

CHAPTER THREE – NEEDS ASSESSMENT

Not unlike other fast-growing areas of the country, the Cache Valley's transportation network is falling behind in meeting the area's capacity needs and the region's travel demand model indicates that this problem only becomes more serious over time. The purpose of this Regional Transportation Plan is not only to identify short and long-term needs and to plan for them, but also to create a countywide vision of future transportation facilities. This chapter identifies future areas of traffic congestion, transportation needs, and some of the larger-scale specific projects within the region.

I. Existing Level of Service

Existing level of service is shown in Figure 3-1. It is a good indicator of existing areas of congestion, highlighted in red and orange, throughout the Cache Valley region. Not surprisingly, downtown Logan shows significant traffic congestion. Main Street in Logan is US-91, the major north/south arterial through the county. Logan's central business district is one of the largest trip generators in the county, with its vibrant mix of retail, office, and recreational destinations. On US-91 from approximately the SR 165 intersection to 400 North, traffic volumes regularly exceed capacity. However, existing congestion issues on US-91 are not limited to downtown Logan. From Nibley to Smithfield there are problems that slow traffic in many areas. Peak hours of traffic in the morning and afternoon are especially congested.

SR-30 between Logan and Box Elder County also has existing traffic issues. This is a high-speed road that lacks acceleration and deceleration lanes at access points, causing through-traffic to slow down for turning vehicles. The road is currently one lane in each direction with no passing lane and a center-turn lane only in a small stretch west of Logan. This road is commonly used by large commercial vehicles which make the pavement deteriorate more quickly.

100 East in downtown Logan south of Center Street is a collector street and experiences almost chronic congestion due to the light synchronization project on Main Street. 100 East not only serves as a collector street for the residential areas east of Main Street, but many drivers also use it as an alternate to Main Street. As a collector street, 100 East does not have the capacity to carry as much traffic as it does, and the result is poor level of service with high congestion and long delays.

II. Future No-Build Level of Service

Figure 3-2 shows traffic conditions in 2030 if no improvements are made to the region's transportation network. The projected population and employment growth discussed in Chapter 1 are assumed for future conditions. As can be seen in the map, significantly more congestion is expected in the future if no transportation projects are implemented. In fact, analysis of existing conditions suggests that there are currently about three miles of road with chronic congestion in the Cache Valley, and in a 2030 no-build scenario more than 17 miles of road should expect chronic congestion.

Also evident from Figure 3-2 is that nearly all of downtown Logan has considerable congestion, not only Main Street and 100 East. Traffic congestion will spread to the south end of the valley; SR-101 and SR-165 are likely to experience increased congestion and lower levels of service. There are several roads west of US-91 that show congestion under 2030 no-build conditions.

Figure 3-1: Existing Level of Service Map

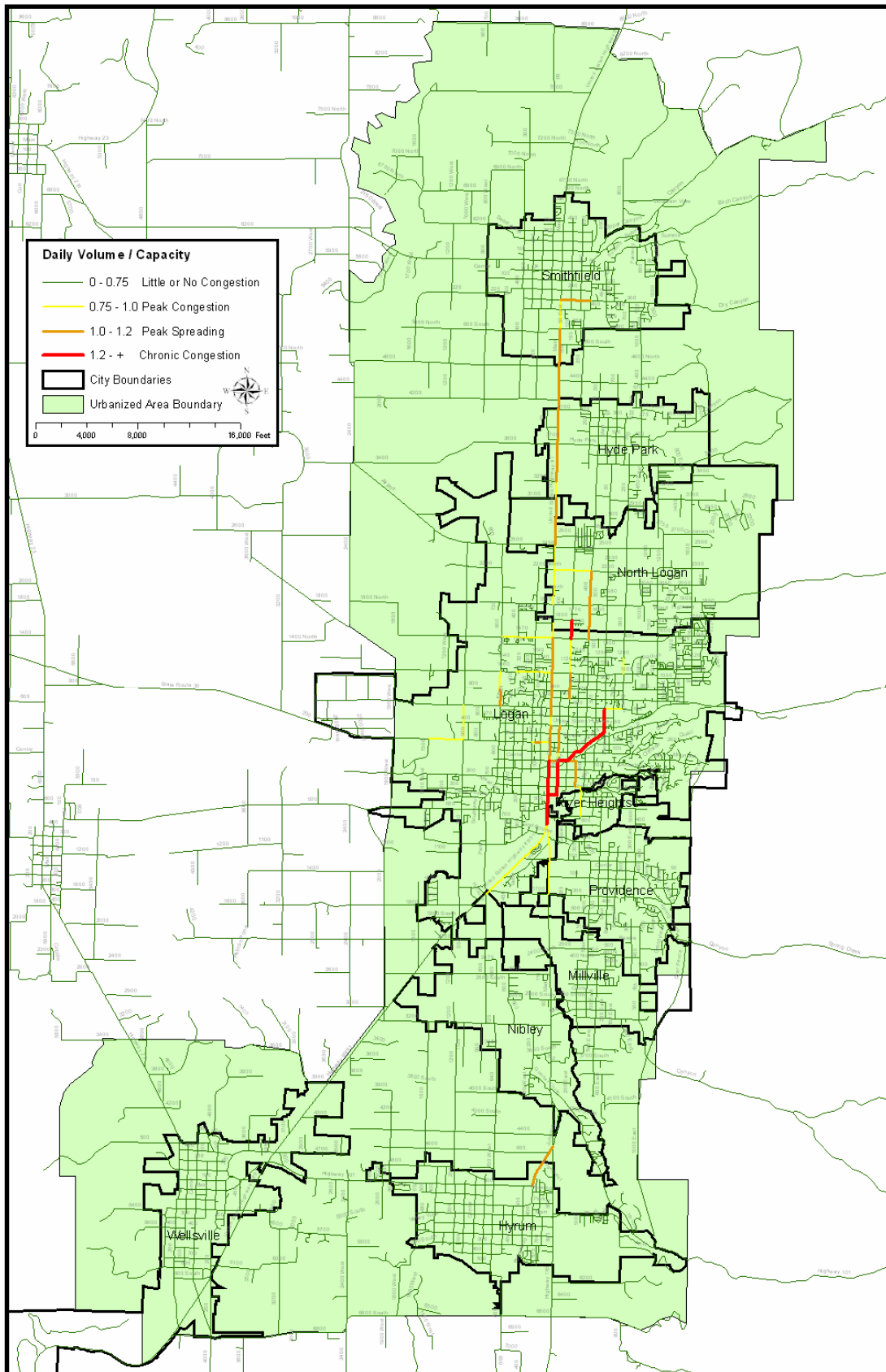
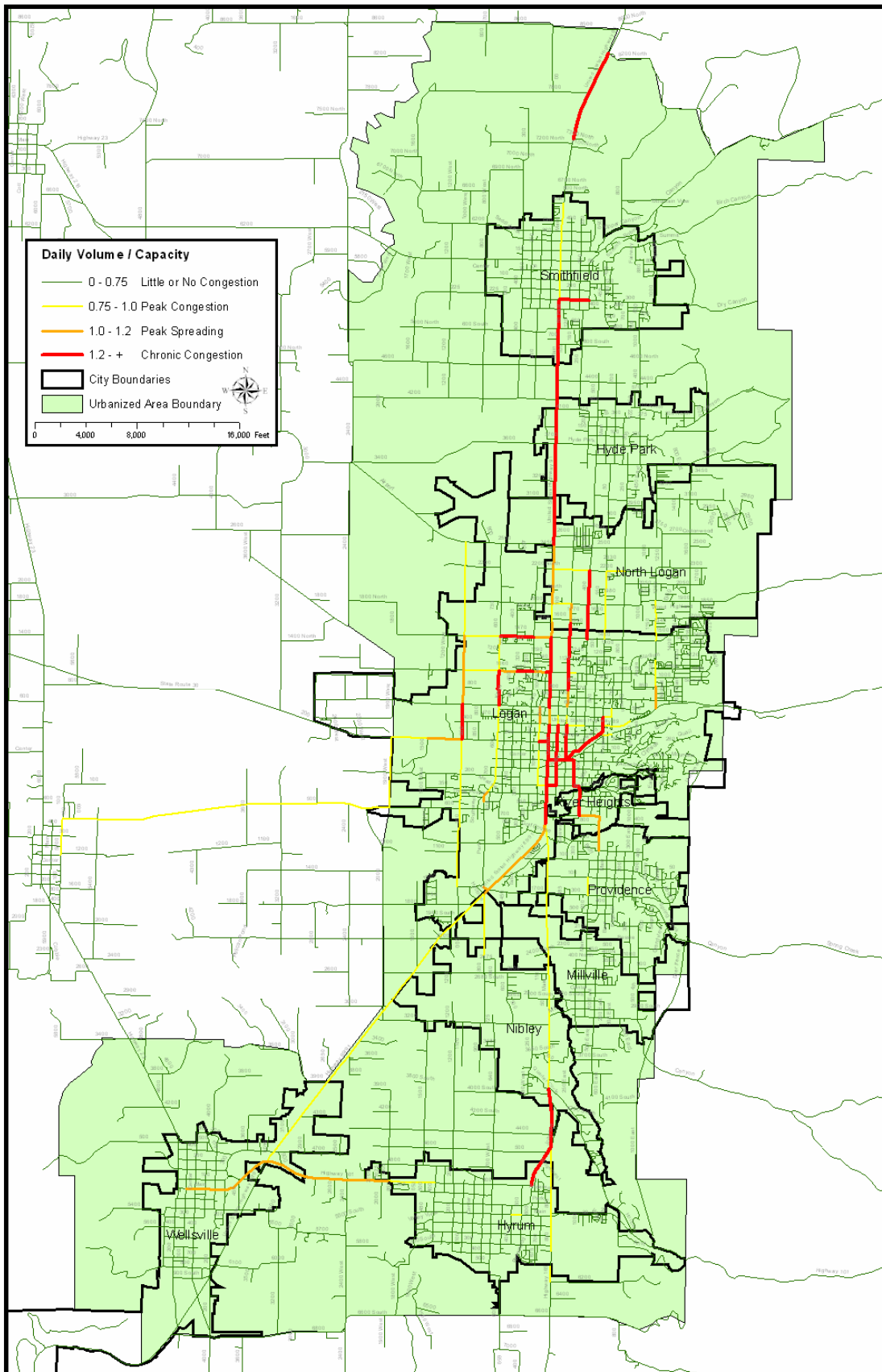
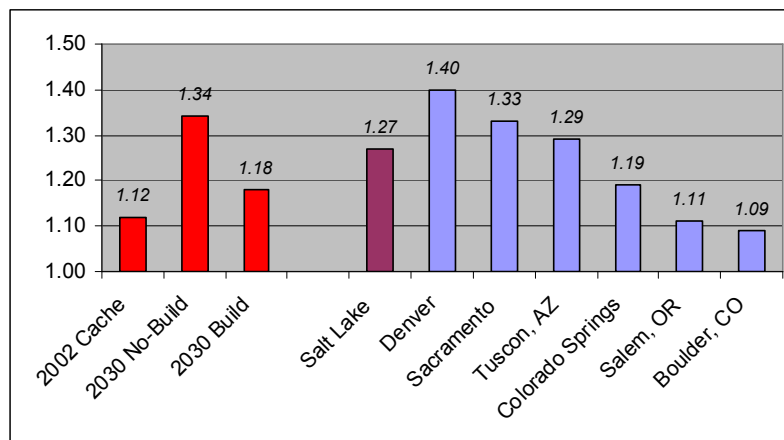


Figure 3-2: 2030 No-Build Level of Service Map



The Travel Time Index (TTI) is a generally-accepted measure of an area’s congestion. It is the time it takes to travel a given road segment at the peak hour divided by the free-flow travel time for that segment. A TTI of 1.0 indicates that there is little or no difference between peak period and free-flow traffic and larger numbers point to increased congestion during the peak period. Figure 3-3 shows the TTI for the Cache area transportation system under existing and future conditions and for similarly-sized cities. As shown in the figure, the TTI for the future no-build scenario is 1.34. For comparison purposes, a TTI of 1.35 means that a trip that would normally take 20 minutes in free-flow traffic will take 27 minutes during the peak hour. While figures given here are comparing system-wide delay, it can be compared at the corridor level as well.

Figure 3-3: Travel Time Index by City

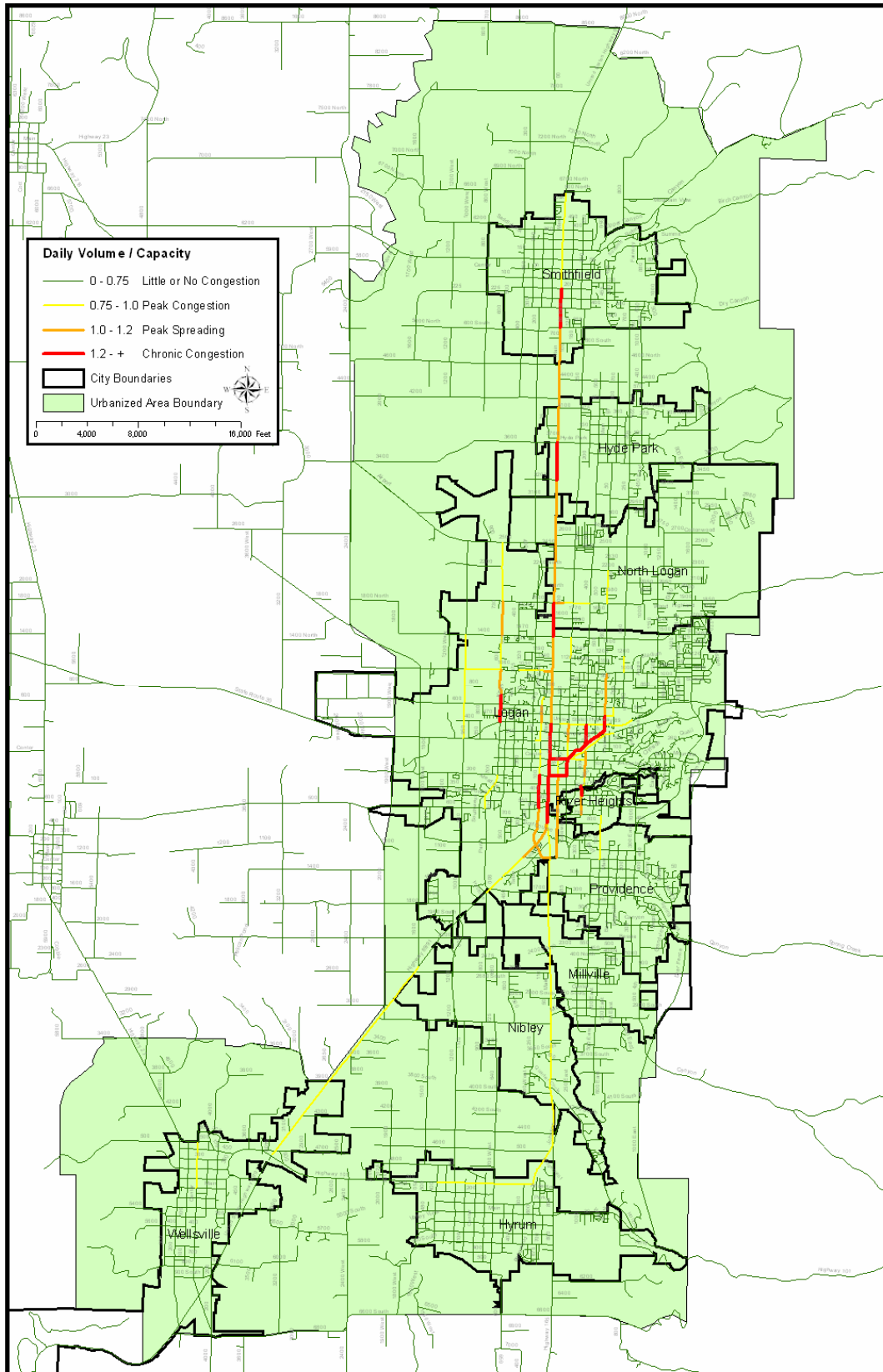


III. Future Build Level of Service

Figure 3-4 shows level of service for a 2030 build scenario, assuming the projects included in Chapter 8’s project list. While there are still areas of congestion, especially in the downtown Logan area, overall traffic issues throughout the region have been reduced considerably. Figure 3-3 shows the TTI for the build scenario at 1.18, somewhat increased from today’s conditions but significantly less than the future no-build scenario.

This technical update to the CMPO RTP features increased 2030 socio-economic forecasts and the transition to a new TP Plus travel demand model. The graphics in this chapter are from the old CMPO plan that used the old MINUTP travel demand model. These graphics tell the story of increasing congestion and a need for transportation improvements in Cache County. While these graphic have not been updated, to reflect the new 2030 socio-economics the need for transportation improvements will only be greater with updated existing conditions and the new 2030 socio-economic data.

Figure 3-4: 2030 Build Level of Service Map



IV. Alternative Modes of Transportation

A. Trails and Pathways

Cache County recently completed the *Countywide Trail & Parkway Master Plan* (found on enclosed CD) which provides a framework for the development of future trail opportunities by giving communities a set of goals and strategies to adopt which further the objectives of the Master Plan. Those objectives include:

- To guide trails, open space, and development in a coordinated manner that creates identified recreation, open space, and alternative transportation opportunities, and
- To improve air quality by promoting walkable development near trails and transit.

The population of Cache County is expected to nearly double by the year 2030. With population growth comes new development. Proper planning for each new development provides an opportunity to extend and build sections of the trail system. It is much easier to build trail systems with new development than trying to build trails in existing developments. It often proves to be difficult to secure easements and rights-of-way in existing development.

A key feature of the plan is a countywide trail system map which is based on existing and planned trail systems for each community, public land agency, and private utility company. The plan calls for each community to work cohesively to guide new growth and development in such a way that it answers the public demand for open space and a good trail system. Communities working together as a cooperative gain regional perspective and serve county citizens more efficiently. In October 2005 the position of Cache County Trails Coordinator was established to coordinate efforts between communities and to implement the trail system plan. The coordinator also helps communities with land use, trail design, funding, open space preservation and related tasks.

The Cache Countywide Trail and Parkway Master Plan provides a framework for the development of future trail opportunities by giving communities a set of goals and strategies to adopt which further the objectives of the Master Plan. With continued support and long range planning the goals of the Cache Countywide Trail and Parkway Master Plan will be realized. This will satisfy public wants providing Cache County citizens with a better quality of life through healthier lifestyles, transportation choices and recreational opportunities.

Funding for the countywide trail system is aided by the Restaurant, Arts, Parks and Zoo (RAPZ) sales tax option increase of 1/8 cent. Additional support for the trail system can be found in various public and private groups such as: U.S. Forest Service, U.S. Bureau of Reclamation, The Nature Conservancy, The Trust for Public Land and other groups. Citizen volunteer groups also provide for large donations of labor, equipment and expertise. These citizen groups should not be overlooked as many miles of trail can be built for a relatively low cost.

B. Transit

The Cache Valley Transit District provides free-fare transit service to the residents of the area. Although the transit system is relatively small due to the size of the Cache region, ridership numbers in the Cache Valley are high when compared to other transit systems of similar size.

Vehicle miles traveled are increasing more quickly than population, a trend seen nationwide as well as in the Cache region. Driving becomes not only more convenient, but more necessary as land uses spread and become more segregated. In Table 3-1, census data from 1990 and 2000 shows that one and two-car households decreased as a percent of total households, while three, four, and five-car households all increased. In addition, households with no cars also increased, perhaps reflecting the development of a comprehensive transit system during the same period.

Table 3-1: Cache County Vehicle Ownership

Cars/Household	1990		2000	
	Households	Percent of Total	Households	Percent of Total
None	728	3.5%	1,158	4.2%
1	6,039	28.7%	6,817	24.8%
2	8,830	42.0%	11,523	41.8%
3	3,647	17.3%	4,891	17.8%
4	1,240	5.9%	2,041	7.4%
5+	537	2.6%	1,113	4.0%
Total	21,021	100.0%	27,543	100.0%

While transit as a share of total trips is still relatively small, transit service is important in that it provides an alternative for those who choose not to or are unable to drive. In addition, transit use for work trips has a “spillover” effect because it reduces those vehicle trips that might otherwise be taken midday, or before or after work. In essence, transit is about more than buses and routes: it is about lifestyle and land use choices.

The *Cache Valley Transit District Short Range Transit Plan* is the initial document used in both routine and long-term transit decision-making (contained on enclosed CD). The objective of the plan is to review existing conditions, tailor current operations to fit existing conditions, and to develop plans for the next five years of operation. Goals include:

- Serve the transportation needs of the community.
- Maximize service productivity.
- Develop a transit network that’s reflective of land use patterns as well as develop transit friendly development.
- Maximize service effectiveness.
- Provide a safe, reliable and convenient public transit service.

In order to assess the level of service that CVTD is providing, several different methods of evaluation were used, including:

- Peer review- CVTD service indicators were compared to other transit systems of similar size around the country.
- Ride check- data collected by ride check was used to identify and delineate time periods of high use.
- Surveys- on board and telephone surveys were used to identify travel patterns, assess customer satisfaction and to develop user demographics.

Based on field observations, data analysis, and the above evaluations, the following service improvements have been recommended:

1. Reallocate routes 10 and 11.
2. Increase service frequency on Routes 1 and 4.
3. Extend operating hours on Route 4 until 8:00 p.m.
4. Extend weekday hours until 10:45 p.m.
5. Add frequency to CVTD North and South routes.

The plan also discusses marketing strategies to increase annual riders and awareness of the transit system, as any transit system's success is based on the understanding of the services offered.

The primary source of CVTD funding is: Utah Sales tax, FTA sections 5307, 5309 and 5311. Future funding possibilities are: establishing a fare, Congestion Mitigation and Air Quality Funds, and FTA sections 5316, 5311(f).

The Cache Valley transit district provides an invaluable service for the communities in the Cache Valley. The transit service adds to the quality of life by providing access to education, employment, medical and other services throughout the community. The population of Cache County has been steadily increasing and is expected to increase by about 68 percent by the year 2030. Population growth will bring increased congestion, a higher demand for public transportation and deterioration in air quality. Investing and planning for public transit will help contain all of these future problems.

C. Coordinated Human Services Transportation

The Cache MPO recognizes the value of, and supports efforts to more fully coordinate, the specialized transportation needs of elderly individuals, individuals with disabilities and eligible low-income individuals. In partnership with the Utah Department of Transportation [UDOT] and other local partners, we intend to meet the coordinated planning requirement of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users [SAFETA-LU] for Section 5310, 5316, and 5317 starting in Federal Fiscal Year 2007.

The State of Utah United We Ride Workgroup has developed a Statewide Coordinated Public-Transit-Human Services Transportation Plan that identifies the transportation needs of individuals with disabilities, older adults, and people with low incomes, provides strategies for meeting those local needs, and prioritizes transportation services for funding and implementation. As the agency responsible for transportation planning in the Cache Metropolitan area, we will develop a local plan that will be a part of the Statewide Coordinated Plan. We will collaborate with UDOT on the competitive selection process to select projects that will be funded by FTA section 5310, 5316, and 5317 funds. Additionally, we will facilitate the inclusion of projects proposed for funding to be listed in the Transportation Improvement Program [TIP] and the Statewide Transportation Improvement Program [STIP], which may include specific projects or more aggregated program-level information.