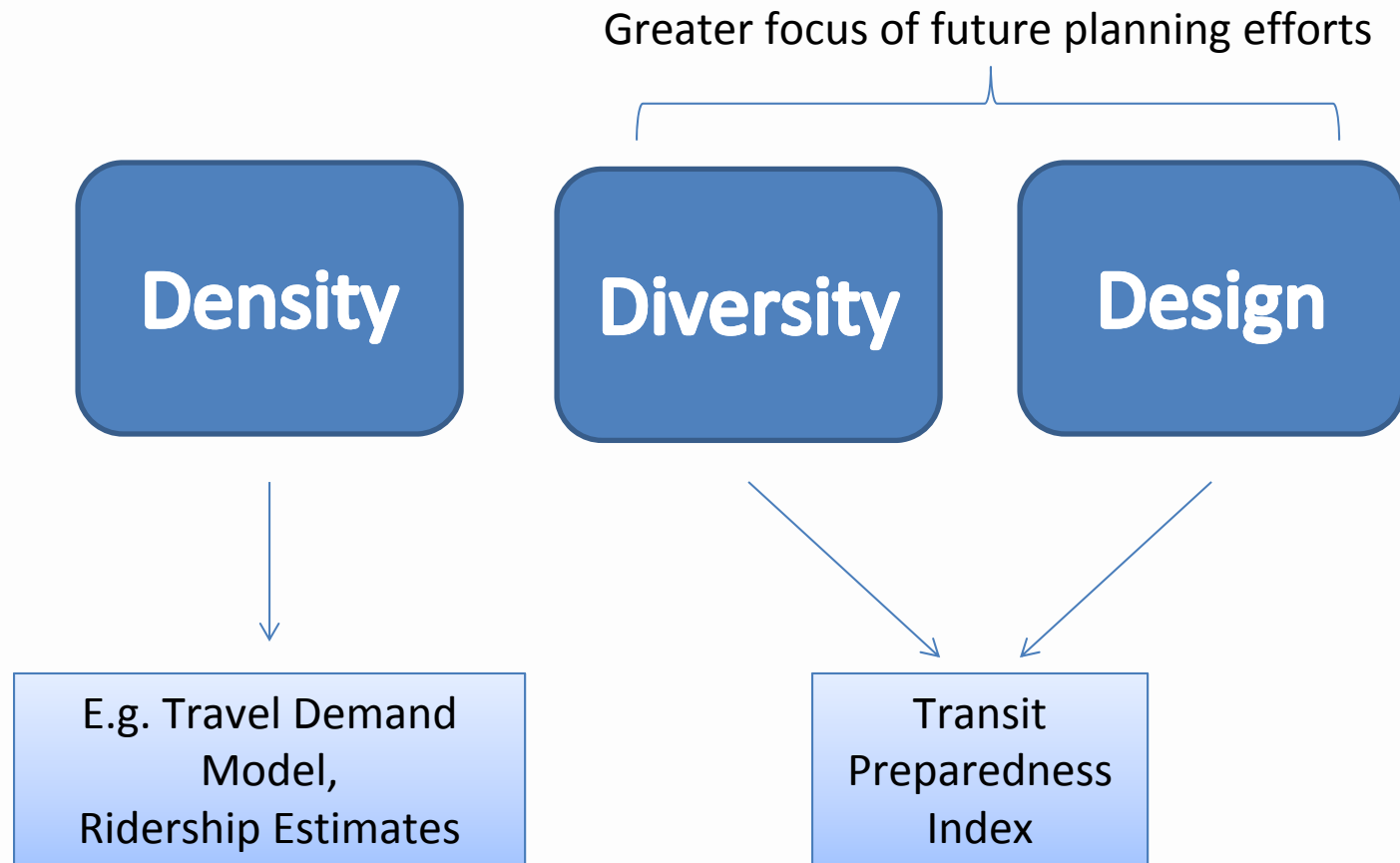
Goals of the Network Planning Study ■

- Determine long range plan capital projects to advance
- Identify operating and lower cost capital investments
- Roadmap for projects that under perform
- Inform the next RTPs
- Link planning and NEPA



- Create network of reliable, high-frequency, high-quality service
- Increase ridership
- Improve cost-effectiveness per trip
- Increase connectivity
- Wasatch Choice for 2040 Nodes
- Walk/bike access
- Improve travel times to/within downtown

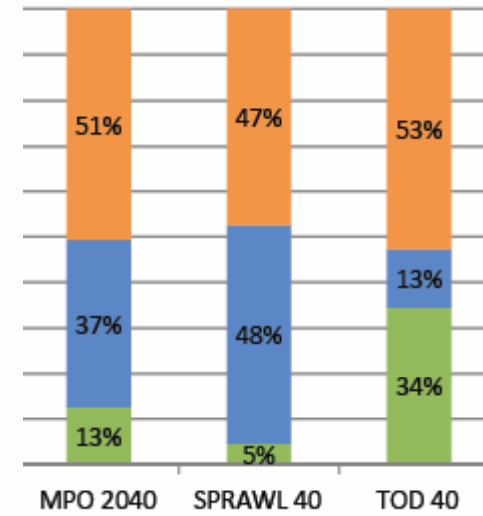
Building Communities for Transit ■



Density Scenarios – Utah County

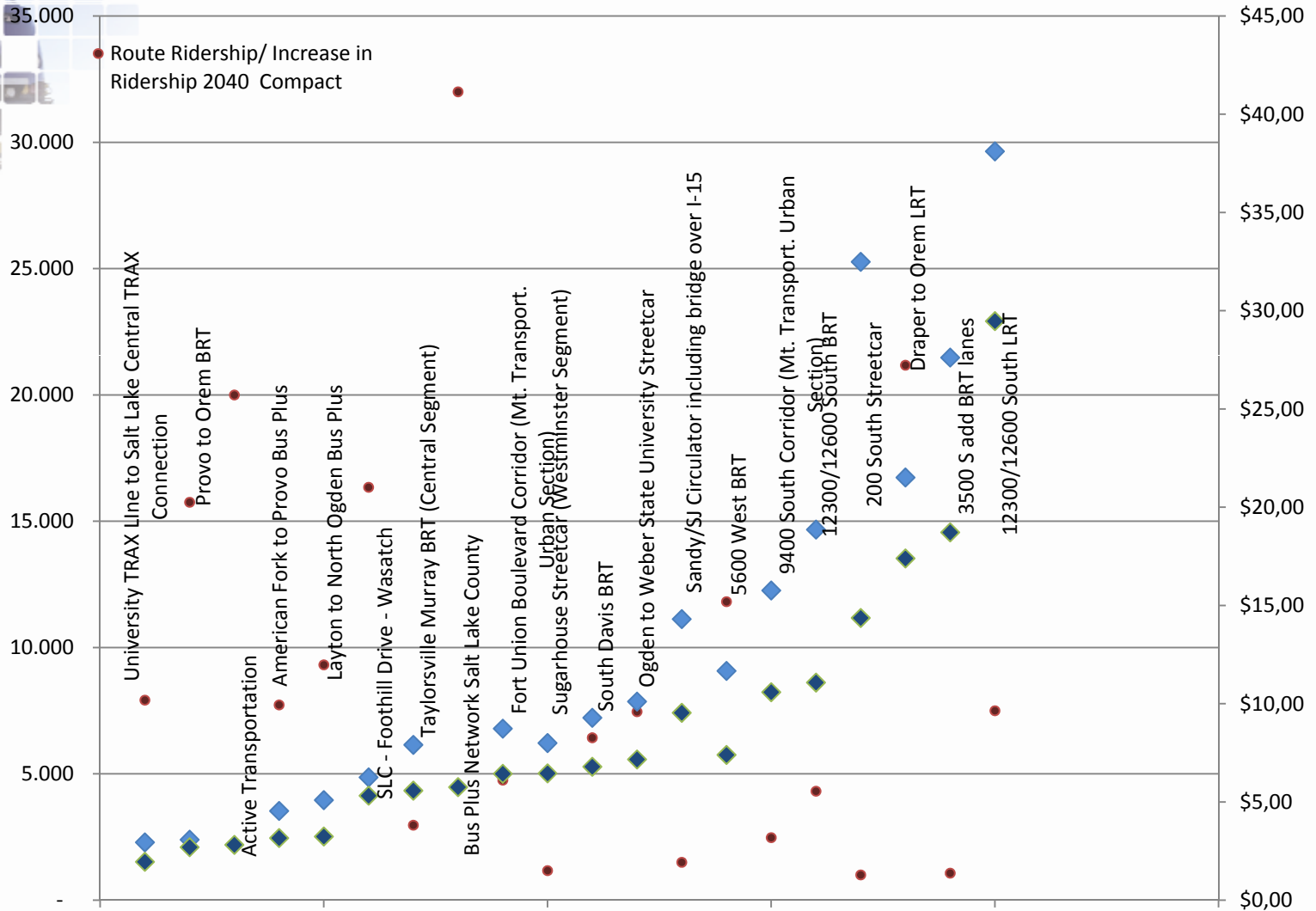


Population Growth



- Fringe Zones
- Suburbs
- Vision Zones

Network Study





Introduction

2012 State of the Network

Land Use

Bus Plus

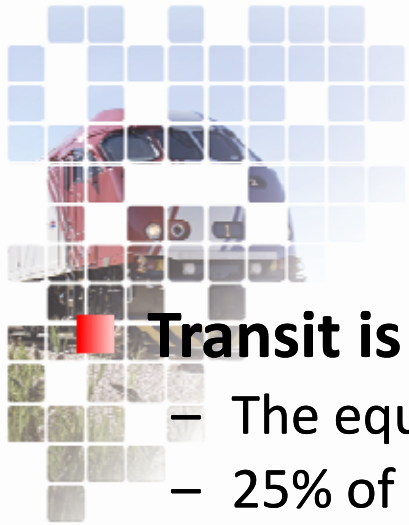
Fixed Guideway

Next Steps

Next Steps

- Evaluate cost-effectiveness
- Finalize capital and operating scenario for each county
- Determine LRP capital projects to advance for each County (20 Projects)
- Package scenarios for different funding levels
- Link Planning and NEPA
- Final Recommendations December 2012

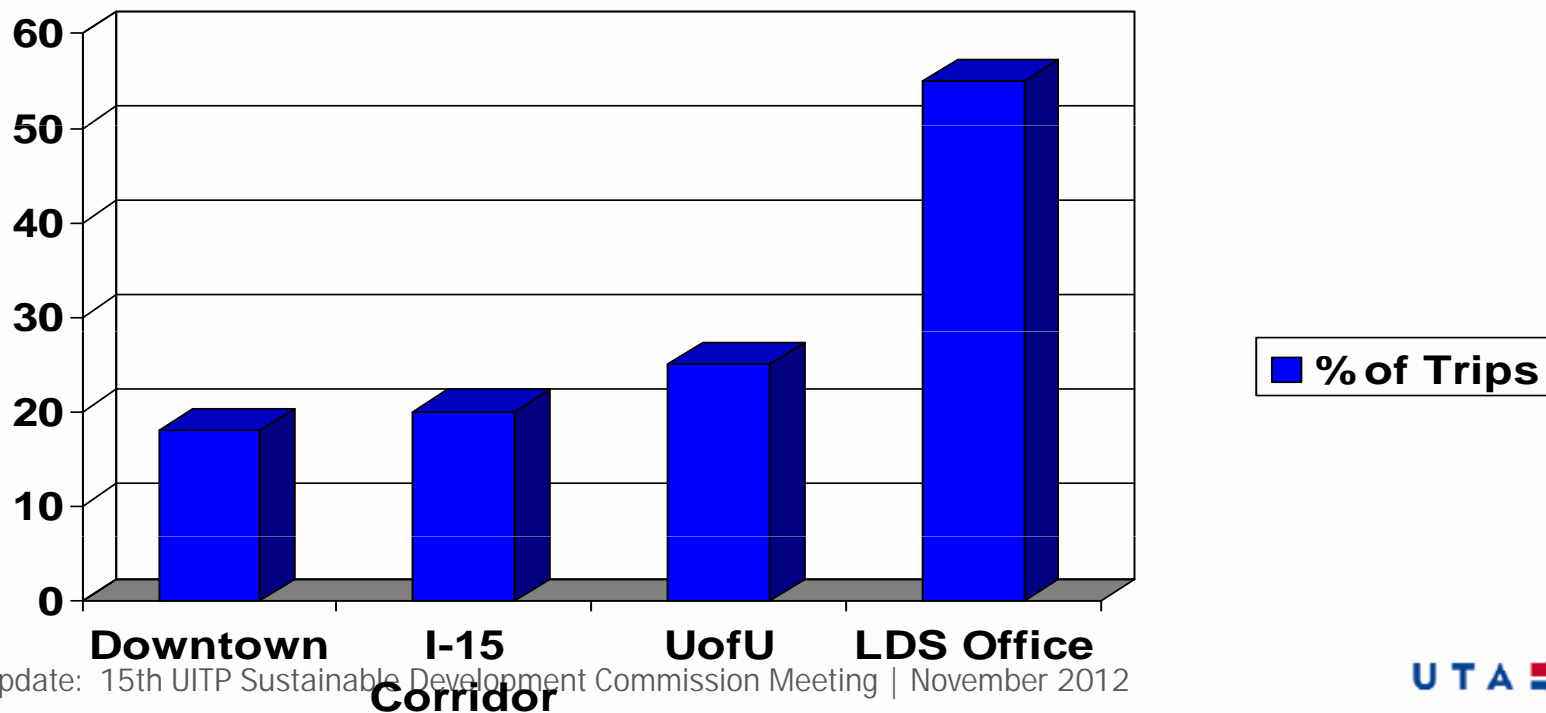




Transit Success

Transit is making a difference

- The equivalent of one lane on I-15 during peak hours
- 25% of students going to the University of Utah
- 50% of employees at the LDS Church Office Building



Partners in Transportation ■



WASATCH FRONT REGIONAL COUNCIL



M O U N T A I N L A N D
ASSOCIATION OF GOVERNMENTS
Serving Summit, Utah and Wasatch Cities & Counties



U T A

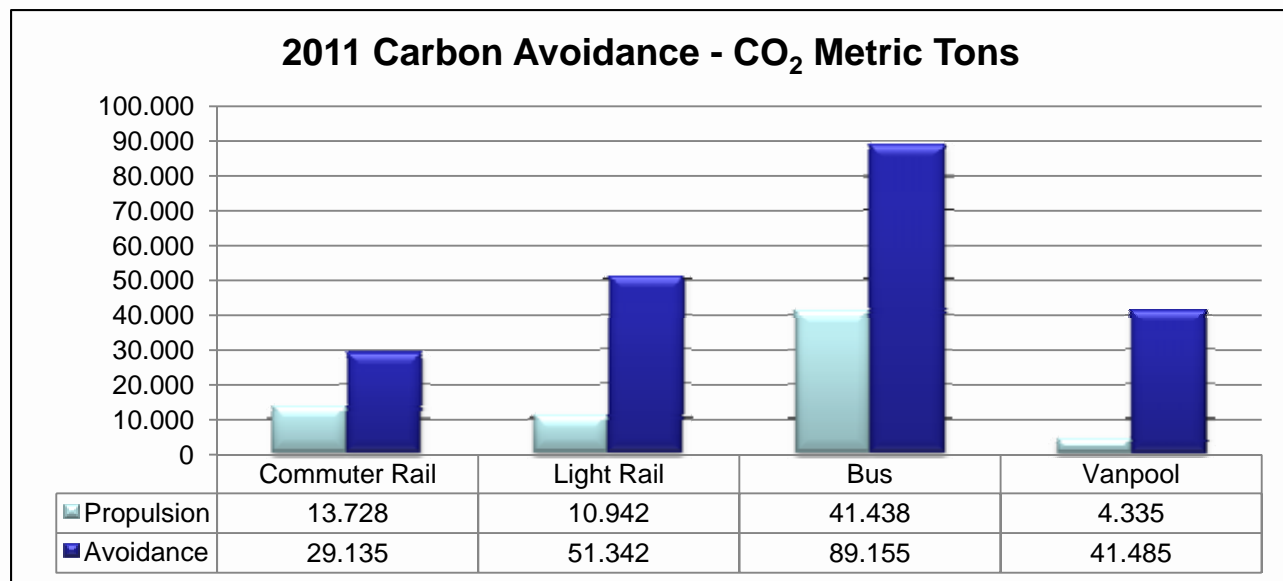


UTA 

Greenhouse Gas Reduction ■



- Emissions displaced by transit or “carbon avoidance” are the mobile combustion emissions from single occupied vehicles.
- Mode shift to transit, congestion relief, and compact land-use leads to displaced emissions as the use of private vehicles is reduced.

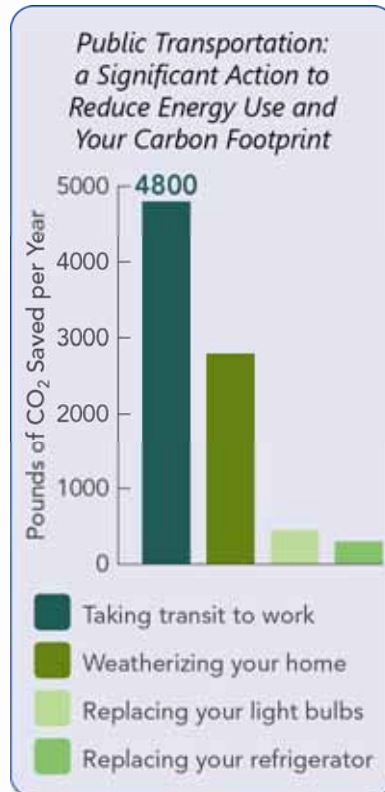


Transit-oriented Development ■



- UTA is engaged in two well-established projects in creating sustainable land-use planning.
 - » City Creek Center (owned by City Creek Reserve, Inc., division of the business arm of the LDS Church) in Salt Lake City
 - » Daybreak (owned by Kennecott Land, division of Rio Tinto) in South Jordan
- Transit-oriented development will play a major role to ensure that Utah will continue to be inviting for business and enjoy a thriving, sustainable economy.

Transit Reduces Your Carbon Footprint ■



Public transportation offers an immediate alternative for individuals seeking to reduce their energy use and carbon footprints. Taking public transportation far exceeds the combined benefits of using energy-efficient light bulbs, adjusting thermostats, weatherizing one's home, and replacing a refrigerator.

Source: "Public Transportation's Contribution to US Greenhouse Gas Reduction" via www.apta.com.

Transit Reduces Congestion ■



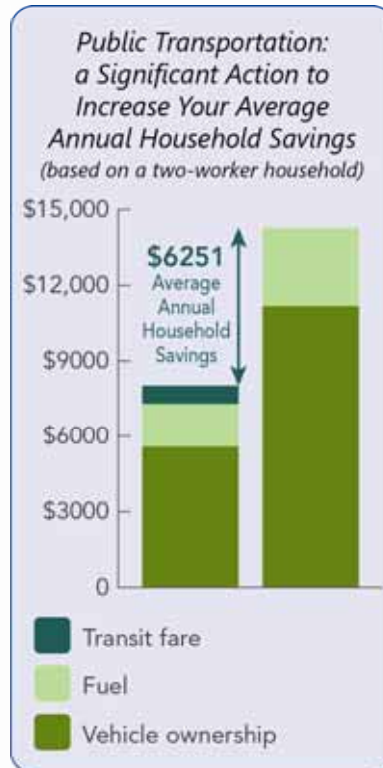
- Americans living in areas served by public transportation save 785 million hours in travel time and 640 million gallons of fuel annually in congestion reduction alone.

Source: www.apta.com

- Transit-related congestion relief saves the nation nearly \$20 billion annually.

Source: www.sierraclub.org

Transit Saves Money ■



The increasing cost of fuel makes driving private vehicles even more prohibitive for many. Public transportation households save an average of \$6,251 every year – even more as the price of fuel rises.

Source: "Public Transportation and Petroleum Savings Report" via www.apta.com.

Transit Reduces Gas Consumption ■



- Public transportation's overall effects save the United States:
 - » 4.2 billion gallons of gasoline annually, representing 11.5 million gallons of gasoline per day;
 - » more than three times the amount of gasoline refined from the oil imported from Kuwait;
 - » the equivalent of 102 supertankers of oil, or a supertanker leaving the Middle East every four days;
 - » the equivalent of 420,000 fewer service station tanker trucks clogging our streets each year; and
 - » the equivalent of 900,000 fewer automobile fill-ups each day.

Source: www.publictransportation.org

What is Bus Plus? ■



May include:

- 15-minute or better headways
- Stations/shelters
- Schedule/next bus information
- Bus rapid transit without the exclusive lanes
- Pre-board ticketing
- TSP/far-side stops/fewer stops
- Integrated bus/rail schedule
- Branding