Chapter 4

Supplemental Environmental Analysis

Chapter 4

Supplemental Environmental Analysis

4.0 Introduction

This chapter provides updated information on the affected environment, environmental consequences, and mitigation measures associated with the resource topics discussed in Chapters 3 and 4 of the Final EIS. Each section in this chapter includes a summary of the approach and methodology used to obtain updated and supplemental information and a discussion of the environmental consequences associated with the proposed build alternatives and the No-Build Alternative, as well as an assessment of a future no-build scenario. This chapter only presents supplemental and updated information based on changes that have occurred since publication of the Final EIS. Information presented in the Final EIS that did not change has not been reproduced in this document.

The following provides a brief discussion of the study area and the project alternatives evaluated in this chapter.

4.0.1 Study Area

The study area is located in the Great Salt Lake Valley region of Utah. The two dominant geologic formations of this area are the northern Wasatch Range and Great Salt Lake. The limited land resources between these two formations support developed suburban cities, highways and arterial streets, railroad tracks, major utility corridors, industrial and commercial development, refineries, mining operations, agricultural, and recreation opportunities.

More specifically, and as described in the Final EIS, the study area for the proposed action is located in Salt Lake and Davis Counties, and includes portions of Salt Lake City, North Salt Lake, Woods Cross, West Bountiful, Centerville, Farmington, and Kaysville (Figure 4.0-1). In general, the study area is bounded on the east by I-15 and the Denver & Rio Grande (D&RG) and Union Pacific Railroad (UPRR) tracks, and on the west by Great Salt Lake and the associated wetland complexes. The northern limit of the study area lies just north of the I-15/US-89 interchange in Kaysville, and the southern limit extends just beyond I-80. However, to facilitate complete evaluation of environmental impacts, the study area boundary for the following resource areas was modified. Specific modifications to the study area boundary are described in the *Affected Environment* subsection for each resource area.

- Section 4.1, *Land Use*.
- Section 4.3, *Social*.
- Section 4.5, *Economics*.

- Section 4.8, *Air Quality*.
- Section 4.9, *Noise*.
- Section 4.12, *Wetlands*.
- Section 4.13, *Wildlife*.
- Section 4.16, *Historic and Archaeological Resources*.
- Section 4.18, *Visual Resources*.
- Section 4.19, *Energy*.
- Section 4.21, *Cumulative Impacts*.

It should be noted that the southern limit of the study area extended to I-80 in the Final EIS to allow for evaluation of project alternatives in and around the Salt Lake City International Airport.[1] Although none of the project components associated with the alternatives evaluated in the Supplemental EIS extend south of I-215, the southern boundary of the study area remains at I-80 to facilitate comparison with the data presented in the Final EIS (see Chapter 1, *Purpose of and Need for Action*).

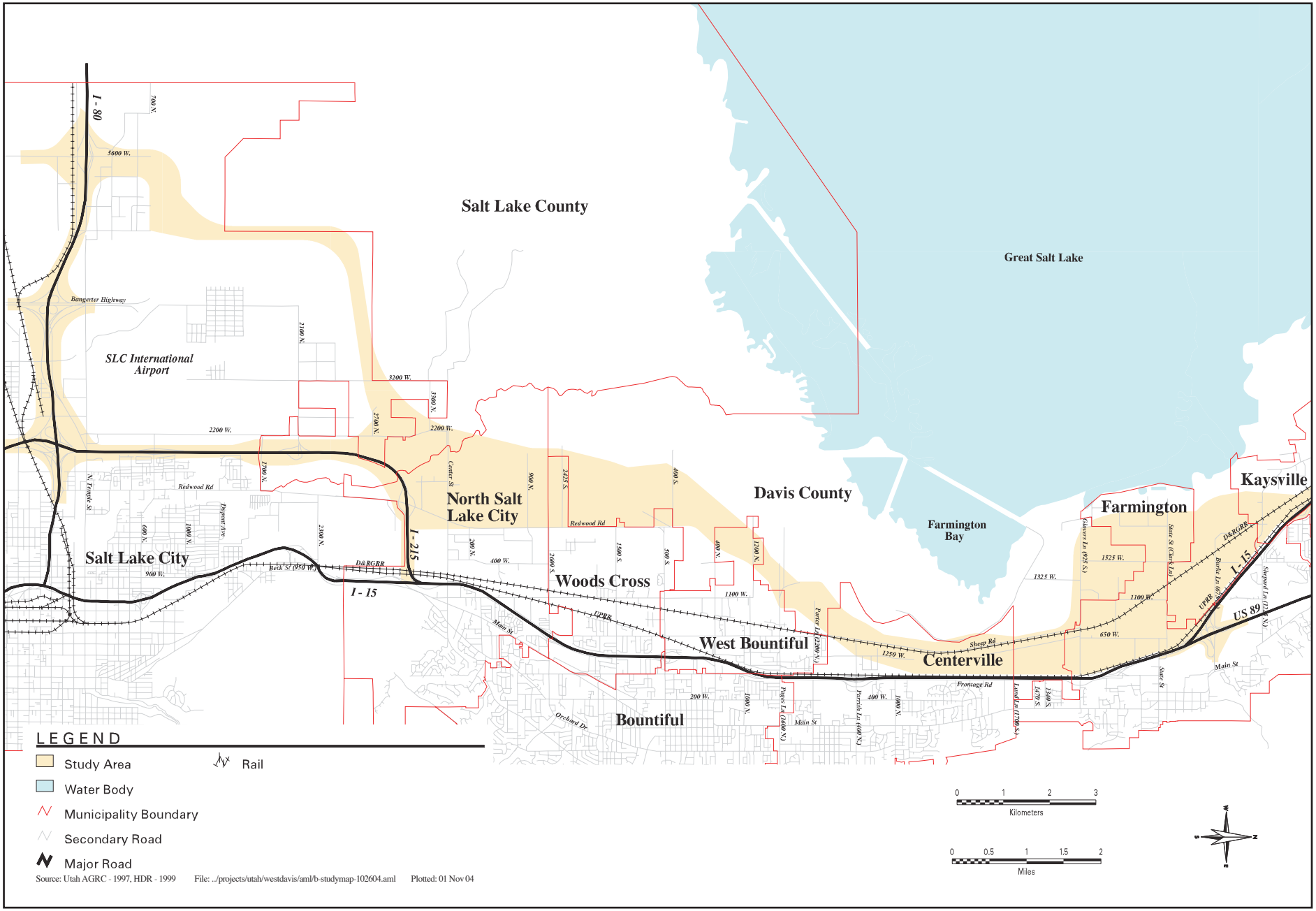
4.0.2 Great Salt Lake Ecosystem

The proposed action is located on the southeast shore of Great Salt Lake. Technically, the Great Salt Lake Ecosystem (GSLE) encompasses the full drainage basin of Great Salt Lake, including the ancient lakebed and drainages of Lake Bonneville and the complete watersheds of the Bear, Ogden/Weber, and Jordan Rivers. However, for this Supplemental EIS, the geographic extent of the GSLE is defined as Great Salt Lake and the wetlands/wildlife habitats surrounding its shoreline.

As described in the Final EIS, the GSLE provides important habitat for a variety of birds, reptiles, amphibians, and mammals, some of which are rare and have small geographical distributions. The wetlands of Great Salt Lake account for 75 percent of all wetlands in Utah, and the shores of Great Salt Lake are internationally important because they are a link in the Pacific Flyway for migratory waterfowl, and a link of the Western Hemisphere Shorebird Reserve Network. Between 2 million and 5 million birds use the lake yearly, including a wintering bald eagle population of approximately 500 birds. Great Salt Lake also provides extensive recreational opportunities in the area, including waterfowl hunting, birdwatching, and boating opportunities.

Great Salt Lake is also one of the four largest terminal saline lakes in the world and supports an economically viable brine shrimp industry. Salinity is decreasing in the southern half of the lake, adjacent to the proposed location of Legacy Parkway, and increasing in the northern half. Development encroaching towards the lake has also played a role in diminishing and stressing the function and hydrology of the ecosystem surrounding the lake.

[1] In August 2004, the Utah Transportation Commission (UTC) confirmed that the decision disclosed in the Final EIS to eliminate from consideration a highway west of the Salt Lake City International Airport, designed to connect the proposed Legacy Parkway to the Western Transportation Corridor, was still valid (Abeggien pers. comm.). In addition, it should be noted that the WFRC long range plan does not include a highway west of the Salt Lake City International Airport.



03076.03 11-1-04

Figure 4.0-1
Legacy Parkway Study Area

4.0.3 Alternatives Evaluated

As described in Chapter 3, *Alternatives*, the Supplemental EIS presents detailed impacts of the following six alternatives.

- **No-Build Alternative**. NEPA requires evaluation of a no-build alternative to illustrate what would happen if a proposed action were not taken. For this Supplemental EIS, the federal lead agencies have determined to present information in two ways for the No-Build assessment.

  - Existing conditions.

    Under existing conditions, the No-Build Alternative consists of transportation improvements detailed in the *Wasatch Front Urban Area Long Range Transportation Plan Update, 2004–2030* (long range plan) (Wasatch Front Regional Council 2003a), but does not include the Legacy Parkway project, the Legacy North project, or I-15 reconstruction (i.e., full widening of I-15 to 10 lanes). The long range plan components included in the existing conditions No-Build Alternative are commuter rail, widening Redwood Road from two to five lanes from south of I-215 to 500 South, enhanced bus service, and various local road improvements. This alternative is different from the No-Build Alternative evaluated in the Final EIS in that the WFRC long range plan has since been updated to include commuter rail and other capacity-enhancing projects.

  - Future conditions.

    The future conditions No-Build Alternative is presented to illustrate roadway and infrastructure improvements that might occur if Legacy Parkway were not constructed, in addition to those accounted for under the existing conditions No-Build Alternative. Impacts associated with the future conditions No-Build Alternative are described qualitatively in this chapter because the nature and timing of these improvements are not known at this time.

    The future conditions No-Build Alternative was not noted as a separate discussion in the Final EIS; instead, it was combined with discussion of the existing conditions No-Build Alternative under the No-Build Alternative discussion. The future conditions No-Build Alternative has been separated out in this Supplemental EIS to better distinguish between project-related impacts and impacts associated with future actions that are independent of the proposed action and that may or may not occur.

- **(Modified) Alternative A**. (Modified) Alternative A, hereafter referred to as Alternative A, follows the same alignment described for Alternative A in the Final EIS (Figure 3-2). However, the right-of-way width evaluated in the Supplemental EIS has been reduced from 100 m (328 ft) to 95 m (312 ft), and potential footprint modifications would further reduce impacts within the right-of-way.

- **(Modified) Alternative B**. (Modified) Alternative B, hereafter referred to as Alternative B, follows the same alignment described for Alternative B in the Final EIS (Figure 3-2) and is evaluated at the narrower 95-m (312-ft) right-of-way width, and potential footprint modifications would further reduce impacts within the right-of-way.

- **(Modified) Alternative C**. (Modified) Alternative C, hereafter referred to as Alternative C, follows the same alignment described for Alternative C in the Final EIS (Figure 3-2) and is evaluated at the narrower 95-m (312-ft) right-of-way width, and potential footprint modifications would further reduce impacts within the right-of-way.

- **Alternative D (Final EIS Preferred Alternative)**. Alternative D, which was the Final EIS Preferred Alternative, follows the alignment described for the Preferred Alternative in the Final EIS (Figure 3-2) and is evaluated at the 100 m (328-ft) right-of-way, the original right-of-way width evaluated in the Final EIS. Although it has been dropped from further consideration, analysis of this alternative is presented in this chapter for some resource topics to illustrate changes in impacts between the Final EIS and the Supplemental EIS. It has been included in this chapter for comparative purposes only.

- **Alternative E**. Alternative E follows the same alignment as Alternative D (Figure 3-2), but is evaluated at the narrower 95-m (312-ft) right-of-way width, and potential footprint modifications would further reduce impacts within the right-of-way.

Section 4.1
Land Use

This section discusses land use in the study area. It provides an update on current land use in the study area, as well as information on local land use plans that have been updated since publication of the Final EIS. Supplemental information on regional land use planning studies is also provided. The environmental consequences associated with both the No-Build and build alternatives have been updated to reflect changes in current land use and local land use plans.

4.1.1 Approach and Methodology

To update the affected environment and environmental consequences information associated with land use in the study area, Sections 3.1 and 4.1 of the Final EIS were reviewed to determine what changes had taken place since publication of the Final EIS. The southern, western, and eastern boundaries of the study area for this section are described in Section 4.0.1, *Study Area*. However, to evaluate potential growth impacts beyond the North Corridor, the northern boundary of the study area for this section was extended to southern Weber County, up to and including the City of Ogden.[1]

The following documents, many of which were referenced in the Final EIS, were reviewed for this analysis.

- *Salt Lake City Downtown Plan* (Salt Lake City 1995).
- *Salt Lake City Transportation Master Plan* (Salt Lake City 1996).
- *Salt Lake City Transportation Action Plan Update* (Salt Lake City 2000).
- *Salt Lake City Visionary Gateway Plan* (Salt Lake City 1994a).
- *Gateway Specific Plan, Draft* (Salt Lake City 1998a).
- *Gateway Development Master Plan* (Salt Lake City 1998b).
- *Beck Street Gateway Vision Plan* (Salt Lake City 1994b).

[1] The study area boundary for the Land Use section was extended to the north to evaluate potential growth impacts in southern Weber County and the City of Ogden. However, because much of the land use south of the study area is currently developed or is planned for development, it was assumed that areas south of the study area would experience full build-out, with or without construction of the proposed action. As a result, this section does not evaluate growth impacts south of the study area.

- *Northwest Jordan River/Airport Master Plan* (Salt Lake City 1992).
- North Salt Lake Land Use Development and Management Act (City of North Salt Lake 2001).
- *Woods Cross City General Plan* (City of Woods Cross 2003).
- *West Bountiful City Master Plan, 1990–2010* (City of West Bountiful 1992).
- *City of West Bountiful General Plan, Draft Transportation Element* (City of West Bountiful 1997a).
- *Planning District #6 Plan* (City of West Bountiful 1997b).
- *General Plan for Centerville City, Utah* (City of Centerville 1996).
- *Comprehensive General Plan, Farmington, Utah* (City of Farmington 1993).
- *Farmington City Master Transportation Plan* (City of Farmington 1998).
- *Envision Utah Quality Growth Strategy and Technical Review* (Envision Utah 2000).
- *Davis County Shorelands Comprehensive Land Use Plan* (Davis County Council of Governments 2001).
- *Inter-Regional Corridor Alternatives Analysis* (Carter Burgess 2002).

A series of meetings was held with representatives from each of the jurisdictions in the study area—North Salt Lake City, Woods Cross, West Bountiful, Centerville, Farmington, and Davis County—to discuss topics pertaining to the Supplemental EIS, including current land use and updates to local plans that had occurred since publication of the Final EIS. The meetings were held in July and September 2003. Table 4.1-1 provides information on the dates and attendees of these meetings. Minutes from these meetings were reviewed for this analysis (HDR Engineering, Inc. 2003a–k).

As described in Chapter 2 (Section 2.3, *Integration of Legacy Parkway with Mass Transit*), a planning meeting with Community Planning and Information Committee (CPIC) representatives was also held to identify land use changes that would represent the highest level of transit-oriented land use that the local jurisdictions, community members, property owners, and future real estate market could support. The intent of the planning session was to gather information on aggressive, but achievable, transit-supportive land use changes that could be used for the analysis.

Table 4.1-1 Public and Agency Coordination Meetings

Jurisdiction	Meeting Dates	Attendees
West Bountiful	July 10, 2003	Wendell Wild, City Manager, City of West Bountiful
	September 16, 2003	Bill Flanders, Engineer & Supervisor, City of West Bountiful
		Bethany Shingleton, HDR Engineering
		Terry Warner, HDR
		Bryan Adams, UDOT
Farmington	July 8, 2003	David Peterson, City Planner, City of Farmington
	September 16, 2003	Max Forbush, City Manager, City of Farmington
		Bethany Shingleton, HDR Engineering
		Terry Warner, HDR Engineering
Centerville	July 8, 2003	Randy Randall, Director of Public Works, City of Centerville
	September 15, 2003	Fred Campbell, Engineer, City of Centerville
		Aric Jensen, Community Development Director, City of Centerville
		Bethany Shingleton, HDR Engineering
		Terry Warner, HDR Engineering
Woods Cross	July 10, 2003	Gary Uresk, City Administrator, City of Woods Cross
	September 15, 2003	Tim Stephens, Community Development Director, City of Woods Cross
		Bethany Shingleton, HDR Engineering
		Terry Warner, HDR Engineering
		Bryan Adams, UDOT
Davis County	July 11, 2003	Barry Burton, Assistant Director, Community & Economic Development, Davis County
		Bethany Shingleton, HDR Engineering
		Terry Warner, HDR Engineering
North Salt Lake	July 15, 2003	Mayor Kay Briggs, City of North Salt Lake
	September 15, 2003	Rod Wood, Public Works Director, City of North Salt Lake
		Paul Otteson, City Engineer, City of North Salt Lake
		Collin Wood, City Engineer, City of North Salt Lake
		Bethany Shingleton, HDR Engineering
		Terry Warner, HDR Engineering

4.1.2 Affected Environment

4.1.2.1 Current Land Use and Development Trends in the Study Area

This section describes land use changes that have occurred since publication of the Final EIS, including development and changes in planned land use that have occurred since 1999. As illustrated in Figure 4.1-1, which updates Figure 3-1 in the Final EIS, much of the study area is now either planned for development or is already developed. Section 4.1 of the Final EIS stated that up to 283 ha (700 ac) of low-intensity land uses (i.e., agricultural, grazing, idle) were being converted to urban uses each year in Davis County; planned development in the study area has occurred as disclosed in the Final EIS. The WFRC population growth projections for 2020 have been revised downward (from 1,941,000 to 1,918,000) since publication of the Final EIS; however, according to Davis County planners, the development trends disclosed in the Final EIS are still accurate, with approximately 243 ha (600 ac) per year being converted to residential development and 40 ha (100 ac) per year being converted to non-residential development (Sommerkorn pers. comm. a).

Table 4.1-2 illustrates that the number of construction permits for new residential units issued per year in Davis County increased overall between 1998 and 2002, despite slight decreases in 1999 and 2000. This increase indicates that projected development in the study area has continued to occur since publication of the Final EIS. These economic indicators further illustrate that, although the WFRC population projections for 2020 have been revised downward slightly, the pace of growth in Davis County has kept up with the rate anticipated in the Final EIS.

Table 4.1-2 Economic Indicators for Davis County, 1998–2002

Construction Permits Authorized	1998	1999	2000	2001	2002
New Dwelling Units (number)	2,363	2,294	1,832	2,571	2,564
Value of Total Construction (thousands of dollars)*	375,022	341,336	321,401	390,724	430,955

Notes:

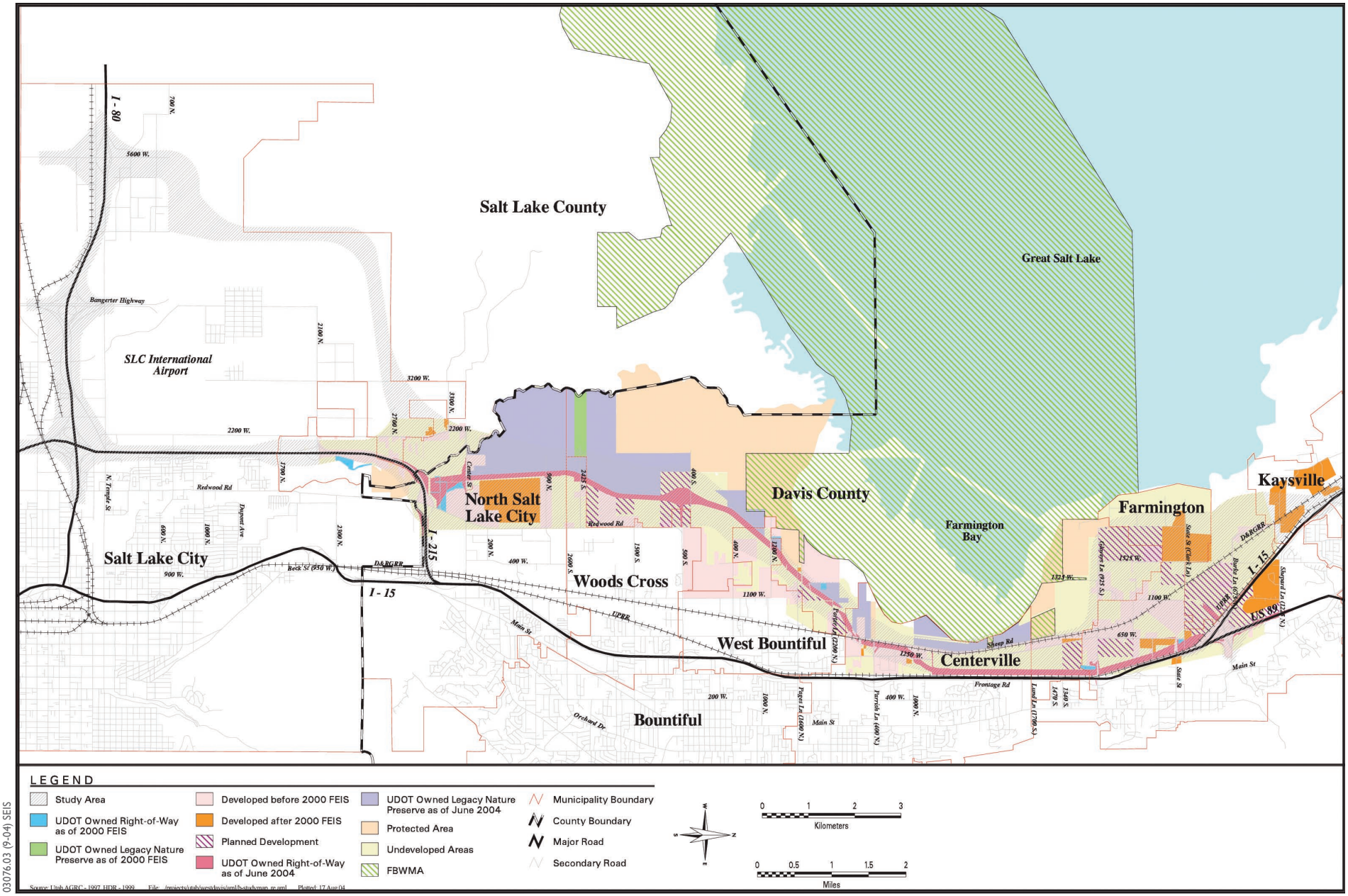
* Represents value of new residential and non-residential construction.

Sources: University of Utah, Bureau of Economic and Business Research, 2004.

Notable development in the study area since publication of the Final EIS is described below.

In North Salt Lake, a new housing development, the Foxboro development, is currently being built west of Redwood Road between Center Street and 900 North. This 110-ha (272-ac) mixed-use development, which was platted in 2003, includes homes, parks, commercial zoning along Redwood Road, a planned elementary school, and a church. A total of 1,250 residential units are planned, including about 240 low- to moderate-income housing units and 12 Department of Housing and Urban Development- (HUD-) supported transitional housing units.

Woods Cross and Farmington are also experiencing considerable residential growth in the western parts of their jurisdictions. According to Woods Cross planners, many of the currently vacant and undeveloped parcels west of Redwood Road (Figure 4.1-1) will likely be rezoned for residential, recreation, and commercial land uses (HDR Engineering, Inc. 2003k). Farmington Ranches, a planned unit development located west of the Davis County Fairgrounds at 1525 W. Clark Lane in the City of Farmington, includes large lots, a new elementary school, and a proposed church. In addition, rural residential and single-



03076.03 (9-04) SEIS

Figure 4.1-1
Existing and Planned Development in the Study Area

family residential growth is continuing south of Farmington Ranches, south of Shepard Lane, and north of Glovers Lane (HDR Engineering, Inc. 2003g).

There has been no change in development or planned land use since publication of the Final EIS for the portions of Salt Lake County, Salt Lake City, Davis County (unincorporated), West Bountiful, and Centerville located in the study area. Development in these jurisdictions has proceeded as anticipated in the Final EIS.

4.1.2.2 Local Land Use Plans

There have been no changes or updates to the following land use plans since publication of the Final EIS.

- *Salt Lake City Downtown Plan* (Salt Lake City 1995).
- *Salt Lake City Transportation Master Plan* (Salt Lake City 1996).
- *Salt Lake City Visionary Gateway Plan* (Salt Lake City 1994a).
- *Gateway Specific Plan, Draft* (Salt Lake City 1994a).
- *Gateway Development Master Plan* (Salt Lake City 1998b).
- *Beck Street Gateway Vision Plan* (Salt Lake City 1994b).
- *Northwest Jordan River/Airport Master Plan* (Salt Lake City 1992).
- *General Plan for Centerville City* (City of Centerville 1996).
- *West Bountiful City Master Plan 1990–2000* (City of West Bountiful 1992).
- *West Bountiful City General Plan Draft Transportation Element* (City of West Bountiful 1997a).
- *West Bountiful City Planning District No. 6 Plan* (City of West Bountiful 1997b).
- *Comprehensive General Plan, Farmington, Utah* (City of Farmington 1993).
- *Farmington City Master Transportation Plan* (City of Farmington 1998).

There have been some new plans and updates to certain other plans since publication of the Final EIS, as described below.

Transportation Advisory Board Salt Lake City Transportation Action Plan Update

The *Transportation Advisory Board Salt Lake City Transportation Action Plan* (transportation action plan) (Salt Lake City 2000) is designed to appropriately direct Salt Lake City's transportation future. It is based on the guiding principles and direction statements adopted in the 1996 *Salt Lake City Transportation Master Plan*. The transportation action plan was prepared to report on the progress of the master plan. The transportation action plan specifically states the following regional planning guidelines.

- Salt Lake City will actively participate in the WFRC Inter-regional Corridor Alternatives Analysis.
- Salt Lake City will work with other local jurisdictions and WFRC on regional efforts to include bicycle trails in land use plans.
- Salt Lake City will participate in Envision Utah regional land use planning studies.
- Salt Lake City will work with UDOT to resolve transportation issues.
- Salt Lake City's Transportation Division will work with regional transportation agencies to explore and develop regional rail service.

North Salt Lake Land Use Development and Management Act

The North Salt Lake Land Use Development and Management Act outlines zoning regulations for various land use designations in North Salt Lake (City of North Salt Lake 2001). These zoned boundaries will be determined by general development plans adopted by the City of North Salt Lake at a later time.

Woods Cross General Plan

The *Woods Cross General Plan* offers specific recommendations for land use and transportation improvements in Woods Cross and discusses Legacy Parkway, as summarized below (City of Woods Cross 2003).

- The construction of Legacy Parkway or an equivalent highway would help to decrease traffic volumes on I-15 and lessen the spillover impact in Woods Cross.
- The City of Woods Cross has proposed to work with the City of West Bountiful to jointly plan and develop the 500 South/Legacy Parkway interchange area. As disclosed in the Final EIS, this is one of the areas in which land uses are anticipated to change in response to the project. The plan proposes to create a mixed-use development zone on land adjacent to the proposed Alternative E alignment at the 500 South interchange in which residential, commercial, recreational, entertainment, office, and transit-oriented development uses are supported. However, the city is proposing this development zone more in response to the transit element of the Shared Solution, which also includes I-15 widening and commuter rail development, than in response to the Legacy Parkway project itself. This development zone would be close to a proposed transit station and would likely be developed regardless of whether Legacy Parkway is constructed.
- Several residential developments along the Legacy Parkway corridor are planned, including the Legacy Estates, which is envisioned as an "executive home" planned-unit development with an 18-hole golf course. Legacy Estates would be located on a 61-ha (150-ac) parcel along the eastern edge of the Alternative E alignment, between 500 South and 2600 North. No interchange for the proposed Legacy Parkway is planned in this area; it is likely that most residents of Legacy Estates would use I-215 and I-15 rather than Legacy Parkway for regional travel.
- A 91-m (300-ft) minimum open buffer is planned on the east side of the Alternative E alignment. According to the city, this buffer zone is intended to moderate the direct impact of the highway on the natural surroundings to the west and to act as a buffer between the proposed highway and residential and commercial development between the highway and Redwood Road (City of Woods Cross 2003). The buffer, which would be located between approximately 1900 South and 500 South, and between

500 South and the city's northern border, is proposed in addition to the buffer area included as a component of the proposed Legacy Parkway build alternatives (see Chapter 3, *Alternatives*).

In addition, the City of Woods Cross is working with UTA to develop a commuter rail station at 800 West and 500 South in Woods Cross. UTA has not acquired any land for this station to date.

4.1.2.3 Regional Land Use Planning Studies

Envision Utah Quality Growth Strategy and Technical Review

Envision Utah is a partnership between public and private entities that was formed in 1997 to study and address the effects of long-term growth in the Greater Wasatch Front area.[2] It is sponsored by the Coalition for Utah's Future and includes representatives from state and local governments, business leaders, developers, conservationists, landowners, academicians, church groups, and independent citizens. Its goal is to create a publicly supported growth strategy that will preserve Utah's high quality of life, natural environment, and economic vitality (Envision Utah 1999).

Through the involvement of the public, local and state elected officials, businesses, civic organizations, religious communities, and other stakeholders, Envision Utah has gathered information about what Greater Wasatch Area residents value and how they think growth should be accommodated. Envision Utah has also sponsored the *Envision Utah Quality Growth Strategy and Technical Review* (January 2000). Based on this information, Envision Utah has identified the following six primary goals that need to be addressed in the Greater Wasatch Area if these communities are to protect the environment and maintain their economic vitality.

1. Enhance air quality.
2. Increase mobility and transportation choices.
3. Preserve critical lands, including agricultural, sensitive, and strategic open lands and address the interaction between these lands and developed areas.
4. Conserve and maintain the availability of water resources.
5. Provide housing opportunities for a range of family and income types.
6. Maximize efficiency in public and infrastructure investments to promote the other goals.

The following transportation goals are associated with the second primary goal (Increase mobility and transportation choices).

- Advocate an increase in the capacity of east-west transportation links, recognizing that some communities may have a greater need for additional north-south arterial capacity. Improve traffic flow and provide better access. Work with UDOT and local governments to identify the corridors of greatest need.

[2] The Greater Wasatch Front area, as defined by Envision Utah, extends from Brigham City on the north to Nephi on the south.

- Promote the building of a region-wide transit system to make transit more convenient and reliable. Work with UTA, UDOT, railroad companies, and local governments to find ways to identify and purchase right-of-way in the near term for future transit.
- Foster transit-oriented development.
- Foster and promote walkable community development where feasible.
- Promote the creation of a network of bikeways and trails, especially commuter trails linking daytime destinations.
- Encourage the addition of carpool lanes and promote incentives for use.
- Encourage reversible lanes where feasible to reduce peak-hour congestion and take advantage of unused road capacity.

In October 2000, Envision Utah released the *Urban Planning Tools for Quality Growth* report. Changes and updates specific to Centerville include joint funding, by Envision Utah and the Quality Growth Commission,[3] of local quality growth demonstration projects, including a proposed mixed-use development that integrates affordable housing, open space, and compact, high-density development. There has been no change to the sections with regard to Woods Cross, West Bountiful, and North Salt Lake.

In 2002, Envision Utah also released the *Wasatch Front Transit-Oriented Development Guidelines* (Envision Utah 2002), which provide a framework for understanding, designing, and implementing transit-oriented development in the greater Wasatch Front Region. These guidelines generally are designed to serve as a tool for implementing a region-wide transportation and land use opportunities strategy.

Envision Utah supports adoption of the Shared Solution, and in particular, the transit component of the Shared Solution.

Inter-Regional Corridor Alternatives Analysis

The Inter-Regional Corridor Alternatives Analysis (IRCAA) (Carter Burgess 2002) was initiated as a collaborative effort in October 1999 by four sponsor agencies: WFRC, Mountainland Association of Governments (MAG) UTA, and UDOT. The analysis was conducted to develop a comprehensive plan for the best mix of transportation solutions to meet long-term (30-year) inter-regional mobility needs.

IRCAA Study Area

The IRCAA study area covers a 120-mile corridor between the communities of Brigham City on the north and Payson on the south, encompassing most of the urbanized areas in Utah, as well as the primary

[3] The Quality Growth Commission was established by the Quality Growth Act of 1999. The commission has 13 members, each appointed by the governor and confirmed by the state senate. Membership is required to consist of two state representatives, six elected officials from local government, one representative from the construction industry, one representative from the real estate industry, two representatives from the farming community, and one at-large individual. The commission's purpose is to develop balances between quality of life and economic development with respect to growth issues.

commercial, business, and education institutions. The corridor is linear and relatively narrow, located between the Wasatch Range on the east and Great Salt Lake, Utah Lake, and the Qquirrh Mountains on the west. More than 50 cities and towns in the counties of Box Elder, Weber, Davis, Salt Lake, and Utah are part of the study area.

Locally Preferred Alternative

The IRCAA identified a Locally Preferred Alternative (LPA) that included commuter rail, roadway improvements (including the proposed Legacy Parkway), new interchanges, HOV lanes, and bus rapid transit as necessary transportation improvements. The IRCAA determined that commuter rail should operate between Brigham City and Payson, using either locomotive-hauled coaches or self-propelled diesel multiple units (DMU). The analysis recommended that trains operate in the UPRR corridor from Ogden to Salt Lake City, and in the D&RG corridor from Salt Lake City to Provo.

As a result of the IRCAA, UTA had acquired 282 km (175 mi) of railroad corridor between Payson and Brigham City as of 2002, as well as a rail maintenance facility adjacent to Beck Street in North Salt Lake (Utah Transit Authority 2003). These facilities will be components of the future rail system.

The Davis County Shorelands Comprehensive Land Use Plan

The *Davis County Shorelands Comprehensive Land Use Plan* is a plan for conserving and preserving the land along Great Salt Lake (Davis County Council of Governments 2001). It presents a balanced approach to managing land use while preserving Great Salt Lake Shorelands,[4] a regionally important resource. The Davis County Shorelands Steering Committee, created by the Davis County Council of Governments, implemented an inclusive and informed public input process that included input from landowners, residents, city and county officials, developers, conservationists, and other concerned citizens. The plan addressed the following local issues:

- **North Salt Lake**. The lands west of the proposed Legacy Parkway will be preserved as a Legacy Nature Preserve as part of the mitigation required to construct Legacy Parkway.

- **Woods Cross**. Although a small portion of the land at the proposed Legacy Parkway/500 South interchange will be developable, the land west of the highway corridor will not be developed. Duck clubs currently use most of this land; due to the sensitivity of the land, this is unlikely to change.

- **West Bountiful**. There will be no development west of the Alternative E alignment with the exception of an access road to a treatment plant and the Bountiful City Landfill.

- **Centerville**. The City of Centerville plans a future development between the Alternative E alignment and the Denver & Rio Grande rail corridor to the west. Wetland mitigation will likely be necessary in this area due to the nature of the site. Centerville's Master Plan explains that the southern part of the site will be mitigation land for developing the northernmost part of the site.

- **Farmington**. Because a lot of land is available for development near the Federal Emergency Management Agency (FEMA) Flood Line, the City of Farmington has approved a new conservation plan that will preserve open space and farmland.

[4] The Davis County Shorelands Plan considers shorelands those lands located west of the proposed Legacy Parkway corridor (Davis County 2001).

Although the Davis County Shorelands Plan was finalized after publication of the Final EIS, the concepts presented in the plan were generally captured in the Final EIS. Specifically, during development of the Final EIS, local jurisdictions in the study area stated that Legacy Parkway would represent a western boundary for future growth, primarily due to the lack of available access on the western side of the proposed highway. See Section 4.1.1 of the Final EIS for a more detailed explanation of this discussion.

4.1.3 Environmental Consequences and Mitigation Measures

4.1.3.1 Impacts on Cities and Counties

No-Build Alternative

Following is a discussion of the No-Build Alternative, both under existing conditions (2004) and future conditions (2020). Under both of these scenarios, land use development in the study area would continue as described in Section 4.1.2.2, *Local Land Use Plans*. However, several of the local land use plans that incorporate the Alternative E alignment would have to be changed if one of the build alternatives is not selected, as described in Section 4.1.3.2, *Consistency with Plans and Policies*.

Existing Conditions and Future Conditions (2020)

As described in the Final EIS and verified by local planners during preparation of the Draft Supplemental EIS, land uses would continue to change from a rural character (a combination of farmland, open space, industrial, commercial, low-density residential, and wetlands) to more of an urbanized, developed land use under the No-Build Alternative. Since neither the proposed Legacy Parkway nor the I-15 improvements would be constructed, local jurisdictions would be required to resolve growth and traffic problems, through individual or collective actions, over the course of the next 15 years.

Based on the number of Davis County building permits issued since 1999, approximately 280 ha (700 ac) of undeveloped land, much of which is farmland, are being developed per year in Davis County (Sommerkorn pers. comm. b) (see Section 4.1.2.1, *Current Land Use and Development Trends in the Study Area*, and Table 4.1-2). This planned development will likely continue. In addition, wetlands that would otherwise be preserved in the Legacy Nature Preserve would be available for permitted development.

For the City of North Salt Lake, current land use and zoning will continue in the study area under the No-Build Alternative. Community planners believe that, without Legacy Parkway, it would take longer for two undeveloped parcels of land in North Salt Lake to develop, although both would likely be developed by 2020 (Wood pers. comm. a). The first parcel of land (18 ha [45 ac]) is located northwest of I-215 and Redwood Road and south of Center Street. The second parcel of land (about 8 ha [20 ac]) is located directly south of I-215 and west of Redwood Road. Both of these properties are currently zoned as commercial land use and would remain as such under the No-Build Alternative.

Growth in Woods Cross under the No-Build Alternative would continue according to current trends. According to community planners, Legacy Parkway would provide a boundary for the city's westward development (HDR Engineering, Inc. 2003k). If Legacy Parkway is not built, the city will need to reexamine the western edge of the city and determine where the western city boundary should be located (City of Woods Cross 2003). The city planners believe that without the proposed highway, development will continue to the west, and that if Legacy Parkway is not built, the *Woods Cross General Plan* will need to be updated to address this growth issue.

Based on meetings with City of West Bountiful land use planners, under the No-Build Alternative, development of residential lots of between 0.4 ha (1 ac) and 2 ha (5 ac) would continue as planned north of 500 South (HDR Engineering, Inc. 2003j).

In Centerville, the current land use in the study area is zoned as business park. If Legacy Parkway is not built, the land will remain under the same zoning designation. Similarly for Farmington, land uses will be the same with or without the Legacy Parkway. However, improvements to Park (formerly Burke) Lane to provide access to western portions of the city would have occurred, even if plans for the proposed highway had not been put forward.

Build Alternatives

As describe above, local community planners and city administrators in Davis County continue to state that, in general, current development patterns would not substantially change if Legacy Parkway is built, but several local changes could occur. Types of land use near the two interchanges may change from residential to commercial, and the overall pace of development in the corridor might slightly accelerate as a result of constructing any proposed Legacy Parkway build alternative (HDR Engineering, Inc. 2003a–f). However, the rate of growth to the west, as indicated in several of the revised land use plans of these communities, and the types of development that would occur around the Legacy Parkway interchanges, would likely be different from what would occur without the proposed highway. Since publication of the Final EIS, several of the cities in the study area have made changes to land use zoning and plans in anticipation of the eventual construction of Legacy Parkway and the Legacy Nature Preserve. Specific changes made by each city are discussed in the following paragraphs.

Overall, the right-of-way width of Legacy Parkway identified in the Final EIS has changed from 100 m (328 ft) to 95 m (312 ft) due to design changes that decreased the width of the center median of the roadway (see Chapter 3, *Alternatives*). As a result, 2.4 m (8 ft) on either side of the roadway may become available for other uses, depending on specific circumstances. It is doubtful, however, that the addition of a 2.4-m (8-ft) parcel of land would result in significant changes to the possible land uses of property adjoining Legacy Parkway.

North Salt Lake

Since publication of the Final EIS, the City of North Salt Lake has made several changes in its land use designations west of Redwood Road between Center Street and 2600 South. Previously, the city's general land use plan identified land use west of Redwood Road as manufacturing-distribution. Since then, the city has stated that it will revise its general plan to rezone approximately 312 ha (772 ac)[5] west of the Alternative E alignment as natural open space, if the proposed action is implemented (Wood pers. comm. b). This area has already been purchased by UDOT as part of the proposed Legacy Nature Preserve, and would be rezoned to be consistent with the purpose of the preserve.

In the area east of the Alternative E alignment and west of Redwood Road, between Center Street and 2600 South, the City of North Salt Lake rezoned 231 ha (570 ac) of manufacturing-distribution to commercial/general (Wood pers. comm. b). Private developers approached the city in late 2001 to rezone 110 ha (272 ac) of the 231 ha (570 ac)[6] to residential and commercial, 97 ha (240 ac) to residential, and 12.9 ha (32 ac) to commercial (Wood pers. comm. b). This land is being used to construct the Foxboro residential development, which is described in Section 4.1.2.1, *Current Land Use and Development*

[5] HDR Engineering, Inc. used GIS and 2003 aerial photography to determine approximate acres in area described by Rod Wood, North Salt Lake.
[6] Acres provided by Rod Wood, North Salt Lake.

Trends in the Study Area, above. The Foxboro development includes provisions for connecting recreational facilities in the development to the Legacy Parkway Trail associated with the build alternatives (see Section 4.7, *Pedestrian and Bicyclist Considerations*).

In addition to the above land use changes, two existing undeveloped parcels of land in North Salt Lake, an 18.2-ha [45-ac] parcel located northwest of I-215 and Redwood Road, south of Center Street, and an 8.1-ha (20-ac) parcel located directly south of I-215, west of Redwood Road, would likely develop more rapidly with exposure and visibility from the proposed Legacy Parkway build alternatives (Wood pers. comm. b). North Salt Lake has refocused its land use management within this area of the community because of the proposed Legacy Parkway (Wood pers. comm. b).

The City of North Salt Lake reiterated that Legacy Parkway would act as a natural barrier, preventing development west and protecting the city from urban growth (Wood pers. comm. b). The city prefers that areas west of the proposed Legacy Parkway, which have flat terrain subject to drainage concerns, a lack of infrastructure, and sensitive environmental conditions, continue to be a part of the Legacy Nature Preserve (Wood pers. comm. b).

Woods Cross

The 1990 version of the *Woods Cross General Plan*, which was completed before Legacy Parkway was proposed, designated approximately 752.7 ha (1,860 ac) of land west of Redwood Road (1800 West) as high-density industrial and commercial use (Stephens pers. comm.). In 2003, the *Woods Cross General Plan* was updated to reflect changes in land use designations that would result from implementation of the proposed Legacy Parkway. The city, planning that Legacy Parkway—specifically the Alternative E alignment—would be built, rezoned the undeveloped land west of Redwood Road for a combination of commercial, residential, and open-space uses (Stephens pers. comm.). The following represent some of the notable land use designation changes:

- 52.6 ha (130 ac) of land on the eastern edge of the Alternative E alignment adjacent to 500 South are planned for high-density urban commercial use.

- 62.7 ha (155 ac) of land on the west side of the Alternative E alignment, near 500 South, are now zoned for commercial and office use. This area is referred to as the Land's End Neighborhood.

- 77.3 ha (191 ac) of land are planned for parks and recreation, including a 9.44-m (300-ft) open-space buffer zone on the east side of the Alternative E alignment (City of Woods Cross 2003). As described above, the buffer zone was planned by the city to moderate the direct impact of the proposed highway on the natural surroundings to the west and on the residential and commercial development between the proposed highway and Redwood Road. This buffer is in addition to the buffer proposed as a component of the build alternatives.

- 60.7 ha (150 ac) of land are designated for the Legacy Estates, which is envisioned as an "executive home" planned-unit development along the eastern edge of the Alternative E alignment, between 500 South and 2600 South in Woods Cross.

- 43.3 ha (107 ac) of land located east of the Alternative E alignment, along 2600 South, are zoned for future business park development.

The City of Woods Cross will continue to restrict development in the areas west of the proposed highway because of sensitive environmental conditions. The updated *Woods Cross General Plan* also reflects

connections between the proposed Legacy Parkway Trail and the trail system in the city (see Section 4.9, *Pedestrian and Bicyclist Considerations*) (City of Woods Cross 2003).

West Bountiful

Before Legacy Parkway was proposed, the *West Bountiful General Plan* included residential lots of between 0.4 ha (1 ac) and 2 ha (5 ac) north of 500 South. Under all proposed build alternatives, the size of the city's planned lots would be reduced to between 0.2 ha (0.5 ac) and 0.4 ha (1 ac). In addition, the city would change the current residential zoning to residential/commercial land use. This land use change is in response to the potential for transit-oriented development afforded by the North Corridor roadway projects, including the proposed Legacy Parkway, and the mixture of proposed future commercial and residential land uses. The City of West Bountiful supports limiting development near the shoreline of Great Salt Lake to protect sensitive environmental conditions (HDR Engineering, Inc. 2003j). Community planners have stated that the proposed Legacy Parkway build alternatives would act as a barrier to this development. In addition, with West Bountiful's future bicycle and pedestrian trail system, the city proposes to purchase surplus properties east of the Alternative E alignment, develop them as small neighborhood parks, and tie them into the Legacy Parkway Trail system. Specifically, the *West Bountiful General Plan* includes connections between the proposed Legacy Parkway Trail and existing equestrian centers and the city's planned trail system (see Section 4.7, *Pedestrian and Bicyclist Considerations*) (City of West Bountiful 1997a).

Centerville

The City of Centerville's master plan continues to project the development of all land north of the current Centerville Business Park to Lund Lane; this area encompasses about 125.4 ha (310 ac)[7] of land zoned as high-density industrial (Jensen pers. comm.). Under Alternatives A and E, all of this undeveloped land would be directly affected; 26.3 ha (65 ac) of the 125.4 ha (310 ac) would be used for right-of-way and the remaining 99.1 ha (245 ac) would be isolated from the rest of the city (Jensen pers. comm.).

According to community planners, the city anticipates continuing its business park development northwest to the old D&RG railroad alignment (Jensen pers. comm..). However, in December 2003, because of the proposed Legacy Parkway, the city rezoned this area from high-density industrial to medium-density industrial (Jensen pers. comm.). This rezoning affects the types of development that would occur in this area if Legacy Parkway were built.

Alternatives B and C would be located farther west. This eventuality would provide more land for the city to pursue future industrial development and continue current business park development (Jensen pers. comm.).

The City of Centerville's *Trail Master Plan*, which is part of the city's general plan (City of Centerville 1996), reflects the proposed Legacy Parkway Trail as part of the city's trail system (see Section 4.7, *Pedestrian and Bicyclist Considerations*).

Farmington

In Farmington, Alternatives A, C, and E parallel the I-15 alignment and terminate at the I-15/US-89 interchange. The area surrounding Park (formerly Burke) Lane is zoned for mixed-use development. The

[7] HDR Engineering, Inc. used GIS and 2003 aerial photography to determine approximate acres in area described by Aric Jensen, City of Centerville.

city believes that the proposed Legacy Parkway build alternatives would cause this area to develop more quickly than it would without the proposed highway (HDR Engineering, Inc. 2003h).

Because the amount of right-of-way needed for Alternative B is greater than that needed for the other build alternatives, Alternative B would have a greater impact on existing land uses in Farmington. Currently, Alternative B would affect the newly opened Farmington Eagle Bay Elementary School in Farmington Ranches, described in Section 4.1.2.1, *Current Land Use and Development Trends in the Study Area*, above.

The *Farmington Master Trails Map* (City of Farmington 2003) reflects the proposed location of the (see Section 4.7, *Pedestrian and Bicyclist Considerations*).

4.1.3.2 Consistency with Plans and Policies

No-Build Alternatives

Existing Conditions (2004) and Future Conditions (2020)

Since publication of the 2000 Final EIS, there has been no change to this section.

Build Alternatives

Construction of any proposed build alternative would include an interchange at 500 South. The *Woods Cross General Plan* proposes to create a mixed-use development zone adjacent to the Legacy Parkway /500 South interchange in which residential, commercial, recreational, entertainment, office, and other transit-oriented development uses will be supported. Therefore, Legacy Parkway and the other components of the North Corridor Shared Solution (I-15 improvements and commuter rail) are consistent with the city's updated general plan.

All proposed build alternatives would be consistent with *Davis County Shorelands Comprehensive Land Use Master Plan* because the Legacy Nature Preserve associated with each alternative would ensure that a large part of the area designated by the county for protection would be acquired as a preserve, thus removing the threat of future development in those sensitive habitat areas.

Development that occurs in the study area under the proposed build alternatives would be consistent with local land use plans governing future growth, including the following plans

- *General Plan, City of North Salt Lake.*
- *Woods Cross City General Plan*.
- *West Bountiful City Master Plan.*
- *General Plan for Centerville City*.
- *Comprehensive General Plan, Farmington, Utah.*

4.1.3.3 Impacts on Growth within and beyond the North Corridor

The following potential effects of the proposed Legacy Parkway related to population growth and land development were disclosed in the Final EIS.

- Changes in land use around the proposed interchanges.
- Acceleration of planned residential development in the corridor.
- Shifts in the location of development from west of the proposed Legacy Parkway alignment to other portions of the region, most of it likely occurring in the study area, and with more lands designated for open space and habitat preservation on the west side of the highway.

The issue of induced growth resulting from the proposed action in the south Weber County/Ogden area is of interest as both a regional land use and a regional economic issue.[8] Planning officials in the study area interviewed after publication of the Final EIS stated that the proposed action, when combined with other North Corridor improvements (i.e., other components of the Shared Solution), could *accelerate* the pace of planned growth in the study area (HDR Engineering, Inc. 2003a–f). Although it appears that the proposed action would not substantially affect the land use plans of the Davis County jurisdictions (see Section 4.1.3.1 above), the impacts on unincorporated Weber County and the City of Ogden are more difficult to quantify. To evaluate these potential impacts, the project team examined whether the Legacy Parkway build alternatives and the cumulative impacts of the North corridor transportation improvements would induce growth to a northern boundary that included southern Weber County, up to and including Ogden. The WFRC travel demand model, (version 3.2), which was used to project operating conditions in 2020 under the No-Build Alternative (see Chapter 3, *Alternatives*), indicates that these improvements would increase traffic on I-15 in southern Weber County, near Ogden. However, the models provide little insight regarding induced growth in land use, specifically residential land use in the areas between Salt Lake City and Ogden, making it difficult to determine if these increased volumes would be attributable to induced growth in the corridor, or would simply reflect the different transportation choices available to motorists. Modeling for land use (e.g., using the UrbanSim model) is still under consideration and evaluation by WFRC, and was consequently not available for use for this Supplemental EIS.

A recent study entitled *Highways and Sprawl in North Carolina* (Hartgen 2003) concluded that although development often follows major road investment, major road investment follows growth with equal frequency. The study concluded that many factors outside of highways and roads can affect growth, including the region's economic health, prior growth and available land, site suitability, zoning, sewer and water provisions, other utilities, income, tax rates, crime, schools, housing policies, and race and other demographics.

Although it is possible that increases in highway capacity (and corresponding reductions in travel time) between Salt Lake City and the Farmington area could spur additional residential development in Ogden or other parts of Weber County beyond what will occur without the project, it is unlikely. There is still a significant distance to travel between Farmington and south Weber County or Ogden. As discussed in Section 4.1.4 of the Final EIS, families choose where to live based on a range of economic, demographic,

[8] As stated in Footnote 1, under Section 4.1.1, *Approach and Methodology*, growth impacts south of the study area (e.g., in Salt Lake County) were not evaluated because much of the land use south of the study area is currently developed, or planned for development. As a result, it was assumed that areas south of the study area would experience full build-out, with or without construction of the proposed action.

and aesthetic factors. The proposed Legacy Parkway would not likely change any of these factors families use to choose where to live.

Under the proposed build alternatives, approximately 324 ha (800 ac) of developable land in North Salt Lake, Centerville, Farmington, Woods Cross, Bountiful, and West Bountiful would be set aside within the Legacy Parkway right-of-way and the proposed Legacy Nature Preserve. Planners from the cities with jurisdiction over this land have stated that, under the No-Build Alternative, this land would be available for development and would be developed in a manner similar to adjacent areas and/or consistent with current zoning designations (HDR Engineering, Inc. 2004a–e).

These planners also stated that if none of the proposed build alternatives is implemented, development of those 324 ha (800 ac) will increase rather than dilute the total development levels in their communities. Because the official 2020 regional economic projections do not include the additional 324 ha (800 ac) of development, developing an additional 324 ha (800 ac) in the North Corridor would likely displace development that would otherwise occur elsewhere in the region. The following sections discuss the transportation impacts of relocating up to 324 ha (800 ac) of 2020 growth from the Legacy right-of-way and preserve to north Davis and Weber Counties, Ogden, and other parts of the region. See Appendix B (Section B5.1) for further discussion of possible land use shifts under the No-Build Alternative.

Weber County

According to conversations with Weber County community planners (Gentry pers. comm. a.), growth and land use patterns in the unincorporated areas of Weber County would not change substantially with the proposed Legacy Parkway build alternatives. As indicated by Jim Gentry of the Weber County Planning Commission:

> There seems to be very little area that has not been filled in between Salt Lake and Weber Counties. Over the last several years, the development of housing north of Salt Lake City has not been because of urban growth; instead the growth appears to be more a result of expansion of communities and jobs in the Weber County area. With Great Salt Lake on the west and the Wasatch Range on the east, urban growth in Ogden will continue to expand northward as the population grows, regardless of whether or not any of the North Corridor projects are completed (Gentry pers. comm. a).

Weber County planners believe that the population along the Wasatch Front will migrate towards Weber County as building sites to the east and south become scarcer and as housing costs in Salt Lake City rise, regardless of whether the proposed action is built. As noted by Jim Gentry, development in the county will be somewhat limited until wastewater and other infrastructure improvements in unincorporated Weber County are further developed (Gentry pers. comm. a).

Table 4.1-3 below, which updates, in part, Table 3-3 in the Final EIS, illustrates that the population, number of households, and employment in Weber County are projected to increase at an annual rate of 2.0 percent, 2.2 percent, and 2.4 percent, respectively, through 2020. This outcome represents an increase over similar projections in the Final EIS, which projected an annual growth rate of 2.0 percent for all of these measurements (Wasatch Front Regional Council 1997). It should be noted that these projections do not necessarily take into consideration transportation improvements in the north corridor (e.g., Legacy Parkway) but are, instead, based on current growth trends.

Table 4.1-3 Projected Annual Increases in Population, Households, and Employment in Salt Lake, Davis, and Weber Counties, 2002 to 2020

	Population			Households			Employment		
	2002	2020	% Annual Increase	2002	2020	% Annual Increase	2002	2020	% Annual Increase
Salt Lake County	923,900	1,283,784	1.8	306,767	458,900	2.3	521,930	733,665	1.9
Davis County	250,000	347,412	1.8	75,923	119,094	2.5	89,427	124,346	1.8
Weber County	199,825	286,919	2.0	67,032	99,700	2.2	84,100	128,904	2.4

Source: Wasatch Front Regional Council 2003b.

Ogden

Between 1990 and 2000, Weber County's population grew at a rate of nearly 2.2 percent per year, with Ogden comprising the majority of this growth (U.S. Census Bureau 1990, U.S. Census Bureau 2000). The city is currently dealing with a variety of growth concerns, including the possibility that the "big box" retailers described above will establish outlets outside its boundaries and pull businesses away from downtown Ogden. Ogden is considered a regional commerce center with little room left for in-fill. WFRC population estimates project Ogden to grow at a rate of 1.1 percent per year between 2003 and 2020, a decrease over historical growth caused by the lack of area available for expansion within the city limits (Wasatch Front Regional Council 2003b).

Residential growth is already occurring in the western parts of Weber County due to local social and economic factors, irrespective of growth pressures from Davis and Salt Lake Counties. The proposed Legacy Parkway (and its contribution to the Shared Solution) could increase the desirability of the Ogden area and southern Weber County to families or individuals working in Davis County and Salt Lake City, although this is unlikely (Gentry and Montgomery pers. comms.). In fact, Ogden is expected to grow to full build-out, with or without implementation of the proposed Legacy Parkway.

Section 4.2
Farmland

This section discusses farmland in the study area. It provides an update on prime, unique, state-important, and locally important farmland, and discusses newly designated Agricultural Protection Areas. This section also updates the environmental consequences of the proposed build alternatives on farmland. The discussion of environmental consequences takes into consideration development since publication of the Final EIS, including construction activities associated with Alternative D (Final EIS Preferred Alternative) and unrelated development in the study area, revisions in the policy on designating special farmland within municipal boundaries, and the reduction in the right-of-way width associated with all proposed build alternatives.[1]

4.2.1 Approach and Methodology

To update the affected environment and environmental consequences information associated with farmland in the study area, Sections 3.2 and 4.2 of the Final EIS were reviewed to determine what changes had taken place since publication of the Final EIS. The study area for farmland is described in Section 4.0.1, *Study Area*, of this document.

Updated information on the types of crops and irrigation systems associated with all farmland in the study area was obtained from a map titled *Water-Related Land Use Data Inventory*, from the Utah Department of Natural Resources (UDNR), Division of Water Resources (UDNR Division of Water Resources 2003). Erin Bell of the Natural Resources Conservation Service (NRCS) was contacted in October 2003 for updated information on prime and unique farmland and farmland of state and local importance in the study area. Susan Yoshinaga of the Salt Lake County Assessor's Office and Barry Burton of Davis County were also contacted regarding potential Agricultural Protection Areas in the study area. The data provided by these sources were also verified during review of recent (2003) orthophotographs and limited field surveys.

Farmland impacts were reassessed based on the updated data to determine whether the narrower right-of-way (i.e., 95 m [312 ft] versus 100 m [328 ft]) proposed for all build alternatives (see Chapter 3, *Alternatives*, of this document) would change the acreage or type of farmland impacts disclosed in the Final EIS.

[1] Section 4.13, *Wildlife*, describes impacts on several different wildlife habitat types, including pasture habitat and cropland habitat. Those wildlife habitat types are different from the farmland described in this section in that they are defined differently and described according to a larger wildlife study area. As a result, impacts on pasture and cropland identified in Section 4.13 are different from the farmland impacts disclosed in this section.

4.2.2 Affected Environment

This section presents a summary of updated information on the affected environment relative to farmland. The Final EIS described production of irrigated crops in the study area, including alfalfa, corn, and pasture, as well as prime, unique, state-important, and locally important (i.e., farms under the "Century Farm and Ranch" program) farmland. This section provides an update on the area of land currently associated with these farmland categories in the study area, as well as information on Agricultural Protection Areas.

4.2.2.1 Current Agricultural Production

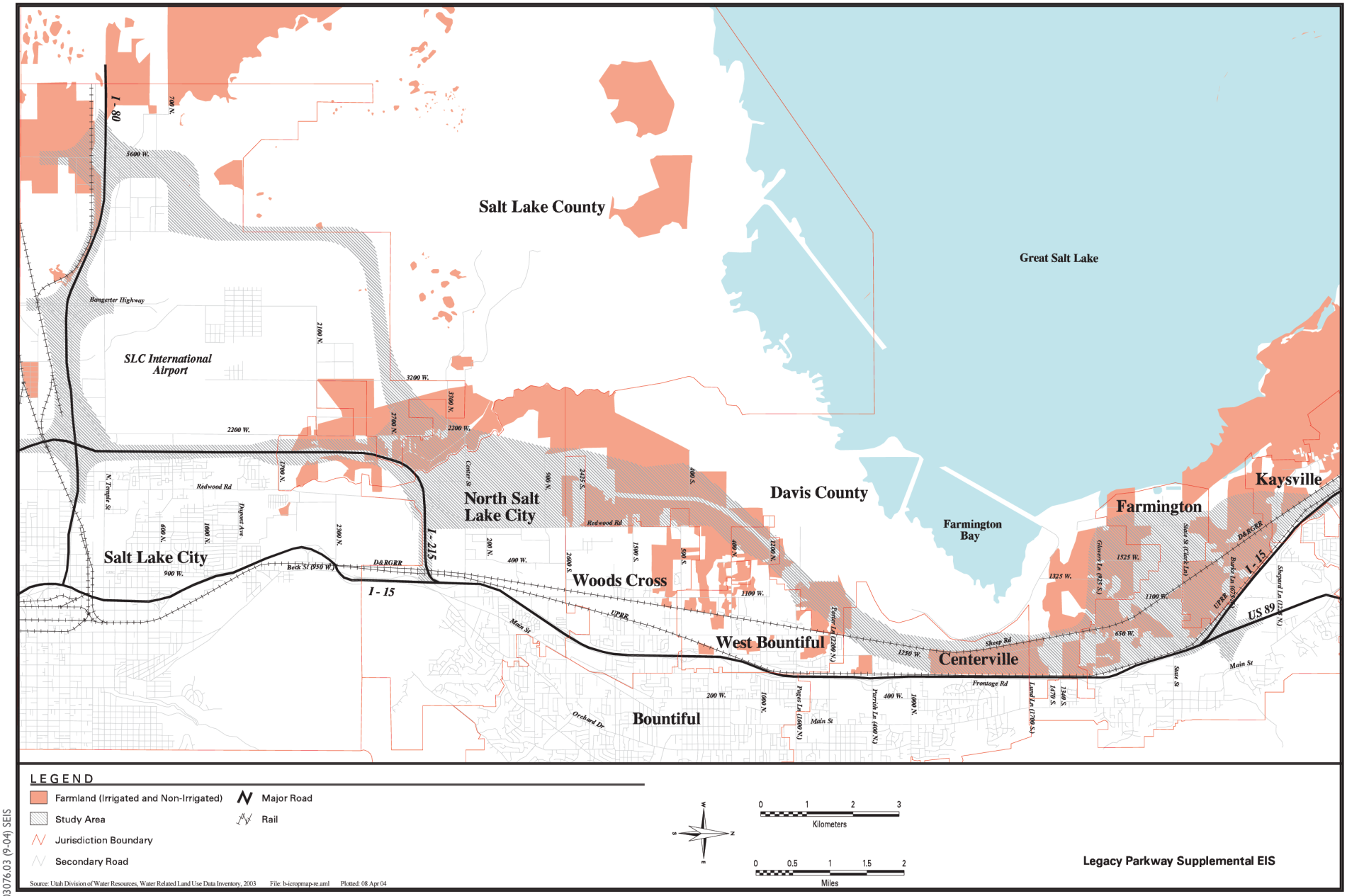
Information on farmland in the Final EIS was obtained from the 1988 version of the UDNR Division of Water Resources map titled *Water-Related Land Use Data Inventory*. Because this version of the map was over 10 years old when the Final EIS was published, other sources were also used in the Final EIS for information on farmland in the study area, including data from field reconnaissance, tax assessor parcel information, and project orthophotographs. Based on these sources, crops in the Final EIS were divided into three categories of irrigated crops: alfalfa, corn, and pasture. The Final EIS did not provide information on non-irrigated croplands.

The 2003 UDNR Division of Water Resources map, which was used to assess agricultural production in the study area for the Supplemental EIS, includes six categories of irrigated crop types—alfalfa, grain, corn, vegetables, grass hay, and pasture-irrigated—and three categories of non-irrigated crop types—pasture-non-irrigated, pasture-sub-irrigated, and farmsteads.

Table 4.2-1 and Figure 4.2-1 present updated information on both irrigated and non-irrigated cropland in the study area. A loss of 32 ha (80 ac) of cropland in the study area since publication of the Final EIS is attributable to construction activities associated with Alternative D (Final EIS Preferred Alternative).

Table 4.2-1 Area of Irrigated and Non-irrigated Cropland in Study Area

	Hectares (Acres)[1]	
Crop Type	Final EIS	Supplemental EIS
Irrigated Crops[2]		
Alfalfa	301 (743)	204 (504)
Grain	NA	71 (175)
Corn	194 (479)	32 (78)
Vegetables	NA	1 (2)
Grass hay	NA	92 (228)
Pasture, irrigated	1,091 (2,695)	673 (1,665)
Total	1,586 (3,917)	1,073 (2,652)
Non-Irrigated Crops[3]		
Pasture, non-irrigated	NA	296 (733)
Pasture, sub-irrigated	NA	224 (554)
Farmsteads	NA	21 (51)
Total	NA	541 (1,338)



03076.03 (9-04) SEIS

Figure 4.2-1
Farmland in Study Area

	Hectares (Acres)[1]	
Crop Type	Final EIS	Supplemental EIS

Notes:

[1] Conversions are from acres to hectares. Conversions have been rounded.

[2] Cropland in the Final EIS was divided into three crop types (alfalfa, grain, and corn). The additional crop types presented in this table are based on UDNR's Division of Water Resources 2003 map, *Water-Related Land Use Data Inventory*, which further subdivides croplands in the study area.

[3] The total area of non-irrigated cropland was not disclosed in the Final EIS.

Source: UDNR Division of Water Resources 2003.

4.2.2.2 Prime Farmland

As described in the Final EIS, NRCS classifies certain farmland as prime farmland based on specific physical criteria (e.g., water availability, soil temperature, pH); however, since publication of the Final EIS, NRCS has adopted a new policy that does not allow for designation of prime, unique, or state-important farmland within the boundaries of a municipality (Bell pers. comm., Weber pers. comm.). An updated NRCS CPA 106 form, Farmland Conversion Impact Rating for Corridor Type Projects, is included in Appendix A. As a result of this policy change, some of the farmland identified in the Final EIS as prime and state-important farmland is not included as prime and state-important farmland in this section of the Supplemental EIS.

The acreage of prime farmland outside municipal boundaries was updated through field reconnaissance and consultation with NRCS. No prime farmland in the study area was lost as a result of construction activities associated with Alternative D.

No additional farmland has been designated as prime farmland since publication of the Final EIS. Table 4.2-2 presents updated information on prime farmland in the study area, and Figure 4.2-2 provides location information.

Table 4.2-2 Area of Prime and State-Important Farmland

	Hectares (Acres)*	
Farmland Designation	Final EIS	Supplemental EIS
Prime	359 (888)	166 (409)
State-Important	25 (62)	7 (17)

Note:

* Conversions are from acres to hectares. Conversions have been rounded.

Sources: Bell pers. comm., Federal Highway Administration et al. 2000.

4.2.2.3 Unique Farmland

As described in the Final EIS, no unique farmland is located in the study area (Bell pers. comm.).

4.2.2.4 Farmland of State Importance

As stated in the Final EIS, farmland of state importance is classified by NRCS based on certain physical criteria similar to those required for designating prime farmland. The acreage of farmland of state importance in the study area has decreased since publication of the Final EIS because of development and the new NRCS policy described above. None of this loss is attributable to construction activities associated with Alternative D. Table 4.2-2 above presents updated information on farmland of state importance in the study area, and Figure 4.2-2 provides location information.

4.2.2.5 Farmland of Local Importance

As described in the Final EIS, Utah initiated a "Century Farm and Ranch" program in 1996 that allowed for recognition of farms that have been operated continuously by the same family for at least 100 years. One farm in the study area has Century Farm status, and several other farms represent multigenerational farming operations (see Section 3.2.5 of the Final EIS). The status of these properties has not changed since publication of the Final EIS. Figure 4.2-2 illustrates the location of these properties in the study area.

4.2.2.6 Agricultural Protection Areas

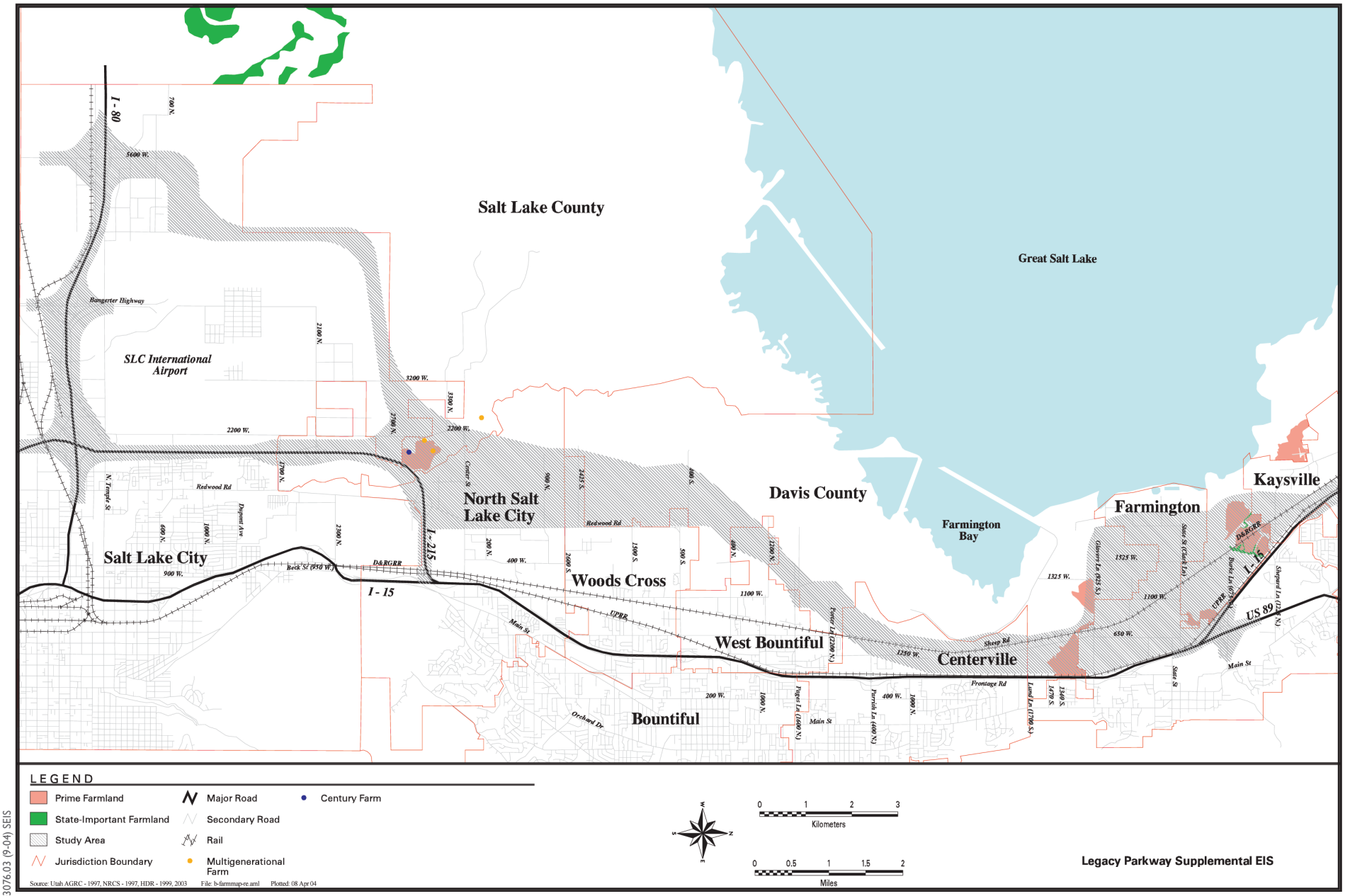
Since publication of the Final EIS, the Utah Legislature has enacted a new law—Utah Code Title 17 (Counties), Chapter 41 (Agricultural Protection Area)—to better protect certain agricultural areas. The law requires each county in Utah to create an Agriculture Protection Area Advisory Board to evaluate proposals for Agriculture Protection Areas. Owners of land in agricultural production (crops or livestock) can petition their local municipality for an Agriculture Protection Area designation. Agriculture Protection Areas are protected from state and local laws that restrict farm practices unless the regulations are required for public safety or are required by federal law. Agriculture Protection Areas also cannot be condemned for highway purposes unless there is no reasonable and prudent alternative for the project.

Based on consultation with representatives from Davis and Salt Lake Counties, there are no designated Agricultural Protection Areas in the study area (Burton pers. comma., Yoshinaga pers. comm.).

4.2.3 Environmental Consequences and Mitigation Measures

As described in the Final EIS, all proposed build alternatives would have an impact on farmland in the study area. Since publication of the Final EIS, construction activities associated with Alternative D and development unrelated to the proposed action have affected farmland in the study area. In addition, because of a new NRCS policy, farmland within municipal boundaries is no longer designated as prime, unique, or state-important farmland (see Section 4.2.2.2 above). As a result, the acreage of farmland in the study area has decreased.

The updated environmental consequences and mitigation measures associated with farmland are summarized below.



03076.03 (9-04) SEIS

Figure 4.2-2
Prime and State/Local - Important Farmland

4.2.3.1 All Farmland (Cropland)

No-Build Alternative

Existing Conditions (2004)

Under the existing conditions (2004) No-Build Alternative, no farmland would be affected by the proposed action.

Future Conditions (2020)

If none of the build alternatives is implemented, development in the study area will likely continue at its current rate. Based on the number of building permits issued in Davis County since 1999, between approximately 240 ha (600 ac) and 320 ha (800 ac) of land are being developed per year in Davis County (Sommerkorn pers. comm. c). Because a large portion of the undeveloped land in the study area is farmland, it is likely that farmland will be converted at a similar rate in the future. The exact nature and timing of the future conversion of farmland are not known at this time.

Build Alternatives

As described in the Final EIS, all the proposed build alternatives would directly and indirectly affect farmland in the study area. Direct impacts would occur on farmland in the right-of-way of a build alternative; indirect impacts would occur if the right-of-way created farmland parcels smaller than 2 ha (5 ac) and not contiguous with other farmland, or if the right-of-way resulted in farmland that is no longer accessible.

Table 4.2-3 and Figure 4.2-3 provide updated information relative to impacts of the proposed build alternatives on farmland. Farmland impacts associated with all the proposed build alternatives, except Alternative A, have decreased from those presented in the Final EIS because of unrelated development activities in the study area and the proposed narrower right-of-way associated with the build alternatives. The increase in farmland impacts under Alternative A relative to the Final EIS is attributable to the revised methodology used for the Supplemental EIS to determine the acreage of farmland in the study area (see Section 4.2.2.1, *Current Agricultural Production*). Specifically, the 2003 UDNR Division of Water Resources map, which was used to calculate the farmland in the study area for the Supplemental EIS, shows an area of farmland near 400 South west of Redwood Road that was not shown as farmland in the Final EIS. Alternative A would affect some of the farmland in that area.

Mitigation Measures

As described in the Final EIS, owners of farmland within the proposed right-of-way of a build alternative (i.e., farmland subject to direct impacts) would be compensated according to the requirements of Uniform Relocation Assistance and Real Property Acquisition Policies Act (URAA), as amended, and other state and federal guidelines. For indirect impacts, UDOT would determine, based on cost comparison, whether to restore access to the parcel or purchase the remainder of the farmland.

Table 4.2-3 Impacts on Farmland

Crop	Hectares (Acres) Affected by Alternative[1]					
	No-Build Alternative	Alternative A[2]	Alternative B	Alternative C	Alternative D	Alternative E
Direct Impacts						
Irrigated Crops						
Alfalfa	0 (0)	2 (4)	27 (66)	3 (7)	3 (7)	2 (5)
Grain	0 (0)	0 (0)	18 (44)	0 (0)	0 (0)	0 (0)
Corn	0 (0)	0 (0)	5 (12)	0 (0)	0 (0)	0 (0)
Vegetables	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Grass Hay	0 (0)	4 (9)	6 (14)	3 (8)	4 (11)	4 (11)
Pasture, irrigated	0 (0)	59 (145)	82 (201)	61 (151)	40 (100)	40 (100)
Non-Irrigated Crops						
Pasture, non-irrigated	0 (0)	4 (10)	14 (34)	7 (18)	8 (20)	8 (20)
Pasture, sub-irrigated	0 (0)	35 (87)	48 (120)	20 (49)	36 (89)	35 (87)
Farmsteads	0 (0)	1 (3)	4 (10)	3 (7)	3 (8)	2 (4)
Construction Impacts[3]	0 (0)	32 (80)	2 (5)	0 (0)	32 (80)	32 (80)
Total Direct Impacts	0 (0)	137 (338)	204(501)	97 (240)	126 (315)	123 (307)
Indirect Impacts[4]						
Total Indirect Impacts	0 (0)	17 (43)	3 (7)	4 (10)	7 (17)	6 (16)
TOTAL IMPACTS (Direct & Indirect)	0 (0)	154 (381)	207 (508)	101 (250)	133 (332)	129 (323)
TOTAL IMPACTS FROM FINAL EIS (Direct & Indirect)[5]	0 (0)	133 (328)	286 (706)	146 (362)	136 (337)	NA

Notes:

1 Conversions are from acres to hectares. Conversions may vary because of rounding.

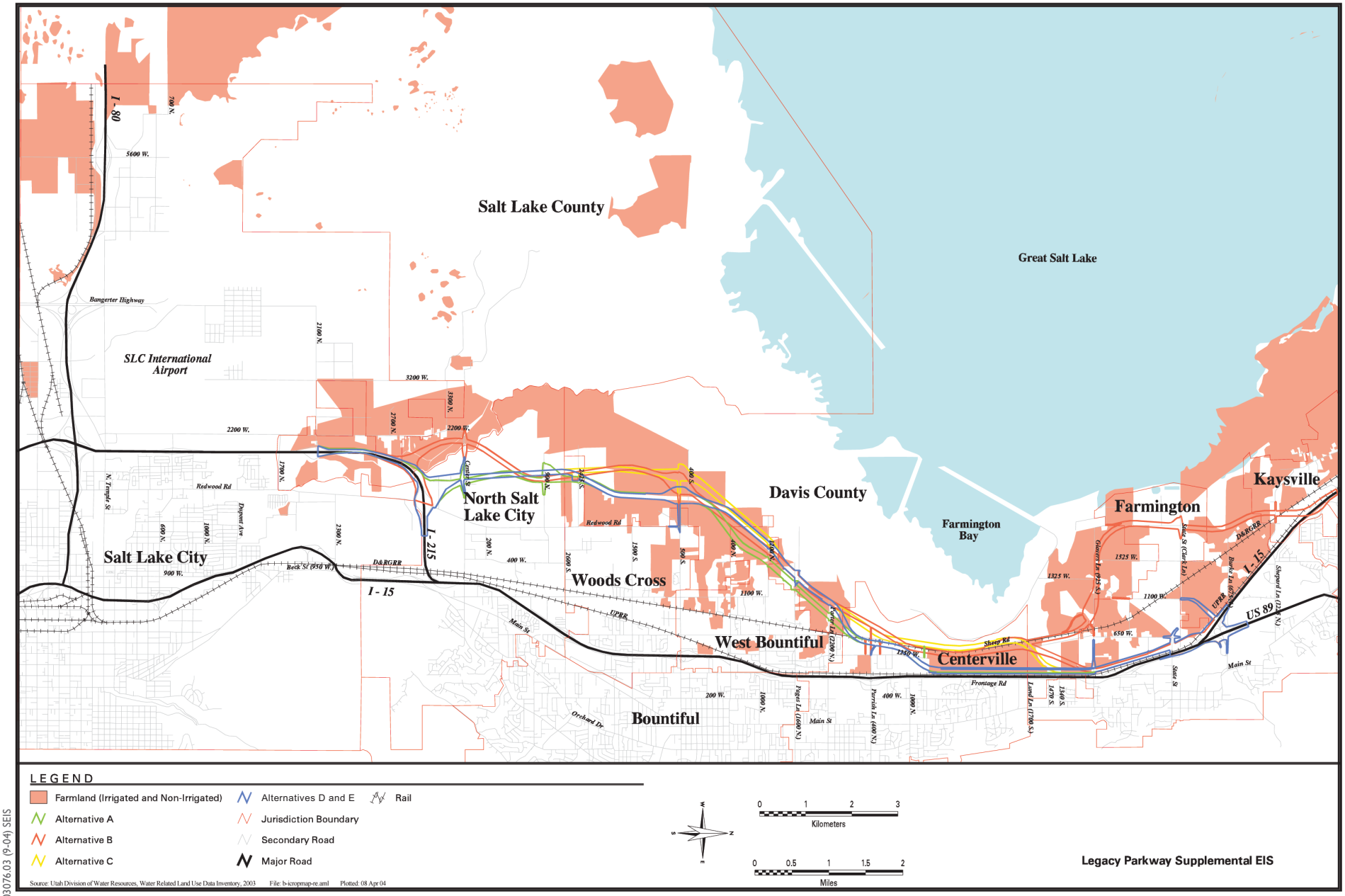
2 The increase in farmland impacts under Alternative A, relative to the Final EIS, is attributable to the revised methodology used for the Supplemental EIS to determine the acreage of farmland in the study area.

3 Construction impacts represent direct impacts associated with construction of Alternative D (Final EIS Preferred Alternative). Because these impacts have already occurred, it is not possible to attribute them by crop type. These impacts would also be associated with Alternatives A and E, and Alternative B in part, because they follow the same or partially the same alignment as Alternative D where the impacts occurred.

4 Indirect impacts would occur if the right-of-way created farmland parcels smaller than 2 ha (5 ac) and not contiguous with other farmland, or if the right-of-way resulted in farmland that is no longer accessible.

5 Impact measurements taken from Table 4-2 in the Final EIS. Impacts representative of direct and indirect impacts within the 100-m (328-ft) right-of-way.

Source: UDNR Division of Water Resources 2003.



03076.03 (9-04) SEIS

Figure 4.2-3
Farmland Impacts

4.2.3.2 Prime Farmland

No-Build Alternative

Existing Conditions (2004)

Under the existing conditions No-Build Alternative, there would be no project-related impacts on prime farmland.

Future Conditions (2020)

If none of the build alternatives is implemented, future transportation improvement projects may be undertaken by local jurisdictions in the study area to address capacity needs not being met by the existing roadways in the study area. It is possible that these future projects would encroach on prime farmland in the study area, although the nature and timing of these projects are not known at this time.

Build Alternatives

As described in the Final EIS, all the proposed build alternatives would have direct impacts on prime farmland in the study area. Farmland impacts associated with all proposed build alternatives have decreased from those presented in the Final EIS as a result of unrelated development activities; the new NRCS policy of not designating prime, unique, and state-important farmland within municipal boundaries; and the proposed narrower right-of-way associated with the build alternatives. None of the decrease in prime farmland in the study area is attributable to completed construction activities associated with Alternative D. Table 4.2-4 and Figure 4.2-4 provide updated impact information relative to prime farmland in the study area.

Table 4.2-4 Impacts on Prime and State-Important Farmland

	Hectares (Acres) Affected by Alternative*					
Designation	No-Build Alternative	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Prime Farmland						
Final EIS	0 (0)	34 (84)	72 (178)	36 (90)	26 (64)	NA
Supplemental EIS	0 (0)	9 (23)	36 (88)	11 (28)	13 (31)	12 (29)
Farmland of State Importance						
Final EIS	0 (0)	3 (7)	2 (5)	3 (7)	0(0)	NA
Supplemental EIS	0 (0)	0 (0)	1 (2)	0 (0)	0(0)	0 (0)

Note:
* Conversions are from acres to hectares. Conversions have been rounded.
Source: Bell pers. comm.

Mitigation Measures

The mitigation measures for prime farmland are the same as those described above in Section 4.2.3.1 for all farmland.

4.2.3.3 Unique Farmland

There is no unique farmland located in the study area. Therefore, unique farmland would not be affected by the No-Build Alternative (existing or future conditions) or the proposed build alternatives.

4.2.3.4 Farmland of State Importance

No-Build Alternative

Existing Conditions (2004)

Under the existing conditions No-Build Alternative, there would be no project-related impacts on farmland of state importance.

Future Conditions (2020)

If none of the build alternatives is implemented, future transportation improvement projects may be undertaken by local jurisdictions in the study area to address capacity needs not being met be the proposed action. It is possible that these future projects would encroach on farmland of state importance in the study area, although the nature and timing of these projects are not known at this time.

Build Alternatives

The Final EIS stated that all the proposed build alternatives would have direct impacts on farmland of state importance. However, impacts on farmland would decrease from those shown in the Final EIS such that only Alternative B would impact farmland of state importance. This decrease is due to unrelated development activities in the study area; the new NRCS policy of not designating prime, unique, and statewide important farmland within municipal boundaries; and the proposed narrower right-of-way associated with the build alternatives. None of the noted decrease in farmland of state importance is attributable to completed construction activities associated with Alternative D. Table 4.2-4 and Figure 4.2-4 above provide updated impact information relative to farmland of state importance in the study area.

Mitigation Measures

Only Alternative B would impact state-important farmland. If Alternative B were chosen as the proposed build alternative, the mitigation measures identified in Section 4.2.3.1 for all farmland would be adopted to mitigate adverse impacts on farmland of state importance.

4.2.3.5 Farmland of Local Importance

No-Build Alternative

Existing Conditions (2004)

Under the existing conditions No-Build Alternative, there would be no project-related impacts on other farmland of local importance.

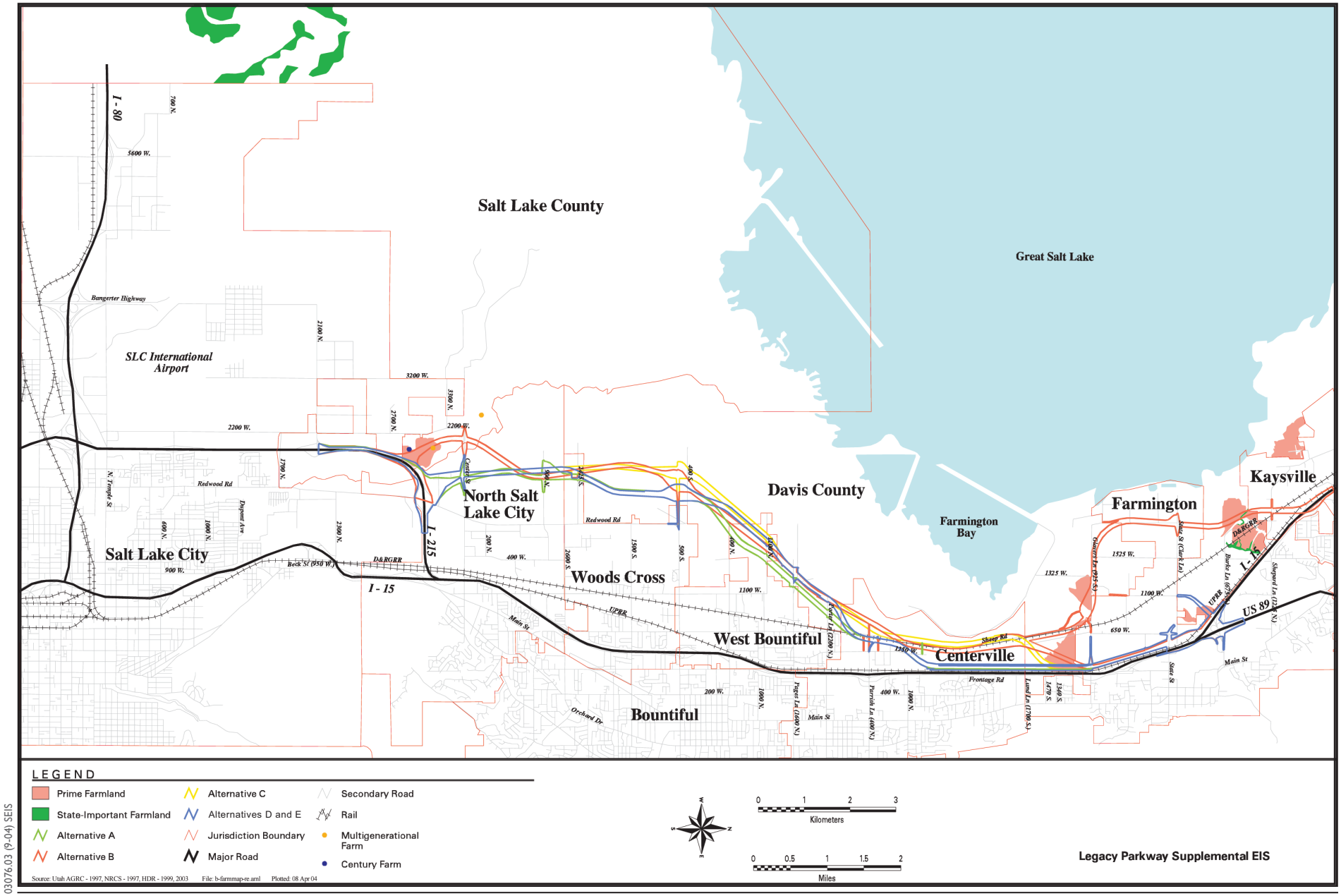


Figure 4.2-4
Prime and State/Local - Important Farmland Impacts

Future Conditions (2020)

If none of the build alternatives is implemented, future transportation improvement projects may be undertaken by local jurisdictions in the study area to address capacity needs not being met be the proposed action. It is possible that these future projects would encroach on designated Century Farm or multigenerational farms in the study area, although the nature and timing of these projects are not known at this time.

Build Alternatives

As stated in the Final EIS, all the proposed alternatives would affect the designated Century Farm in the study area, although none would alter the farm's operation or its Century Farm designation. Alternative B would also affect the two multigenerational farms in the study area. These impacts have not changed since publication of the Final EIS (see Section 4.2.5 of the Final EIS). Impacts associated with Alternative E would be identical to those disclosed for Alternative D in the Final EIS.

Mitigation Measures

The mitigation measures for locally important farmland would be the same as those described above for all farmland.

4.2.3.6 Agricultural Protection Areas

There are no Agricultural Protection Areas in the study area. Therefore, none would be affected by the No-Build Alternative or the proposed build alternatives.

Section 4.3
Social

This section discusses the social environment in the study area. The section includes updated population information based on the 2000 Census. In addition, as described in the Final EIS, the discussion of the social environment includes a discussion of the social composition, community cohesion, travel patterns and accessibility, public facilities, public services and utilities, recreation resources, public health and safety, and the overall quality of life in the study area.

Information on community structures and resources (i.e., schools, recreational resources) that have been constructed in the study area since publication of the Final EIS are also presented, as is updated information on travel patterns and accessibility in the study area, based on the 2004 WFRC travel demand model (version 3.2). This section also includes an updated assessment of potential impacts on minority and low-income populations.

4.3.1 Approach and Methodology

This section presents information specific to the Wasatch Front region (i.e., Salt Lake, Davis, Weber, Tooele, and Morgan Counties), as well as pertinent to the State of Utah, to assess the social environment in the study area relative to the larger region and state. To update the affected environment and environmental consequences information associated with the social environment in the study area, Sections 3.3 and 4.3 of the Final EIS were reviewed to determine what changes had taken place since publication of the Final EIS. The study area for evaluating the social environment is described in Section 4.0.1, *Study Area*, of this document. However, because much of the analysis in this section is based in large part on the 2000 Census tract and block groups boundaries, the study area represented in this section is actually larger in some discussions than that defined in Section 4.0.1.

The population data presented in the Final EIS was based, in part, on the 1990 Census, which was updated by the U.S. Census Bureau in 2000 (U.S. Census Bureau 2000). The updated 2000 Census data was reviewed at the state, county, and city levels, and a demographic analysis at the census tract and block group levels for minority and low-income populations was completed using a geographic information systems (GIS) overlay.[1]

The *Wasatch Front Region Small Area Socioeconomic Projections: 2002–2030* technical report (Wasatch Front Regional Council 2003b) and the *Demographic and Economic Analysis 2003 Economic Report to*

[1] Year 2000 Census data for census tracts, block groups, and blocks, were assembled in a GIS framework using an overlay technique that allowed project impacts on areas of high concentrations of minority and/or low-income populations to be assessed. The census tract and census block group boundaries changed between the 1990 and 2000 censuses. As a result, population and social trends based on census tracts and/or block group boundaries could not be determined.

the Governor (Utah Governor's Office of Planning and Budget 2003) were also reviewed to determine population demographics and trends in the study area. The Salt Lake County Board of Realtors and the Salt Lake and Davis County Assessor's offices were contacted to obtain information on housing costs and indigent households in the study area.

4.3.2 Affected Environment

The following subsections provide a summary of information relative to the social environment that has been updated since publication of the Final EIS. Since publication of the Final EIS, the 2000 Census was updated with new statistics on population growth, social composition, and environmental justice populations. Boundaries of the census tracts used in the 1990 and 2000 Census are not identical.

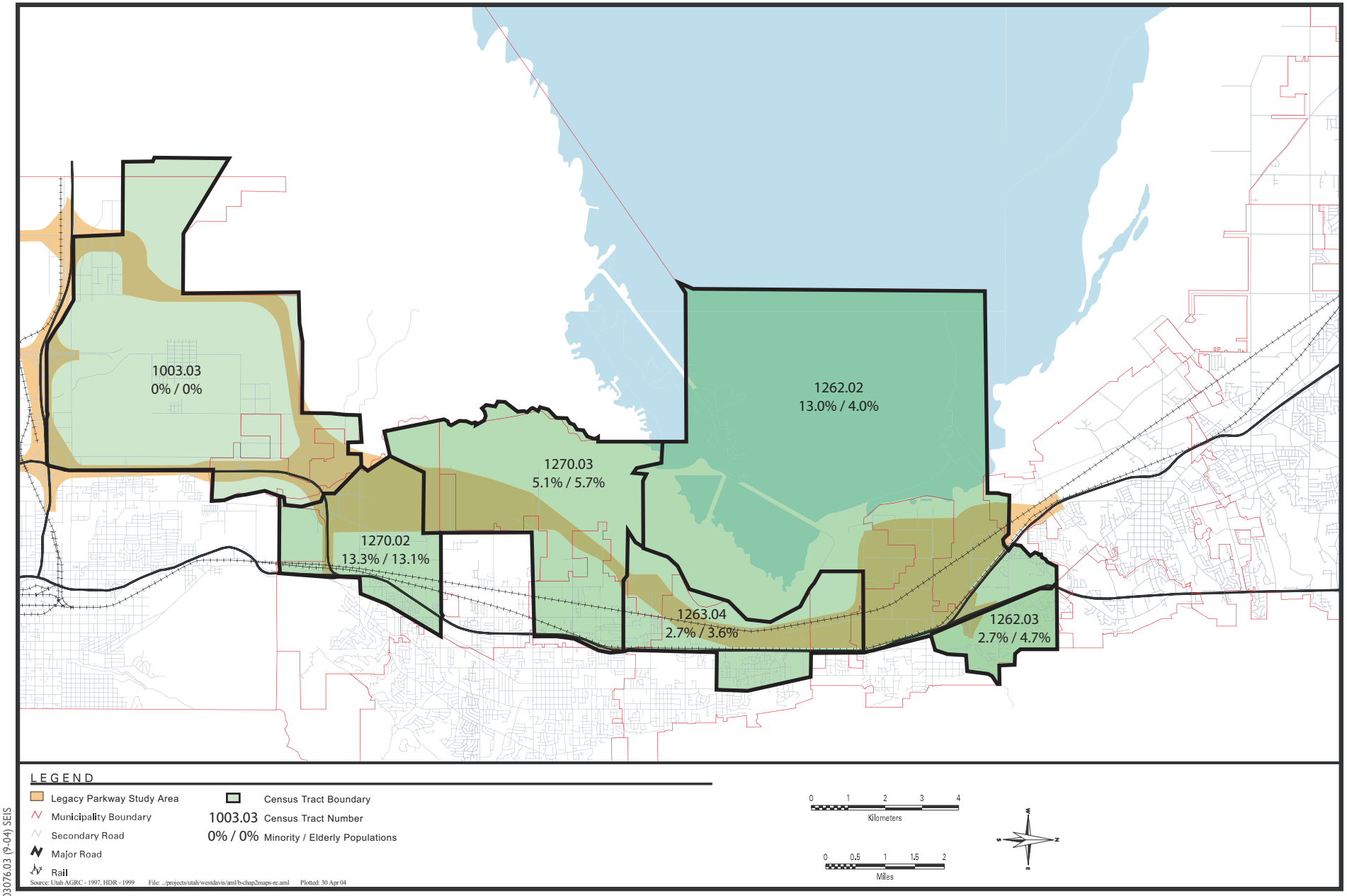
In addition, the 2004 WFRC travel demand model (version 3.2) was used to reevaluate travel patterns and accessibility in the study area. Updated information on public facilities and utilities, recreation resources, and public health and safety is also presented below.

4.3.2.1 Population Growth

Between 1990 and 2000, the population of Utah grew by 29.6 percent. State growth projections estimate a 2.1 percent rate of annual population growth between 2000 and 2020 (Utah Governor's Office of Planning and Budget 2003). Table 4.3-1, which updates Table 3-3 in the Final EIS, summarizes population statistics for Utah, counties in the Wasatch Front region, and census tracts in the study area, to show how expected population growth in the study area compares to population growth in the Wasatch Front region and in the state. Figure 4.3-1 shows the boundaries of the census tracts referenced in Table 4.3-1.

Compared to the previous population estimates and projections presented in the Final EIS, the year 2000 population was higher than anticipated in most areas; however, the estimated rates of growth between 2000 and 2020 are somewhat lower. For Salt Lake, Davis, and Morgan Counties, the estimated 2020 populations are slightly lower than that shown in the Final EIS, but the estimated 2020 populations for Tooele and Weber Counties are slightly higher.

Tables 4.3-2a and 4.3-2b summarize respectively the population density statistics for Utah, Davis, and Salt Lake Counties and the census tracts in the study area. These tables update Table 3-4 in the Final EIS. Between the 1990 and 2000 Censuses, the average population density of the two-county area (Davis and Salt Lake Counties) increased from 800 to 1,104 people per square mile. The average population density of the census tracts in the study area also increased (i.e., from 15 to 226 people per square mile). Trend determinations based on Census tracts are not possible, however, because the boundaries of the 2000 Census tracts were different than those for the 1990 Census tracts. The population density increases were particularly notable in the Centerville and Farmington areas, which correspond to census tracts 1262.02 and 1263.01 in the 1990 Census and tracts 1262.03 and 1263.04 in the 2000 Census.



03076.03 (9-04) SEIS

Figure 4.3-1
Census Tract Boundaries

Table 4.3-1 Population Statistics for State of Utah, Wasatch Front Region, and Study Area

	Year							Projected Annual Growth Rate
Area	1980	1990	2000	2005	2010	2015	2020	2000 to 2020
Utah	1,461,037	1,722,850	2,233,169	2,464,633	2,787,670	3,126,736	3,371,071	2.08%
Wasatch Front								
Davis County	147,509	190,709	238,994	262,241	292,201	323,992	347,412	1.89%
Morgan County	4,917	5,528	7,129	7,506	8,329	9,250	9,981	1.70%
Salt Lake County	637,091	733,906	898,387	967,390	1,077,556	1,195,554	1,283,784	1.80%
Tooele County	26,033	26,601	40,735	50,119	59,780	70,338	79,539	3.40%
Weber County	139,890	160,388	196,533	211,207	237,877	265,905	286,919	1.91%
Wasatch Front Total	955,440	1,117,132	1,381,778	1,498,463	1,675,743	1,865,039	2,097,635	1.89%
Cache County	57,176	70,183	91,391	101,811	115,697	130,246	137,966	2.08%
Box Elder County	33,222	36,485	42,745	46,928	53,224	59,433	63,391	1.99%
Study Area by Traffic Analysis Zone and Census Tract Boundaries*								
1003.03	NA	NA	563	678	1,020	1,676	2,018	6.59%
1262.02	NA	NA	1,847	2,088	2,727	3,499	4,644	4.72%
1262.03	NA	NA	1,054	1,119	1,329	1,552	1,805	2.73%
1263.04	NA	NA	6,163	6,298	6,451	6,778	7,190	0.77%
1270.02	NA	NA	2,229	2,567	4,414	5,369	5,380	4.50%
1270.03	NA	NA	4,269	4,325	4,464	4,909	5,467	1.24%

Note:

* These census tracts encompass a larger area than the study area. Year 2000 Census tract populations are reflected as 2002 population taken from the WFRC Technical Report No. 42 (Wasatch Front Regional Council 2003b) and present a more detailed picture of population in these areas than data from the 2000 Census.

Sources: Utah Governor's Office of Planning and Budget 2003; Wasatch Front Regional Council 2003b.; U.S. Census Bureau 2000.

Table 4.3-2a Population Densities for State of Utah and Davis and Salt Lake Counties

	Persons Per Square Mile	
Area	1990	2000
State of Utah	21.0	27.2
Davis County	617.2	784.9
Salt Lake County	984.5	1,218.4

Source: U.S. Census Bureau 2000.

Table 4.3-2b Population Densities for Census Tracts in or Adjacent to Study Area

Census Tracts	Cities Located Adjacent to the Tract	Persons per Square Mile
1990 Census Tracts		
1262.01	Farmington	3.5
1262.02	Kaysville, Farmington	10.4
1263.01	Centerville	1.6
1270.01	Woods Cross, West Bountiful	1.8
1270.02	North Salt Lake	2.1
1003.03	Salt Lake City	0.20
1003.04	Salt Lake City	85.9
2000 Census Tracts*		
1262.02	Kaysville, Farmington	101.1
1262.03	Kaysville, Farmington	1,658.0
1263.04	Centerville	1,028.8
1270.02	North Salt Lake	545.5
1270.03	Woods Cross, West Bountiful	293.7
1003.03	Salt Lake City	6.8

Note:
* Census tracts were redistricted in 2000.
Source: U.S. Census Bureau 2000

4.3.2.2 Social Composition

Information from the 2000 Census and the Utah Governor's Office of Planning and Budget was used to update information presented in the Final EIS on blind, ethnic, minority, and elderly populations in the study area, average household incomes and housing values, indigent households, and transportation issues.

Population Characteristics

The study area is sparsely populated, containing less than 2 percent of the total combined populations of Salt Lake and Davis Counties. Table 4.3-3, which is a partial update of Table 3-8 in the Final EIS, presents census information on minority and low-income populations in the study area. It should be noted that minority populations can be classified by either race or ethnicity, or both (U.S. Census Bureau 2000). The estimates provided in Table 4.3-3 have been evaluated to ensure that individuals listed under both minority categories are not counted twice.

Approximately 6.4 percent of the population in the study area is considered minority, and 2.2 percent is considered low-income. In the total two-county area, 17.2 percent of the population is considered minority, and 7.2 percent is considered low-income. Figure 4.3-2, which updates Figure 3-10 in the Final EIS, illustrates the ethnic and racial composition of the study area.

Census tract 1003.04 from the 1990 Census contained a relatively high number of minorities (see Table 3-8 in the Final EIS). Census tract boundaries were redistricted for the 2000 Census, splitting tract 1003.04 into two tracts, 1003.5 and 1003.6. Both of these tracts now lie entirely south and east of I-215, outside the study area. Because the Supplemental EIS bases its study on the 2000 Census, these populations are no longer considered in this document.

The Final EIS presented information on elderly populations. Table 4.3-4, which also partially updates Table 3-8 in the Final EIS, presents updated information on elderly populations in the study area based on the 2000 Census.

Finally, as described in Section 4.3.6 of the Final EIS, there are two households with blind residents in the study area in Davis County.

Table 4.3-3 Minority and Low Income Populations

	Minority (Racial & Ethnic)		Low-Income Households	
Area	Number	Percentage of Total Population	Number	Percentage of Total Households
Utah	328,904	14.7%	62,280	8.9%
Salt Lake County	171,190	19.1%	22,754	7.7%
Davis County	24,358	10.2%	3,597	5.1%
Census Tract*				
1003.03	0	0.0%	0	0.0%
1262.02	397	13.0%	14	2.1%
1262.03	96	2.7%	0	0.0%
1263.04	151	2.7%	33	2.3%
1270.02	360	13.3%	37	3.6%
1270.03	153	5.1%	28	5.7%
Total	1157	6.4%	112	2.2%

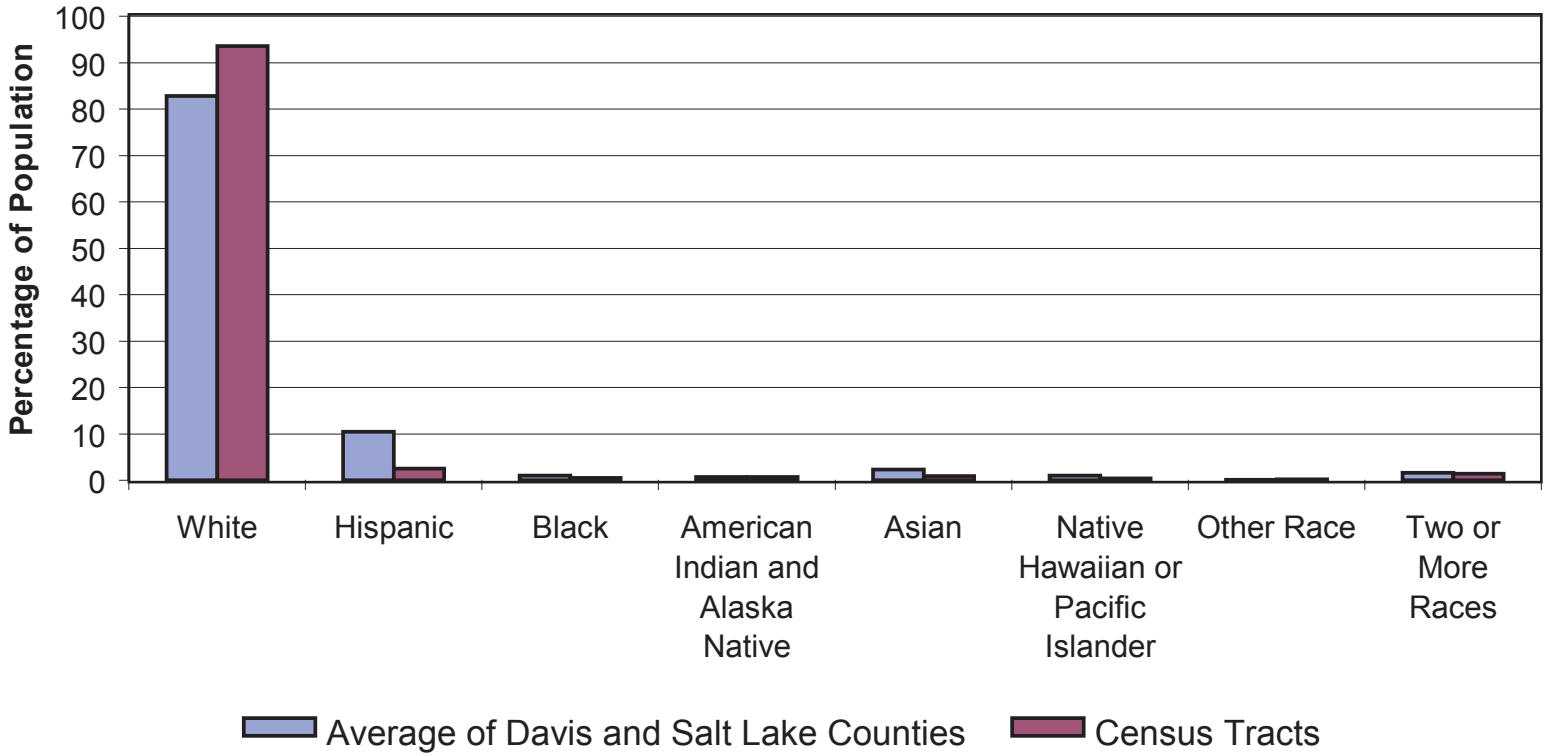
Area	Minority (Racial & Ethnic) Number	Minority (Racial & Ethnic) Percentage of Total Population	Low-Income Households Number	Low-Income Households Percentage of Total Households
Block Groups				
Block Group 3, Census Tract 1003.03	0	0.0%	0	0.0%
Block Group 1, Census Tract 1262.02	397	13.0%	14	2.1%
Block Group 1, Census Tract 1262.03	57	3.7%	0	0.0%
Block Group 2, Census Tract 1262.03	39	2.0%	0	0.0%
Block Group 1, Census Tract 1263.04	58	3.8%	19	4.2%
Block Group 2, Census Tract 1263.04	93	2.3%	14	1.5%
Block Group 1, Census Tract 1270.02	151	10.3%	22	3.4%
Block Group 2, Census Tract 1270.02	209	16.8%	15	3.9%
Block Group 1, Census Tract 1270.03	109	7.7%	18	4.6%
Block Group 2, Census Tract 1270.03	21	2.4%	10	3.9%
Block Group 3, Census Tract 1270.03	23	6.9%	0	0.0%
Block Group 4, Census Tract 1270.03	0	0.0%	0	0.0%
Total	1157	6.4%	112	2.2%

Note:
* These census tracts encompass a larger area than the study area.
Source: U.S. Census Bureau 2000, Summary File 3.

Table 4.3-4 Elderly Populations

Census Tract*	Elderly (65 years and over) Number	Elderly (65 years and over) Percentage of Total Population
1003.03	0	0.0%
1262.02	123	4.0%
1262.03	165	4.7%
1263.04	203	3.6%
1270.02	354	13.1%
1270.03	174	5.7%

Note:
* These census tracts encompass a larger area than the study area.
Source: U.S. Census Bureau 2000.



Source: U.S. Census Bureau 2000 Census Count

03076.03 (11-04) SEIS

Figure 4.3-2
Ethnic Composition in Study Area

Household Income and Housing Values

Household income in the study area continues to be slightly higher than either that of Salt Lake and Davis Counties (Utah Governor's Office of Planning and Budget 2003). Figure 4.3-3, which updates Figure 3-10 in the Final EIS, presents information on the income characteristics of the study area.

According to the Salt Lake County Board of Realtors, the 2003 average market value of a single-family house was $182,521 in Salt Lake County and $167,726 in Davis County (Salt Lake County Board of Realtors 2003). In comparison, the 2003 average market value of a single-family house was $116,884 in Salt Lake City. These figures represent an increase in the housing values from those presented in the Final EIS.

Indigent Households

Salt Lake and Davis Counties and the State of Utah classify people as indigent when they are disabled or 65 or over and have an annual household income of less than $24,245, an increase over the $19,950 threshold used in the Final EIS (Utah State Tax Commission 2004). Twenty-two households in Salt Lake and Davis Counties between North Salt Lake and Kaysville receive indigent tax abatements, only two of which are located in the study area (Law pers. comm.). This represents a decrease from the Final EIS, which cited seven indigent households in the study area. All the indigent households in the study area also receive tax relief from the state under the tax category of "circuit breaker," as described in the Final EIS.

Transportation and Low-Income and Elderly Populations

As described in the Final EIS, a survey conducted by the Justice Economic Dignity and Independence (JEDI) for Women group identified two main issues associated with transportation in the Wasatch Front region that primarily affect low-income and elderly populations: the expense of owning and maintaining a vehicle and the lack of convenience and scheduling of transit. These variables are still considered barriers to self-sufficiency for these populations. Aside from the advancement of commuter rail, which would facilitate relatively inexpensive travel with the study area, there has been no change to this section since publication of the Final EIS.

4.3.2.3 Environmental Justice Populations

As described in the Final EIS, Title VI of the Civil Rights Act and Executive Order 12898 (regarding environmental justice populations) requires federal agencies to identify minority and low-income populations in areas where the effects of a proposed federal action on human health and the environment would be disproportionately high or adverse. Information from the 2000 Census and the Utah Governor's Office of Planning and Budget was used to update information presented in the Final EIS on environmental justice populations.

Table 4.3-3 and Figures 4.3-2 and 4.3-3 disclose the percentages of minority and low-income populations in the study area, as well as those in Salt Lake County, Davis County, and the State of Utah. In the study area, approximately 6.4 percent of the population is minority, and 2.2 percent is low income (Table 4.3-3). Comparatively, in Salt Lake and Davis Counties and the state, 19.1 percent, 10.2 percent, and 14.7 percent of the populations are minority, and 7.7 percent, 5.1 percent, and 8.9 percent are low income, respectively. These numbers illustrate that the study area as a whole has a lower proportion of minority and low-income populations than Salt Lake County, Davis County, and the state. This trend is reflected in all the census tracts in the study area except two: census tract 1262.02, block group 1 and census tract 1270.2, block group 2.

Census tract 1262.02, block group 1 has a minority population of 13.0 percent (which is higher than the Davis County average of 10.2 percent), indicating that there is a higher potential for impacts on environmental justice populations in this block group. All development in this block group occurs north of the I-15/US-89 divergence, except for a small residential development of high-end custom homes off Shepard Lane west of the D&RG railroad tracks. It is highly likely that any low-income populations in this census tract are concentrated in the developed areas north of the I-15/US-89 divergence rather than in the custom-home development off Shepard Lane. Minority populations could live in either the area north of the I-15/US-89 divergence, or in the custom-home development off Shepard Lane.

Census tract 1270.2, block group 2 contains a minority population of 16.8 percent, which is higher then the Davis County average (10.2 percent) and the state average (14.7 percent). This indicates that an environmental justice population may also exist in this area. Residential development in this block group occurs east of Redwood Road.

4.3.2.4 Neighborhood and Community Cohesion

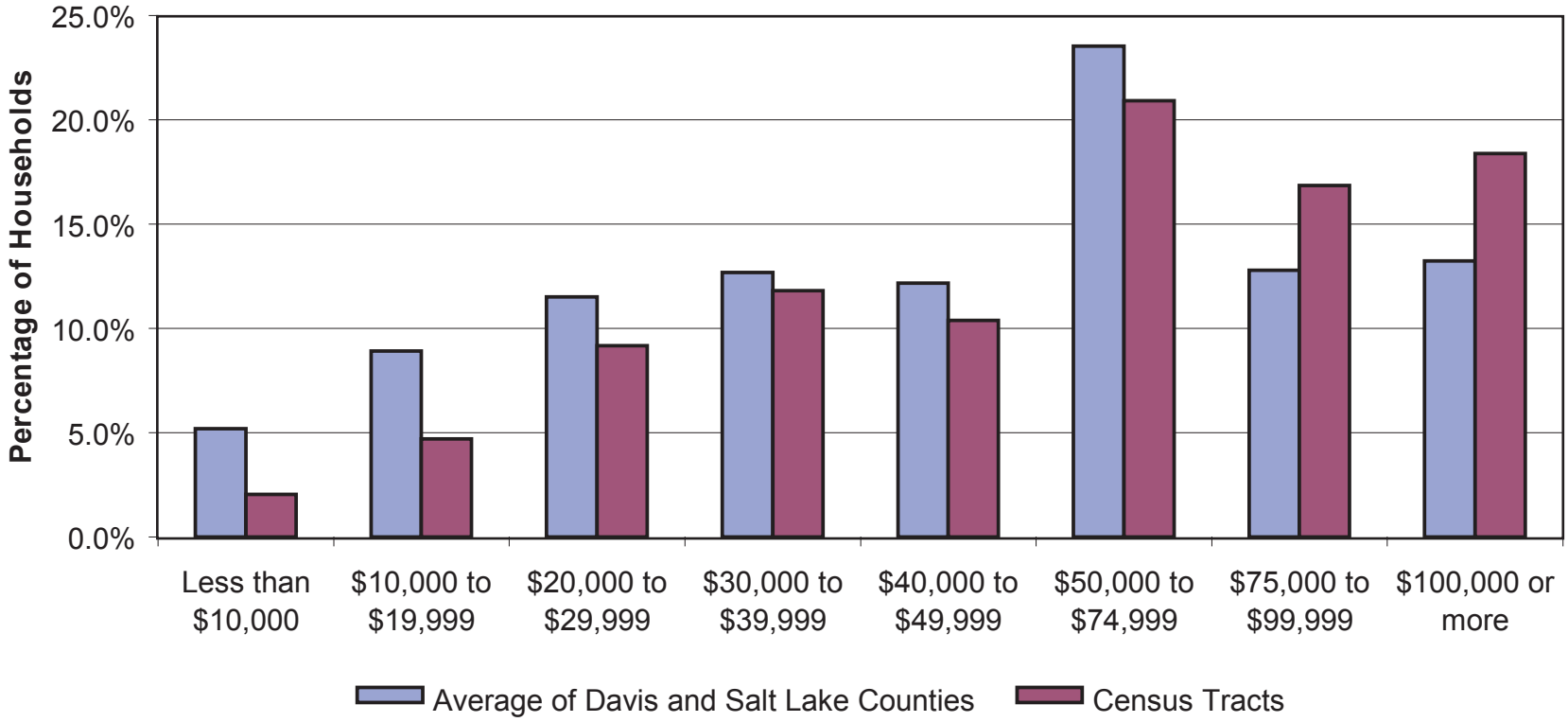
The Final EIS defined *community cohesion* as the attribute of a geographic area where its segmentation or division would reduce its desirability to current and future residents. Six communities are located in the study area: North Salt Lake, Woods Cross, West Bountiful, Centerville, Farmington, and Kaysville. Each seeks to develop and maintain its community in a cohesive fashion. Achievement of this goal is currently limited by I-15, existing power line corridors, gas lines, and railroad rights-of-way.

Since publication of the Final EIS, construction has begun on the Foxboro residential development, which is located near the southern terminus of the proposed Legacy Parkway, adjacent to Redwood Road in North Salt Lake. The City of North Salt Lake hopes to assimilate this development as a cohesive member of the city (City of North Salt Lake 2001).

Notably, the federal lead agencies hosted a series of Community Planning Information Committee (CPIC) meetings focused specifically on the technical memorandum topics summarized in Chapter 2, *Tenth Circuit Court Ruling Analysis*. The first CPIC meeting, held in July 2003, focused specifically on discussing the potential Legacy Parkway alignment options within the D&RG regional corridor (see Chapter 3, *Alternatives*), which were developed as a result of public comments during project scoping. The majority of the local jurisdictions in the study area expressed concerns that a major new road facility in the D&RG corridor would create a physical and social barrier in the area that would sever neighborhoods and communities and affect community cohesion. These concerns were reiterated during individual interviews also held in 2003 with each of the local jurisdictions in the study area. In general, the majority of the communities in the study area felt that a highway alignment in the Great Salt Lake Corridor, and in particular Alternative E, would be less disruptive to their communities than a highway alignment in the D&RG corridor. Section 4.3.3.3, *Neighborhood and Community Cohesion,* provides an assessment of how the proposed build alternatives would affect neighborhood and community cohesion in the study area.

4.3.2.5 Travel Patterns & Accessibility

Section 3.3.2 of the Final EIS described the study area as primarily undeveloped, with limited existing travel patterns. It was noted that access to the study area was limited from the east by the existing interchanges and overpasses crossing I-15. Although access to the study area remains limited, development occurring in and around the southern termini (e.g., Foxboro development) and northern termini (e.g., residential development and school near the intersection of Clark Lane and 1525 West), as



Source: U.S. Census Bureau 2000 Census Count

03076.03 (11-04) SEIS

Figure 4.3-3
Household Income in Study Area

well as development north and south of the corridor, is causing traffic volumes and travel patterns to increase in the study area.

The Final EIS also described 15 major east-west and north-south routes in the study area that could be affected by the proposed Legacy Parkway. To reevaluate the substantive travel patterns and accessibility effects that would be associated with the proposed action, the 2004 WFRC travel demand model (version 3.2) was used to evaluate three interstates/major state highways (I-15, US-89, and I-215) and two local roadways that would provide direct connections to the proposed Legacy Parkway (Parrish Lane in Centerville and 500 South/Redwood Road in Woods Cross). The location of these roadway facilities in the study area is shown in Figure 4.3-4. The following provides a description of the existing configurations of these facilities and their current and future levels of service.

Interstates/Major State Highways

I-15

I-15 is an essential element of the local, regional, and national transportation system. As part of the national interstate system, it provides a north-south link between southern California and the Canadian border. I-15 provides the only continuous major north-south roadway for travel within Utah and is the only major highway that directly links Utah's three largest urban areas of Provo, Salt Lake City, and Ogden.

In Weber County (north of Ogden), I-15 transitions from four to six lanes, then continues south as a six-lane facility to the proposed I-15/US-89/Legacy Parkway interchange in Farmington. I-15 becomes an eight-lane facility through Farmington to the I-15/I-215/US-89 interchange in North Salt Lake. South of this interchange, I-15 is a six-lane facility to 600 North in Salt Lake City. South of 600 North, I-15 becomes an eight-lane facility with two high-occupancy vehicle (HOV) lanes.

US-89

US-89 is a north-south major arterial that is not continuous through the North Corridor; some segments of US-89 are separate roadways, and other segments follow I-15 and local roadways. US-89 is a separate roadway from Harrison Boulevard in South Ogden south to the I-15/US-89/Legacy Parkway interchange in Farmington, a distance of 20 km (12.5 mi). This segment of US-89, which connects I-15 and I-84, is planned to be upgraded to a six-lane, controlled-access expressway. FHWA issued a Record of Decision (ROD) for this improvement in 1996, and the upgrade is being constructed as funding becomes available. In addition, the segment of US-89 between Park (formerly Burke) Lane and Cherry Hills is currently being reconstructed and the improvements will be completed in 2004.

South of the proposed I-15/US-89/Legacy Parkway interchange, there is no separate US-89 facility. The I-15 facility carries both the I-15 and US-89 route designations through Farmington and Centerville. From the I-15/500 West interchange, US-89 follows 500 West southward into Bountiful. From the 500 West/Main Street intersection in Bountiful, US-89 follows Main Street south through Bountiful and North Salt Lake. At the I-15/I-215/US-89 interchange in North Salt Lake, US-89 becomes a separate roadway again and runs parallel to I-15 south into downtown Salt Lake City.

I-215

I-215 is a limited-access interstate highway that functions as a beltway around three-quarters of Salt Lake City. North of the airport, I-215 is on an east-west alignment and connects with I-15 immediately south of Center Street in North Salt Lake. In addition to providing an alternate high-speed travel route to I-15, I-215 north of I-80 links the airport to the northern Salt Lake City metropolitan area and Davis and Weber

Counties. I-215 is a four-lane facility between the I-15/I-215/US-89 interchange and 2100 North in Salt Lake City and transitions to a six-lane facility south of 2100 North.

Local Roadways

Parrish Lane

Parrish Lane is an east-west collector street in Centerville and has an existing interchange with I-15. It is a four-lane road east of I-15 and a two-lane road west of I-15. The area east of I-15 at Parrish Lane is more developed than the area west of I-15, although the area to the west is planned for further development. In addition, arterial roads on the east side of I-15 connect Centerville to Bountiful, West Bountiful, and Farmington. The interchange on- and off-ramps for northbound traffic are on the east side of I-15, and the on- and off- ramps for southbound traffic are on the west side of I-15.

500 South and Redwood Road

The 500 South/Redwood Road intersection connects these two roadways so that they function as a continuous arterial. Redwood Road is a north-south arterial that extends through the southern portion of the North Corridor, from an interchange and crossing of I-215 at the south end of the corridor to a northern terminus at 500 South. Traffic on Redwood Road continues on 500 South, an east-west arterial. Redwood Road serves western North Salt Lake and Woods Cross, an area with existing commercial and industrial development and additional planned future development, including major residential development.

500 South has an existing interchange with I-15. West of the interchange, 500 South is essentially the boundary between Woods Cross and West Bountiful. East of the interchange, 500 South is part of the Bountiful street system. 500 South is a four-lane road east of I-15 and a two-lane road west of I-15. Future plans for 500 South include converting it to a tree-lined parkway with wide sidewalks, wide park strips, bicycle lanes, street furnishings, and pedestrian-scale lighting.

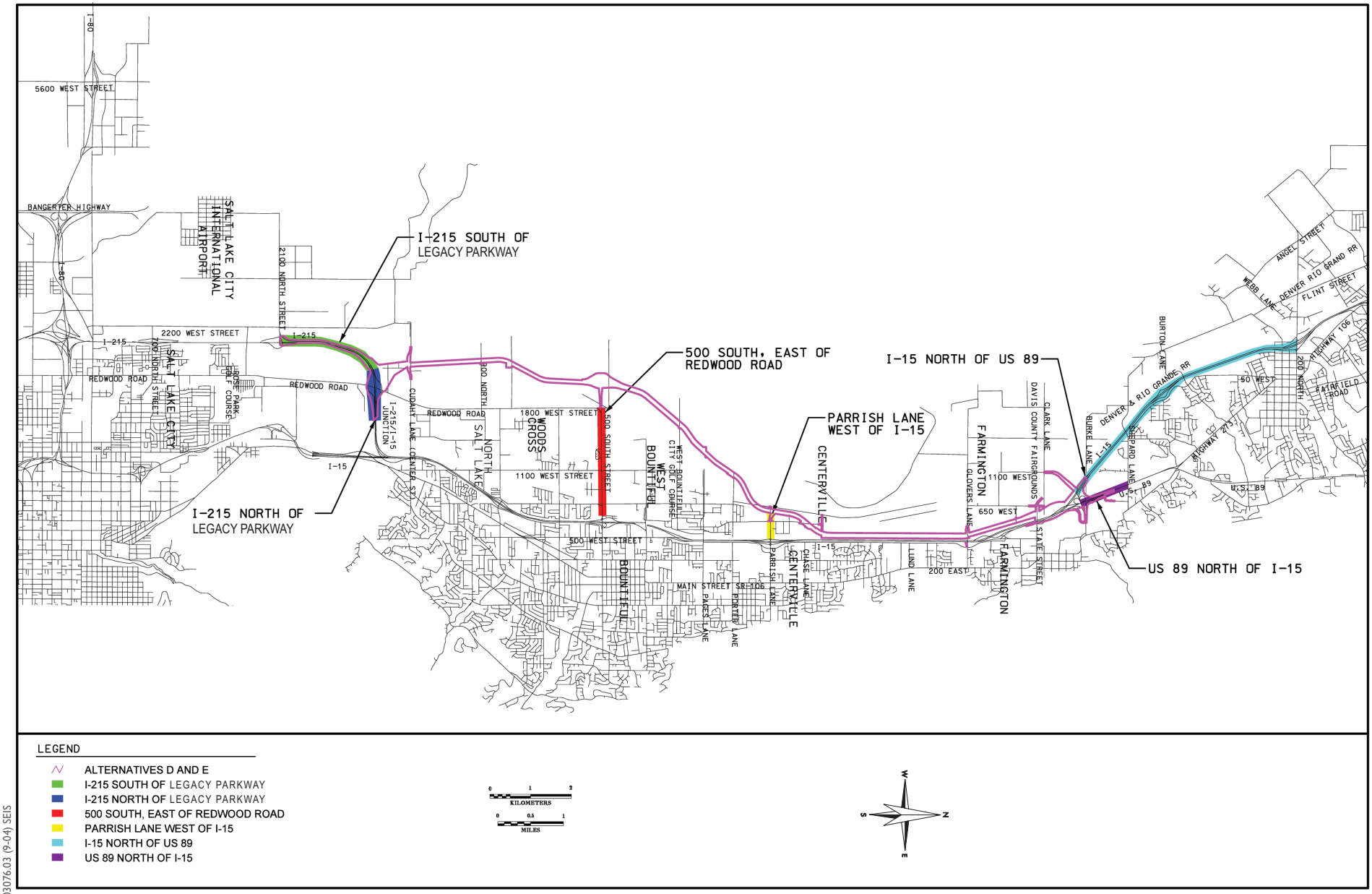
Existing Traffic Operating Conditions

As defined in Chapters 1 and 3 of this document, level of service is represented in a letter grading system that describes different levels of traffic congestion, ranging from level of service (LOS) A for excellent conditions (free-flowing traffic) to LOS F for failure conditions (extremely congested stop-and-go traffic). LOS B through LOS E describe progressively worse traffic conditions. The following analysis describes conditions for both the 3-hour p.m. peak period and, within that period, the single highest traffic hour of the day: the p.m. peak hour. The *peak period* consists of the single p.m. peak hour and the peak shoulder hours, which are the hour immediately before and the hour immediately after the peak hour. The peak period LOS is the average condition during the full 3-hour period.

Table 4.3-5 shows the maximum vehicle capacity per lane during the peak period with respect to the following three roadway classifications.

- **Arterials**. An arterial is a signalized street that primarily serves through-traffic and that secondarily provides access to abutting properties. For the purposes of this analysis, Parrish Lane, 500 South, and Redwood Road are considered arterials.

- **Expressways**. An expressway is an arterial highway with limited access control. Expressways can carry less traffic at any given level of service than freeways. For the purposes of this analysis, the segment of US-89 evaluated in this section is considered an expressway.



03076.03 (9-04) SEIS

Figure 4.3-4
Major Arterials and Local Roadways

- **Freeways**. A freeway is an arterial highway with full access control. Freeways are intended to provide high levels of safety and efficiency in the movement of large volumes of traffic at high speeds. For the purposes of this analysis, the segments of I-15 and I-215 evaluated in this section are considered freeways.

Typically, in urban areas, UDOT strives to maintain LOS D or better operating conditions on interstate freeways.

Table 4.3-5 Level of Service Criteria

	Maximum Capacity (vehicles per lane per peak period)		
Level of Service	Arterial[1]	Expressway[2]	Freeway[3]
A	540	1,335	2,130
B	1,110	2,310	3,510
C	1,650	3,345	5,040
D	1,920	4,095	6,270
E	2,190	4,620	7,050

Notes:

1 Arterial capacities estimated based on WFRC travel demand model and engineering judgment. Regional model uses LOS E capacity during the peak hour.

2 Expressway capacity estimated midway between freeway and arterial.

3 Freeway capacity estimated based on *Highway Capacity Manual* 2000 for 65-mph freeway.

The following analysis describes levels of service for the primary streets and highways identified above for the 3-hour p.m. peak period. Table 4.3-6 shows existing (2001) levels of service based on peak-period capacities for the interstates and major state highways that would be affected by the proposed action. Table 4.3-7 shows existing (2001) levels of service based on peak-period capacities for the local roadways that would be affected by the proposed action.

Table 4.3-6 Existing Levels of Service on Interstates and Major State Highways in Study Area

	Existing Conditions (2001)				
Segment	Lanes per Direction	Total Daily Traffic	Peak-Hour, Peak-Direction Volume	Peak-Period, Peak-Direction Volume	Peak-Period Level of Service
US-89 North of I-15 Interchange in Farmington	2	40,885	2,780	7,710	C
I-15 North of US-89 Interchange in Farmington	3	77,880	5,790	16,090	D
I-215 East of Legacy Parkway	2	54,775	3,720	10,340	D
I-215 South of Legacy Parkway	2	54,775	3,720	10,340	D

Notes:

Total daily traffic values (two-directional) were derived from the UDOT 2001a *Traffic on Utah Highways*.

Peak-period, peak-direction volumes taken from Interplan Co. 2004 travel demand model, which was run based on the WFRC travel demand model (version 3.2). Peak-hour, peak-direction values computed as a factor (36 percent) of peak-period volumes, based on approximate peak flows.

Level of service for the peak period is estimated based on the average hourly vehicles per lane per hour during the 3-hour peak period. Level of service represents conditions in the peak direction (p.m. northbound).

Source: InterPlan Co., 2004.

Table 4.3-7 Existing Levels of Service on Local Roadways in Study Area

			Existing Conditions (2001)		
Roadway	Lanes per Direction	Total Daily Traffic	Peak-Hour, Peak-Direction Volume	Peak-Period, Peak- Direction Volume	Peak-Period Level of Service
Parrish Lane (west of I-15)	1	7,860	400	1,100	B
500 South (east of Redwood Road)	1	10,545	320	880	B
Redwood Road (500 South to 1500 South)	1	10,545	300	840	B
Redwood Road (1500 South to 2600 South)	1	8,290	320	890	B
Redwood Road (2600 South to Center Street)	1	9,139	370	1,020	B
Redwood Road (Center Street to I-215)	1	9,139	640	1,780	D

Notes:

Total daily traffic values (two-directional) were derived from the UDOT 2001 *Traffic on Utah Highways*.

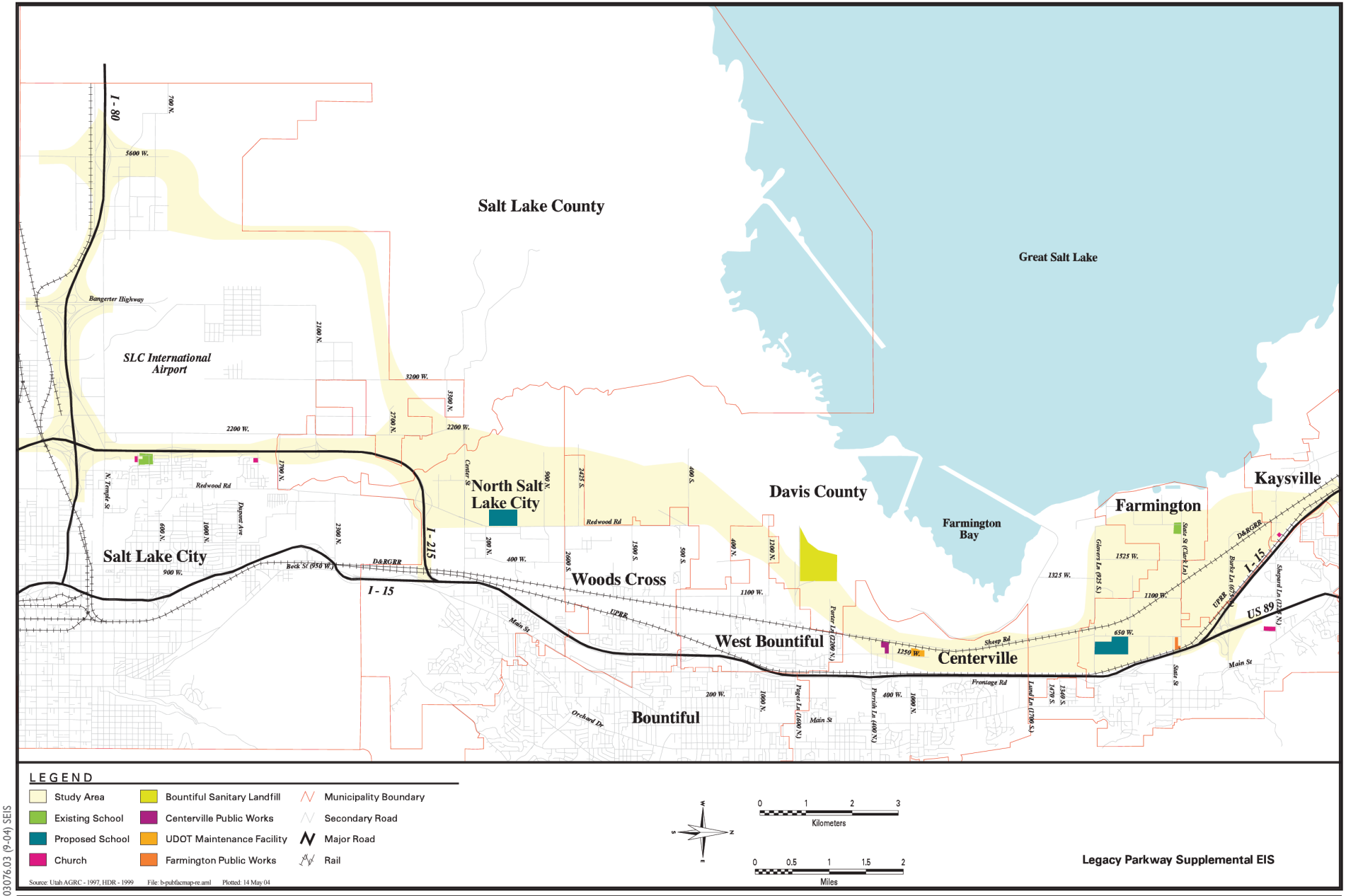
Peak-period, peak-direction volumes taken from Interplan Co. 2004 travel demand model, which was based on the WFRC travel demand model (version 3.2). Peak-hour, peak-direction values computed as a factor (36%) of peak-period volumes, based on approximate peak flows.

Level of service for the peak period is estimated based on the average hourly vehicles per lane per hour during the 3-hour peak period. Level of service represents conditions in the peak direction (p.m. northbound).

Source: InterPlan Co. 2004

4.3.2.6 Public Facilities

As described in the Final EIS, all the cities in the study area fall within either the Davis or Salt Lake City School Districts. At the time the Final EIS was published, the only school in the study area was Meadowlark Elementary School, part of the Salt Lake City School District. In 2003, after publication of the Final EIS, construction on the Farmington Eagle Bay Elementary School, located at 1933 West Clark Lane in the Farmington Ranch subdivision in the Davis School District, was completed. The Davis School District is planning to build the additional schools in the study area, both of which are depicted in Figure 4.3-5 and listed below.



03076.03 (9-04) SEIS

Figure 4.3-5
Public Facility Locations

- A high school near the intersection of Glovers Lane and 650 West (Clark Lane), slightly west of the Alternatives D and E, next to Glovers Lane Park.
- An elementary school in North Salt Lake, west of Redwood Road, between Center Street and 900 North. Slated to be completed in 2005, this school will accommodate new development in the Foxboro and North Salt Lake areas.

The other existing public facilities described in the Final EIS include four churches and their facilities, the Farmington Public Works facility, the Centerville Public Works facility, a UDOT maintenance facility, and the Bountiful Sanitary Landfill (Bay Area Refuse Disposal [BARD]). These facilities are also shown in Figure 4.3-5. No other public works facilities have been constructed in the study area and no other new facilities have been planned in the study area since publication of the Final EIS.

4.3.2.7 Public Services and Utilities

The Final EIS described four primary types of public services that are provided in the study area: fire protection and ambulance service, response to hazardous materials incidents, police protection and highway patrol, and water and sanitation services. Utilities in the study area include electrical, water, natural gas, petroleum, telecommunications, sewer, and storm drainage.

Public Services

Fire Protection and Ambulance Service

As described in the Final EIS, fire protection and paramedic and ambulance service in the study area are typically provided by combined jurisdictions (see Table 3-5 in the Final EIS). Local fire chiefs consider current access to I-15 from fire stations to be adequate. However, local officials also indicate that emergency response times will likely increase if additional access is not provided in the future. There have been no changes to this section since publication of the Final EIS.

Response to Hazardous Materials Incidents

As described in the Final EIS, the presence of I-15, railroad corridors, and refineries in the study area allows for the possibility for hazardous material incidents to occur. Such incidents could result in the closure of I-15, depending on the location and severity of the incident. The responsible party, with oversight from the Utah Department of Environmental Quality (UDEQ), would be responsible for immediate action after an incident. There have been no changes to this section since publication of the Final EIS.

Police Protection and Highway Patrol

As described in the Final EIS, each city in the study area maintains its own police department. Additional police assistance can be obtained from the sheriff's offices of Davis and Salt Lake Counties, as well as the state highway patrol. There have been no changes to this section since publication of the Final EIS.

Water and Sanitation Services

As described in the Final EIS, each municipality in the study area provides its own water and sewer (see Table 3-7 in the Final EIS). Residents and commercial interests outside each jurisdiction use domestic

wells to supply their own water. Irrigation water is supplied by the Weber Basin Water Conservancy District. There have been no changes to this section since publication of the Final EIS.

Utilities

Figures 3-8a through 3-8e in the Final EIS illustrate the location of the major utilities in the study area. Major utilities described in the Final EIS include electrical utilities, water utilities, natural gas utilities, petroleum utilities, telecommunications utilities, sewer utilities, and storm drainage utilities. There have been three minor changes to the description of utilities in the study area since publication of the Final EIS. These three changes are described below.

- **Electrical Utilities**. The existing transmission corridors in the study area are depicted in Figure 3-8a in the Final EIS. UDOT has arranged with Utah Power to increase the existing transmission corridor easement by 75 feet on the west side of Alternative E to accommodate one additional transmission line. Currently, there are five transmission lines in the corridor and the expanded easement would accommodate six. The alignment of the existing transmission corridor would not change.

- **Water and Wastewater Utilities**. A trunk line and minor lateral owned by the South Davis County Sewer Improvement District were relocated from the proposed Legacy Nature Preserve to the east side of Alternative E alignment.

- **Natural Gas Lines**. Two Questar natural gas lines have been relocated from the proposed Legacy Nature Preserve to the east side of the Alternative E alignment. It should be noted that Figure 3-8c in the Final EIS depicted one of these lines as a Kern River pipeline; however, when UDOT negotiated to relocate this line, it was owned by Questar.

All other information presented in the Final EIS relative to utilities has not changed.

4.3.2.8 Recreation Resources

Three different types of recreation resources in the study area were described in the Final EIS: wildlife recreation areas (i.e., the Farmington Bay Waterfowl Management Area [FBWMA]), public recreation facilities, and private recreation facilities. The following provides updated information on these resources.

Wildlife Recreation Areas

As described in the Final EIS, the FBWMA is the only wildlife recreation area in the study area. It is managed by the UDNR Division of Wildlife Resources and comprises 4,856 ha (12,000 ac). The main entrance is from Glovers Lane in the north, and the recreation area is open year round. Access can also be obtained from 1250 West and Pages Lane at certain times of the year. The Final EIS estimated annual visits to the FBWMA to be approximately 50,000. In 2003, visits had increased to 72,000 annually. There have been no changes to this section since publication of the Final EIS.

The Final EIS stated that, under all the proposed build alternatives, an overpass would be constructed at Pages Lane to provide pedestrian, equestrian, and bicycle access to the FBWMA. Since publication of the Final EIS, the City of West Bountiful has decided not to construct this access due to feasibility and cost concerns (HDR Engineering, Inc. 2003j). This eliminates a direct access point to both the FBWMA and Bountiful Pond (see *Public Recreation Facilities*, below). As a result, motorized vehicles would have access to the FBWMA by taking the 500 South exit off Legacy Parkway and the corresponding frontage

road. Non-motorized access would also be provided by the frontage roads that run along the west side of the proposed alignments. Access to the frontage roads would be provided at 500 South.

There have been no other changes to this section since publication of the Final EIS.

Public Recreation Facilities

As described in the Final EIS, many different public recreation facilities are located in the study area, including several golf courses, bike paths, trails, and parks, as well as Bountiful City Pond, the Davis County Fairgrounds, and the Model Airport and Jordan River Off Highway Center (Jordan River OHV Center). Lagoon Drive, which provides access to Lagoon Park, a large amusement park located east of I-15 in Farmington, is also located in the study area. Since publication of the Final EIS, one additional park, which would be located adjacent to the Davis County Fairgrounds south of the Davis County Justice Complex, has been planned in the study area.

As described above, the non-motorized overpass that would provide access to Bountiful City Pond is no longer being considered. Motorized vehicles would access Bountiful City Pond by taking the 500 South exit and the frontage road along the west side of the proposed Legacy Parkway. Non-motorized access would be provided by the frontage roads that run along the west side of the proposed alignments. Access to the frontage roads would be provided at 500 South and the State Street pedestrian overpass.

There have been no other changes to this section since publication of the Final EIS.

Private Recreation Facilities

The Final EIS described several private recreation facilities in the study area, including equestrian centers in West Bountiful, three private duck hunting clubs, a private gun club at 200 South on the west side of Redwood Road, facilities for private bicycle touring (see Section 4.7, *Pedestrians and Bicycles*, of this document), and a planned golf course near Woods Cross. There has been no change in the status of these facilities since publication of the Final EIS.

4.3.2.9 Public Health and Safety

As described in the Final EIS, air quality, fog, lake-effect snow, and congestion-related aggression are public health and safety considerations in the study area. In particular, Salt Lake and Davis Counties are maintenance areas for ozone, and Salt Lake County is a moderate non-attainment area for particulate matter (PM10) (see Section 4.8, *Air Quality*), which is a public health concern. Great Salt Lake can cause localized fog and lake-affect snow that can create adverse travel conditions and a reduced level of safety to the traveling public. Given the proximity of the build alternatives to Great Salt Lake, and the fact that the proposed action is a highway, these factors are relevant to the discussion of public health and safety in the study area. Finally, increased congestion on roadways can lead to congestion-related aggression (e.g., road-rage). The continued increase in traffic volume in the study area could lead to aggressive driving incidents.

There has been no change to any of these discussions since publication of the Final EIS.

4.3.2.10 Quality of Life

The Final EIS stated that residents throughout the region consider their quality of life fairly high because of the nearby location of the Great Salt Lake ecosystem and the Wasatch Mountains. The quality of life,

however, has been changing as growth and development in the valley increases. This growth and development threatens many of the area characteristics that residents enjoy.

To address growth issues that extend beyond individual local jurisdictions, efforts have been made since publication of the Final EIS to deal with growth-related transportation issues at a regional level. Envision Utah, a partnership between public and private entities aimed at addressing the effects of long-term growth in the greater Wasatch Front Area, has sponsored several regional studies that, among other things, address transportation and land use at a regional level. These studies, which include the *Envision Utah Quality Growth Strategy and Technical Review* (Envision Utah 2000) and the *Envision Utah Transit Oriented Development Guidelines* (Envision Utah 2002) endorse integration of land use and transportation through transit and transit-oriented land uses, improving the "walkability of communities," reducing traffic congestions, and otherwise promoting regional transportation options that maximize quality of life.

Similarly, the *Inter-Regional Corridor Alternatives Analysis* (IRCAA) (Wasatch Front Regional Council et al. 2002) was initiated as a collaborative effort in October 1999 by WFRC, the Mountainland Association of Governments (MAG), UTA and UDOT to address inter-regional mobility (e.g., mobility within the Wasatch Front region). As summarized in Section 4.1, *Land Use*, this study attempted to determine a desirable mix of transportation modes and transit-oriented land uses that would reduce traffic congestion and promote quality of life. This study recommended integration of a strong transit and commuter/passenger rail component into future transportation infrastructure improvements.

4.3.3 Environmental Consequences and Mitigation Measures

The following subsections provide a summary of the environmental consequences and mitigation measures for social effects in the study area. As described in the Final EIS, the proposed build alternatives would affect, to differing degrees, social composition, community cohesion, public facilities, services and utilities, recreation resources, public health and safety, and quality of life in the study area. Although the proposed build alternatives would impact minority and low-income populations, these impacts would not be disproportionately high or adverse compared to the same impacts on the population as a whole.

4.3.3.1 Socially Disadvantaged Groups

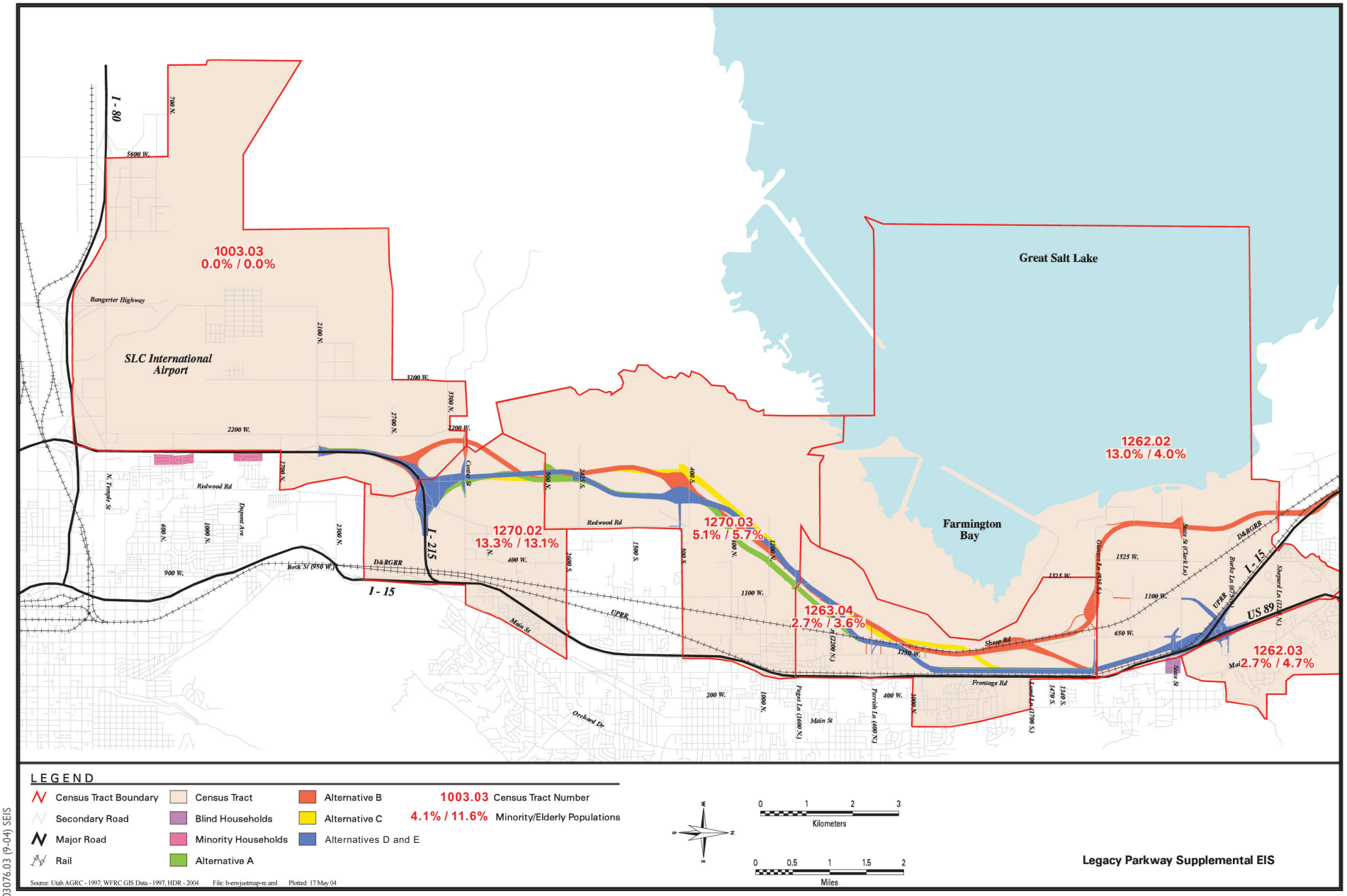
As described in the Final EIS, socially disadvantaged groups include blind, low-income, minority, and elderly persons. As described in Section 4.3.2.2 above, the number of indigent households in the study area has decreased from seven to two since publication of the Final EIS; both indigent households are located in Davis County. Figure 4.3-6, which updates Figure 4-6 of the Final EIS, illustrates the location of affected socially disadvantaged groups in the study area.

Section 4.3.3.2 below provides a discussion of environmental justice, which is related to this discussion of socially disadvantaged groups.

No-Build Alternative

Existing Conditions (2004)

No project-related impacts on socially disadvantaged groups would occur under the existing conditions (2004) No-Build Alternative.



03076.03 (9-04) SEIS

Figure 4.3-6
Minority, Elderly, and Blind Populations

Future Conditions (2020)

If none of the build alternatives is implemented, future transportation improvement projects may be undertaken by local jurisdictions in the study area to address capacity needs not being met by the proposed action. It is possible that these future projects would impact socially disadvantaged groups, although the nature and timing of these projects are not known at this time.

Build Alternatives

There have been no changes to the impact discussion in the Final EIS relative to socially disadvantaged groups. As described in the Final EIS, all the build alternatives would indirectly affect the two households with blind residents in Davis County. After publication of the Final EIS, Commercial Coatings, a company employing 75 percent minority persons, was relocated to a new facility within 2 miles of the previous facility. The new facility is more accessible for employees and there are no adverse impacts associated with this relocation.

All the proposed build alternatives would facilitate movement and transportation of persons in all social groups, including socially disadvantaged groups. However, funding for North Corridor projects would come in part from gas taxes, which could affect low-income populations.

Mitigation Measures

As described in the Final EIS, business displacement assistance would be provided to Commercial Coatings pursuant to the eligibility and other requirements of the URAA (see Section 4.4, *Relocations.*)

4.3.3.2 Environmental Justice Population

As described in 4.3.2.2 above, information from the 2000 Census and the Utah Governor's Office of Planning and Budget was used to identify environmental justice populations (i.e., minority and low-income populations) in the study area. Project impacts, including relocations, noise, and construction-related impacts, were then examined in relation to these populations to determine whether the environmental, social, or economic effects associated with the proposed build alternatives would be disproportionately high or adverse on these populations. The impact conclusions presented in the Final EIS have not changed. The following supplemental information is presented to support the analysis disclosed in Section 4.3.7 of the Final EIS, and to present an updated analysis based on information collected from the 2000 Census.

No-Build Alternative

Existing Conditions (2004)

No project-related impacts on environmental justice populations would occur under the existing conditions (2004) No-Build Alternative.

Future Conditions (2020)

If none of the build alternatives is implemented, future transportation improvement projects may be undertaken by local jurisdictions in the study area to address capacity needs not being met by the proposed action. It is possible that these future projects would impact environmental justice populations, although the nature and timing of these projects are not known at this time.

Build Alternatives

Potential impacts on minority and low-income households resulting from implementation of the build alternatives were evaluated using two steps. The first step used census tract, block group, and block data to determine where concentrations of minority or low-income populations were located in the study area. The second step examined whether minority or low-income populations would be disproportionately affected by the environmental, social, or economic impacts of the proposed build alternatives. Impacts considered included relocations, noise, and construction-related impacts.

As mentioned above in Section 4.3.2.3, census tract 1262.02, block group 1 has a higher proportion of minorities than the Davis County average (13.0 percent versus 10.2 percent), which indicates the possible existence of an environmental justice population in this area. Alternatives A, C, D, and E stop at the proposed northern terminus, which is south and well east of the I-15/US-89 divergence, where the majority of the development in this census tract is located. Although Alternative B would extend north and east of the I-15/US-89 divergence, the alignment would not affect any development in that area.

In addition, Alternative B is the only build alternative that would likely affect the high-end residential development near Shepard Lane. However, given the type of development near Shepard Lane, it is unlikely that Alternative B would have a disproportionate adverse effect on low-income populations. It is not known whether there are minority populations living in the development near Shepard Lane.

As described in Section 4.3.2.3 above, census tract 1270.2, block group 2 contains a minority population of 16.8 percent, which is higher then the Davis County average (10.2 percent) and the state average (14.7 percent). This indicates that an environmental justice population may also exist in this area. However, because all the proposed build alternative alignments are located west of Redwood Road in primarily undeveloped areas, it is unlikely that the environmental justice populations in this block group would be affected by the build alternatives.

As of September 2003, UDOT has acquired four residential properties, all of which are necessary for construction of all the build alternatives (see Subsection 4.4.3.1, *Residential Properties*). Of these four properties, one is considered an environmental justice household due to a combination of low-income and elderly residents. Although this household would be affected, this impact is not considered disproportionate to impacts on other residential populations.

In summary, taking into consideration the 2000 Census data and residential relocations to date, it does not appear that any proposed build alternative would have a disproportionate adverse impact on minority or low-income populations.

4.3.3.3 Neighborhood and Community Cohesion

Community Concerns

The Final EIS provides an in-depth discussion of local community concerns and preferences relative to construction of the proposed Legacy Parkway (see Section 4.52 of the Final EIS). These concerns and preferences have not changed since publication of the Final EIS. Issues identified by community leaders as important in their respective jurisdictions include relocations, visual impacts, noise impacts, air quality impacts, public safety, and community cohesion. Communities in the study area favor constructing a roadway as far west as reasonably possible to maximize the contiguous area available for development and to minimize community division. At the same time, the communities want to prevent growth in environmentally sensitive and difficult-to-serve areas west of the proposed corridor.

The following sections provide more specific discussion of community concerns relative to the No-Build and build alternatives. These concerns were reiterated during the public scoping period for the Supplemental EIS, as well as during CPIC meetings, which were held during the summer and fall of 2003 to solicit input from local jurisdictions and interested parties on, among other things, potential community impacts that could result from implementation of the proposed build alternatives. In addition to the concerns listed below, communities have expressed concern over the economic costs associated with further delays in construction of the proposed action.

Community Concerns about No-Build Alternative

As described in the Final EIS, local jurisdictions and the public are primarily concerned about traffic congestion, safety, and emergency service delays under the No-Build Alternative. These impacts are discussed in detail in this section, as well as in Section 4.5.2 of the Final EIS.

Community Concerns about Build Alternatives

Local jurisdictions and the public continue to have a number of general concerns regarding the proposed build alternatives, as described below. Concerns specific to each local jurisdiction have not changed since publication of the Final EIS, and are presented in Section 4.5.2 of the Final EIS. All the local jurisdictions have stated that they would prefer that Legacy Parkway be located along the western edge of their developable lands to minimize the concerns described below.

- **Displacement and relocation of current businesses and residents**. Section 4.4, *Relocations*, of this document provides details on the number and location of potential residential, business, and farmsteads that would be displaced under each of the build alternatives. As described in that section, because UDOT has already purchased much of the right-of-way associated with Alternative D (Final EIS Preferred Alternative) and Alternative E, many of these impacts have already occurred.

- **Loss of Developable Upland**. Section 4.5.2 and Tables 4-10a through 4-10f in the Final EIS quantify the acreage of developable upland that would be lost with implementation of any proposed build alternative. Since publication of the Final EIS, the proposed right-of-way width for the build alternatives has been narrowed from 100 m (328-ft) to 95 m (312-ft) (see Chapter 3, *Alternatives*). This 5-m (16-ft) reduction in the right-of-way could decrease the acreage of developable upland lost under the proposed build alternatives; however, because this reduction is minimal and it may not be possible for UDOT to sell back this limited area to affected property owners, it is assumed for the purposes of the Supplemental EIS that the impacts on developable land are the same as those presented in the Final EIS.

- **Loss of tax base**. The loss of tax base is defined in the Final EIS as the loss of current tax revenues from the undeveloped lands purchased for the proposed build alternative plus the foregone tax revenues that might be realized if that land were developed under the No-Build Alternative. The loss of tax base under the build alternatives remains a concern for communities in the study area.

- **Fragmentation of Remaining Developable Land**. As described in the Final EIS, local communities are concerned that the proposed build alternatives would affect additional developable lands in the study area by either dividing them (i.e., leaving lands on both sides of the proposed highway) or by acquiring a portion of a given parcel (i.e., reducing the parcel size).

- **Emergency Services**. As described in the Final EIS, local communities are also concerned that the proposed highway would adversely affect emergency service access to the west side of the proposed highway. See Section 4.3.3.6 for a discussion of impacts associated with emergency services.

- **Neighborhood and Community Cohesion**. Local communities are also concerned that the proposed build alternatives would physically divide their communities, affecting future neighborhood and community cohesion. These concerns are exacerbated by current highway (I-15) and railroad (UPRR and D&RG) infrastructure in their communities.

Property Purchased by UDOT

Section 4.5.2 in the Final EIS and Figure 4.1-1 list and graphically depict the location of parcels in the study area that had been acquired by UDOT to facilitate construction of Alternative D (Final EIS Preferred Alternative). Since publication of the Final EIS, UDOT has continued to acquire land in the proposed Alternative D right-of-way and the Legacy Nature Preserve. Section 4.4, *Relocations*, lists additional properties that have been acquired since publication of the Final EIS. In total, UDOT has purchased 192 (272 ha [671 ac]) of the 217 (357 ha [881 acres]) property parcels that lay in the proposed Alternative D right-of-way (West pers. comm. [a]). In addition, as of June 2004, of the 849 ha (2,098 ac) in the Legacy Nature Preserve, only 67.6 ha (167 ac) (in 5 parcels) remain to be purchased.

4.3.3.4 Travel Patterns and Accessibility

As described in Section 4.3.2 of the Final EIS, both the No-Build Alternative and build alternatives would result in impacts on the travel patterns and accessibility of arterials and local roadways in the study area. The Final EIS evaluated more generically traffic flow and post construction access issues for a wide range of arterials and local roadways in and around the study area. The impact assessment presented in this Supplemental EIS supplements that analysis by providing more detailed and up-to-date analysis of the four locations on major corridor highways (I-15, US-89, and I-215) and 12 locations on three local roadways (Parrish Lane, 500 South, Redwood Road) described in Section 4.3.2.5, above. This section addresses the projected post construction level of service in 2020 under the No-Build Alternative and build alternatives. Construction-related access issues are described in Section 4.20, *Construction Impacts*. The following describes the impacts that the No-Build Alternative and build alternatives would have on the interstates/major highways and local roadways described above. The impact analysis differentiates the between the build alternatives and No-Build Alternative (future conditions). As described in Section 4.0.3, *Alternatives Evaluated*, the future conditions (2020) No-Build Alternative represents the WFRC long range plan in the year 2020, without Legacy Parkway and without improvement of I-15 improvements to 10 lanes. In 2020, the long range plan includes commuter rail, expanding Redwood Road from two to four lanes (from south of I-215 to 500 South), and no expansion of I-15.

No Build Alternative

Existing Conditions

As presented in section 4.3.2.5, level of service is represented in a letter grading system used to describe different levels of traffic congestion, ranging from LOS A for excellent conditions (free-flowing traffic) to LOS F for failure conditions (extremely congested stop-and-go traffic). In urban areas, UDOT strives to maintain LOS D or better operating conditions on interstate freeways. Existing p.m. peak-period level of service for the primary facilities in the corridor are described above in Tables 4.3-6 and 4.3-7. All the listed freeways, expressways, and arterials operate at acceptable peak-period ratings of LOS D or better.

Future Conditions (2020)

As shown in Tables 4.3-8 and 4.3-9 (below), under the future conditions (2020) No-Build Alternative, levels of service would deteriorate to LOS E or worse at many locations, including those listed below.

- US-89 north of I-15 interchange in Farmington (LOS F).
- I-15 north of US-89 interchange in Farmington (LOS E).
- I-215 east of Legacy Parkway (LOS F).
- I-215 south of Legacy Parkway (LOS F).
- Parrish Lane from I-15 to 400 West (LOS E).
- 500 South from Redwood Road to 1100 West (LOS D).
- Redwood Road from 2600 South to Center Street (LOS E).
- Redwood Road from Center Street to I-215 (LOS F).

Table 4.3-8 Projected 2020 Levels of Service on Interstate and Major State Highway Segments in Study Area

	No-Build Alternative					Build Alternatives				
Roadway Segment	Lanes per Direction	Total Daily Traffic	Peak-Hour Peak-Direction (Northbound) Volume	Peak-Period Peak-Direction (Northbound) Volume	Peak-Period LOS	Lanes per Direction	Total Daily Traffic	Peak-Hour Peak-Direction (Northbound) Volume	Peak-Period Peak-Direction (Northbound) Volume	Peak-Period LOS
US-89 north of I-15 interchange in Farmington	2	98,140	5,570	15,480	F	2	97,850	5,210	14,470	F
I-15 north of US-89 interchange in Farmington	3	122,780	7,500	20,830	E	5	127,920	8,290	23,040	C
I-215 east of Legacy Parkway	2	102,990	5,370	14,910	F	2	42,650	2,630	7,300	C
I-215 south of Legacy Parkway	2	102,987	5,370	14,910	F	3	114,440	6,290	17,460	D

Notes:

The No-Build Alternative represents WFRC long range plan in the year 2020, without Legacy Parkway or I-15 improvements to ten lanes. The build alternatives represent complete Shared Solution, including I-15 improvements, Legacy Parkway, and maximum future transit.

Values represent direct model values using the 2004 WFRC travel demand model (version 3.2). Total daily traffic volumes are two-directional daily volumes.

Level of service provided based on planning-level volume-to-capacity comparisons in the p.m. peak-period direction.

Source: InterPlan Co., 2004.

Table 4.3-9 Projected 2020 Levels of Service on Local Roadways with Peak-Period Volumes

				2020 – No-Build Alternative				2020 – Build Alternatives			
Roadway	Lanes per Direction	From	To	Total Daily Traffic	Peak Period EB	Peak Period WB	LOS	Total Daily Traffic	Peak Period EB	Peak Period WB	LOS
Parrish Lane	2	Legacy	1250 West	NA	NA	NA	NA	8,760	270	470	A
	2	1250 West	I-15	11,150	2,190	1,150	B	11,860	1,610	1,630	B
	2	I-15	400 West	26,430	2,400	4,180	E	27,980	3,730	3,760	D
500 South	2	Legacy	Redwood Rd.	NA	NA	NA	NA	13,440	1,500	2,080	B
	2	Redwood Rd.	1100 West	14,970	3,330	1,420	D	6,640	920	850	A
	2	1100 West	800 West	13,990	2,530	1,310	C	6,800	980	900	A
	2	800 West	I-15	20,420	3,250	2,260	C	14,450	2,150	1,950	B
	2/3	I-15	200 West	17,090	2,850	3,490	D	17,540	3,100	3,680	C
				Total Daily Traffic	Peak Period SB	Peak Period NB	LOS	Total Daily Traffic	Peak Period SB	Peak Period NB	LOS
Redwood Road	2	500 South	1500 South	16,030	1,550	3,540	D	10,370	1,140	1,820	B
	2	1500 South	2600 South	18,110	2,010	3,730	D	11,870	1,570	1,780	B
	2	2600 South	Center St.	22,110	2,680	4,230	E	15,460	2,110	2,120	B
	2	Center St.	I-215	24,540	3,150	5,110	F	15,690	2,280	2,200	C

Notes:

The build alternatives represent the complete Shared Solution, including I-15 improvements to ten lanes, Legacy Parkway, and maximum future transit. The No-Build Alternative represents WFRC long range plan in the year 2020, without Legacy Parkway improvements and I-15 ten lane improvements.

Values represent direct model values using the 2004 WFRC travel demand model (version 3.2). Total daily traffic volumes are two-directional daily volumes.

Level of service provided based on planning-level volume-to-capacity comparisons in the p.m. peak period, peak direction.

500 South from I-15 to 200 West will have two lanes in each direction under 2020 No-Build and three lanes in each direction under 2020 build alternatives.

Source: InterPlan Co. 2004.

The level of service under the No-Build Alternative on I-15, I-215, and local arterials would be worse on most segments than under the proposed build alternatives. Tables 4.3-8 and 4.3-9 provide a complete comparison of future (2020) conditions under the No-Build and build alternatives.

Traffic projections for the 2020 conditions listed above and for the comparison of No-Build and build alternatives in Tables 4.3-8 and 4.3-9 are based on the same WFRC 2020 land use projections used in the current long range plan. While these projections represent the officially adopted land use projects and provide a consistent basis for comparing the future No-Build and build alternatives, it is also possible that some land use shifts could occur under the No-Build Alternative, although any such shifts would be minor in the corridor-wide and regional context. As discussed in Section 4.1.3.3, approximately 324 ha (800 ac) of developable land would become available for development in North Salt Lake, Centerville, Farmington, Woods Cross, Bountiful, and West Bountiful if the proposed Legacy Parkway were not built. The land is located in the Legacy Parkway right-of-way and proposed Legacy Nature Preserve, generally west of existing and developing areas. Under the future conditions No Build Alternative, UDOT would be legally obligated to relinquish the property to the developers from which it was acquired.[2]

Given this potential variation in land availability, the level of service projections for the 2020 No-Build Alternative presented above and in Tables 4.3-8 and 4.3-9 represent the low end of the range of potential 2020 traffic levels on I-15 and provide a potentially favorable assessment of the potential traffic conditions on surface streets in western areas of North Corridor communities. The land use shifts resulting from the additional 324 ha (800 ac) of developable land in the corridor would range between the following conditions on I-15 at the Woods Cross screenline.

- An increase of 1,100 p.m. peak-period, peak-direction passenger-car equivalents (or 4 percent) above the traffic projection for the official WFRC land use projection. This would occur if the 324 ha (800 ac) of new land use are drawn from development potential further north, in North Davis and Weber Counties.

- An increase of 1,500 p.m. peak-period, peak-direction passenger-car equivalents (or 5 percent) above traffic projections for the WFRC land use projection, if the new North Corridor land use is drawn from other parts of the region.

In both cases, the land use shift would worsen the 2020 level of service on I-15 at the Woods Cross screenline to a worse LOS F than reported in Table 4.3-8 and Chapters 1 and 3 for future No Build conditions. Also, in both cases, relinquishment of the land within the Legacy Parkway right-of-way and Legacy Nature Preserve would increase traffic generation and local street construction in the western portions of North Salt Lake, Woods Cross, Centerville, Bountiful, West Bountiful and Farmington.

Build Alternatives

Impacts on Interstates/Major Arterials

Table 4.3-8 shows the total daily traffic projections, the peak-hour and peak-period volumes, and the level of service on interstate and major state highway segments in the study area. As shown in Table 4.3-8, the build alternatives would result in improved traffic operating conditions for all the interstate and major highway segments analyzed, as well as reduced traffic volumes on all the analyzed interstate and major

[2] The Corps could require UDOT to maintain some of the mitigation land in the Legacy Nature Preserve because of the impacts on wetlands that have already occurred. However, most of the mitigation land and all the right-of-way land would be excessed according to Utah law.

highway segments except two (I-15 north of US-89 interchange in Farmington and I-215 south of Legacy Parkway). Although the volume of traffic would increase along these two segments, roadway improvements that would be implemented as part of the build alternatives would result in an improved level of service over the No-Build Alternative. In 2020, the level of service of the I-15 north of US-89 interchange segment would be at LOS E under the No-Build Alternative but would improve to LOS C under the build alternatives. The I-215 south of Legacy Parkway segment would be at LOS F under the No-Build Alternative but would improve to LOS D under the build alternatives.

I-15

About 65 percent of the existing and future traffic on I-15 in the North Corridor is estimated to be through-corridor traffic (Wasatch Front Regional Council 2003a). As I-15 becomes more congested, drivers will begin to divert to alternative routes, including local streets, or drivers will forego peak-period travel if they have the option. Comparison of the build alternatives and the No-Build Alternative in Table 4.3-8 indicates that drivers are likely to choose both options in the No-Build case. North of the corridor, travel on I-15 and US-89 combined will be about 2 percent lower on a daily basis under the No-Build Alternative. During peak periods, travel will be about 3 percent lower under the No-Build Alternative, reflecting higher influence of congestion during the traffic peaks than on average throughout the day. Under the No-Build Alternative, traffic on I-15 will be about 4 percent lower, reflecting a combination of trips foregone and trips diverted to US-89 and local routes. During the peak periods, this trip suppression and diversion would be more pronounced, with I-15 carrying 10 to 11 percent less traffic than under the build alternatives. The build alternatives would reduce trip suppression and diversion while providing improved traffic levels of service. The I-15 improvements that would be implemented as part of the Shared Solution would allow the build alternatives to operate at better levels of service than the No-Build Alternative on I-15 and slightly better operating conditions within the same LOS range on US-89.

US-89

The volume of traffic on US-89 north of the I-15 interchange in Farmington (northbound) would be similar under both the build alternatives and the No-Build Alternative, and the level of service in 2020 would be LOS F under both scenarios.

Because of improvements on I-15 that are part of the Shared Solution, US-89 is projected to experience a slight decrease in traffic volume under the build alternatives.

I-215

The amount of traffic on I-215 south of Legacy Parkway would be greater under any build alternative than under the No-Build Alternative. An additional travel lane is proposed as part of the build alternatives in the short section of I-15 between Legacy Parkway and 2200 North. Consequently, this segment would operate at LOS D under the build alternatives, which would be an improvement over the anticipated LOS F under the No-Build Alternative.

The section of I-215 east of Legacy Parkway would operate at LOS C and would carry substantially less traffic under the build alternatives. Legacy Parkway would improve the operation on this segment of I-215 relative to the No-Build Alternative, which would result in LOS F conditions.

Interstates/Major Arterials Outside Study Area

Additional increases in traffic volume of up to 4 percent can be expected on certain facilities both north and south of the Legacy Parkway termini as a result of the Shared Solution. The issue of suppressed demand is discussed further in Section B3.4.4 in Appendix B. Highway segments north of the North Corridor are expected to experience demand in excess of capacity in 2020, according to WFRC regional

transportation plans. Traffic volumes on I-15 north of both US-89 and 200 North are projected to increase if the proposed action is implemented. If no improvements are made to I-15 north of the North Corridor, I-15 is projected to reach LOS F by 2020 under both the No Build and build alternatives. UDOT and WFRC are currently conducting a study to identify solutions, but no improvements are presently included in the WFRC long range plan. US-89 north of the I-15 interchange is also projected to fail by 2020. The Legacy Parkway alternative included in the Shared Solution would reduce traffic volume on US-89, but LOS F is still projected. I-215 south of the Legacy Parkway interchange is also projected to experience increased traffic volumes due to the Shared Solution improvements in the North Corridor. Conditions on I-215 northeast of the Legacy interchange would improve with implementation of the Shared Solution, and the segment immediately southwest of the Legacy/I-215 would operate at LOS D. However, the volume increase further south on I-215, between 2100 North and I-80 may reach LOS E. I-215 from I-80 to I-15 is a recognized problem of the WFRC long range plan and an "Illustrative Project" is identified to solve the problem in the long range plan in case funding increases above the projected (financially constrained) amount. Detailed design analysis of the Legacy Parkway terminus interchanges would also address any operational traffic issues at connections to and from I-215 at the southern end of the corridor and to and from I-15 at the northern end.

Impacts on Local Roadways

Table 4.3-9 above shows the level of service on local roadways proposed to have interchanges with Legacy Parkway in the study area. The level-of-service determinations are based on peak-period volumes. On average, the level of service based on the 3-hour peak-period volumes would be expected to be one half to one full grade better than the peak-hour level of service.

As shown in Table 4.3-9, any build alternative would result in improved traffic operating conditions on all the analyzed local roadway segments. The build alternatives would result in reduced peak-period, peak-direction traffic volumes on all the local segments except two (Parrish Lane between 1250 West and I-15, and 500 South between I-15 and 200 West). Although the volume of traffic would increase along Parrish Lane and 500 South, future planned roadway improvements would result in an improved level of service over the No-Build Alternative.

Parrish Lane

Under the build alternatives, the volume of traffic would be slightly higher than under the No-Build Alternative. Traffic volumes on Parrish Lane immediately west of I-15 are projected to increase regardless of implementation of Legacy Parkway. Parrish Lane is included in the WFRC long range plan to be widened to four lanes from I-15 to the proposed Parrish Lane/Legacy Parkway interchange. Under the build alternatives, additional improvements to Parrish Lane associated with the interchange improvements would add additional capacity. With the planned improvements, even segments of Parrish Lane that are predicted to carry more traffic under the build alternatives would operate at equal or better level of service than under No-Build conditions because the volume of traffic flowing east and west would be better balanced thereby reducing west-bound congestion.

500 South and Redwood Road

Under the No-Build Alternative, the 500 South/Redwood Road roadway serves as a "relief valve" for congestion on I-15. Due to traffic diversion as well as development activity in the area, traffic levels under the No-Build Alternative are projected to increase, and the level of service would reach LOS F on the southern segments of Redwood Road. Redwood Road would not meet UDOT's policy for acceptable level of service.

Under the build alternatives, a substantial amount of this traffic would move to the more efficient Legacy Parkway, and the level of service would improve to LOS C or higher.

4.3.3.5 Public Facilities

As described in Section 4.3.2 of the Final EIS and Section 4.3.2.6 above, four churches, two existing schools, two planned schools, the Farmington Public Works facility, the Centerville Public Works facility, a UDOT maintenance facility, and the Bountiful Sanitary Landfill are located in the study area. The following provides a summary of potential impacts on these resources.

No-Build Alternative

Existing Conditions (2004)

As stated in the Final EIS, there would be no project-related impacts on public facilities in the study area under the existing conditions (2004) No-Build Alternative.

Future Conditions (2020)

If none of the build alternatives is implemented, future transportation improvement projects may be undertaken by local jurisdictions in the study area to address capacity needs not being met by the proposed action. It is possible that these future projects would impact public facilities, although the nature and timing of these projects are not known at this time.

Build Alternatives

Table 4.3-10, which is based on Table 4-5 in the Final EIS, summarizes the public facilities that would be affected under each build alternative. Impacts on existing facilities have not changed, and a more detailed description of these potential impacts is presented in Section 4.3 of the Final EIS. For the new and planned schools described above in 4.3.2.6, impacts are as follows.

- Construction of Alternative B would physically displace the new Farmington Bay Elementary School in the Farmington Ranch subdivision.

- Alternatives A, C, D, and E would be adjacent to the proposed new high school at Glovers Lane. Given the proximity of the proposed high school to I-15 and these proposed alignments, it is possible that noise levels at the high school could exceed FHWA noise thresholds if any of these alignments were constructed. Alternative B would be west of the proposed high school and would not affect it.

- The proposed elementary school in North Salt Lake would be located considerably east of the build alternatives and would not be affected.

Mitigation Measures

As described in the Final EIS, impacts on public facilities would be mitigated by providing compensation for real property taken or damaged, or by functionally replacing the publicly owned real property with another facility that would provide an equivalent use to that lost.

Table 4.3-10 Impacts on Public Facilities

Facility	Build Alternative*				
	A	B	C	D	E
Bountiful City Landfill (BARD)		X	X	X	X
Centerville Public Works (at 1250 West Street)	X			X	X
Farmington Public Works (at 50 North 650 West)	X	X	X	X	X
UDOT Maintenance (at 1100 North and 1250 West, Centerville)	X	X		X	X
Church and associated Athletic Field near 350 West and Shepard Lane)		X			
Farmington Bay Elementary School (at 1933 W. Clark Lane)		X			
Proposed High School (near Glovers Lane and 650 West)	X		X	X	X
Proposed Elementary School (west of Redwood Road, North Salt Lake))					

Notes:

Shaded areas represent new public facilities in the study area identified since publication of the Final EIS.

* An "X" in the table indicates that there would be an impact on the facility. See Section 4.3 of the Final EIS for details on the nature of the impacts.

4.3.3.6 Public Services and Utilities

As described in Section 4.3.4 of the Final EIS, the two primary public services that could be affected by the proposed build alternatives are emergency services (i.e., fire protection, paramedic services, and law enforcement) and hazardous material incident response. Implementation of any proposed build alternative could also affect utility lines in the study area, but the impacts would be minor. The environmental consequences and mitigation measures associated with public services and utilities are summarized below.

Public Services

Fire Protection and Ambulance Service

No-Build Alternative

Existing Conditions (2004)

Is described in the Final EIS, traffic congestion on I-15 will continue to increase under the existing conditions (2004) No-Build Alternative. This congestion would make it more difficult for emergency response vehicles to respond to emergencies on and around I-15.

Future Conditions (2020)

If none of the build alternatives is implemented, I-15 congestion will continue as described under the existing conditions (2004) No-Build Alternative. Future transportation improvement projects may be undertaken by local jurisdictions in the study area to address capacity needs not being met by the proposed action, although the nature and timing of these projects are not known at this time. Impacts on

fire protection and ambulance services would be similar to those described for the existing conditions (2004) No-Build Alternative and build alternatives.

Build Alternatives

As described in the Final EIS, local emergency response officials indicate that construction of any proposed build alternative would improve emergency response times by relieving I-15-related traffic. In most cases, Alternative A would result in the most substantial improvements to response times; however in certain areas to the west of the proposed build alternatives, response time under Alternative A could increase because of limited crossings over the proposed highway. Alternative B would exacerbate response times in Farmington because the volunteer emergency response team would have to cover greater distances.

Response to Hazardous Material Incidents

No-Build Alternative
Existing Conditions (2004)

As described in the Final EIS, under the existing conditions (2004) No-Build Alternative, accidents involving hazardous materials could occur on the existing roadways in the study area. Such incidents could result in the closure of I-15, the only north-south route in the study area.

Future Conditions (2020)

If none of the build alternatives is implemented, the potential for hazardous materials incidents will continue as described under the existing conditions (2004) No-Build Alternative. Future transportation improvement projects may be undertaken by local jurisdictions in the study area to address capacity needs not being met by the proposed action, although the nature and timing of such projects are not known at this time. Response to hazardous materials incidents would be similar to those described for the existing conditions (2004) No-Build Alternative and build alternatives.

Build Alternatives

As with the No-Build Alternative, accidents involving hazardous material could occur on any roadway in the study area, including the proposed Legacy Parkway. However, it is unlikely that there would be an accident so severe that it would close both I-15 and the proposed highway. As stated in the Final EIS, construction of any proposed build alternative would ensure that at least one north-south route remains accessible during a potential spill.

Police Protection and Highway Patrol

The environmental consequences associated with the No-Build and build alternatives on police protection and highway patrol have not changed since publication of the Final EIS, and are similar to those described above under *Fire Protection and Ambulance Services*.

Water and Sanitation Service

Water and sanitation services located east of the proposed build alternative alignments would not be adversely affected by the build alternatives because existing water mains and sewer interceptors could be easily relocated to accommodate future growth or construction of the proposed highway. Providing water and sanitation services west of the proposed alignments would be more difficult because of the additional cost and logistics associated with crossing the new highway.

Mitigation Measures

No mitigation measures are proposed for impacts on public services.

Utilities

No-Build Alternative

Existing Conditions (2004)

No project-related impacts on utility infrastructure or service would occur under the existing conditions (2004) No-Build Alternative.

Future Conditions (2020)

If none of the build alternatives is implemented, future transportation improvement projects may be undertaken by local jurisdictions in the study area to address capacity needs not being met by the proposed action. It is possible that these future projects would impact utility service and infrastructure, although the nature and timing of these projects are not known at this time.

Build Alternatives

As described in the Final EIS, local utility service could temporarily be lost during relocation of utility lines in the rights-of-way of the build alternatives. Any disruption would be minimal, however, and comparable to that associated with maintenance during normal operating periods.

Several major utility lines in the study area would have to be relocated, and several have been relocated since publication of the Final EIS, including the two water and wastewater utility lines and two natural gas lines that were relocated to the east side of the Alternative E alignment (see Section 4.3.2.6 above). Relocated lines, as well as several existing lines, would be located in a transmission corridor easement which, as described in Section 4.3.2.6 above, has been widened 75-feet since publication of the Final EIS.

Existing telecommunication fiber-optic lines in the rights-of-way of the proposed build alternatives (which were summarized on Page 3-23 in the Final EIS) would be protected in place rather than relocated. This would minimize telecommunication service interruptions resulting from construction of the proposed action.

Mitigation Measures

No mitigation measures are proposed for impacts on utilities.

4.3.3.7 Recreation Resources

No-Build Alternative

Existing Conditions (2004)

There would be no project-related impacts on recreation resources under the existing conditions (2004) No-Build Alternative.

Future Conditions (2020)

Recreation facilities in the study area are expected to experience increased use as the population and recreation demands in the study area expand. Recreation opportunities, however, are likely to decrease as development takes up more of the area's open space.

Build Alternatives

Table 4.3-11 summarizes the impacts on recreation resources in the study area that are described in detail in Section 4.3.5 of the Final EIS. It should be noted that Table 4.3-11 only lists the recreation resources that would be affected by the build alternatives; all other resources listed in Section 4.3.2.8 above, including the two newly identified planned parks, would not be affected by the build alternatives and are not listed in Table 4.3-11.

Table 4.3-11 Impacts on Recreation Resources in Study Area

	Alternatives[2]					
Recreation Resource[1]	No-Build (Existing Conditions 2004)	A	B	C	D	E
Wildlife Recreation Areas						
Farmington Bay Wildlife Management Area		X	X	X	X	X
Public Recreation Facilities						
Model Airport and Jordan River OHV Center		X	X	X	X	X
Access to Lagoon Park at Lagoon Drive		X	X	X	X	X
Bountiful City Pond		X	X	X	X	X
Private Recreation Facilities						
Planned Golf Course (2200 South, Woods Cross)		X	X	X	X	X
Equestrian Center (1450 West, 400 North, West Bountiful)		X				
Gun Club (200 South, Redwood Road)		X			X	X

Notes:

1 Recreation resources in the table only reflect those that would be affected by one of the proposed build alternatives. A complete description of the type and extent of these impacts is provided in Section 4.3.5 of the Final EIS.

2 An "X" in the table indicates that there would be an impact on the resources. See Section 4.3.5 of the Final EIS for details on the nature of the impacts.

Impacts on recreation resources have not changed since publication of the Final EIS, with two exceptions: the elimination of a proposed access location to the FBWMA and Bountiful City Pond and updated noise analyses for evaluation of impacts at the FBWMA and Bountiful City Pond. The following text summarizes these updates. Section 4.3.5 of the Final EIS should be consulted for a complete description of impacts on recreation resources. Refer to Section 4.7, *Pedestrians and Bicycle Considerations*, for a discussion of the potential recreational opportunities from the proposed trail associated with the build alternatives.

Access to Farmington Bay Wildlife Management Area and Bountiful City Pond

As described in Section 4.3.2.8, the non-motorized vehicle overpass at Pages Lane is no longer proposed, which eliminates a direct access point to both the FBWMA and the Bountiful City Pond. As a result, motorized vehicles would access the FBWMA by taking the 500 South exit off Legacy Parkway and the corresponding frontage road. Similarly, motorized vehicles would access Bountiful City Pond by taking the 500 South exit and the frontage road along the west side of the proposed Legacy Parkway. Non-motorized access would be provided to both FBWMA and the Bountiful City Pond by the frontage roads that run along the west side of the proposed alignments. Access to the frontage roads would be provided at 500 South. As stated in the Final EIS, travel time would increase for motorists visiting these areas.

Noise at Farmington Bay Wildlife Management Area and Bountiful City Pond

Noise impacts at the FBWMA and Bountiful City Pond are discussed in Section 4.9, *Noise*, of this document and Chapter 5, *Draft Section 4(f) and 6(f) Evaluations*.

Mitigation Measures

As described in the Final EIS, providing a frontage road along the western side of Legacy Parkway from Sheep Road to the eastern entrance of the FBWMA would mitigate the impact under Alternatives B and C on FBWMA's eastern entrance and parking lot. The parking lot and other land would be replaced with land of at least equal value and usefulness.

4.3.3.8 Public Health and Safety

As described in 4.3.2.9, air quality, fog, lake-effect snow, and congestion-related aggression are public health and safety considerations in the study area. The impacts on public health and safety have not changed since publication of the Final EIS. Air quality impacts are discussed in Section 4. 8, *Air Quality*, of the Supplemental EIS; other public health and safety impacts are summarized below.

Ice, Fog, and Lake-Effect Snow

No-Build Alternative

Existing Conditions (2004)

Under the existing conditions (2004) No-Build Alternative, the public would continue to be subject to safety concerns associated with ice, fog, and lake-effect snow on existing roadways.

Future Conditions (2020)

Under the future conditions No-Build Alternative, traffic volumes on I-15 and side streets would likely increase, thereby increasing the time travelers are threatened by the effects of ice, fog, and lake effect snow. Exacerbated traffic congestion during periods of ice, fog, and lake-effect snow would also make it difficult for emergency vehicles to operate efficiently in the area.

Build Alternatives

As described in the Final EIS, the effects of ice, fog, and lake-effect snow would be essentially the same under all the proposed build alternatives as under the No-Build Alternative, except that the proposed Legacy Parkway would provide an alternate route that would reduce congestion and minimize time spent

on roadways. This could decrease the time the public is subjected to these hazards; however, increased travel speeds could increase the potential severity of accidents.

Congestion-Related Aggression

No-Build Alternative

Existing Conditions (2004)

As described in the Final EIS, increased traffic congestion on I-15 will result in traffic delays and increased potential for aggressive driving (i.e., road rage) incidents.

Future Conditions (2020)

If none of the build alternatives is implemented, future transportation improvement projects may be undertaken by local jurisdictions in the study area to address capacity needs not being met by the proposed action. However, until such projects are implemented, the increased potential for aggressive driving incidents would be similar to that described under the existing conditions No-Build Alternative.

Build Alternatives

As described in the Final EIS, construction of any proposed build alternative would provide an alternate north-south route in the study area. This would reduce traffic congestion and the likelihood of aggressive driving incidents.

4.3.3.9 Quality of Life

As described in the Final EIS, individuals in the study area have different opinions about how both the No-Build and build alternatives would affect the quality of life in the study area. Factors that affect this qualitative assessment include the rate and scope of development in the region and how that development affects open space, wetlands and wildlife habitats, agricultural land, and recreation opportunities, as well as accessibility, traffic congestion, and the local tax base. Other variables considered may include changes in noise levels, air quality, and utilization of the public transportation system.

The Final EIS discusses how the above factors could be viewed under both the No-Build Alternative and build alternatives; it does not determine which factors are preferable or provide a higher quality of life. There have been no changes to this section since publication of the Final EIS.

Finally, as described in Section 4.3.2.10, *Quality of Life*, Envision Utah and the IRCAA study emphasize developing multi-faceted solutions to traffic congestion problems caused by growth. These solutions, intended to maintain a high quality of life in the region, include the increased use of transit and promotion of transit-oriented development; expansion of existing roadways; and construction of new roadways. This philosophy is also part of the Shared Solution for the North Corridor, which includes a strong transit component, reconstruction of I-15, and construction of the proposed Legacy Highway (see Chapter 3, *Alternatives*). As a result, the proposed action, as part of the Shared Solution, is consistent with the regional transportation strategies described above.

These studies, which include the *Envision Utah Quality Growth Strategy and Technical Review* (Envision Utah 2000) and the *Envision Utah Transit Oriented Development Guidelines* (Envision Utah 2002) endorse integration of land use and transportation through transit and transit-oriented land uses, improving the “walkability of communities,” reducing traffic congestions, and otherwise promoting regional transportation options that maximize quality of life.

Section 4.4
Relocations

This section discusses the potential for the proposed action to result in relocations of residences, business, farmsteads and horse paddocks. This section provides information on the affected environment related to relocations, including one new business structure that has been constructed in the proposed right-of-way of Alternative B since publication of the Final EIS. This section also provides updated information on relocation impacts, including properties that have been acquired to date.

4.4.1 Approach and Methodology

To update the affected environment and environmental consequences information associated with potential relocations in the study area, Sections 3.4 and 4.4 of the Final EIS were reviewed to determine the changes that had taken place since publication of the Final EIS. The study area for relocations is described in Section 4.0.1, *Study Area*, of this document.

Meetings were held with the appropriate city and county planning staff to discuss local land use changes in the study area and to determine whether those changes would affect relocation impacts disclosed in the Final EIS. Minutes of the meetings (HDR Engineering, Inc. 2003a–k) were reviewed in the preparation of this section. Table 4.1-1 in Section 4.1, *Land Use*, of this Supplemental EIS provides a summary of the dates and attendees at those meetings. In addition, Dave West, the UDOT Right-of-Way Manager for the Legacy Parkway project, was contacted to determine which properties within the Alternative D (Final EIS Preferred Alternative) right-of-way had been acquired since publication of the Final EIS (West pers. comm. a]).[1] Displacements were reassessed to determine whether the narrower typical cross section (i.e., 95 m [312 ft] versus 100 m [328 ft]) proposed for each of the build alternatives (see Chapter 3, *Alternatives*) would change the number or type of relocation impacts disclosed in the Final EIS (West pers. comm. b]).

4.4.2 Affected Environment

4.4.2.1 Existing Conditions

Several residential, business, farmstead, and horse paddock properties are located in the study area. As noted in the Final EIS, single-family housing is the predominant type of residence in the study area and the only type of residential property that could be affected by any proposed build alternative. Some land

[1] All land acquisitions described in this section are fee-simple title transfers in which UDOT owns the land under clear title. It should be noted, however, that there are other properties within the right-of-way of the build alternatives for which UDOT has a right or access, or is at an interim stage of the condemnation process. These additional properties are not described herein.

in the study area is zoned light industrial and currently supports businesses associated with auto repair, storage, and other nonretail enterprises. As described in Section 4,2, *Farmlands*, there are over 1,614 ha (3,990 ac) of irrigated and non-irrigated cropland in the study area. In addition, there are numerous horse paddocks and corral facilities in the study area, most of which are located on small parcels of between 1 ha and 3 ha (2 ac and 8 ac).

Although the types of residences, businesses, and farmsteads in the study area have not changed since publication of the Final EIS, one existing business in the study area, Pack Storage Units, has constructed an additional storage facility since publication of the Final EIS. Pack Storage Units was identified in the Final EIS as a business that would be displaced if Alternative B were implemented.

4.4.2.2 Uniform Relocation Assistance and Real Property Acquisition Act of 1970

The Uniform Relocation Assistance and Real Property Acquisition Act (URAA), as amended (42 USC 4601 et seq., as amended, 1989), requires that project applicants provide equitable and uniform treatment of all persons displaced from their homes, businesses, and farmsteads, without discrimination on any basis. The act requires that financial and technical relocation assistance be provided to residents displaced, and business and farmstead properties be purchased at fair market value. A more complete description of the requirement of the URAA is provided in Section 4.4 of the Final EIS.

4.4.3 Environmental Consequences and Mitigation Measures

The following subsections provide an update of the environmental consequences and mitigation measures associated with relocation impacts.

4.4.3.1 Residential Properties

As described in the Final EIS, all the residential properties that would be affected by the proposed build alternatives are occupied, single-family structures. There have been no changes to the number, type, or location of residential properties identified for displacement in the Final EIS. However, all four of the residential structures that fall within the Alternative D and E alignments have been acquired by UDOT since publication of the Final EIS (West pers. comm. a). Table 4.4-1 below lists the residential displacements that would occur for each of the alternatives.

The following provides a summary of the impacts on residential properties that would result from the No-Build Alternative and the build alternatives.

No-Build Alternative

Existing Conditions (2004)

No residential properties would be displaced under the existing conditions No-Build Alternative.

Future Conditions (2020)

If none of the build alternatives is implemented, future transportation improvement projects may be undertaken by local jurisdictions in the study area to address capacity needs not being met be the proposed action. These future projects could possibly displace residential properties, although the nature and timing of these projects are not known at this time.

Build Alternatives

As mentioned above, there have been no changes to the number, type, or location of residential properties that would be displaced by the proposed build alternatives since publication of the Final EIS. Table 4.4-1 provides a summary of the number of residences that would be displaced by each of the build alternatives. (The addresses of these residential properties are provided in Section 4.4.1 of the Final EIS.) The proposed narrower typical cross section would not affect the number of residential properties that would be displaced by the build alternatives because no additional residential properties would be included or excluded by this right-of-way width change (West pers. comm. b]).

Table 4.4-1 Number of Residential Displacements Associated with Build Alternatives*

Alternative	Number of Residential Displacements
No-Build Alternative	0
Alternative A	7
Alternative B	14
Alternative C	5
Alternative D	4
Alternative E	4

Note:

* Represents number of single-family residences that would be displaced in the proposed 95-m (312-ft) right-of-way. See Section 4.4.1 of the Final EIS for location information for residential structures.

Table 4.4-2 lists the residential properties that have been acquired by UDOT since publication of the Final EIS (West pers. comm. a]). Acquisition of these four properties would be necessary for construction of any proposed build alternative.

Table 4.4-2 Residential Property Acquired since Publication of Final EIS*

Residential Property Address	Associated Road Segment Triggering Acquisition
1395 W. Parrish Lane, Centerville	500 South Interchange (Woods Cross) to Parrish Lane (Centerville)
250 W. 1050 South, Farmington	Parrish Lane (Centerville) to Glovers Lane (Farmington)
562 West 100 North, Farmington	Glovers Lane (Farmington) to I-15/US-89 interchange (Farmington)
602 W. State Street, Farmington	

Note:

* Represents property acquired as of September 2003. Acquisition necessary for construction of any build alternative.

4.4.3.2 Businesses

As described in the Final EIS, several businesses in the study area would be displaced by the construction of the build alternatives. The number, type, location, and number of employees associated with business displacements is the same as presented in the Final EIS, except that Alternative B would displace one additional structure that was constructed since publication of the Final EIS. The new structure is associated with an existing business that the Final EIS indicated would be displaced. In addition, nine business properties required for constructing Alternative D have been purchased by UDOT or otherwise made available to the project applicant since publication of the Final EIS (West pers. comm. a]).

The following provides a summary of the impacts on businesses that would result from the No-Build Alternative and the build alternatives.

No-Build Alternative

Existing Conditions (2004)

No businesses would be displaced under the existing conditions No-Build Alternative.

Future Conditions (2020)

If none of the build alternatives is implemented, future transportation improvement projects may be undertaken by local jurisdictions in the study area to address capacity needs not being met by the proposed action. It is possible that these future projects would displace businesses in the study area, although the nature and timing of these projects are not known at this time.

Build Alternatives

Table 4.4-3 provides a summary of the number of businesses and employees that would be displaced by each build alternative. (The addresses of these businesses are provided in Section 4.4.2 of the Final EIS.) Although the number of businesses and employees displaced by the build alternatives would be the same as the number presented in the Final EIS, a new storage facility (owned by Pack Storage Units) constructed since publication of the Final EIS would also be displaced. This additional impact would not result in another business displacement because Pack Storage Units was already considered displaced in the Final EIS. However, if Alternative B were implemented, additional compensation to Pack Storage Units would be required for the new structure. The proposed narrower typical cross section would not affect the number of businesses that would need to be acquired for construction of any proposed build alternative (West pers. comm. b]).

Table 4.4-3 Number of Business Displacements Associated with Build Alternatives*

Alternative	Number of Business Displacements	Approximate Number of Employees Displaced
No-Build	0	NA
Alternative A	16	124
Alternative B	10	57
Alternative C	9	57
Alternative D	14	109
Alternative E	14	109

Note:

* Represents number of businesses that would be displaced within the proposed 95-m (312-foot) right-of-way. See Section 4.4.2 of the Final EIS for location information.

Nine business properties have been acquired since publication of the Final EIS (Table 4.4-4) (West pers. comm. a]). These properties were originally acquired to facilitate construction of Alternative D (Final EIS Preferred Alternative), but several of the properties would also be required for construction of the other build alternatives, as indicated in Table 4.4-4.

Table 4.4-4 Business Property Acquired since Publication of Final EIS[1]

Identity and Address	Road Segment Triggering Acquisition	Build Alternatives Requiring Acquisition of Property[2]				
		Alt A	Alt B	Alt C	Alt D	Alt E
B&M Concrete 1710 West 900 North North Salt Lake	I-215/2100 North interchange (North Salt Lake) to 500 South interchange (Woods Cross)		X	X	X	X
Phil's Automotive 1411 Parrish Lane Centerville	500 South interchange (Woods Cross) to Parrish Lane (Centerville)	X			X	X
Hogan and Associates 1398 Parrish Lane Centerville	Parrish Lane (Centerville) to Glovers Lane (Farmington)	X			X	X
Nielson Storage 400 West 250 South Farmington	Glovers Lane (Farmington) to US-89 interchange (Farmington)	X	X	X	X	X
John Stathis 650 West State Street Farmington	Glovers Lane (Farmington) to US-89 interchange (Farmington)	X	X	X	X	X
Oakridge Storage 530 West 100 North Farmington	Glovers Lane (Farmington) to US-89 interchange (Farmington)	X	X	X	X	X
Daniels Design 530 West 100 North Farmington	Glovers Lane (Farmington) to US-89 interchange (Farmington)	X	X	X	X	X

Identity and Address	Road Segment Triggering Acquisition	Build Alternatives Requiring Acquisition of Property[2]				
		Alt A	Alt B	Alt C	Alt D	Alt E
Peterson Storage 562 West 100 North Farmington	Glovers Lane (Farmington) to US-89 interchange (Farmington)	X	X	X	X	X
Beck Paving 136 North 600 West Farmington	Glovers Lane (Farmington) to US-89 interchange (Farmington)	X	X	X	X	X

Notes:

[1] Information representative of property acquired as of September 2003.

[2] An "X" in a column indicates that the acquisition of this property is necessary for construction of that alternative.

4.4.3.3 Farmsteads and Horse Paddocks

As described in the Final EIS, several farmsteads and horse paddocks would be affected by the build alternatives. As indicated in the Final EIS, acquisition of farmland for highway construction is not considered a farm displacement unless the amount of farmland acquired is large enough to render the remainder of the farm nonviable. In most cases, UDOT would acquire land but leave the farmstead (farm structures and improvements) intact. Other farmland impacts, such as land acquisitions, lost crop production, and split parcels, are discussed in Section 4.2, *Farmlands*, of this document. The number and location of farmsteads and horse paddocks that would be displaced as a result of the build alternatives has not changed since publication of the Final EIS.

The following provides a summary of the impacts on farmsteads and horse paddocks that would result from the No-Build Alternative and the build alternatives.

No-Build Alternative

Existing Conditions (2004)

No farmsteads or horse paddocks would be displaced under the existing conditions No-Build Alternative.

Future Conditions (2020)

Farmland in the study area is rapidly being sold for commercial and residential development (see Section 4.2, *Farmland*, of this document). Existing farmsteads and horse paddocks may be displaced over time if future projects are undertaken by local jurisdictions in the study area to address capacity needs not being met be the proposed action. The location and timing of these displacements are not known at this time.

Build Alternatives

Table 4.4-5 provides a summary of the number of farmsteads and horse paddocks that would be displaced by each build alternative. (The location of these resources is provided in Section 4.4.3 of the Final EIS.) The proposed narrower typical cross section would not affect the number of horse paddocks or farmsteads that would need to be acquired for construction of any proposed build alternative (West pers. comm. b]).

Table 4.4-5 Number of Farmstead and Horse Paddock Displacements[1]

Alternative	Type of Property[2]	Number of Displacements
No-Build	NA	0
Alternative A	F	0
	H	15
Alternative B	F	2
	H	16
Alternative C	F	0
	H	8
Alternative D	F	0
	H	10
Alternative E	F	0
	H	10

Notes:

[1] Represents number of farmsteads and horse paddocks that would be displaced within the proposed 95-m (312-ft) right-of-way. See Section 4.4.3 of the Final EIS for location information.

[2] F = farmstead; H = horse paddock and/or corral

Ten horse paddock facilities have been acquired since publication of the Final EIS (Table 4.4-6) (West pers. comm. a]). These properties were originally acquired to facilitate construction of Alternative D (Final EIS Preferred Alternative), but several of the properties would also be required for construction of the other build alternatives, as indicated in Table 4.4-6.

Table 4.4-6 Horse Paddocks Acquired by Location since Publication of Final EIS[1]

Location	Number of Horse Paddocks Acquired at Location	Build Alternatives Requiring Acquisition of Property [2]				
		Alt A	Alt B	Alt C	Alt D	Alt E
Between 1200 North and Pages Lane (West Bountiful), near 1400 North	2	X	X	X	X	X
East of Bountiful Sanitary Landfill along 1100 West (West Bountiful)	2	X	X	X	X	X
At intersection of 1100 West and Porter Lane, on the north side of Porter Lane	1		X	X	X	X
On Sheep Road (1500 West, Centerville) between Commercial Coatings and Utah Power substation	1	X			X	X
On west side 1250 West (Centerville), south of Parrish Lane, between Phil's Automotive and Aspen Springs Storage	1	X			X	X
On east side of 1250 West (Centerville), north of Parrish Lane	1	X			X	X
On relocated portion of Burke (Park) Lane (Farmington)	2	X	X	X	X	X

Notes:

[1] Information representative of property acquired as of September 2003.

[2] An "X" in a column indicates that the acquisition of this property is necessary for construction of that alternative.

4.4.3.4 Summary of Displacements

Table 4.4-7 summarizes the displacement information presented above for residences, businesses, and farmsteads and horse paddocks, and updates the information presented in Table 4-8e in the Final EIS. Table 4.4-7 also provides information on the number of parcels that have been acquired to date and how those acquisitions would support construction of each of the proposed build alternatives.

Table 4.4-7 Summary of Displacements*

Type of Displacement	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Residential	7 (2)	14 (2)	5 (2)	4 (2)	4 (2)
Business	16 (8)	10 (7)	9 (7)	14 (9)	14 (9)
Farmstead	0 (0)	2 (0)	0 (0)	0 (0)	0 (0)
Horse Paddock	15 (9)	16 (7)	8 (7)	10 (10)	10 (10)

Note:

* The number of properties acquired that would facilitate construction of the indicated build alternative is represented in parenthesis next to the number of displacements. Information representative of property acquired by UDOT as of September 2003.

4.4.3.5 Mitigation Measures

As stated in the Final EIS, assistance and re-establishment expenses would be provided to displaced property owners and lessees pursuant to eligibility and other requirements of the URAA.

Section 4.5
Economics

This section discusses economics in the study area, which is defined below. The current economic climate and temporary and permanent economic impacts that could occur in the study area as a result of implementation of any proposed build alternative are discussed herein. Four regional economic variables—employment, motorists' time savings, resource-based industries (the brine shrimp industry and federal mineral reservation income), and recreation—were assessed in the Final EIS. To update the impacts on employment that were presented in the Final EIS, revised employment estimates for Davis and Salt Lake Counties are presented below. The methodology used to estimate the value of motorists' time has been updated and applied to reassess the value of time savings under the build alternatives.

4.5.1 Approach and Methodology

To update the affected environment and environmental consequences information associated with economics in the study area, Sections 3.5 and 4.5 of the Final EIS were reviewed to determine the changes that had taken place since publication of the Final EIS. The study area for assessing regional economic impacts in this section is the Wasatch Front, which includes all of Salt Lake, Davis, Weber, and Tooele Counties, and a portion of Morgan County. However, for the individual economic topics discussed in this section (i.e., employment, commerce, and tax base), zones of interest, referred to herein as "topical zones," were identified as appropriate in the study area. These zones are described below.

City finance directors from West Bountiful (Hall pers. comm.), Centerville (Lutz pers. comm.), Woods Cross (Uresk pers. comm. a), and Farmington (Johnson pers. comm.) were contacted to obtain current (fiscal year 2002, except fiscal year 1999 for Centerville) city operating budgets. The current operating budget for the City of North Salt Lake was obtained from the city's web site (City of North Salt Lake 2002). A copy of the *Utah Property Tax 2002 Annual Statistical Report* was obtained from the Utah State Tax Commission to determine whether the tax base had changed since publication of the Final EIS (Utah State Tax Commission 2003). Updated employment projections for census tracts in the Wasatch Front region (e.g., Davis, Morgan, Salt Lake, Tooele, and Weber Counties) were obtained from a technical report prepared by the WFRC (Wasatch Front Regional Council 2003b), and updated information on economic growth in the study area was obtained from Utah's Office of Planning and Budget (Utah Governor's Office of Planning and Budget 2002).

Information collected from these sources was used to update the impact conclusions presented in the Final EIS specific to regional and local economics, including how the proposed build alternatives would affect employment in the study area, resource-based industries in the study area, revenue generated from recreation opportunities in the study area, and time savings realized by motorists using the proposed build alternatives (e.g., the value of motorists time savings).

4.5.2 Affected Environment

This section presents a summary of updated information on the affected environment relative to economics and individual economic topics, such as employment, commerce, and tax base. These topics are discussed to provide a foundation for assessing the economic impacts that Legacy Parkway could have in the study area, in particular the value of the travel time savings that could be realized by individuals using the proposed build alternatives.

4.5.2.1 Employment

The topical zone for analyzing local employment is based on county boundaries and the census tracts that overlay the right-of-way of the proposed build alternatives. Tables 4.5-1 and 4.5-2 update Tables 3-10a and 3-10b in the Final EIS and provide updated employment estimates for Davis and Salt Lake Counties, respectively. Table 4.5-3 updates Table 3-11 in the Final EIS and provides updated employment projections according to the census tracts that cover the rights-of-way of the proposed build alternative alignments. These estimates are based on 2002 baseline projections generated by the Utah Department of Work Force (Utah Governor's Office of Planning and Budget 2002) and the *Wasatch Front Region Small Area Socioeconomic Projections: 2002–2030*, which was prepared by WFRC in 2003 (Wasatch Front Regional Council 2003b).

Compared to the employment statistics presented in the Final EIS (Tables 3-10a and 3-10b), the updated 2020 projections for employment in Davis County show increases in the services, government, and non-farm proprietor economic sectors, and decreases in the construction, manufacturing, and trade economic sectors (Table 4.5-1). Similarly, when compared to the statistics presented in the Final EIS, the updated 2020 projections for employment in Salt Lake County show increases in the construction and services sectors, and decreases in the manufacturing, TCPU (i.e., transportation, communications, and public utilities), and trade economic sectors (Table 4.5-2). Overall, estimates of the rate of job growth for the various employment sectors have been slightly reduced since the Final EIS was published.

Notably, employment in Weber County is projected to increase at a rate of 2.4 percent per year between the years 2002 and 2020 (Wasatch Front Regional Council 2003). This is an increase over the 2 percent annual increase projected by the WFRC for Weber County in 1997 (Wasatch Front Regional Council 1997).

Table 4.5-1 Employment in Davis County (1980–2020)[1]

	Year				
Economic Sector	1980	1990	2000	2010	2020
Agriculture	2%	1%	1%	1%	1%
Mining	<1%	<1%	<1%	<1%	<1%
Construction	4%	3%	6%	4%	4%
Manufacturing	10%	10%	9%	8%	8%
TCPU[2]	3%	3%	3%	3%	3%
Trade	17%	18%	20%	19%	19%
FIRE[3]	2%	2%	3%	3%	3%
Services[4]	10%	14%	17%	20%	21%
Government	37%	28%	20%	19%	18%

	Year				
Economic Sector	1980	1990	2000	2010	2020
Non-farm Proprietors	15%	21%	22%	22%	22%

Notes:

1 Percentages shown for each sector represent percentage of total employment in the county. For each year identified in the table, employment percentages for most economic sectors vary from the percentages presented in Table 3-10a of the Final EIS.

2 TCPU = Transportation, communications, and public utilities.

3 FIRE = Finance, insurance, and real estate.

4 Includes private households and agricultural services employment.

Source: Utah Department of Work Force, Utah Governor's Office of Planning and Budget 2002.

Table 4.5-2 Employment in Salt Lake County (1980–2020)[1]

	Year				
Economic Sector	1980	1990	2000	2010	2020
Agriculture	<1%	<1%	<1%	<1%	<1%
Mining	2%	1%	<1%	<1%	<1%
Construction	5%	3%	5%	5%	5%
Manufacturing	14%	11%	9%	8%	7%
TCPU[2]	7%	6%	7%	6%	6%
Trade	22%	21%	20%	18%	18%
FIRE[3]	5%	6%	6%	6%	6%
Services[4]	17%	22%	25%	30%	31%
Government	15%	13%	12%	12%	12%
Nonfarm Proprietors	13%	16%	15%	14%	14%

Notes:

1 Percentages shown for each sector represent percentage of total employment in the county. For each year identified in the table, employment percentages for most economic sectors vary from the percentages presented in Table 3-10b of the Final EIS.

2 TCPU = Transportation, communications, and public utilities.

3 FIRE = Finance, insurance, and real estate.

4 Includes private households and agricultural services employment.

Source: Utah Department of Work Force, Utah Governor's Office of Planning and Budget 2002.

Table 4.5-3 Employment Projections (2002–2020) by Census Tracts

	Number of Jobs								Annual Growth 2002–2020			
	2002				2020							
Census Tracts*	Government	Industrial	Retail	Service & Wholesale	Government	Industrial	Retail	Service & Wholesale	Government	Industrial	Retail	Service & Wholesale
1003.03	3,820	15,228	168	7,820	4,718	18,414	255	8,908	1.18%	1.06%	2.35%	0.73%
1262.02	3,318	3	25	62	4,156	51	117	240	1.26%	17.05%	8.95%	3.59%
1262.03	13	1	19	1,181	20	2	45	1,906	2.42%	3.93%	4.91%	2.69%
1263.04	641	373	706	1,470	916	574	1,095	2,365	2.00%	2.42%	2.47%	2.68%
1270.02	1	4,134	430	1,413	51	8,076	672	2,870	24.41%	3.79%	2.51%	4.02%
1270.03	98	382	912	1,015	301	1,601	1,262	1,868	6.43%	8.29%	1.82%	3.45%
Totals	7,891	20,121	2,260	12,961	10,162	28,718	3,446	18,157	1.42%	2.00%	2.37%	1.89%

Notes:

* These census tracts encompass an area greater than the topical zone for employment. The 2000 census tract employment projections are reflected as 2002 employment projections taken from the WRFC technical report *Wasatch Front Region Small Area Socioeconomics: 2002–2030*, and present more information regarding employment in these areas than the 2000 census.

Source: Wasatch Front Regional Council 2003b.

4.5.2.2 Commerce

The topical zone for analyzing commerce comprises Salt Lake and Davis Counties. State of Utah gross annual retail sales have grown from $25.8 billion in 1996 (see Section 3.5.2 of the Final EIS) to $30 billion in 2000, which represents an approximate annual growth rate of 3.8 percent (Utah Governor's Office of Planning and Budget 2002). Salt Lake County accounted for 50 percent of the $30 billion dollar retail sales figure for 2000, which is a decrease from the county's 57.8 percent share in 1996 (Utah Governor's Office of Planning and Budget 2002). Davis County accounted for approximately 8.3 percent of the growth in the state in 2000, a slight increase from the 8.1 percent growth in 1996 that was disclosed in the Final EIS.

As stated in the Final EIS, the topical zone for commerce contributes approximately $3.2 billion to the state economy. The economic contribution of the commerce topical zone has not substantially increased since publication of the Final EIS (Utah Governor's Office of Planning and Budget 2002). In addition, although UDOT has acquired some of the businesses in the footprint of Alternative D (Final EIS Preferred Alternative), residential and commercial development has continued in areas near the proposed build alternatives, as described in Section 4.1, *Land Use*.

As described in the Final EIS, two resource-based industries (i.e., the brine shrimp industry and the mining industry associated with federal mineral reservation lands) that contribute to the regional and local economy in the commerce topical zone could be affected by implementation of the proposed build alternatives. In addition, the recreation industry, which supports recreation resources could be affected by implementation of the proposed build alternatives. The contributions of these industries to the economy in the commerce topical zone have not changed since publication of the Final EIS.

4.5.2.3 Tax Base

Property Tax Revenues

The topical zone for estimating the tax base includes all parcels located within the right-of-way of the proposed build alternatives. Table 4.5-4 updates Table 3-16a in the Final EIS and presents updated information on property taxes collected in the tax base topical zone, as well as Davis County, Salt Lake County, and the state.

Table 4.5-4 Revenues—Property Taxes (2002)

Area	Property Tax Revenues (approximate)	Proportion of State's Property Taxes
Study Area*	$2.75 million	0.3%
Davis County	$101.3 million	10.6%
Salt Lake County	$577.1 million	51%
State of Utah	$1.178 billion	–

Note:

* 2000 property tax data for parcels within the right-of-way of the proposed action build alternatives; excludes area north of Shepard Lane.

Source: Federal Highway Administration et. al. 2000, Utah Property Tax Annual Statistical Report (Utah State Tax Commission 2003).

Approximately 51 percent of the state's total assessed property value is in Salt Lake County, while less than 11 percent is in Davis County. Both of these figures represent 3 percent increases from what was disclosed in the Final EIS. This 3 percent increase is attributable to both an increase in development in the tax base topical zone (i.e., new types of property being valued and taxed) and an increase in assessed property values (i.e., attributable to market forces).

The tax base topical zone produces less than 1 percent of Utah's property tax revenues, which is comparable to what was disclosed in the Final EIS (Utah State Tax Commission 2003).

City Tax Revenues

Table 4.5-5 updates Table 3-16b in the Final EIS and presents updated information on the amount and source of general fund monies in the Cities of North Salt Lake, Woods Cross, West Bountiful, Centerville, and Farmington. These estimates are based on the current and most recent operating budgets for each of the listed jurisdictions, which are fiscal year 2002 except for Centerville, which is fiscal year 1999.[1] As described in the Final EIS, property tax revenue is the second largest single source of revenue, behind sales tax, for most of these cities. Overall, municipal tax revenues have substantially increased since publication of the Final EIS.

Table 4.5-5 City Revenue Projections[1]

Source	North Salt Lake	Woods Cross	West Bountiful	Centerville	Farmington
Total Sales Tax	$1,655,600	$1,772,765	$735,300	$2,054,207	$1,179,770
Total Property Tax	$1,061,230	$328,961	$309,262	$844,479	$912,067
Other Major Sources[2]	$2,156,100	$840,644	$677,271	$1,568,850	$2,050,733
All Other Sources	$454,355	$165,829	$318,197	$551,634	$267,453
Total Revenue (2002)	$5,327,285	$3,108,199	$2,040,035	NA	$4,410,023
Total Revenue (1999) (Final EIS)	$3,861,375	$2,195,960	$1,598,000	$5,019,170	$3,311,705
Change, 1999–2002	36%	40%	25%	NA	33%

Notes:

1 Reported revenues are for fiscal years ending June 30, 2002. City of Centerville reported revenues are for fiscal year ending June 30, 1999.

2 Revenue from other major sources includes such items as fines, forfeitures, building permits, sale of fixed assets, franchise taxes, licenses and permits.

Sources: Operating budgets for fiscal year 2002 for North Salt Lake, Woods Cross, West Bountiful, and Farmington; operating budget for fiscal year 1999 for Centerville.

4.5.3 Environmental Consequences and Mitigation Measures

This section describes regional and local economic impacts that could occur from implementation of Legacy Parkway. In addition, this section describes how induced growth north of the study area could

[1] An operating budget later than fiscal year 1999 could not be obtained from the City of Centerville.

affect regional economics.[2] A summary of local community concerns and preferences relative to economics and the No-Build (existing and future conditions) and build alternatives is presented in this section, although the general substance of input received from local communities in the study area regarding economics has not changed since publication of the Final EIS.

4.5.3.1 Regional Economic Impacts

As stated above, the study area for the regional economic impact analysis is the Wasatch Front, which includes all of Salt Lake, Davis, Weber, and Tooele Counties, and a portion of Morgan County. Both temporary and permanent regional economic impacts were considered. Temporary (short-term) impacts are those associated with construction expenditures, including increases in travel time associated with construction, and the indirect economic impacts (i.e., impacts on resource-based industries) they generate. Permanent regional impacts are long-term and are associated with continued operation and maintenance activities and shortened travel times.

Temporary and permanent impacts were evaluated in the Final EIS according to four regional economic variables: construction employment, value of motorists' time savings, impacts on resource-based industries (e.g., the brine shrimp and mining industries), and impacts on the recreation industry. As summarized in Table 4-9 in the Final EIS, which is not reproduced herein because there has been no change in the data, impacts on construction employment would be the same as those described in the Final EIS because underlying construction technologies have not changed since publication of the Final EIS. Similarly, as disclosed in the Final EIS, there would be no impacts on either the brine shrimp industry or the recreation resource industry under any proposed build alternative. Impacts on federal mineral reservations would also be the same as those listed in Table 4-9 in the Final EIS, except that Alternative E would preclude royalties on about 32 ha (80 ac) of federal mineral reservation lands, which is 1 ha (3 ac) less than the impact associated with Alternative D.

As a result, the regional economic impact discussion presented in this section focuses on updated information relative to the value of motorists' time.

Value of Motorists' Time Savings

No-Build Alternative

Existing Conditions (2004)

As described in the Final EIS, motorists would continue to experience increased levels of congestion and time delays on existing roadways in the study area under the existing conditions (2004) No-Build Alternative.

Future Conditions (2020)

If none of the build alternatives is implemented, future transportation improvement projects may be undertaken by local jurisdictions in the study area to address capacity needs not being met be the proposed action. These future projects could result in regional economic impacts similar to those described for the build alternatives.

[2] Growth impacts south of the study area (e.g., in Davis County) were not evaluated in this section because much of the land use south of the study area is currently developed or planned for development. As a result, it was assumed that areas south of the study area would experience full build-out, with or without construction of the proposed action. See Section 4.1, *Land Use*, for a complete discussion of impacts within and beyond the North Corridor.

Build Alternatives

All the proposed build alternatives would result in a net decrease in traffic congestion in the study area. The value of this benefit was estimated in the Final EIS to be $28.7 million, based on post-construction traffic conditions and an average value of motorists' time estimated to be $9.50 per hour. (See Section 4.5.1 and Table 4-9 in the Final EIS.) Since publication of the Final EIS, there have been considerable advances in the theory and practice of estimating the value of motorists' travel time. As a result, a revised estimate of the average value of motorists' time was developed for the Supplemental EIS analysis, as described in Appendix A of the *Economic Technical Report* (HDR Engineering, Inc. 2004d). The revised estimate used in this document accounts for the different values associated with personal, business and truck travel. The revised estimate is $18.65 per hour, a $9.15 increase over the value presented in the Final EIS.

Based on this revision, the annual value of time savings associated with the proposed build alternatives would range from $56.4 million to $60.4 million, an increase of between $27.7 million and $31.7 million over the savings figures presented in the Final EIS (i.e., $28.7 million). The $56.4 million estimate only accounts for the increased dollar per hour estimate described above, while the $60.4 million estimate also takes into account recent traffic modeling estimates using the revised WFRC travel demand model (version 3.2).

In response to the appellate court remand, the federal lead agencies evaluated four different sequencing scenarios that incorporated the three major components of the Shared Solution: mass transit, I-15 improvements, and Legacy Parkway. This analysis is documented in the *Legacy Parkway Technical Memorandum: Sequencing of the North Corridor Shared Solution* (HDR Engineering, Inc. 2004c) and is summarized in Section 2.4, *Sequencing*, of this document. The analysis assesses these sequencing scenarios according to a number of variables, one of which is cost to the traveling public. A complete discussion of the value of motorists' time savings with respect to the different sequencing scenarios can be found in either the technical memorandum or Section 2.4 of this document.

4.5.3.2 Local Economic and Community Impacts

As described in the Final EIS, construction of any proposed build alternative could affect the economic base of communities in the study area. Such impacts would be associated with displacement of homes, farms, and businesses; changes in vehicular access; severance of land parcels; and division of communities, which the communities view as a permanent impact. Because all these factors contribute to the social make up of the communities in the study area, they are collectively discussed in Section 4.3.3.1, *Community Cohesion*, of this document.

Section 4.6

Joint Development

This section discusses proposed recreation and public works projects that may be developed jointly with the proposed action but by other project proponents. *Joint development* is a term used by FHWA. In this context, the term encompasses opportunities and potential impacts that are also addressed elsewhere in this Supplemental EIS (i.e., pedestrian and bicycle opportunities). The following joint development opportunities are considered in the Final EIS and in this section.

- Joint use of the right-of-way for the proposed action, including future pipelines or other public works infrastructure.
- Public and private education centers and rest areas in the study area.
- Trail systems.

This section provides an update on land associated with joint development opportunities that has been acquired to date; an update on the status of the wetlands ecosystem education plan published by the UDNR Division of Wildlife Resources and the Utah Reclamation Mitigation Conservation Commission (URMCC); and a summary of UDOT's *Statewide Pedestrian and Bicycle Plan*, which was released in 2001 (Utah Department of Transportation 2001b). Various local jurisdictions have provided input since publication of the Final EIS on how a regional recreation and transportation corridor could or should be developed in conjunction with the proposed Legacy Parkway project. That input is summarized below in Section 4.6.3, *Environmental Consequences and Mitigation Measures*.

4.6.1 Approach and Methodology

To update the affected environment and environmental consequences information associated with joint development opportunities in the study area, Sections 3.6 and 4.6 of the Final EIS were reviewed to determine whether any changes had taken place since publication of the Final EIS. The study area for joint development opportunities is described in Section 4.0.1, *Study Area*, of this document.

Documents reviewed for this analysis included the *Kaysville City General Plan, as Amended* (City of Kaysville 2002), the *Woods Cross City General Plan* (City of Woods Cross 2003), the *Davis County Shorelands Comprehensive Land Use Master Plan* (Davis County Council of Governments, no date), and the *Envision Utah Quality Growth Strategy and Technical Review* (Envision Utah 2000).

A series of meetings was held with representatives from each of the jurisdictions in the study area—North Salt Lake City, Woods Cross, West Bountiful, Centerville, Farmington, and Davis County—to discuss topics pertaining to the Supplemental EIS, including joint development opportunities, and to review trail

master plans that have been updated or revised since the Final EIS was published. These meetings were held in July and September 2003. Table 4.1-1 in Section 4.1, *Land Use*, provides information on the dates and attendees of these meetings. Minutes from these meetings were reviewed for this analysis (HDR Engineering, Inc. 2003a–k).

4.6.2 Affected Environment

The following provides a summary of information on the affected environment that has been updated since publication of the Final EIS.

4.6.2.1 Jordan Valley County Water Conservancy District

As indicated in the Final EIS, the Jordan Valley Water Conservancy District (JVWCD) and the Weber Basin Water Conservancy District (WBWCD) are pursuing the development of a water treatment plant in Weber County, Utah. The proposed water treatment plant would include a 64-km (40-mi) treated-water pipeline that would extend parallel to and west of I-15 from the plant in West Haven through Clinton, Layton, Centerville, and Woods Cross, to about 3800 West 2100 South in Salt Lake City, where it would connect to the Jordan Aqueduct Reach. The water treatment plant and treated-water pipeline are sometimes called the "Bear River Pipeline" because of their association with the Bear River. Since publication of the Final EIS, property has been purchased for a water tank in West Haven, and approximately half of the property needed for the pipeline right-of-way in Salt Lake, Davis, and Weber Counties has been acquired (Hess pers. comm.).

The Bear River Pipeline project traverses the study area. Both water conservancy districts have expressed interest in possibly using the same right-of-way as Legacy Parkway, but no formal application has been submitted to UDOT to date (Hogg pers. comm.). The project is scheduled to be completed in 15 to 20 years.

Both the proposed water treatment plant and treated-water pipeline were included in the Bear River Development Act, which was passed in 1991 to direct the development of the Bear River and its tributaries. The scope of the act also covers proposals for building dams and expanding reservoirs in and along the Bear River and its tributaries. Any proposals under the Bear River Development Act, including construction and operation of the water treatment plant and/or treated-water pipeline, would be subject to appropriate environmental review. Because there has been no application or request made to UDOT on behalf of the water conservancy districts to use any part of the proposed Legacy Parkway right-of-way for this project, the project is not included in this Supplemental EIS.

4.6.2.2 Trail System Development

As in the Final EIS, joint development opportunities relating to pedestrian/bicycle trail systems in the study area are covered in Section 4.7, *Pedestrian and Bicyclist Considerations.*

4.6.2.3 Environmental Interpretation

The wetland ecosystem education plan developed by the Utah State University Wetlands Education Team, *Beyond Kids and Signs: A Comprehensive Wetlands Education Master Plan for the Greater Great Salt Lake Ecosystem*, was published by the UDNR Division of Wildlife Resources and URMCC in April 2000 (UDNR Division of Wildlife Resources and Utah Reclamation Mitigation Conservation