

CHAPTER 1.0: INTRODUCTION

1.1 SCOPE AND INTENDED USES OF THIS DOCUMENT

This document is the environmental analysis of the Downtown-Natomas-Airport (DNA) project. It is a program-level analysis of the entire project – focused documents will be prepared for each individual segment as those projects are advanced to subsequent stages of project development. As a programmatic document, this analysis addresses the general environmental impacts of the DNA project as a whole based upon the general alignment adopted by the Sacramento Regional Transit District in 2003 (i.e., the Truxel alignment). Further analysis and final decisions on the exact alignment (e.g., side of the street, separate guideway, mixed-flow traffic) and exact design (e.g., architectural elements) will be made in conjunction with the more focused environmental documents to come.

The anticipated first phase of the DNA project is an alignment from Downtown along 7th Street to Richards Boulevard. Where relevant, information is presented in this document about this anticipated first segment.

The project proponent is the Sacramento Regional Transit District (RT). As a California special district, RT's action is subject to the California Environmental Quality Act (CEQA). This document is a Program Environmental Impact Report (PEIR) as required by CEQA. As indicated in the CEQA Guidelines (Section 15168), a PEIR can be prepared on a series of related actions that can be characterized as one large project. The DNA project is a series of related actions – individual segments will be implemented over time, expanding the project in length (eventually to the Airport) and in other ways (for example, widening a single-track starter segment to include both north and southbound tracks). These actions are expected to be phased over a period of years depending on available funding. A detailed analysis of environmental effects for these future phases would be speculative at this time because the future environmental setting could be substantially different than the current setting. Implementation timing has not yet been established, and exact alignment and design options have not yet been developed. These considerations support RT's determination that a PEIR is the appropriate level of environmental documentation at this time. Tiering of environmental analyses is appropriate when the sequence of analysis is from a program-level to a project-level. This approach can eliminate repetitive discussions of the same issues allowing the later EIR to focus solely on the issues specific to the later project.

RT's intended use of this document is to support a determination that the appropriate means of implementing transit improvements along the DNA Corridor is to construct a light rail system on the Truxel alignment. This document also will be used to support preparation of project-level environmental documents. As described in the CEQA Guidelines (Section 15168), a program-level document can be incorporated into future project-level documents to:

- Provide a basis for determining whether subsequent phases may have significant environmental effects;
- Help address regional influences, secondary effects, cumulative impacts, broad alternatives, and other elements that apply to the program as a whole; and

- Focus the subsequent evaluation on new effects that had not been considered before.

During future, project-level analysis of each phase, there is likely to be substantial participation by federal agencies. RT assumes that one or more future phases may be subject to the National Environmental Policy Act, with the Federal Transit Administration as the federal lead agency and with additional participation by other federal agencies with regulatory authority over the DNA project. At this time, there is no federal action on the project, and the PEIR is intended only to meet RT's obligations under CEQA.

1.2 DEFINITION OF THE DNA STUDY AREA

The DNA study area, shown on Figure 1.2-1, extends 12.8 miles from 7th and H Streets in Downtown Sacramento to the Sacramento International Airport and includes the communities of Alkali Flat, South Natomas, North Natomas, and Metro Air Park. Between State Route (SR) 99 and Powerline Road, the study area traverses the Greenbriar property, which is under consideration for a large residential development. The study area was developed in 2002 to be sufficiently broad to encompass the entire range of alternatives under consideration at that time. See Chapter 5, Alternatives, for more information. This study area is also referred to as the "DNA Corridor."

1.3 OBJECTIVES OF THE PROJECT

The primary objective of the DNA project is to provide a transit travel option in a high travel-demand corridor in the rapidly growing study area. Supporting objectives of the DNA project are:

- **Provide Mobility Improvements in the DNA Corridor.** Travel forecast estimates indicate that the DNA Corridor would have the highest ridership of all the radial light rail lines in Sacramento (Table 1.3-1). Because the Corridor would link major employment centers, residential areas, retail centers, and regional destinations such as the Railyards, ARCO Arena, and the Airport, the DNA line would provide a significant connection within the Natomas community while providing a vital link to the entire RT transit system and other service providers. Multimodal transportation improvements in the Corridor would provide increased mobility for Corridor residents and transit-dependent populations by providing transit access to those with and without mode choices. In the DNA study area, 16.5 percent of households are without a personal vehicle, compared to 12.9 percent for the City of Sacramento, and 8.7 percent for the County of Sacramento (U.S. Census, 2000). Transit improvements in the Corridor would provide new transit access for 10,275 minority and 2,900 low-income persons located within 0.5 mile of a transit station.
- **Provide Environmental Benefits in the Corridor.** Almost half of the boardings onto the DNA line will be pedestrian only trips. The mix of land uses and increased population densities along the Corridor provide for a walkable link to and from the light rail stations, which will reduce automobile use to access the stations. In 1997, the U.S. Environmental Protection Agency (EPA) designated the Sacramento Air Quality Maintenance Area as a non-attainment area for ozone and carbon monoxide. In the early 1990s, the Sacramento Region ranked among the top 10 cities in the United States with the highest number of violations of ozone standards. While improvements have been made in the levels of these pollutants, the EPA air quality standards are still unmet. Corridor transit

Transit Corridor		Year 2005	Year 2027 (without DNA)	Year 2027 (with DNA)
1	Downtown Area	20,880	43,790	50,180
2	DNA	0	0	14,260
3	Watt/I-80	7,970	13,190	11,830
4	Folsom/US-50	8,210	12,500	12,990
5a	SouthLine—Phase 1	6,940	12,260	12,510
5b	SouthLine—Phase 2	0	6,550	6,300
6	West Sacramento/Davis	0	3,680	3,780
Total		44,000	91,970	111,850
Change from Baseline Conditions		N/A	N/A	+ 19,880 (+21.6%)
Note: * See Figure 3.5-2 for boundaries of regional transit corridors.				

improvements would provide environmental benefits in the Corridor by providing a travel option other than the single-occupancy vehicle and by reducing the number of vehicles on the road. Multimodal transportation improvements, coordinated with land use, would enhance the sustainability of the area.

- Improve Systemwide Operating Efficiencies.** Through economies of scale, an expanded regional transit system would improve regional service and consequently increase systemwide transit ridership. The Sacramento Area Council of Government's *2006 Metropolitan Transportation Plan for 2027 (2006 MTP)* estimates that systemwide transit ridership will double from 2004 to 2027, from 90,000 to 180,000 riders. The Corridor improvements would provide intermodal connections to existing and new bus service, to regional rail service at the Sacramento Valley Station and future Intermodal Facility, and to the Airport. Transit service in the Corridor would connect the northwest City and County of Sacramento communities with existing and future light rail and regional rail corridors including the Gold Line Corridor, the South Line extension, and the Capitol Corridor train service, connecting Sacramento with the San Francisco Bay Area and south Placer County communities. The coordination of land use with transit service would improve transit system efficiency and use by encouraging walkable access points and links to important local and regional destinations.
- Provide Cost-Effective Transportation Solutions.** System users would benefit from a cost-effective transit alternative to the Corridor's increasing vehicular congestion. With the DNA service, Corridor residents would be able to access the Airport, Downtown Sacramento, and other destinations along the regional transportation network without an automobile. This viable transit alternative would reduce the vehicle hours of travel in the region, providing a benefit to all users of the network. The DNA service would be implemented to provide the greatest overall benefits considering costs, travel times, impacts to the environment, and land use implications. The transportation solutions

proposed in the Corridor would meet RT’s standards of providing cost-effective transit service. Travel demand model results for this study, in combination with continued increases in the development density of land uses along the alignments and at potential rail stations, anticipate an increase in the use of transit facilities and thus improve the cost-effectiveness of the project.

- **Provide Transportation Improvements that are Enhanced by Transit-Supportive Land Use Plans and Policies.** A transit solution has been developed in City of Sacramento’s comprehensive plans for South and North Natomas that is integrated with and enhances Corridor land uses. Communities along the Corridor have been developing the vision of an integration of land use and transportation for the past 20 years. As described under Section 1.4, Project Background, local planning efforts overwhelmingly support transit-oriented development and light rail transit on the Truxel alignment (DNA project). This vision has been adopted by the RT Board and carried forward in the *2006 MTP*.

1.4 PROJECT BACKGROUND

1.4.1 Population and Employment Growth

The DNA Corridor is one of the fastest growing areas in the Sacramento Region. Beginning with the development of South Natomas in the 1980s and continuing today with the development of North Natomas, urban uses have replaced agriculture as the predominant land use along the Corridor. Between 1980 and 1990, South Natomas experienced a housing boom and by 2000 the population had grown to 40,141. Today, the population in South Natomas continues to grow. The current (2005) population estimate for South Natomas is 45,500. Table 1.4-1 provides a summary of population growth in South and North Natomas. Figure 1.4-1 provides an illustration of land use change in this area between 1998 and 2005.

North Natomas is designated by City of Sacramento as a major growth area for new housing and employment opportunities. In 2000, much of North Natomas was undeveloped farmland. Since that time, numerous residential developments and large trip-generating facilities such as the Natomas Marketplace Shopping Center, the Promenade Shopping Center, and the Natomas Park Shopping Center have been developed. The North Natomas population grew from 1,082 in 2000 to 24,800 in 2005. Residential buildout of North

**Table 1.4-1
Population Growth in South and North Natomas^a**

Area	1990 ^b	1995 ^b	2000 ^b	2001 ^b	2005 ^c	2027 ^c
South Natomas	35,366	36,816	40,141	42,461	45,500	66,300
North Natomas	643	650	1,082	2,798	24,800	46,700

^a The population estimates are based on boundaries established by the SACOG Regional Analysis Districts (RAD). The RAD for South Natomas extends from the north levee of the American River to Del Paso Road. The RAD for North Natomas extends north of Del Paso Road to the Sacramento County line.

^b Source: SACOG, 2001b

^c Source: SACOG, 2006

Natomas through the fall of 2003 has outpaced original City of Sacramento and SACOG growth projections by 40 percent (SACOG, 2006c). Growth in South and North Natomas is expected to increase between 2005 and 2027 by 46 percent and 88 percent, respectively (SACOG, 2006c).

Because the area is being urbanized beyond projections, it provides the opportunity to incorporate transit into on-going land development plans to reduce the dependency on conventional single-occupant auto travel. Moreover, travel growth in the Corridor will also be heavily influenced by the growth in employment in Downtown, Rancho Cordova, and McClellan Park. Connectivity between these areas will be important in order to maintain mobility in the region.

According to the 2006 MTP, the number of households in the DNA study area is expected to increase from 25,150 in 2000 to 62,570 in 2027, a 145-percent increase (see Table 1.4-2). Employment over this same period is projected to increase from 108,310 to 195,969, or 81 percent. These growth projections are the highest in the City of Sacramento.

Area	2000 ^a		2027 ^b		Percent Change	
	Households	Employment	Households	Employment	Households	Employment
DNA Study Area	25,150	108,310	62,570	195,969	145	81
City of Sacramento	155,937	269,505	240,034	418,251	54	55
County of Sacramento	473,211	561,728	722,406	869,975	53	55
^a Source: SACOG, 2001b ^b Source: SACOG, 2006						

Other growth considerations include the following:

- Population estimates completed for the Corridor indicate that the study area population will increase at an annual compounded growth rate of 2 percent from 2000 to 2025, compared to 1.1 percent for the City of Sacramento, and 1.3 percent for the County of Sacramento.
- Compounding these growth estimates, experience demonstrates that growth in the Corridor is exceeding projections. Straight-line trend forecasts indicate that the Corridor will build out at a much more rapid pace than originally anticipated.

1.4.2 Major New Development Projects

Major new development in the Corridor is anticipated to further increase the need for transportation options. New development proposals in Downtown, North Natomas, and around the Airport are now underway, including the following:

- The *Railyards Redevelopment Plan* proposes development of the 240-acre Union Pacific Railroad property. As proposed, the project would consist of 11,000 homes, 1.3 million square feet of retail, and 2.9 million square feet of office space, hotels, restaurants, entertainment venues, and open space. A light rail station is identified in the Plan adjacent to the proposed Sacramento Intermodal Transportation Facility. The Railyards Redevelopment Plan was approved by the City Council in December 2007.
- Township 9 proposes construction of approximately 2,700 homes, 69,000 square feet of retail, and 17.33 acres of open space on 65 acres along Richards Boulevard between North 5th and North 7th Streets. Township 9 was approved by the City Council in August 2007. Plans for additional projects adjacent to this site include office and retail space development. The developer of this plan has identified land on its property for a light rail station.
- Creation of a City/County “Natomas Joint Vision” would guide the future development of 25,000 acres of unincorporated County of Sacramento immediately north and west of the Natomas area. A significant goal established by this vision is the adoption of smart growth principles that emphasize pedestrian and transit orientation. Included in this project is 7,000 acres of urban reserve.
- Greenbriar is a proposal to build a new residential and commercial development project on 577 acres between Metro Air Park and SR 99. This project would include 3,500 high-, medium-, and low-density homes; 50 acres of commercial development; and a light rail station at the southern edge of the development.
- The Natomas Panhandle is a project to build homes and retail on 1,465 acres between Elkhorn Blvd and I-80. The Panhandle would need an improved transit system to accommodate increased dependence on single occupant vehicles and I-5.
- Metro Air Park, a County of Sacramento-approved project just east of the Airport, is expected to include 20 million square feet of warehouse, light manufacturing, office, retail space, and 950 hotel rooms. This project includes a light rail station.
- The West Lakeside project would consist of homes built on 133 acres in unincorporated County of Sacramento at the northeast corner of Del Paso Road and the West Drain, creating increased demand for improved transit.

1.4.3 Ongoing and Past Planning Efforts

Since 1984, there has been considerable local and regional interest in Sacramento to build light rail between Downtown and the Airport. As part of the last Measure A survey conducted prior to the referendum of 2004 that extended transit funding for 30 years, the DNA project was rated as one of the most highly ranked transportation improvements in the region. In 1989, the Truxel alignment was identified by RT, the City of Sacramento, and County of Sacramento as the preferred alignment between Downtown and the Airport. This decision was reinforced again in 1994 by the City of Sacramento’s adoption of the *North Natomas Community Plan*, which identified a preferred alignment along Truxel Road, with right-of-way and station locations.

As a result, the City of Sacramento has been requiring developers to dedicate right-of-way for the DNA alignment and contribute payment of mitigation fees for station construction. At

this time, developer-dedicated right-of-way includes essentially all of the alignment in the Railyards, North Natomas, and County of Sacramento, or about 75 percent of the alignment for the DNA project.

In 2004, County of Sacramento included the future light rail line as part of its long-range *Master Plan Update for the Sacramento International Airport*. A station would be located adjacent to the new Airport terminal providing passengers with direct access. On August 29, 2006, the Board of Supervisors approved construction of the new terminal, which will be operational by 2011. The Airport has already commissioned RT to begin preliminary engineering on the alignment through the Airport property and the end-of-line light rail station.

Also in 2004, the City of Sacramento adopted plans for construction of the new Intermodal Facility within the Railyards to provide connections for local and express bus and light rail services, intercity buses, the Capitol Corridor commuter rail, and Amtrak. Currently, the Capitol Corridor passenger train service provides 32 trains daily between Sacramento and the San Francisco Bay Area. It is the third busiest Amtrak-provided route in the nation with nearly 1.3 million annual riders, a figure that has tripled within the past seven years. The Intermodal Facility incorporates the future DNA light rail alignment and station.

The 2007 draft of the *American River Parkway Plan* notes that the DNA crossing is the only planned new crossing of the American River.

1.4.4 Increased Demand for Transit Services

As described above in Sections 1.4.1 and 1.4.2, much of the Corridor has only recently been approved for residential, commercial, and office development. Transit service in the area has been provided only at modest levels based on available funding. Operating agencies providing common carrier or public transportation services within or through the Corridor are RT, Yolo County Transportation District (Yolobus), Yuba-Sutter Transit District, Amtrak, and Greyhound. Public transportation to the Airport consists largely of taxi, shared-ride van services, some dedicated hotel shuttles, and one public bus route. Several other agencies provide transit service from areas outside the study area to Downtown Sacramento, such as El Dorado Transit, Roseville Transit, and others. Yolobus, Yuba-Sutter Transit, and Greyhound primarily traverse I-5 to Downtown, bypassing the North and South Natomas Communities, as does the Roseville Transit system. The Roseville Transit system uses I-80 and Business 80 to access Downtown, but it does not have stops within Natomas.

RT provides transit service with stops within North and South Natomas that connects to Downtown. Bus route 11 provides the most direct connection between Downtown, South Natomas, and North Natomas via I-5, Truxel Road, and Natomas Boulevard. Currently this line operates at 30 minute headways during the peak hours (6 am to 9 am and 3:30 pm to 6 pm). The service operates at 60 minute headways during the midday. However the service does not operate past 6 pm on weekdays and does not operate on weekends. From July 2005 through June 2006, Route 11 averaged 750 boardings a day (RT 2006b). Routes 13 and 14 operate on 60 minute headways throughout the day and evening seven days a week. These routes serve primarily Northgate Boulevard, Norwood Avenue, and North Market Blvd, connecting these corridors to the light rail station at Arden/Del Paso. From July 2003 through July 2006, Routes 13 and 14 averaged 466 and 552 weekday boardings, respectively. Route 88 provides service between the Arden/Del Paso light rail station, West El Camino Avenue, Gateway Oaks Drive west of I-5, and J Street. This service operates at

30 minute headways during the peak period and at 60 minute headways at midday, evenings, and weekends. However, the service area and frequency of service can vary and the route primarily connects employment centers, but it does not traverse the majority of the residential areas.

The North Natomas Transportation Management Association, a membership organization that promotes alternative transportation, provides a shuttle service called the Flyer for its resident and employer members. The Eastside Route connects North Natomas residents with Downtown Sacramento with three morning shuttle runs and three evening runs. The Central Route provides two morning runs and two evening runs. The Westside Route provides three morning runs and three evening runs. On average, these routes along with a local Natomas route carries 2,546 passengers a month.

Yolobus is currently the only public transit system serving the Sacramento International Airport through Route 42, which operates in a clockwise (42A) and counter-clockwise (42B) loop to connect the Airport with Downtown Sacramento, West Sacramento, Davis, and Woodland. In January 2007, Yolo County Transportation District (YCTD) reported that Route 42 carried 42,137 boardings. The District's *2006 Short Range Transit Plan* noted Terminal A as one of the top ten boarding locations on Route 42A.

Even with this existing level of transit service, there will be a significant demand for new service in the Corridor for several reasons. First, a large transit-dependent population lives in the Corridor. As stated previously, 16.5 percent of all households within the study area did not own a vehicle, compared to 12.9 percent for the City of Sacramento, and 8.7 percent for the County of Sacramento (U.S. Census, 2000). In addition, 46 percent of the study area residents are considered minority and nearly 15 percent are low-income; many of these people are located in the southern portion of the Corridor.

Second, there is a growing concentration of transit-supporting land uses. The North Natomas portion of the study area, which represents 65 percent of the Corridor, is being developed under the *North Natomas Community Plan* (1994), which promotes higher density residential uses and intense employment generators clustered around planned transit stations along Truxel Road north of I-80.

Third, the study area contains a major concentration of existing and future planned activity centers and destinations. The area includes a number of major local and regional activity centers, including the Airport, Metro Air Park, the North Natomas Town Center (including a regional park), the Inderkum High School and community college campus, ARCO Arena, the Natomas Marketplace commercial center, Natomas High School, the South Natomas Community Center, the redeveloping Richards Boulevard area, and the Sacramento Valley Station (part of the 240-acre proposed Railyards redevelopment project). Many of these centers are located within an increasingly congested portion of the study area north of Downtown along I-5 and to the east along I-80.

Fourth, the congestion on I-5 and I-80 (which is discussed in detail in Section 1.4.5) and the increasing cost and decreasing availability of parking in Downtown Sacramento may encourage additional ridership onto a system which provides an enhanced commute time and travel experience.

1.4.5 Increased Traffic Congestion

Due to rapid urbanization in the DNA Corridor, traffic congestion is projected to degrade significantly. The study area includes some of the most important regional highways in the Sacramento area: I-5, I-80, SR 99, and SR 160. Over the next 20 years the following is predicted:

- With limited improvements to I-5 and a large projected increase in traffic volumes, high levels of traffic congestion for longer periods are anticipated on I-5 within the DNA study area. Morning peak hour traffic volumes along most of the segments of I-5 between the Airport and Downtown are expected to increase by 40 to 87 percent. Between Downtown and I-80, the projected 2027 traffic volumes on I-5 will result in failing operating conditions (LOS "F")¹ during both AM and PM peak commute periods.
- The highest level of traffic growth on I-5 is projected to occur between the Arena Boulevard interchange and I-80, where a growth in traffic volume of 100 percent is anticipated. I-5 from J Street in Downtown Sacramento to I-80 will be over capacity by 2027 and nearing capacity from I-80 to the Airport.
- Morning peak hour traffic volumes on I-80 are estimated to increase from 28 percent to 57 percent in the segment within the study area. Failing operating conditions (LOS "F") are predicted between Northgate Boulevard and Truxel Road in the AM peak commute period. During the PM peak, operations will fail (LOS "F") from Northgate Boulevard, east to I-5.
- Seven of the 60 intersections in the study area will fail (LOS "F") in 2027.

1.4.6 Increased Airport Passenger Demand

Passenger travel at the Airport grew significantly during the 1990s and is expected to continue. In 1999, the Airport served approximately 7.5 million passengers, a 100-percent increase over 1990. According to the projections prepared for the *Airport Master Plan Update* (Sacramento County, 2004), passenger traffic is expected to increase at an average annual rate of 3.5 percent between 1999 and 2020, resulting in between 15 million passengers annually by 2020.

Transit demand at the Airport is expected to increase as passenger activity increases between 2005 and 2027. On an average day for the peak month of passenger activity in 2020, the Airport is expected to have 22,000 passenger origins and destinations, twice the current number. Consequently, by 2027, origins and destinations to the Airport will more than double over 2005 estimates; about two-thirds of these passengers are expected to be coming to or from the RT service area.

¹ LOS: Level of Service (LOS) is a measure of the level of congestion on a roadway segment. Levels range from "A" to "F". LOS "A" represents free-flow conditions when cars travel at the posted speed limit. At LOS "F" the roadway has reached maximum capacity and cars are traveling substantially below the speed limit (stop and go traffic). LOS "B", "C", "D" and "E" represent conditions between "A" and "F".

1.4.7 Transit Service Needs

RT needs to expand its system for the following reasons:

- The RT service area receives significantly less transit service than other comparably sized cities in the United States;
- An expanded transit system would promote economic development, reduce traffic congestion, and help the region remain competitive with other regions;
- Intermodal connections are critical to the long-term success of transportation systems. RT presently has no bus service to the Airport;
- Many of the region's students, seniors, disabled persons, and other non-driver populations depend on public transit for access to jobs and public services. The DNA study area has a significant percentage of low-income and minority households that could benefit greatly from transit linking Downtown Sacramento, South and North Natomas, and the Airport; and
- Because much of the DNA Corridor has only recently been developed, transit service in the area has been provided only at modest levels based on available funding. However, ongoing and past planning efforts have identified the DNA project as the preferred transportation solution to provide transit service in the Corridor.

1.5 ORGANIZATION OF THIS DOCUMENT

This document is organized as follows:

- Chapter 1 – Introduction. Describes the scope of the document and objectives of the project.
- Chapter 2 – Project Description. Describes the DNA project and the likely first phase.
- Chapter 3 – Transportation and Circulation. Analyzes the effects of the project on transit use, local traffic, parking conditions, and pedestrian and bicycle facilities. In Chapter 3, impacts are analyzed in relation to a near-term (2014) baseline and a 2027 baseline reflecting full implementation of the 2006 MTP.
- Chapter 4 – Environmental Setting and Environmental Consequences. Analyzes all other effects of the DNA project not addressed Chapter 3. Chapter 4 covers 18 environmental resource categories of concern, and also includes sections on construction impacts, regulatory and institutional requirements, and cumulative and growth-inducing impacts.
- Chapter 5 – Alternatives. Presents a broad range of potentially feasible alternatives, summarizes the screening probes used to narrow the number of alternatives considered, and describes the environmental consequences of the No-Project Alternative and six potential project alternatives.

- Chapter 6 – Coordination and Consultation. Describes coordination with stakeholders, public outreach, and regulatory agency consultation.
- Chapter 7 – List of Preparers.
- Chapter 8 – List of Recipients.
- Chapter 9 – References.