



LA 1 Toll Road Project

LA 1 Toll Consultant Report



April 29, 2011

LA 1 Toll Road Project

Toll Consultant Report



Prepared for:



Louisiana Department of Transportation and Development

by:

URS

April 29, 2011

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Executive Summary

The purposes of this study are to review the previous LA 1 Traffic and Revenue (T&R) study conducted in 2005 and included in the bond sale Official Statement, to compare the current operations data against the forecasts, and to update the revenue forecasts which reflect the current and future economic development in this region, with the aim of identifying ways in which Louisiana Department of Transportation and Development (LDOTD) may be able to reach the debt service targets contained in the Bond Covenants.

URS obtained the latest traffic and operation data from LDOTD and collected related data from other sources. A thorough review of the data set was conducted to develop an understanding of the parameters affecting travel demand. URS then assessed the previous T&R forecast assumptions, examined the current corridor traffic conditions, and took into account the significant major occurrences over the past few years since the last T&R study. Future traffic demands were evaluated based upon a regional economic development and traffic growth projection reflecting the oil industry activities and tourism growth. Coordination with Port Fourchon and Grand Isle, which are critical destinations related to this project, was achieved through meetings and conference calls. URS developed and evaluated traffic and revenue forecasts, and based on the forecasted revenues, made a series of recommendations on toll rates, collection approaches and other actions.

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1. Introduction

On January 7, 2011, the Louisiana Transportation Authority (LTA), a public corporation within Louisiana Department of Transportation and Development (LDOTD), sent a statement to United States Department of Transportation (USDOT), Federal Highway Administration (FHWA) and the rating agencies stating that the debt service coverage for calendar year 2010 had not been achieved for the Louisiana Route One (LA 1) Project Senior Lien Toll Revenue Bonds Series 2005A (US DOT's TIFIA Loan associated therewith). LDOTD conducted an initial analysis and concluded that there could be insufficient toll revenues to provide the required coverage ratios on the senior lien and total debt service in future years. To meet the terms of the bond indenture, LDOTD engaged HNTB in February 2011, with URS as a subconsultant, as the toll consultant to provide a report to LTA regarding the sufficiency of the toll schedule and to recommend if any adjustments are necessary. This report is a summary of URS' analysis.

1.1 Purpose of the Report

The purposes of this study are to review the previous LA 1 Traffic and Revenue (T&R) study conducted in 2005 and included in the bond sale Official Statement, to compare the current operation data against the forecasts, and to update the revenue forecasts which reflect the current and future economic development in this region, with the aim of identifying ways in which LDOTD may be able to reach the debt service target.

1.2 Study Approach

URS obtained the latest traffic and operation data from LDOTD and collected related data from other resources. A thorough review of the data set was conducted to develop an understanding of the parameters affecting travel demand. URS then assessed the previous T&R forecast assumptions, examined the current corridor traffic conditions, and incorporated the changes since the last T&R study. Future traffic demands were evaluated based upon a regional economic development and traffic growth projection reflecting the oil industry activities and tourism growth. Coordination with Port Fourchon and Grand Isle, which are critical destinations related to this project, was achieved through meetings and conference calls. URS developed and evaluated traffic and revenue forecasts, and based on the forecasted revenues, made a series of recommendations on toll rates and collection approaches.

1.3 Organization of the Report

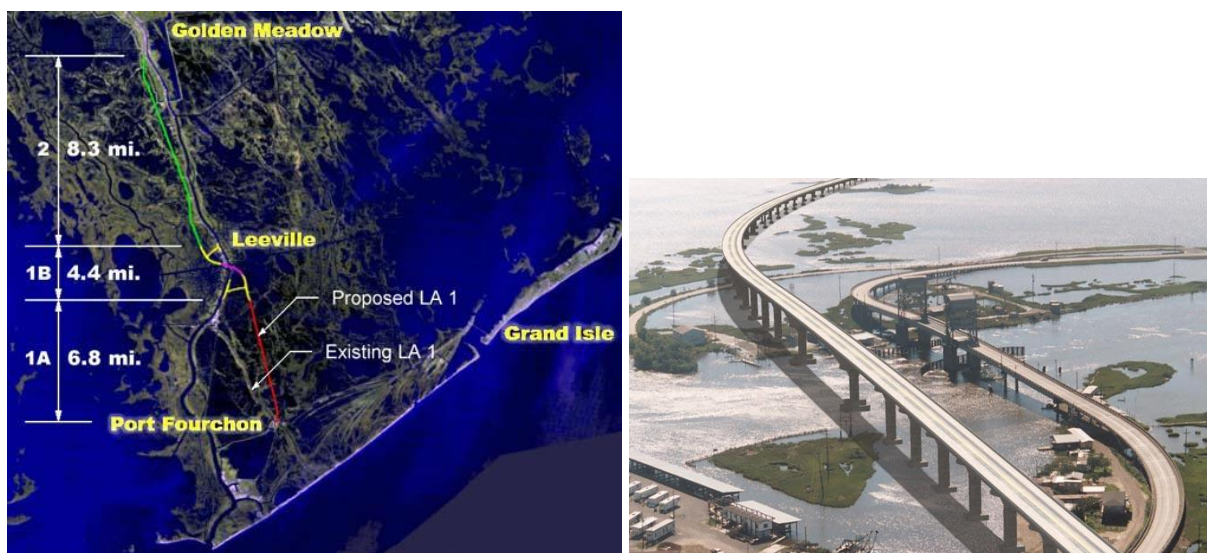
The report starts with a review of the project background and current toll traffic in Chapter 2. Chapter 3 analyzes the economic drivers of LA 1 including historical and future oil industry activities. Chapter 4 summarizes the historical traffic growth trends. Future traffic and revenues are described in Chapter 5. Chapter 6 illustrates alternative revenue streams via different toll scenarios. Finally, Chapter 7 lists the recommendations of action items in order to meet the debt service requirements.

2. LA 1 Toll Project Background

2.1 Project Descriptions

LA 1 is an elevated toll road over the tidal marshes of the Mississippi River delta as an upgrade of the previous road. This is the sole land route to Port Fourchon - the principal land base for massive oil and gas operations in the Gulf of Mexico, the Louisiana Offshore Oil Port (LOOP), and to Grand Isle – a major tourist attraction for recreational fishing. Phase 1 of the LA 1 Toll Facility Project is an elevated, two-lane highway from Leeville and includes the Leeville Bridge over Bayou Lafourche, 8 miles southward to the LA 1/LA 3090 (Port Fourchon) junction, as shown in Figure 2-1.

Figure 2-1 LA 1 Project and Leeville Toll Bridge



Source: LA 1 Toll Road Status Report (May 18, 2010)

Phases 1B and 1C include 4.4 miles of approach ramps and tiebacks to the existing LA 1 and the Leeville Bridge and were completed and opened to traffic in July 2009. Tolls have been collected at the one way (southbound) toll gantry on the bridge approach since August 2009.

Phase 1A, consisting of about 6.8 miles of elevated roadway, is expected to be completed and open to traffic by 2012. Phase 2 in the future will take the modern highway north of Leeville to Golden Meadow where it would connect with an existing 4 lane road (LA3235).

2.2 LA 1 Supports Gulf Oil Industry Activities

LA 1 at Leeville is about 45 miles south of New Orleans. However, the road was built heading generally northwest towards Baton Rouge because of the configuration of bays, bayous and other channels. At Raceland about 51 miles from Port Fourchon, LA 1 meets with US 90, the major route east to New Orleans and west to Lafayette and I-10. From Golden Meadow northward, LA 1 is closely paralleled by LA 308, a 2-lane road on the East side of Bayou Lafourche, and LA 3025, a 4-lane road to the West. South

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of Golden Meadow, LA 1 is the only highway down the peninsula on which approximately 35,000 people live.

Since the mid-1990s, there has been a steady increase in Gulf drilling due to deep-water drilling technology improvements, Congress' passage of the Deep Water Royalty Relief Act, and higher oil and gas prices. During this period the oil industry activities at Port Fourchon tripled. Port Fourchon is understood to provide support for 17% of US oil and gas production, and 75% of the Gulf of Mexico activity. The area is the major jumping off point for boats and helicopters serving the 600 offshore oil and gas facilities within a 40-mile distance in the Gulf. It is a base for approximately ten barge operations, and for multiple fishing operations. There are proposals to diversify the port by building a container terminal. LA 1 also serves Grand Isle, which is a barrier island east of the port and a growing tourist spot for recreational fishing activities.

2.3 Toll Plan and Schedule

Tolls are collected in one direction (southbound) only on the north side of the Leeville Bridge. With the removal of the old bridge, the new Leeville Bridge provides the only access over Bayou Lafourche en route to Port Fourchon, Grand Isle or any place along old LA 1 south of the bridge. Thus, toll-free access has been eliminated. Two southbound lanes are provided at the toll gantry dedicated for electronic toll collection (ETC). The original toll schedule was adopted by the LTA board in 2004, and included a minimum toll of \$0.50 for residents south of Leeville. However, in a September 2009 meeting of LTA, it was agreed that the \$0.50 toll be removed for residents. The elimination of tolls for residents was estimated to reduce revenue by approximately \$35,000 per year. Table 2-1 illustrates the current toll schedule.

Table 2-1 Toll Schedule

Vehicle Class	Toll				
	2009 ^(A)	2013 ^(B)	2018 ^(B)	2023 ^(B)	2028 ^(B)
2-axle/4-tire vehicles					
Transponder/resident toll ^(C)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Transponder/commuter toll ^(D)	1.50	1.80	2.25	2.70	3.00
Cash toll ^(E)	2.50	3.00	3.75	4.50	5.00
2-axle/6-tire vehicles	3.75	4.50	5.50	6.50	7.50
3-axle vehicles					
2-axle/4-tire with 1-axle trailer	3.75	4.50	5.50	6.50	7.50
Trucks and buses	5.00	6.25	7.50	8.75	10.00
4-axle vehicles					
2-axle/4-tire with 2-axle trailer	5.00	6.25	7.50	8.75	10.00
Trucks	7.50	9.25	11.25	13.00	15.00
5-axle vehicles	10.00	12.50	15.00	17.50	20.00
6+ axle vehicles (maximum toll)	12.00	15.00	18.00	21.00	24.00

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Table 2-1 Notes

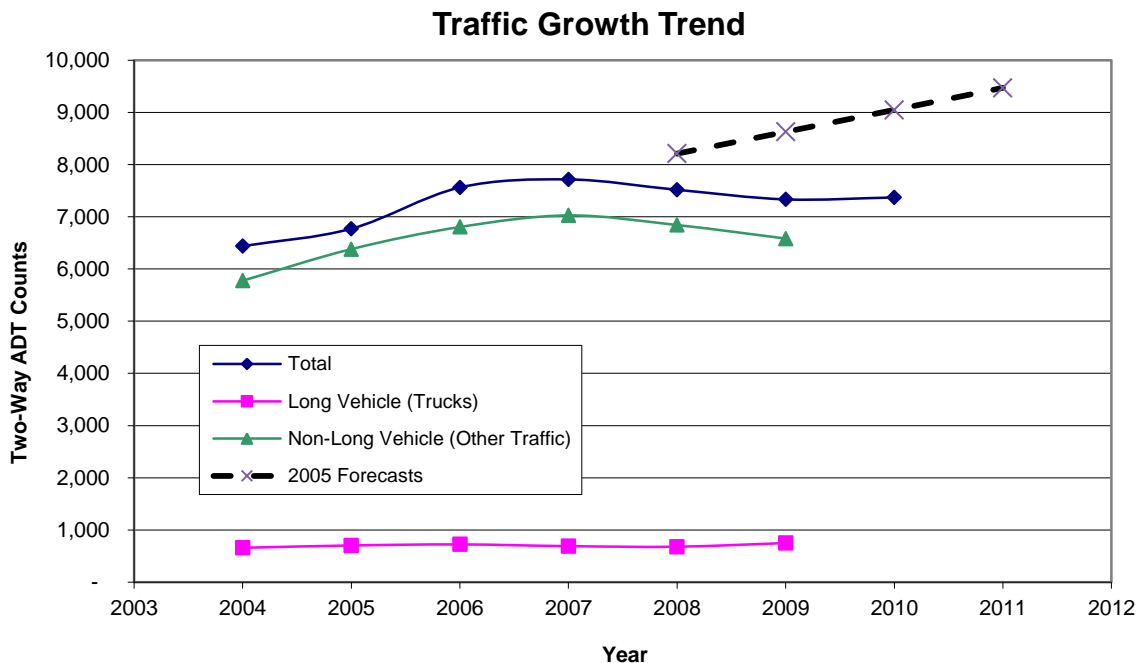
- (A) Upon opening in August 2009.
- (B) On January 1 of the respective years. The toll increase is scheduled for every 5 years.
- (C) For Lafourche Parish and Jefferson Parish residents whose permanent residence is south of the Leeville bridge. These residents will be identified by drivers' licenses in conjunction with motor vehicle registration to determine the permanent residence. The resident toll will remain constant during the forecast period.
- (D) Based on Lake Pontchartrain Causeway frequency-discount program: 60-day period within which the motorist of a two-axle/four-tire vehicle must make 20 southbound trips through the toll plaza for the discount to be fully effective.
- (E) And full-fare transponder toll for infrequent users.

The toll schedule also includes toll increases (except for the resident toll) programmed for implementation in five-year intervals in 2013, 2018, 2023 and 2028 to stay ahead of inflation. They are rounded to the nearest quarter except for the two-axle transponder toll for commuters where coin simplification is not an issue. Further rounding could be made for collection efficiency, if necessary. The doubling of tolls by 2029 is equivalent to an escalation rate of 3.5 percent annually.

2.4 Traffic on LA 1

The daily traffic on LA 1 was about 6,411 in both directions in 2010, which is about a 12.5% decrease from 2007. Historical Average Annual Daily Traffic (AADT) count data was compared with 2005 URS forecast result, illustrated in Figure 2-2.

Figure 2-2 2-Way AADT Counts with URS 2005 Forecast



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The 2005 traffic projection was based on the extension of the traffic growth trends between 2004 and 2007. However, the actual traffic has decreased since 2007. There are a number of events that have occurred since 2005 including:

- Hurricane Katrina, 2005
- Hurricane Rita, 2005
- US economy major downturn and subprime mortgage collapse of 2007
- Hurricane Gustav, 2008
- Hurricane Ike, 2008
- US economy recession since 2008
- Increased fuel prices, and fuel price volatility
- A 6 month moratorium on all deepwater offshore drilling on the Outer Continental Shelf from May 30, 2010. The limitation was in response to the Macondo oil spill in the Gulf of Mexico.
- Revised regulatory requirements for drilling permits.

3. Review of Economic Drivers

While most traffic is usually driven by a pool of different social activities in a region such as employment, shopping, and recreational trips and encompasses a large spread of activity centers, the traffic on LA 1 is mostly generated by oil and gas related industries at Port Fourchon and tourism and commercial fishing at Grand Isle. Due to the unique nature of the activities that this corridor serves and the uncertainties associated with the impact of natural events such as hurricanes, three economic analysis scenarios were developed as the basis for traffic growth forecasts and will be discussed in this chapter.

3.1 National and Regional Economic Overview

To evaluate current economic conditions and their potential impact on LA 1 traffic, historic national and regional Real Gross Domestic Product (RGDP) statistics were reviewed. As shown in **Table 3-1**, national RGDP increased relatively quickly (average percent of increase of four percent) between 1995 and 1999 but this growth decreased to an average of 2.5 percent between 2000 and 2006. The RGDP growth further decreased starting in 2007 and reached a negative value (-2.6%) in 2009 due to the economic downturn. Compared to national statistics, Louisiana experienced higher RGDP growth starting in 2001 until 2005 when the RGDP growth rate decreased to approximately three percent due to hurricanes Katrina and Rita. State RGDP growth rates continued at negative rates until 2009, when it increased to six percent. These negative rates can be considered due to continual impacts of 2005 hurricane devastations in addition to those of hurricane Gustav (in 2008) as well as the economic downturn.

Furthermore, Louisiana and US unemployment rates were investigated and compared as strong economic indicators for tourism and commercial fishing activities. **Figure 3-1** shows historic and 2012-2018 forecast of unemployment rates for Louisiana and the US. As displayed in this figure, the unemployment rate is forecast to peak in 2012 and gradually reduce afterwards. The 2018 unemployment rate is expected to be at the same levels as 2006 rates. This forecast indicates an economic recovery period which will positively impact Louisiana's tourism and commercial fishing industries.

As briefly discussed previously, a major contributor to the traffic on LA 1 is the relatively small Grand Isle community located in Jefferson Parish on the Gulf of Mexico (GOM). Tourism and the seafood industry are the primary businesses for island residents and the main economic drivers of this town. These were both negatively impacted by hurricanes Katrina and Rita in 2005 and hurricane Ike in 2008. Moreover, the British Petroleum (BP) oil spill incident which occurred in April 2010 negatively impacted tourism and fishing businesses at Grand Isle.

The National Oceanic and Atmospheric Administration (NOAA) closed about 80,000 square miles of the GOM to fishing (http://www.economy.com/dismal/article_free.asp?cid=191641&src=moodys) in the wake of the BP oil event which for the most part were gradually opened over a four-month period (Based on a report published by Louisiana Department of Wildlife and Fisheries titled "Oil Spill Actions" accessed at <http://www.wlf.louisiana.gov/oilspill/actions>). However, despite the research and facts documented by the Department of Health and Hospitals in the report: "Louisiana Seafood Safety Surveillance Report 2010" which assures the health and safety of fish commodity, the fishing industry

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will take some time to recover due to the public's negative perception of the quality of seafood produced from the GOM. On the other hand, BP's incentive plans to improve this negative perception may help expedite the recovery. Based on a survey documented in the report "Oil Spill Research Report Regional Wave 2" (developed by the Market Dynamic Research Group in October, 2010), at the time of study the majority of survey respondents believed that the oil spill will continue to impact Louisiana for two to five years (a ramp up period of three years was assumed for this analysis). As will be discussed later, besides fluctuations due to major events such as hurricanes, Grand Isle tourism has shown a steady historic trend and is expected to remain so in the future.

Another major contributor to LA 1 traffic is the oil and gas industry serviced from Port Fourchon located in Lafourche Parish, Louisiana. According to the LA 1 coalition site (<http://www.la1coalition.org/facts.html>), 75% of the GOM oil production is serviced through Port Fourchon, and it is anticipated that it will serve 58% of all offshore drilling in the central GOM over the next 30 years. Major events such as hurricanes and the BP oil spill have impacted the oil industry in the past. Oil production dropped significantly in 2005 and 2008 due to oil platform damages caused by major hurricanes Katrina and Ike (MMS report: Deepwater Gulf of Mexico 2006: America's Expanding Frontier" dated May 2006). Additionally, new drilling permit laws and regulations that went into effect after the BP oil spill are expected to impact drilling activities for at least four years, with a gradual recovery to previous levels in 2014.

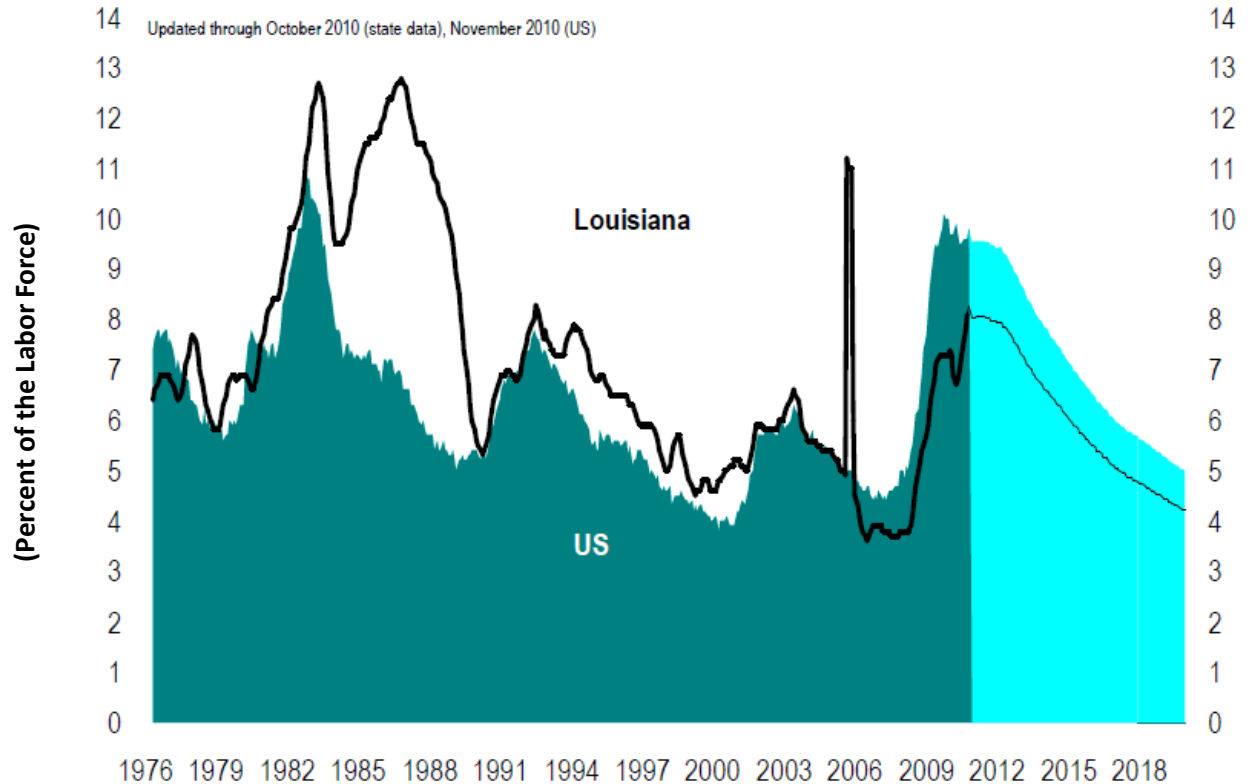
Table 3-1: Real Gross Domestic Product: Percent Change From Preceding Year

Year	National Percent Change from Preceding Year	State Percent Change from Preceding Year
1995	2.5%	
1996	3.7%	
1997	4.5%	
1998	4.4%	4.4%
1999	4.8%	1.1%
2000	4.1%	-3.6%
2001	1.1%	2.1%
2002	1.8%	1.2%
2003	2.5%	4.5%
2004	3.6%	5.0%
2005	3.1%	3.4%
2006	2.7%	-2.2%
2007	1.9%	-4.4%
2008	0.0%	-1.8%
2009	-2.6%	6.0%
2010	2.9%	

State Data Source: [Bureau of Economic Analysis @ http://www.bea.gov/regional/gsp/](http://www.bea.gov/regional/gsp/)
National Data Source: [Bureau of Economic Analysis @ http://www.bea.gov/national/index.htm#gdp](http://www.bea.gov/national/index.htm#gdp)

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Figure 3-1: US and State of Louisiana Unemployment Rate



Source: Figure adapted from the “State of Louisiana’s Economy” report dated December, 2010 accessed at <https://www.chase.com/ccpmweb/commercial/document/Louisiana.pdf>

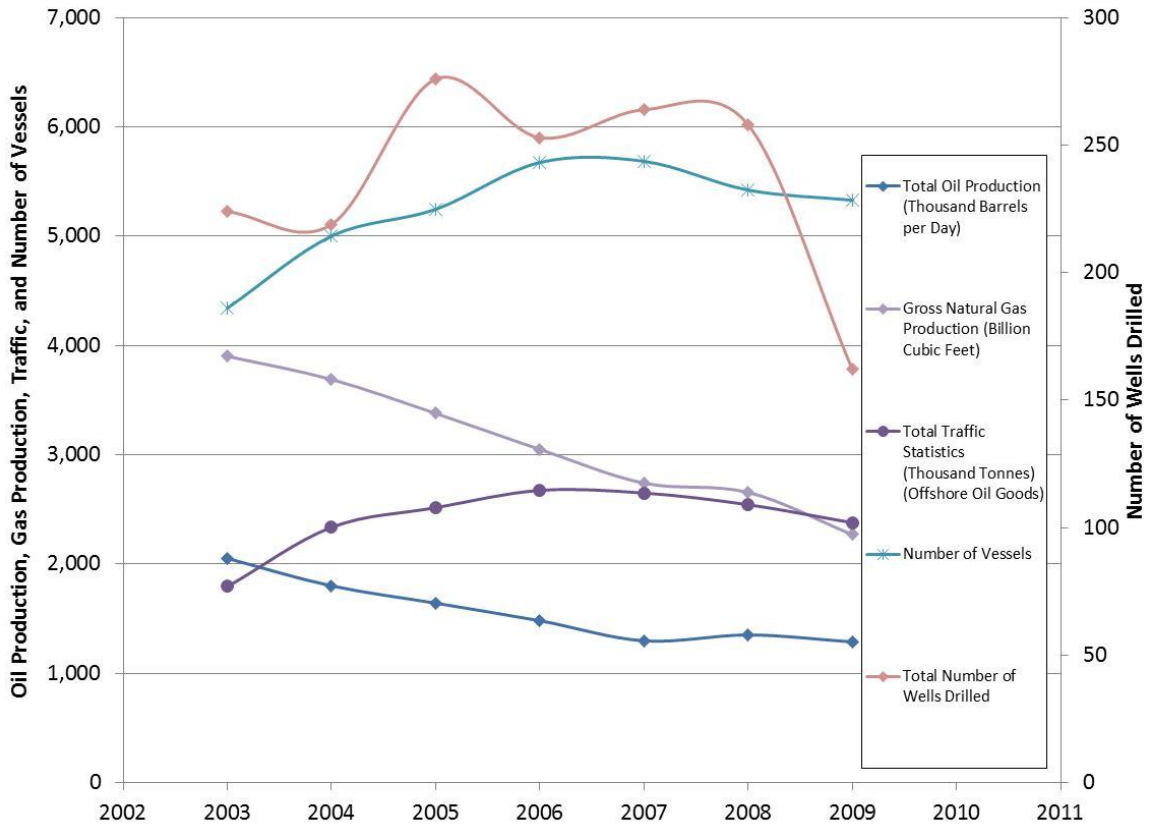
3.2 Offshore Oil/Gas Production and Offshore Oil Terminal

Historically, it has been shown that traffic through ports with high concentration of oil and gas industry is closely related to well drilling activities (see report produced by the U.S. Department of the Interior Minerals Management Service (MMS) titled: “Supply Network for Deepwater Oil and Gas Development in the Gulf of Mexico: An Empirical Analysis of Demand for Port Services” dated June 2004). This relationship was further validated by analyzing historic trends of oil industry and traffic at the port of Aberdeen which services the North Sea oil and gas fields in the United Kingdom (UK). The results of this analysis, as displayed in **Figure 3-2**, show that the number of vessels and total traffic (related to offshore oil goods) closely follows historic trends of drilling activities. Finally, this relationship can be verified from the analysis of GOM oil industry data as shown in **Figure 3-3**. It should be noted that although variations in oil production do not result in significant changes in traffic volume, it feeds to a base traffic flow. GOM analysis shows that historic oil production trend is overall compatible with traffic but that elasticity of traffic volume to change in oil production is low (used for Low Scenario) compared with elasticity of traffic volume to change in drilling activities (used for High Scenario). The low oil productions between 2005 and 2008 are mainly due to hurricanes Katrina, Rita, and Ike respectively and could be considered as random variations. This note will be of importance in developing traffic growth rates for the Low, High, and ultimately the Base Scenarios as will be discussed later under the “Toll

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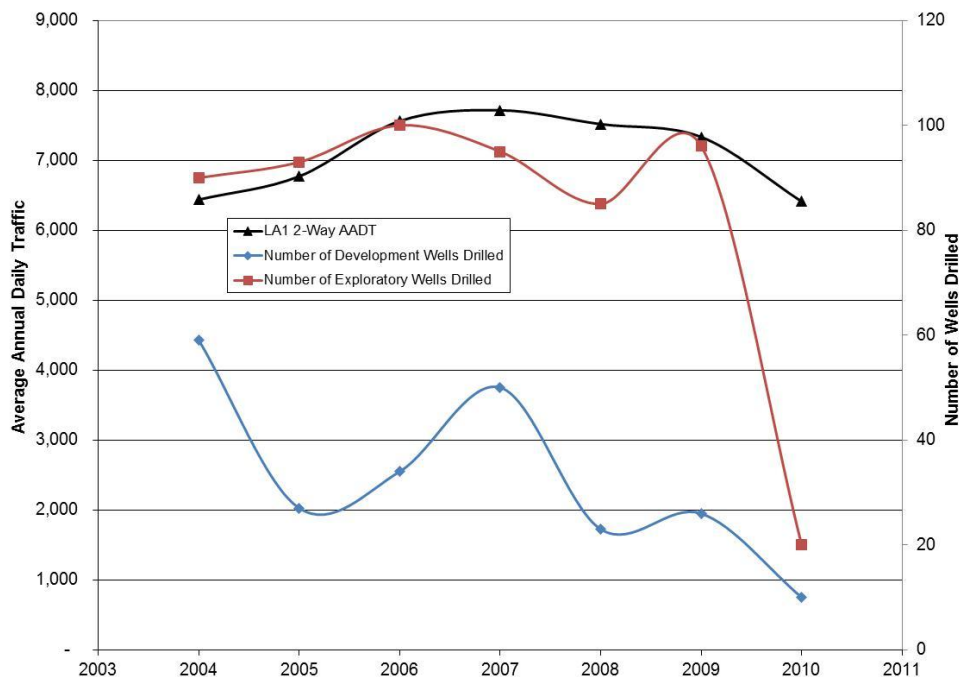
Transaction Growth Rates” section of this report. Additionally, possible random variations in oil production due to major events can be disregarded since additional traffic may be generated due to post-event activities.

Figure 3-2: Port of Aberdeen Economic Driver Analysis



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Figure 3-3: Port Fourchon Economic Driver Analysis (GOM Analysis)



3.2.1 Oil Production and Drilling Activity Forecast in Gulf of Mexico

Port Fourchon has developed into the largest GOM supply base for offshore oil and gas services due to its central location with easy access to the GOM and availability of port infrastructure. Distinct advantages to the port are its proximity to offshore installations in the Central Planning Area (CPA) and Eastern Planning Area (EPA) and its 300-foot (ft) wide navigational channel with a 24 ft depth. Therefore it is reasonable to assume that oil and gas industry is the dominant contributor to LA 1 traffic growth even though Port Fourchon also provides a tourism destination in the leisure marina. As previously discussed in order to forecast the growth of traffic to Port Fourchon, it is important to understand and predict the future of oil production and drilling activity in GOM.

3.2.1.1 Short-Term Oil Production and Drilling Activity Forecast Methodology

The MMS report “Gulf of Mexico Oil and Gas Production Forecast: 2009-2018” dated May 2009 provides short-term oil production forecast for the period of 2009-2018. However, since this MMS report was developed in 2009, actual oil production numbers for years 2009 and 2010 were obtained from the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) at <http://www.gomr.boemre.gov/homepg/fastfacts/pbpa/pbpamaster.asp>.

The MMS report provides a breakdown of forecast oil production sources: existing wells, industry announced discoveries, and undiscovered resources. As concluded from this report, industry announced discoveries are oil fields that have been explored but not yet developed while undiscovered resources are oil fields that, based on geologic investigations, are potential oil producers, but still have

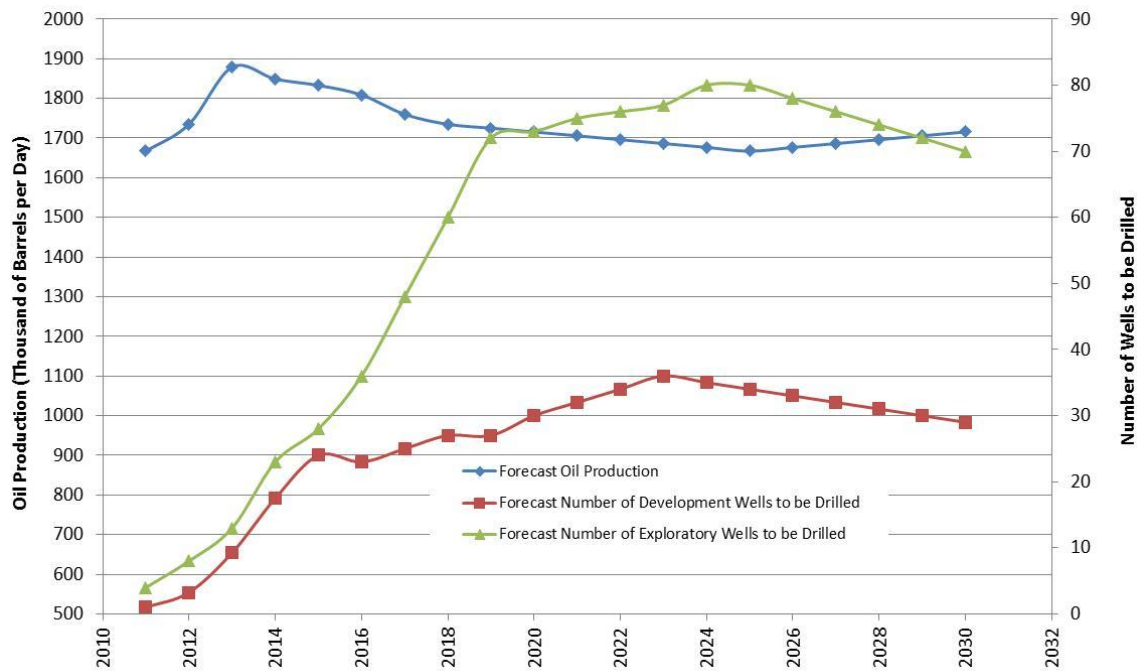
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not been fully explored. Oil production forecasts were used to calculate the future number of wells to be drilled. Additionally it was assumed that on average five exploratory drillings are performed for an oil field to reach development stage. The short-term drilling activity forecast was developed by URS for 2011-2018. As a result of laws and regulations that went into effect after the 2010 BP oil spill, the number of approved drilling permits has reduced significantly. At the date of this report, there have been only eight new deepwater drilling permits approved since the beginning of 2011. Based on URS communications with the Louisiana Department of Natural Resources (DNR)'s Secretary Scott Angelle and research on relevant existing articles, it is concluded that oil producers will be capable of meeting new standards and will return to the pre-oil spill activity levels by approximately 2014. Thus the impact of oil spill on drilling activities is anticipated to diminish by 2014 and was considered in URS' well drilling activity forecasts.

3.2.1.2 Long-Term Oil Production and Drilling Activity Forecast

The long term oil production for 2018-2030 assumes a gradual reduction in oil production until 2025 at an annual compound growth rate (ACGR) of approximately one percent (MMS's forecast ACGR between 2011 and 2018). It is predicted that oil production will gradually start to increase at similar rates in 2025 when the leasing of Eastern Planning Area (EPA) opens. The anticipated overall long term reduction in oil production is based on various articles produced by the oil industry such as: "USA Gulf of Mexico Oil Production Forecast Update" which can be accessed through <http://www.theoil drum.com/node/5081>. Consistent with the overall oil production forecast levels in the long term, drilling activities are anticipated to increase relatively rapidly from the current 2011 low activity levels by 2019. With the opening of the EPA in 2022, it is expected that drilling activities will slowly increase from 2019 until 2025 but gradually decrease afterwards due to lower growth rates of oil production and the anticipated continual production of existing wells developed in the prior years. It is predicted that after the opening of EPA and until development of ports closer to EPA and with capabilities comparable to Port Fourchon, about half of the oil production and more than half of drilling activities of the EPA will be supported by Port Fourchon. **Figure 3-4** shows URS predicted oil production and drilling activity for GOM.

Figure 3-4: GOM Oil Production and Drilling Activity Forecast



Sources:

1. 2011-2018 oil production forecast was obtained from the report produced by the U.S. Department of the Interior Minerals Management Service "Gulf of Mexico Oil and Gas Production Forecast: 2009-2018" dated May 2009.
2. 2019-2030 oil production was developed by URS based on source 1 and available oil production forecast and oil industry articles such as "USA Gulf of Mexico Oil production Forecast Update" at <http://www.theoil Drum.com/node/5081>.
3. 2011-2018 drilling activity forecast was developed based on forecast oil production and historical data on drilling activities obtained from the report produced by the U.S. Department of the Interior Minerals Management Service "Deepwater Gulf of Mexico Report of 2008 Highlights" dated May 2009.

3.3 Recreational Fishing/Tourism Forecast at Grand Isle

The majority of LA 1 trips to Grand Isle are associated with recreational fishing and tourism activities. Among all major recreational attractions in Louisiana, Grand Isle has one of the best recreational fishing sites. Moreover, based on a research report produced by the Office of Lieutenant Governor Department of Culture, Recreation, and Tourism titled "Calendar Year 2009 Louisiana TravelsAmericaVistor Profile Report", about two to three percent of recreational activities in Louisiana are in the recreational fishing category. As displayed in **Figure 3-5**, Grand Isle traffic patterns approximately follow the number of visitors to Grand Isle. Additionally, except for random variations among the years, the number of visitors to Grand Isle has been approximately constant over the period of 1997 to 2006. However, this number significantly dropped, starting in 2007 due to the downturn in the local economy. The number of visitors reduced further in 2010 due to the BP oil spill, and has remained low since then. Traffic to Grand Isle increased significantly during the summer of 2010 due to remedial activities associated with the oil spill.

Traffic generated as a result of tourism and recreational activities in Grand Isle is directly associated with the number of visitors to Grand Isle which is forecasted under three forecast scenarios: Low, Base, and High. In the Low Scenario, it is anticipated that recreational activities recover from the impacts of the economic downturn and BP oil spill incident at a relatively high rate by 2019 (approximately ten percent ACGR on average) but still at a lower rate than the reduction rate between 2006 and 2010. This scenario assumes long term low growth of approximately one percent (lower than general historic trends) due to

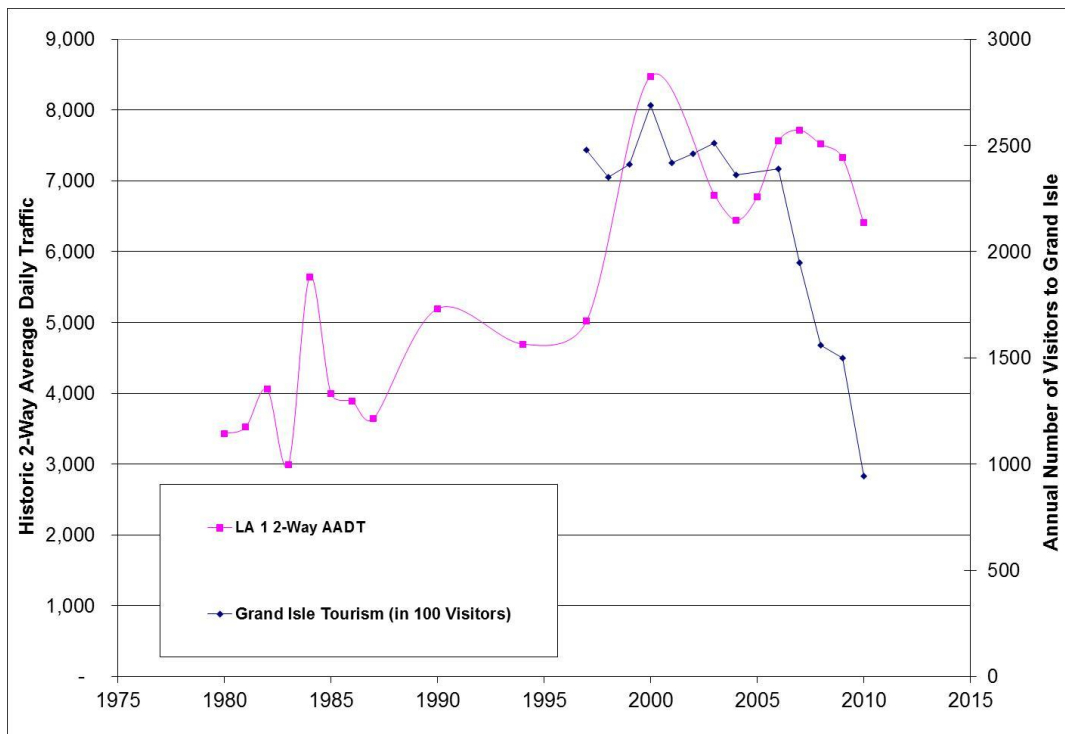
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anticipated population reduction in nearby communities who are the primary visitors to Grand Isle and anticipated impacts of natural events.

The High Scenario assumes recreational activities will increase at a relatively high rate by 2019 (approximately 15 percent Average Compound Growth Rate (ACGR) on average close to the reduction rate between 2006 and 2010) but will go through a lower growth rate after 2019 which approximates to general historic trends, but is higher than the Low Scenario.

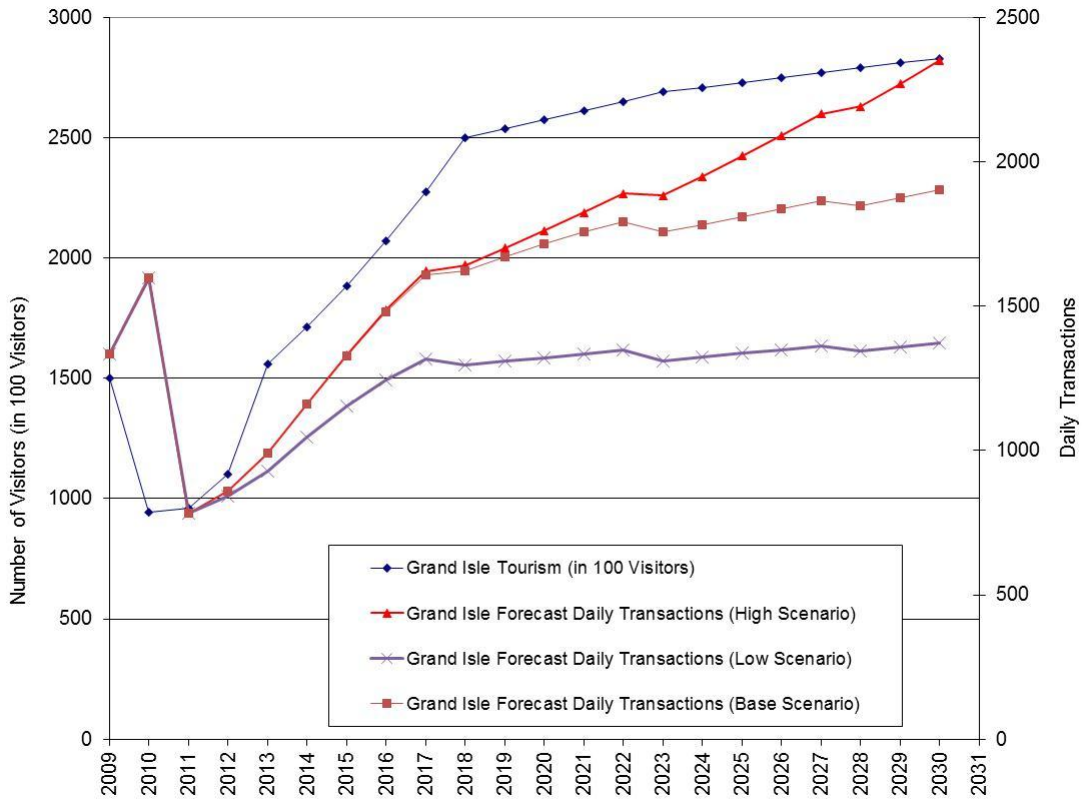
The Base Scenario assumes high recovery growth to 2019 similar to that of Low Scenario but only some impact of natural events on the population of nearby communities and thus recreational activities in the long term. **Figure 3-6** displays URS prediction of Grand Isle tourism for all scenarios.

Figure 3-5: Historic Trends of Grand Isle Visitors with 2-Way AADT Traffic



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Figure 3-6: Grand Isle Annual Visitor Forecast



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4. Historical and Current LA 1 Traffic and Revenue

The historical record of LA 1 traffic at the Leeville bridge, before and after the opening of the LA 1 toll facility, provides the foundation upon which the forecast presented herein was formulated.

4.1 Leeville Bridge and LA 1 Traffic Counts

Table 4-1 shows the growth in historical traffic provided by LDOTD, beginning in 1980, expressed in terms of 2-way annual average daily traffic (AADT).

Table 4-1 LDOTD Historical 2-Way AADT

Year	LDOTD Data	
	2-Way AADT	Annual Growth%
1980	3,429	--
1981	3,526	+2.8%
1982	4,058	+15.1%
1983	2,992	-26.3%
1984	5,642	+88.6%
1985	3,996	-29.2%
1986	3,894	-2.6%
1987	3,646	-6.4%
1990	5,196	+12.5%
1994	4,696	-2.5%
1997	5,023	+2.3%
2000	8,477	+19.1%
2003	6,800	-7.1%

Overall, traffic increased 98 percent from 1980 to 2003 (averaging 3.0 percent increase annually), reflecting the increasing activity at Port Fourchon and Grand Isle. The high number in year 1984, based on anecdotal information, could be due to the additional generated traffic from port development as well as Grand Isle hurricane levee construction in that year. Another out-of-trend count was LDOTD's 2000 estimate of 8,477, which can be attributed to capital improvements at Port Fourchon that generated additional traffic.

Table 4-2 shows the 2-way AADT counts provided by Radar Vehicle Detector (RVD) from 2004 to 2010. The term "LV" was defined as any vehicle with the length of between 30 feet and 40 feet. Note that the 2-way AADT counts provided by RVD for year 2010 was not available due to the fact that the RVD counter was moved to LA 3090 in April 2010. The 2-way AADT of year 2010 in Table 4-2 was estimated using the available LA 1 toll bridge transaction counts.

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Table 4-2 Recent 2-Way AADT Counts from RVD Data

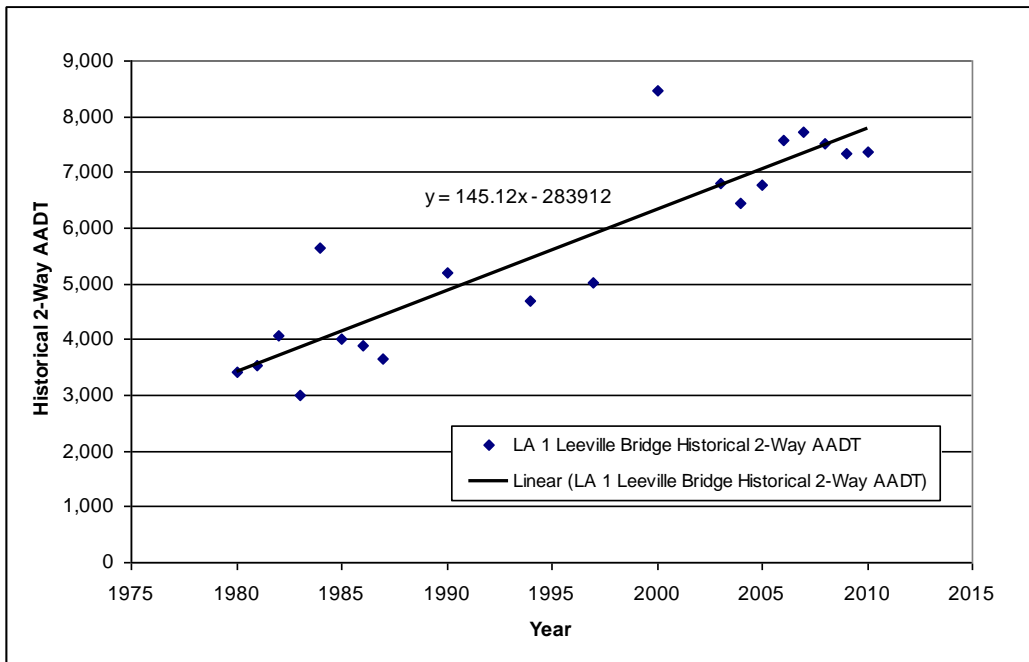
Year	LV	Non-LV	Total	% LV
2004	659	5,776	6,438	10.2%
2005	704	6,381	6,772	10.4%
2006	723	6,805	7,562	9.6%
2007	690	7,026	7,716	8.9%
2008	679	6,842	7,517	9.0%
2009	750	6,583	7,333	10.2%
2010	--	--	7,370	

The RVD count data was compared with 2005 URS forecast result, and the comparison is illustrated in Figure 2-2. As shown in Figure 2-2, the 2-way AADT kept increasing until year 2008, especially for passenger auto vehicles, but then declined. The traffic volumes of trucks between year 2004 and 2010 was relatively stable, at a level of slightly lower than 1,000 vehicles per day.

4.2 Historical Traffic Growth Trend

The historical traffic count data from Table 4-1 and Table 4-2 was combined and is shown in Figure 4-1.

Figure 4-1 LA 1 Leeville Bridge Historical 2-Way AADT Growth Trend



A linear trend line was estimated using these historical traffic data as shown in Figure 4-1. This trend line equation was applied to future years up to year 2040, and summarized in Table 4-3. As shown in Table 4-3, if the 2-way AADT follows the historical traffic growth trend, the traffic growth rate would stay between 1% and 2% without considering the impact of other socioeconomic factors.

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Table 4-3 Future 2-Way AADT Forecast by Historical Traffic Growth Trend Line

Year	Trend Line Forecast	
	2-W AADT	Growth%
2010	7,779	
2011	7,924	1.87%
2012	8,069	1.83%
2013	8,215	1.80%
2014	8,360	1.77%
2015	8,505	1.74%
2016	8,650	1.71%
2017	8,795	1.68%
2018	8,940	1.65%
2019	9,085	1.62%
2020	9,230	1.60%
2021	9,376	1.57%
2022	9,521	1.55%
2023	9,666	1.52%
2024	9,811	1.50%
2025	9,956	1.48%
2026	10,101	1.46%
2027	10,246	1.44%
2028	10,391	1.42%
2029	10,536	1.40%
2030	10,682	1.38%
2031	10,827	1.36%
2032	10,972	1.34%
2033	11,117	1.32%
2034	11,262	1.31%
2035	11,407	1.29%
2036	11,552	1.27%
2037	11,697	1.26%
2038	11,843	1.24%
2039	11,988	1.23%
2040	12,133	1.21%

5. Traffic and Revenue Review and Forecasts

5.1 Toll Collection Challenges

Toll collection for LA-1 has proven challenging because of the complexity of the tolling arrangements and the performance of various toll service providers. HNTB has been appointed to report on potential improvements to toll collection operations, and reduce the level of loss between expected and achieved revenue. This report does not focus on the details of such improvement initiatives, but assumes the benefits of the improved toll collection operations will be achieved within an agreed timeframe.

5.2 Updated Forecasting Assumptions

The traffic and revenue forecasts contained in this report are based on the assumptions outlined in the following sections.

5.2.1 Project Opening Year

The construction of Phase 1B and 1C started in May, 2006, and Phase 1B and 1C opened to traffic on July 6, 2009. The tolling on Phase 1B and 1C began on July 27, 2009, but was suspended due to technical difficulties. Tolling was restarted on August 3, 2009, which was the opening date used in this study. The construction contract for Phase 1A was signed on February 9, 2007, and Phase 1A is currently projected to open to traffic in the fall of 2011.

5.2.2 Ramp-Up Factor

The LA 1 toll bridge was opened in August 2009, and has been in operation since then. As the LA 1 toll bridge is essentially a new facility replacing an existing facility, with no alternative road route, ramp-up of traffic is not considered relevant to this study.

5.2.3 Evasion Rate

In the 2005 study, the evasion rate was considered to be 0% for the T&R forecast because of the use of cash tolls in a simple closed barrier system. In practice, because of the high evasion rates seen during the operation of the electronic fully open road tolling since August 2009, the evasion rate was considered in more detail and is summarized in Table 5-1. The actual operation data shows that the evasion rate ranged between 20% and 30% during the project period of 2009 and 2010. This evasion rate range is considered very high, and it has been agreed that the revenue evasion rate can be assumed to be reduced to 1% by the year 2015.

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Table 5-1 Evasion Rate

Year	Evasion Rate
2009	25%
2010	20%
2011	15%
2012	5%
2013	3%
2014	2%
2015 and Beyond	1%

5.2.4 Annualization Factor

The annualization factor was calculated using the daily transaction counts from the project operation in 2009 (August to December), 2010 (full year), and 2011 (January and February). Considering previous similar T&R studies and the possible effects of major weather events, an annualization factor of 325 days was assumed for this T&R study.

5.2.5 Toll Rate Elasticity

In Table 5-2, results of empirical studies determining the toll-price elasticity of vehicle trips on a toll road are shown. As these results indicate, an increase in the toll rate results in a decrease in traffic.

Table 5-2 Empirical Estimates of Toll Rate Elasticity

Toll Location	Toll Rate Elasticity	Source
16 Toll Facilities	-0.03 to -0.31	Wuestefeld and Regan, 1981
15 Toll Bridges	-0.15 to -0.31	Wuestefeld and Regan, 1981
Golden Gate Bridge	-0.15 (brief raise to cover cost of reconstruction)	Gifford and Talkington, 1996
Golden Gate Bridge	-0.19 (Friday traffic only)	Gifford and Talkington, 1996
San Francisco Bay Bridge	<-0.05	Harvey, 1994
Numerous United States Facilities	-0.1 to -0.35	Wilbur Smith Associates, 1995

Source: M. W. Burris. "The Toll-Price Component of Travel Demand Elasticity", International Journal of Transportation Economics, Vol. XXX-No 1 - February 2003.

In this study, a toll rate elasticity of -0.2 was assumed to estimate the toll transaction decreases caused by a toll increase. In the 2005 study, it was assumed that tolls would have no impacts on trucks because there was no alternative routing to the to-be-tolled Leeville bridge. In this study, a toll rate elasticity of half of auto vehicle toll rate elasticity (-0.1), was assumed for trucks.

The differing toll rate elasticities reflect the value of time for the various user groups, and the availability of alternative leisure fishing and port facilities.

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5.2.6 Weighted-Average Toll Charges for T&R Forecasting

In order to forecast the toll transactions and revenues of future years, weighted-average toll charges need to be calculated and extended through the T&R spreadsheet-based model. Table 5-3 summarizes the calculation of the weighted-average toll charges.

Table 5-3 Weighted-Average Toll Charges

Vehicle Class	% of Total Vehicles	Toll Rates						
		2009	2013	2018	2023	2028	2033	2038
2-axle/4-tire vehicles (Auto)	100.0	\$2.44	\$2.94	\$3.65	\$4.37	\$4.87	\$5.44	\$6.06
Resident	2.4	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Commuter	15.3	\$1.50	\$1.80	\$2.25	\$2.70	\$3.00	\$3.35	\$3.70
Cash/full-fare transponder	74.6	\$2.50	\$3.00	\$3.75	\$4.50	\$5.00	\$5.55	\$6.15
With 1-axle trailer	3.2	\$3.75	\$4.50	\$5.50	\$6.50	\$7.50	\$8.65	\$10.00
With 2-axle trailer	4.5	\$5.00	\$6.25	\$7.50	\$8.75	\$10.00	\$11.45	\$13.05
Multi-axle vehicles (Truck)	100.0	\$8.86	\$11.06	\$13.28	\$15.48	\$17.71	\$20.26	\$23.16
2-axle/6-tire vehicles	0.0	\$3.75	\$4.50	\$5.50	\$6.50	\$7.50	\$8.65	\$10.00
3-axle vehicles	17.6	\$5.00	\$6.25	\$7.50	\$8.75	\$10.00	\$11.45	\$13.05
4-axle vehicles	11.3	\$7.50	\$9.25	\$11.25	\$13.00	\$15.00	\$17.30	\$19.95
5-axle vehicles	69.9	\$10.00	\$12.50	\$15.00	\$17.50	\$20.00	\$22.85	\$26.10
6-axle vehicles	1.1	\$12.00	\$15.00	\$18.00	\$21.00	\$24.00	\$27.45	\$31.35

Note that the toll transaction percentage of each vehicle class was obtained through the actual toll transaction counts of year 2009 and 2010. The data for residents, commuters and 2-axle/6-tire vehicles required assumptions to be made in the analysis, which should be verified before finalizing actions by LTA. The weighted-average toll charges were calculated for auto vehicles and trucks and for each toll increase year up to year 2040.

5.2.7 Traffic Split Percentages between Port Fourchon and Grand Isle

The LA 1 toll transaction and revenue forecasts for the Port Fourchon and Grand Isle destinations needed to be conducted separately, because the trips to different destinations would be impacted by different factors, such as local economy development features, demographic growths, socioeconomic elements, trip purposes and frequencies, etc. Therefore, it was necessary to estimate the toll transaction split percentages between the Port Fourchon and Grand Isle destinations. This calculation was based on the historical RVD 2-way AADT counts on LA 1 bridge count location and FM 3090 (the route to Port Fourchon) count location. The calculation results showed that 77% of the total transaction would go to the Port Fourchon direction, and 23% would go to the Grand Isle direction.

5.2.8 Traffic Growth for Port Fourchon

As described previously, oil production and drilling activities were used as variables to estimate traffic growth rates at Port Fourchon. First, the growth (or reduction) in these variables was calculated based on historic data between control years (control years are selected as points of major changes in the variables). However, in order to avoid abnormalities with major fluctuations due to major events such as hurricanes Katrina and Rita in 2005 and hurricane Gustav in 2008, variable ACGRs were calculated over longer time durations to decrease the impact of these variations in the analyses. Traffic ACGRs were calculated for the same time periods, and elasticity factors of traffic growth to variable growth (or reduction) were calculated. Future variable growth rates were computed for these control years and based on the economic forecasts discussed in Chapter 3. Finally, calculated elasticity factors were applied to these ACGRs to obtain the future traffic growth rates.

5.2.9 Traffic Growth for Grand Isle

Traffic growth rates used for this analysis are consistent with the forecast Grand Isle visitor growths described under “**Review of Economic Drivers**” chapter of this report.

5.2.10 Toll Transaction Growth Rates

Based on historic traffic data and economic analysis described under the “**Review of Economic Drivers**” chapter, traffic growth rates were developed separately for Grand Isle and Port Fourchon and for the three scenarios; Low, Base and High.

The Low Scenario is designed to be the fifth percentile case and generally assumes longer recovery period from the 2007-2010 low traffic conditions. For the long term (after 2019) this scenario assumes low traffic growths which are mostly associated with the low oil production support growth at Port Fourchon and tourism activities at Grand Isle.

The Base Scenario, which is designed to be the most likely scenario, is used as the model in developing recommendations in this study to improve future revenues. This scenario considers a relatively faster recovery from the current conditions and a relatively higher traffic growth in the long term.

The High Scenario used as the 95th percentile case in this study assumes a fast (compared to other scenarios) short term recovery due to the anticipated increase in tourism and drilling activities from their current low levels. In this scenario, higher long term traffic growths are anticipated assuming that about half of the EPA oil production and more than half of the EPA future drilling activities would be supported by Port Fourchon.

The methodology used to develop the traffic growth rates for all these scenarios are described below. **Figures 5-1 thru 5-3** demonstrate the historic and forecast Annual Average Daily Traffic (AADT) for all scenarios.

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Figure 5-1 Historic and Forecast Traffic – Low Scenario

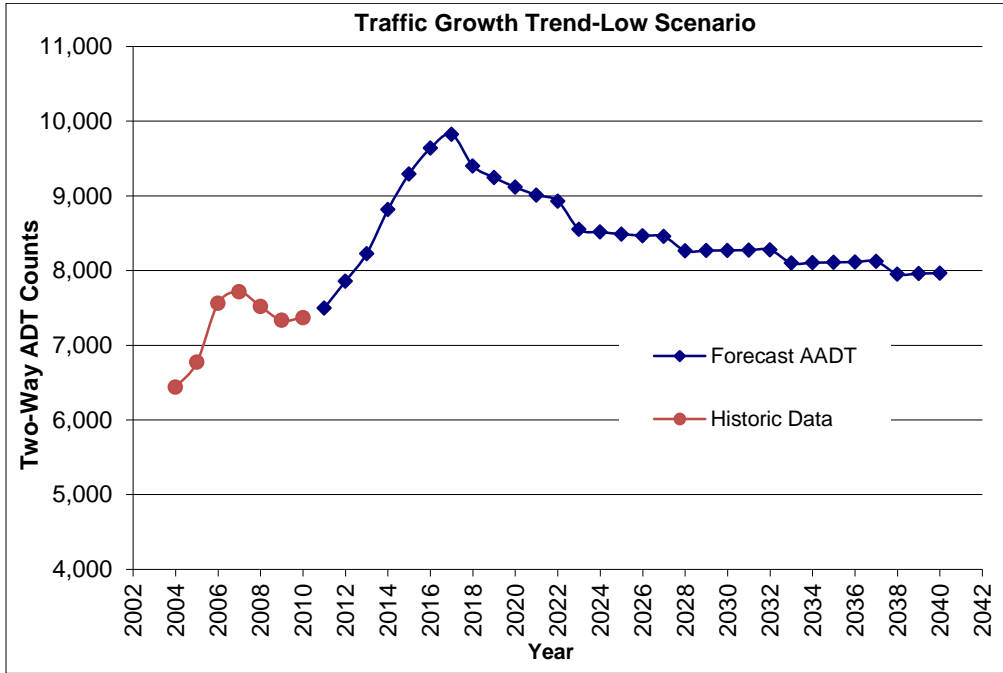
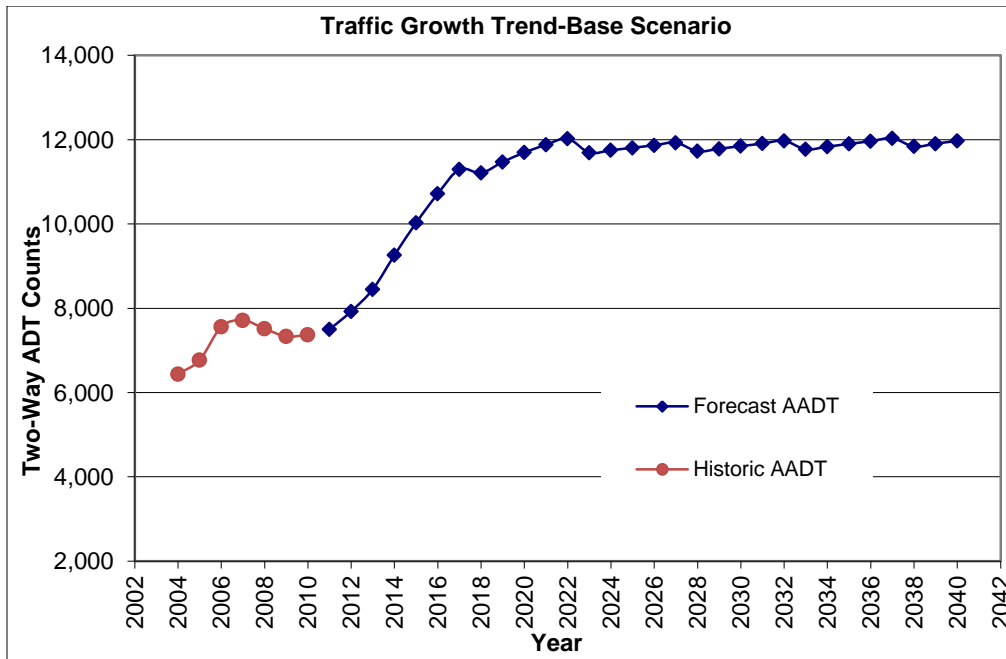
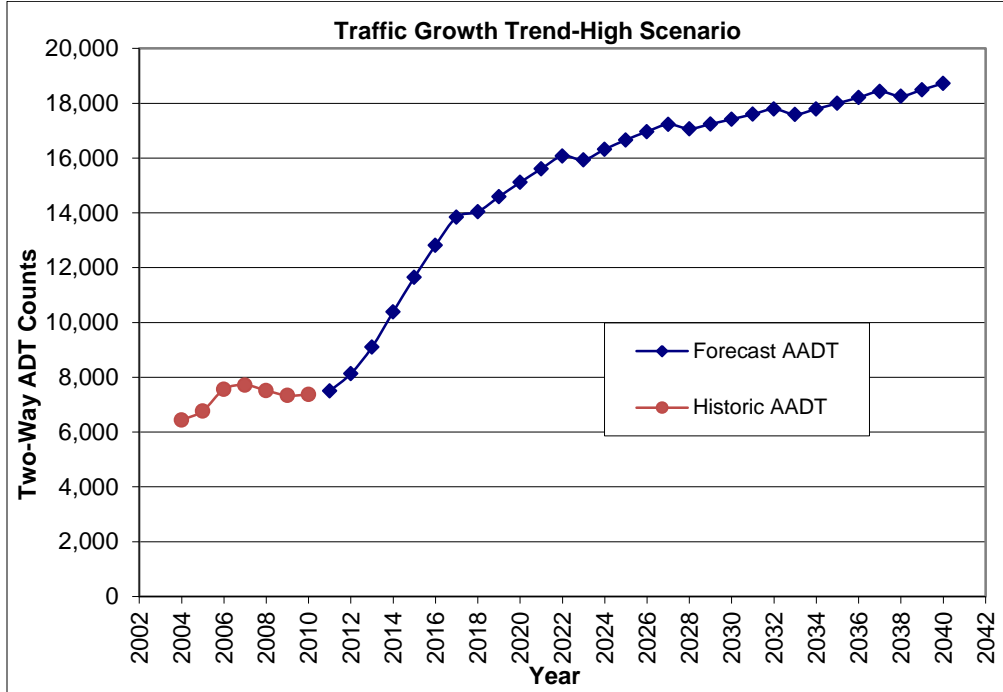


Figure 5-2 Historic and Forecast Traffic – Base Scenario



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Figure 5-3 Historic and Forecast Traffic – High Scenario



5.3 Revenue Forecasts

Toll revenue forecasts for LA 1 were generated for the three scenarios: Low, Base, and High for the 2011-2030 period. Revenue forecasts were developed using the current toll schedule based on the updated forecasting assumptions and traffic growth rates previously described in this chapter. **Tables 5-1 thru 5-3** show the traffic and revenue forecasts for the three scenarios.

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Table 5-1 Total Daily Transactions and Annual Revenue for LA 1 Toll Road (Low Scenario)

Year	Two-Axle/Four-Tire Vehicles		Trucks		Total	
	Daily Transaction	Annual Revenue (000)	Daily Transaction	Annual Revenue (000)	Daily Transaction	Annual Revenue (000)
2011	2,899	\$1,952	554	\$1,355	3,453	\$3,306
2012	3,017	\$2,270	601	\$1,643	3,618	\$3,914
2013	3,141	\$2,907	647	\$2,255	3,788	\$5,163
2014	3,379	\$3,160	680	\$2,395	4,059	\$5,555
2015	3,576	\$3,378	704	\$2,504	4,280	\$5,882
2016	3,721	\$3,515	717	\$2,549	4,438	\$6,064
2017	3,806	\$3,595	718	\$2,554	4,523	\$6,148
2018	3,653	\$4,292	676	\$2,891	4,329	\$7,183
2019	3,602	\$4,232	655	\$2,800	4,257	\$7,032
2020	3,556	\$4,179	641	\$2,741	4,198	\$6,919
2021	3,520	\$4,136	630	\$2,691	4,149	\$6,827
2022	3,492	\$4,103	620	\$2,650	4,112	\$6,753
2023	3,347	\$4,704	591	\$2,945	3,938	\$7,649
2024	3,336	\$4,688	586	\$2,919	3,922	\$7,607
2025	3,327	\$4,676	581	\$2,896	3,908	\$7,572
2026	3,322	\$4,668	577	\$2,876	3,899	\$7,545
2027	3,319	\$4,665	574	\$2,860	3,893	\$7,525
2028	3,247	\$5,092	559	\$3,188	3,806	\$8,279
2029	3,249	\$5,096	558	\$3,177	3,807	\$8,274
2030	3,253	\$5,101	556	\$3,167	3,808	\$8,269
2031	3,256	\$5,106	554	\$3,157	3,810	\$8,264
2032	3,259	\$5,112	552	\$3,147	3,812	\$8,259
2033	3,191	\$5,586	539	\$3,511	3,730	\$9,097
2034	3,195	\$5,592	537	\$3,501	3,732	\$9,093
2035	3,199	\$5,599	535	\$3,490	3,734	\$9,089
2036	3,203	\$5,606	534	\$3,479	3,737	\$9,086
2037	3,207	\$5,614	532	\$3,469	3,740	\$9,083
2038	3,143	\$6,123	519	\$3,870	3,662	\$9,993
2039	3,147	\$6,132	518	\$3,858	3,665	\$9,990
2040	3,152	\$6,141	516	\$3,847	3,668	\$9,988

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Table 5-2 Total Daily Transactions and Annual Revenue for LA 1 Toll Road (Base Scenario)

Year	Two-Axle/Four-Tire Vehicles		Trucks		Total	
	Daily Transaction	Annual Revenue (000)	Daily Transaction	Annual Revenue (000)	Daily Transaction	Annual Revenue (000)
2010	3,553	\$2,167	532	\$1,064	4,085	\$3,230
2011	2,899	\$1,952	554	\$1,355	3,453	\$3,306
2012	3,047	\$2,293	604	\$1,653	3,651	\$3,945
2013	3,233	\$2,992	659	\$2,296	3,892	\$5,288
2014	3,560	\$3,329	705	\$2,482	4,265	\$5,811
2015	3,871	\$3,657	746	\$2,655	4,618	\$6,312
2016	4,153	\$3,923	782	\$2,783	4,935	\$6,705
2017	4,390	\$4,147	811	\$2,885	5,201	\$7,032
2018	4,368	\$5,132	795	\$3,399	5,163	\$8,531
2019	4,477	\$5,260	806	\$3,445	5,283	\$8,705
2020	4,566	\$5,365	820	\$3,504	5,386	\$8,869
2021	4,640	\$5,452	831	\$3,551	5,471	\$9,003
2022	4,699	\$5,521	838	\$3,584	5,537	\$9,105
2023	4,571	\$6,424	814	\$4,053	5,385	\$10,477
2024	4,596	\$6,459	815	\$4,060	5,411	\$10,519
2025	4,622	\$6,495	816	\$4,066	5,438	\$10,561
2026	4,647	\$6,531	818	\$4,073	5,465	\$10,604
2027	4,674	\$6,568	819	\$4,080	5,492	\$10,648
2028	4,597	\$7,210	803	\$4,574	5,400	\$11,784
2029	4,623	\$7,251	804	\$4,582	5,427	\$11,833
2030	4,650	\$7,293	805	\$4,590	5,455	\$11,883
2031	4,677	\$7,336	807	\$4,598	5,484	\$11,934
2032	4,705	\$7,379	808	\$4,606	5,513	\$11,985
2033	4,629	\$8,101	792	\$5,164	5,421	\$13,266
2034	4,657	\$8,150	794	\$5,174	5,450	\$13,324
2035	4,685	\$8,199	795	\$5,184	5,480	\$13,383
2036	4,713	\$8,249	797	\$5,193	5,510	\$13,443
2037	4,742	\$8,300	798	\$5,203	5,540	\$13,503
2038	4,669	\$9,097	783	\$5,833	5,452	\$14,930
2039	4,698	\$9,154	784	\$5,845	5,483	\$14,998
2040	4,728	\$9,212	786	\$5,856	5,514	\$15,068

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Table 5-3 Total Daily Transactions and Annual Revenue for LA 1 Toll Road (High Scenario)

Year	Two-Axle/Four-Tire Vehicles		Trucks		Total	
	Daily Transaction	Annual Revenue (000)	Daily Transaction	Annual Revenue (000)	Daily Transaction	Annual Revenue (000)
2011	2,899	\$1,952	554	\$1,355	3,453	\$3,306
2012	2,919	\$2,197	825	\$2,257	3,745	\$4,454
2013	3,021	\$2,796	1,170	\$4,076	4,191	\$6,873
2014	3,518	\$3,290	1,265	\$4,455	4,783	\$7,745
2015	4,019	\$3,796	1,343	\$4,778	5,362	\$8,575
2016	4,503	\$4,254	1,399	\$4,976	5,902	\$9,230
2017	4,947	\$4,673	1,428	\$5,079	6,375	\$9,752
2018	5,098	\$5,990	1,368	\$5,849	6,466	\$11,838
2019	5,378	\$6,319	1,339	\$5,724	6,717	\$12,043
2020	5,571	\$6,546	1,387	\$5,930	6,959	\$12,476
2021	5,756	\$6,763	1,432	\$6,121	7,188	\$12,884
2022	5,930	\$6,968	1,473	\$6,295	7,403	\$13,263
2023	5,881	\$8,264	1,458	\$7,265	7,339	\$15,529
2024	6,026	\$8,469	1,489	\$7,417	7,515	\$15,887
2025	6,159	\$8,656	1,515	\$7,546	7,674	\$16,201
2026	6,278	\$8,823	1,535	\$7,648	7,813	\$16,472
2027	6,383	\$8,971	1,550	\$7,724	7,934	\$16,695
2028	6,334	\$9,935	1,527	\$8,702	7,861	\$18,637
2029	6,409	\$10,051	1,531	\$8,725	7,940	\$18,776
2030	6,486	\$10,172	1,535	\$8,748	8,021	\$18,919
2031	6,565	\$10,297	1,539	\$8,772	8,104	\$19,068
2032	6,648	\$10,426	1,543	\$8,796	8,191	\$19,222
2033	6,587	\$11,530	1,515	\$9,877	8,103	\$21,407
2034	6,674	\$11,681	1,520	\$9,907	8,194	\$21,588
2035	6,763	\$11,838	1,525	\$9,938	8,288	\$21,775
2036	6,856	\$12,000	1,529	\$9,969	8,386	\$21,969
2037	6,952	\$12,168	1,534	\$10,002	8,487	\$22,170
2038	6,902	\$13,447	1,508	\$11,234	8,410	\$24,681
2039	7,003	\$13,643	1,513	\$11,274	8,516	\$24,917
2040	7,107	\$13,846	1,519	\$11,315	8,625	\$25,161

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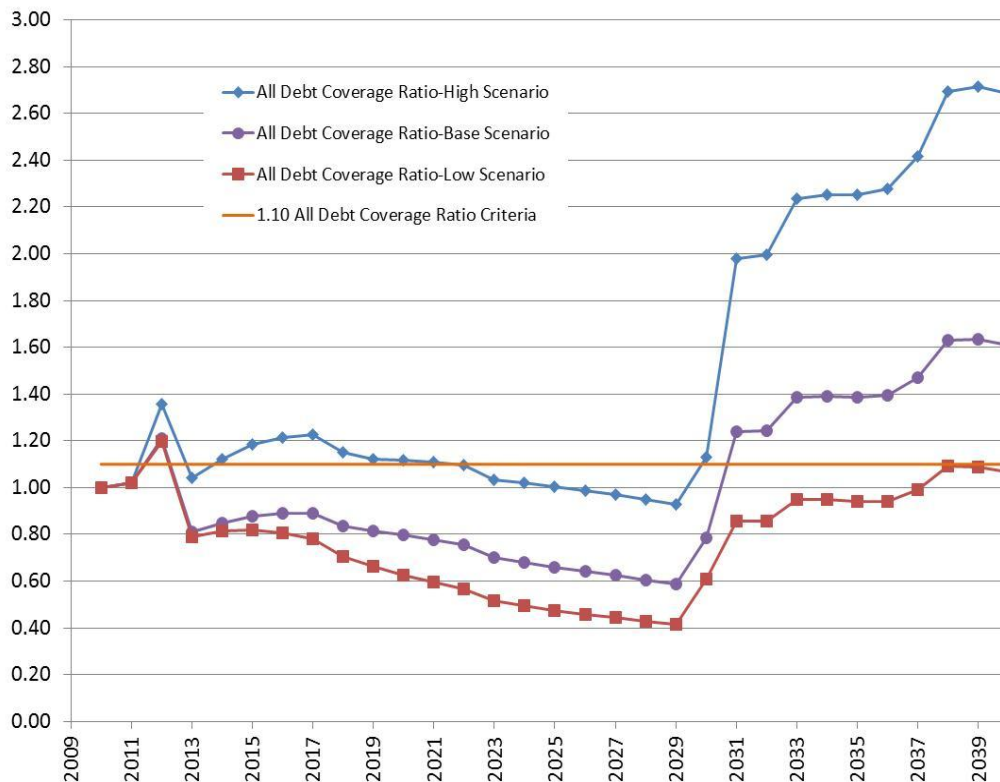
5.4 All Debt and Senior Debt Coverage Ratios

As required by the LA 1 Project Official Bond Indenture of Trust, The Louisiana Transportation Authority (LTA) is contractually bound to achieve an all debt coverage ratio of 1.10 and a senior debt coverage ratio of 1.20. **Figures 5-4 and 5-5** respectively show the all debt and senior debt coverage ratios for all three scenarios compared with the required coverage ratios. Based on this updated study and as demonstrated in these figures:

- Low Scenario fails to achieve Senior Loan Coverage Ratio in 2011, 2013, and after 2017.
- Base Scenario fails to achieve Senior Loan Coverage Ratio in 2011, 2013, and after 2019.
- High Scenario can achieve 1.20 Senior Loan Coverage Ratio except for 2011, 2028, and 2029.

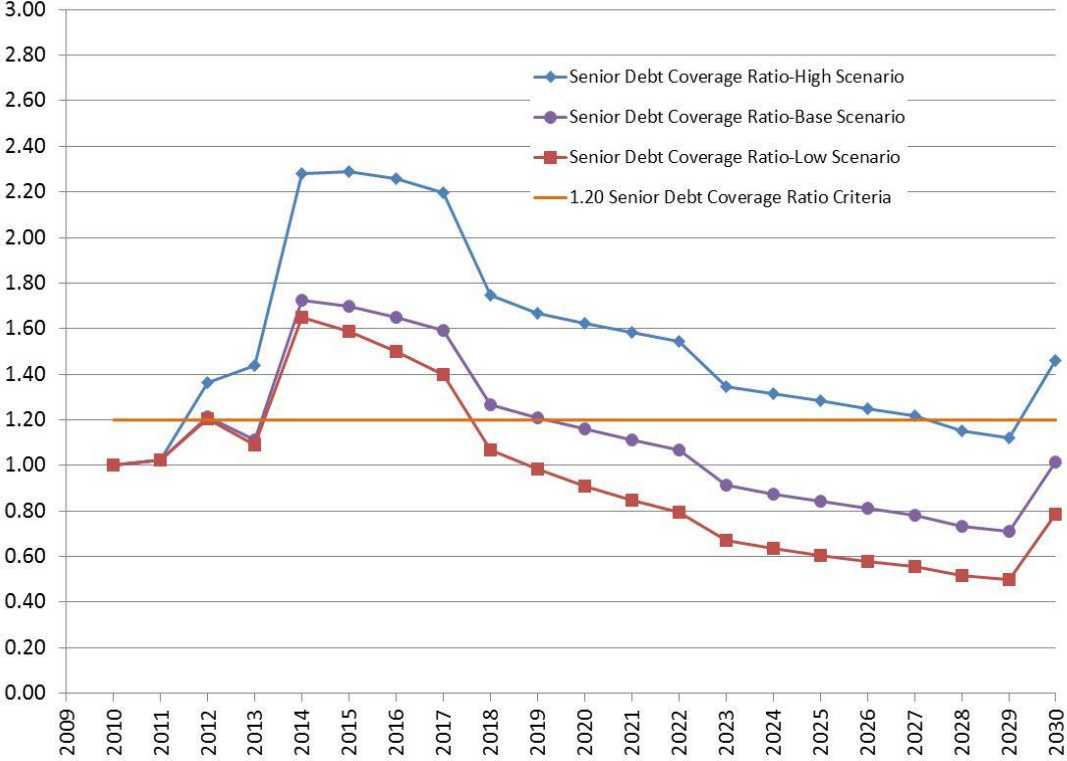
Since the senior debt coverage ratio is more readily achieved compared to the all debt coverage ratio and the Base Scenario fails to meet this ratio for most years, it is concluded that the LTA will need to take quick and decisive actions to be able to fulfill its contractual obligations in the Indenture.

Figure 5-4 All Debt Coverage Ratio Forecasts



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Figure 5-5 Senior Debt Coverage Ratio Forecasts



6. LA 1 Alternative Revenue Forecast and Analysis

To meet the all debt and senior debt obligations set forth by the LA 1 Project Official Bond Indenture of Trust, the LTA has three fundamental options:

- 1 Increase actual revenue by reducing operational losses
- 2 Increase actual revenue by modifying the toll schedule to increase tolls
- 3 Restructure debt

LDOTD has instructed HNTB to advise on the operational losses, and recommend actions to be taken. URS has based its analysis on the assumption that these actions will be effective and increase actual revenue in accordance with **Table 5.1**. The detail of **Table 5.1** has been agreed upon with LDOTD and HNTB, although some concern has been expressed that the assumption for evasion losses in 2011 may be too aggressive.

If LTA is to meet the all debt and senior debt obligations, after taking the recommended actions to reduce operational losses, it will be necessary to modify the current toll schedule by bringing forward toll increases, and significantly increasing the magnitude of those increases.

The proposed toll schedule recommends bringing forward the first toll increase year from 2013 to 2012 when the toll would be increased by 100% of the current rate. The toll increase years of this recommended toll schedule would be compatible with the current schedule (except for 2013). However, in order to be able to meet the all debt coverage ratio requirement in the long term, it is in addition deemed necessary to:

- increase the 2018 toll rate by 10% on top of the 2018 toll rate at 3.5% annual compound growth rate
- increase the 2023 toll rate by 25% on top of the 2023 toll rate at 3.5% annual compound growth rate
- increase the 2028 toll rate by 5% on top of the 2028 toll rate at 3.5% annual compound growth rate

It should be noted that there has been no specific analysis of the demand elasticity for the traffic and specific user groups of LA 1. URS has used relevant US case studies to identify appropriate toll rate elasticities for autos and trucks (5.2.5 refers). However, the unique circumstances of the Grand Isle and Port Fourchon users should be studied before implementing the significant toll increases identified in the recommended schedule. It is possible that a 100% toll increase in 2012 could adversely affect, in the short term, the economic viability of Grand Isle as a recreational destination, and/or the attractiveness in the medium-long term of Port Fourchon to service the oil and gas industry in GOM. The proposed toll schedule takes no account of the economic benefits of these locations to Louisiana as a whole, and it is recommended that consideration is given to this analysis in determining the actions to be taken by LDOTD and LTA.

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The restructuring of debt may be beneficial if it is possible to reduce the level of toll rate increases such that the economic vitality of Grand Isle and Port Fourchon is fostered, increasing traffic flows and revenues in the medium-long term. The proposed toll schedule takes no account of such possible restructuring. URS recommends that LDOTD appoint a Financial Advisor to examine and advise on the benefits of restructuring debt prior to implementing the proposed toll schedule.

URS has also considered the possibility of revising the toll schedule to reduce the preferential rates provided to residents and commuters. There is insufficient information within the operational data made available to URS to accurately quantify the benefits to LTA in changing these rates, and URS understands that a change in legislation would be required to effect a change in toll rate for residents. The proposed toll schedule therefore assumes that there is no change in the preferential toll rates provided to residents and commuters. It is recommended that the benefits of the toll road to residents and commuters are studied prior to implementation of the proposed toll schedule.

Table 6-1 shows the proposed toll schedule.

Table 6-1 Proposed Toll Schedule

Vehicle Class	Toll (A)				
	Existing (B)	2012 (C)	2018 (C)	2023 (C)	2028 (C)
2-axle/4-tire vehicles					
Transponder/resident toll ^(D)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Transponder/commuter toll ^(E)	\$1.50	\$3.00	\$4.10	\$6.10	\$7.60
Transponder/Cash toll ^(F)	\$2.50	\$5.00	\$6.80	\$10.10	\$12.60
2-axle/6-tire vehicles					
3-axle vehicles					
2-axle/4-tire with 1-axle trailer	\$3.75	\$7.50	\$10.20	\$15.10	\$18.80
Trucks and buses	\$5.00	\$10.00	\$13.60	\$20.10	\$25.10
4-axle vehicles					
2-axle/4-tire with 2-axle trailer	\$5.00	\$10.00	\$13.60	\$20.10	\$25.10
Trucks	\$7.50	\$15.00	\$20.30	\$30.20	\$37.60
5-axle vehicles					
6+ axle vehicles (maximum toll)	\$12.00	\$24.00	\$32.50	\$48.20	\$60.10

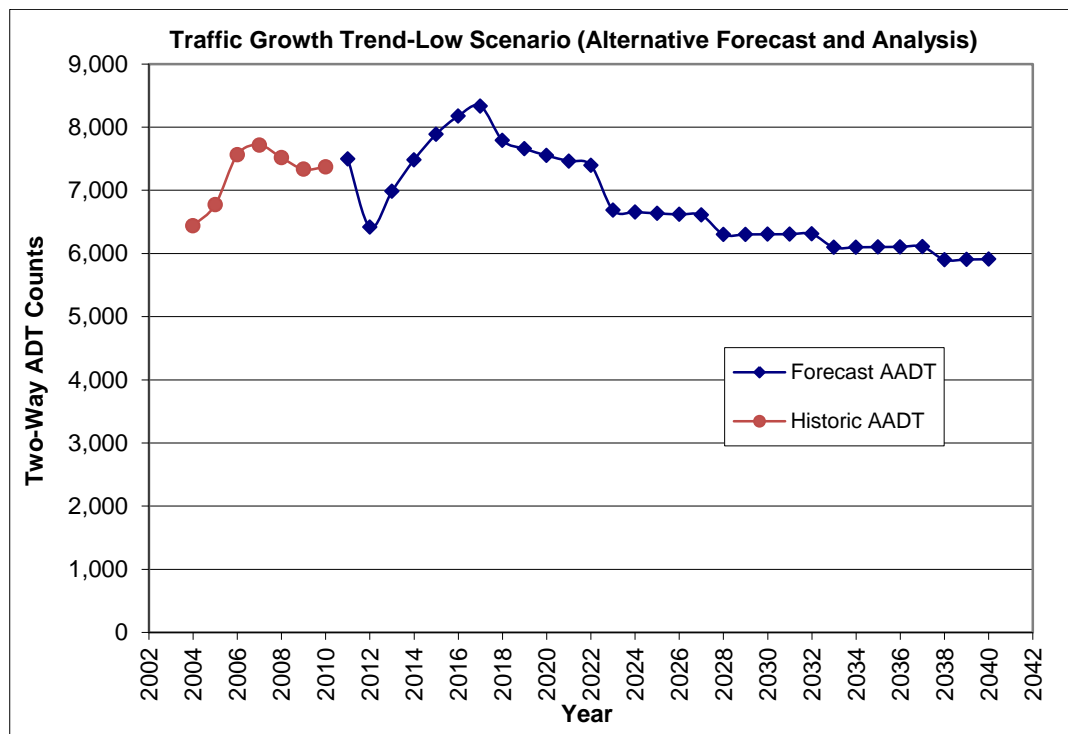
- (A) Allowance is made for non-toll traffic pursuant to Louisiana RS 40:1392 and other applicable Louisiana statutes.
- (B) Actual 2011 toll rates
- (C) On January 1 of the respective years.
- (D) For Lafourche Parish and Jefferson Parish residents whose permanent residence is south of the Leeville bridge. These residents will be identified by drivers' licenses in conjunction with motor vehicle registration to determine the permanent residence. The resident will remain constant during forecast period.

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- (E) Based on Lake Pontchartrain Causeway frequency-discount program: 60-day period within which the motorist of a two-axle/four-tire vehicle must make 20 southbound trips through the toll plaza for the discount to be fully effective.
- (F) And full-fare transponder toll for infrequent users.

Figures 6-1 thru 6-3 display historic and forecast AADT for all scenarios. Tables 6-2 thru 6-4 show the alternative traffic and revenue forecasts for the three scenarios.

Figure 6-1 Historic and Forecast Traffic – Low Scenario (Alternative Forecast and Analysis)



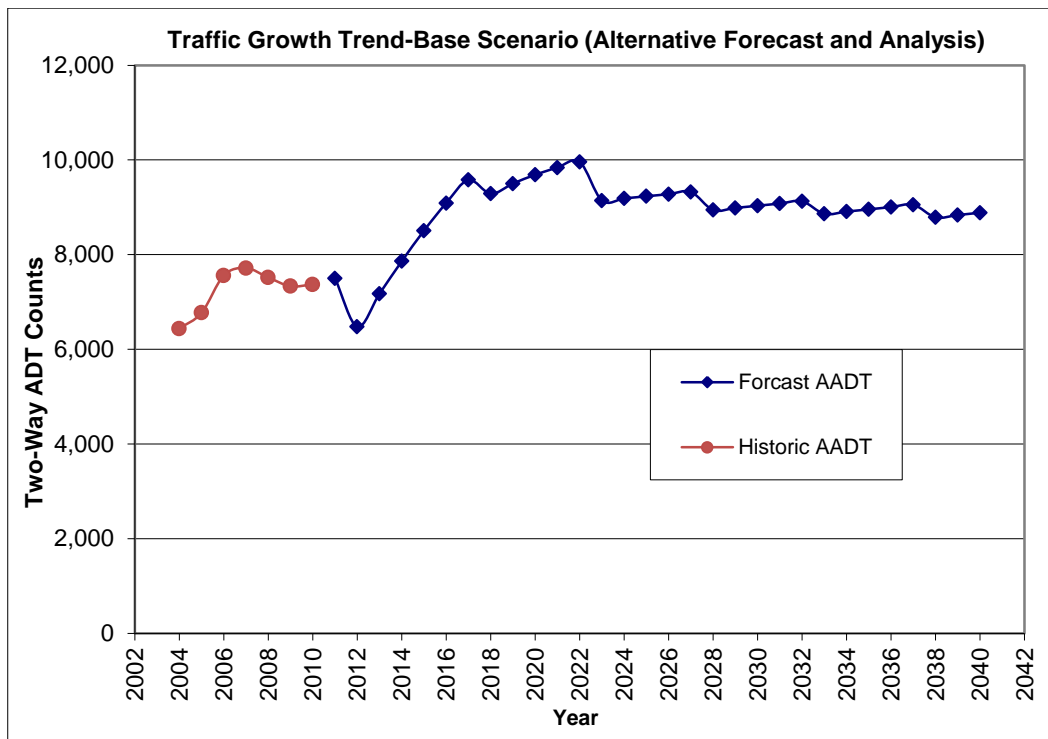
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**Table 6-2 Total Daily Transactions and Annual Revenue for LA 1 Toll Road-Low Scenario
(Alternative Forecast and Analysis)**

Year	Two-Axle/Four-Tire Vehicles		Trucks		Total	
	Daily Transaction	Annual Revenue (000)	Daily Transaction	Annual Revenue (000)	Daily Transaction	Annual Revenue (000)
2011	2,899	\$1,953	554	\$1,355	3,453	\$3,308
2012	2,463	\$3,706	493	\$2,694	2,955	\$6,401
2013	2,665	\$4,096	551	\$3,077	3,216	\$7,173
2014	2,867	\$4,450	579	\$3,268	3,446	\$7,718
2015	3,033	\$4,757	599	\$3,415	3,632	\$8,172
2016	3,155	\$4,949	610	\$3,477	3,765	\$8,426
2017	3,226	\$5,060	611	\$3,483	3,837	\$8,543
2018	3,024	\$6,454	563	\$4,346	3,587	\$10,800
2019	2,982	\$6,363	545	\$4,209	3,527	\$10,572
2020	2,944	\$6,282	533	\$4,119	3,477	\$10,401
2021	2,913	\$6,216	524	\$4,044	3,437	\$10,260
2022	2,889	\$6,166	516	\$3,983	3,405	\$10,149
2023	2,615	\$8,283	465	\$5,323	3,079	\$13,606
2024	2,605	\$8,254	460	\$5,275	3,066	\$13,529
2025	2,598	\$8,232	457	\$5,233	3,055	\$13,465
2026	2,594	\$8,218	454	\$5,198	3,048	\$13,415
2027	2,592	\$8,210	451	\$5,169	3,043	\$13,379
2028	2,472	\$9,770	429	\$6,126	2,901	\$15,897
2029	2,474	\$9,778	428	\$6,106	2,902	\$15,885
2030	2,477	\$9,787	426	\$6,087	2,903	\$15,874
2031	2,479	\$9,796	425	\$6,067	2,904	\$15,863
2032	2,481	\$9,805	424	\$6,048	2,905	\$15,853
2033	2,399	\$11,218	408	\$6,920	2,807	\$18,138
2034	2,402	\$11,230	407	\$6,898	2,808	\$18,128
2035	2,404	\$11,242	406	\$6,877	2,810	\$18,119
2036	2,407	\$11,256	404	\$6,856	2,811	\$18,112
2037	2,410	\$11,270	403	\$6,835	2,813	\$18,105
2038	2,329	\$12,927	388	\$7,821	2,717	\$20,748
2039	2,332	\$12,944	387	\$7,798	2,719	\$20,742
2040	2,335	\$12,962	386	\$7,774	2,721	\$20,737

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Figure 6-2 Historic and Forecast Traffic – Base Scenario (Alternative Forecast and Analysis)



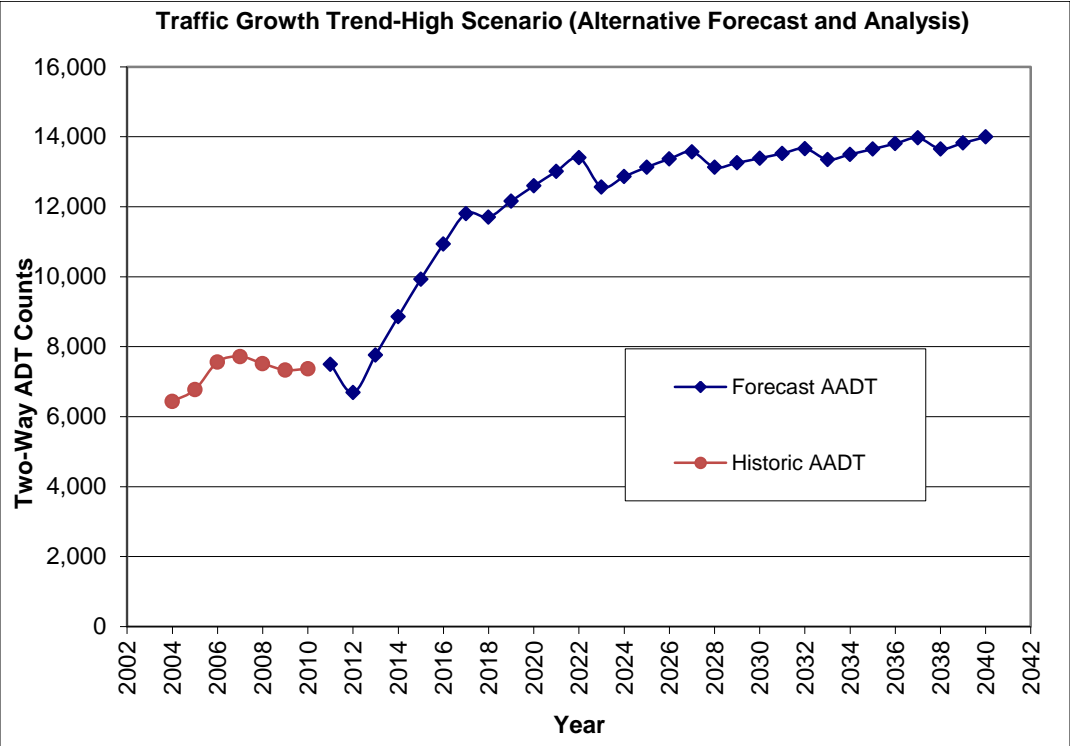
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Table 6-3 Total Daily Transactions and Annual Revenue for LA 1 Toll Road-Base Scenario
(Alternative Forecast and Analysis)

Year	Two-Axle/Four-Tire Vehicles		Trucks		Total	
	Daily Transaction	Annual Revenue (000)	Daily Transaction	Annual Revenue (000)	Daily Transaction	Annual Revenue (000)
2011	2,899	\$1,953	554	\$1,355	3,453	\$3,308
2012	2,487	\$3,742	495	\$2,710	2,982	\$6,452
2013	2,743	\$4,215	561	\$3,132	3,304	\$7,347
2014	3,019	\$4,687	600	\$3,385	3,619	\$8,073
2015	3,282	\$5,147	635	\$3,621	3,917	\$8,769
2016	3,520	\$5,520	666	\$3,795	4,186	\$9,315
2017	3,721	\$5,835	690	\$3,934	4,411	\$9,769
2018	3,615	\$7,715	661	\$5,109	4,277	\$12,824
2019	3,705	\$7,907	670	\$5,178	4,376	\$13,085
2020	3,779	\$8,064	682	\$5,266	4,461	\$13,330
2021	3,840	\$8,195	691	\$5,336	4,531	\$13,531
2022	3,889	\$8,298	697	\$5,386	4,586	\$13,684
2023	3,571	\$11,314	639	\$7,326	4,211	\$18,640
2024	3,590	\$11,375	640	\$7,337	4,231	\$18,712
2025	3,610	\$11,437	641	\$7,349	4,251	\$18,786
2026	3,630	\$11,500	643	\$7,361	4,272	\$18,861
2027	3,650	\$11,564	644	\$7,373	4,294	\$18,937
2028	3,502	\$13,839	616	\$8,792	4,118	\$22,631
2029	3,522	\$13,917	617	\$8,807	4,138	\$22,724
2030	3,542	\$13,996	618	\$8,822	4,159	\$22,818
2031	3,562	\$14,076	619	\$8,837	4,181	\$22,913
2032	3,583	\$14,158	620	\$8,853	4,203	\$23,011
2033	3,481	\$16,276	600	\$10,179	4,081	\$26,455
2034	3,501	\$16,372	601	\$10,197	4,103	\$26,569
2035	3,522	\$16,469	602	\$10,216	4,124	\$26,685
2036	3,543	\$16,568	604	\$10,235	4,147	\$26,803
2037	3,565	\$16,668	605	\$10,254	4,169	\$26,922
2038	3,461	\$19,212	585	\$11,791	4,047	\$31,004
2039	3,483	\$19,331	586	\$11,814	4,069	\$31,145
2040	3,504	\$19,451	588	\$11,837	4,092	\$31,287

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Figure 6-3 Historic and Forecast Traffic – High Scenario (Alternative Forecast and Analysis)



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Table 6-4 Total Daily Transactions and Annual Revenue for LA 1 Toll Road-High Scenario
(Alternative Forecast and Analysis)

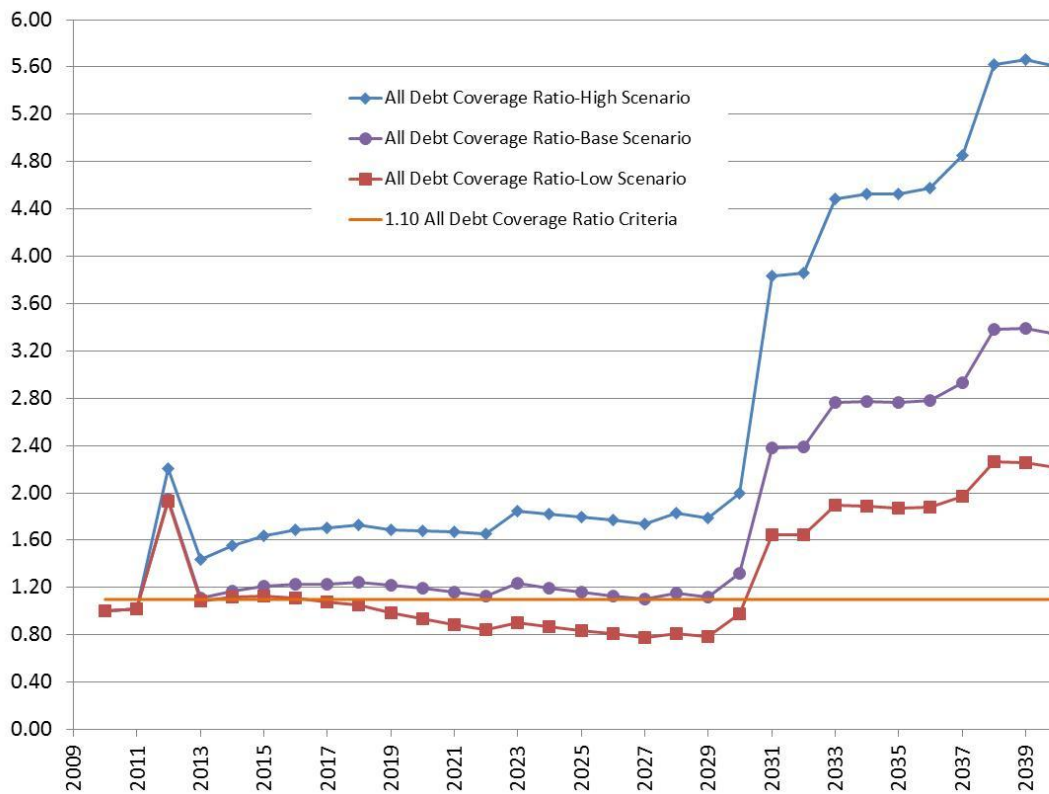
Year	Two-Axle/Four-Tire Vehicles		Trucks		Total	
	Daily Transaction	Annual Revenue (000)	Daily Transaction	Annual Revenue (000)	Daily Transaction	Annual Revenue (000)
2011	2,899	\$1,953	554	\$1,355	3,453	\$3,308
2012	2,397	\$3,607	682	\$3,732	3,079	\$7,339
2013	2,573	\$3,954	1,002	\$5,597	3,575	\$9,551
2014	2,996	\$4,651	1,084	\$6,117	4,080	\$10,768
2015	3,422	\$5,368	1,151	\$6,560	4,574	\$11,928
2016	3,835	\$6,015	1,199	\$6,831	5,034	\$12,845
2017	4,213	\$6,608	1,223	\$6,972	5,437	\$13,580
2018	4,243	\$9,055	1,146	\$8,854	5,389	\$17,908
2019	4,477	\$9,555	1,122	\$8,664	5,599	\$18,219
2020	4,638	\$9,898	1,162	\$8,976	5,800	\$18,873
2021	4,792	\$10,225	1,199	\$9,265	5,991	\$19,490
2022	4,937	\$10,535	1,234	\$9,529	6,170	\$20,063
2023	4,627	\$14,660	1,156	\$13,246	5,784	\$27,906
2024	4,742	\$15,022	1,180	\$13,524	5,922	\$28,546
2025	4,845	\$15,351	1,201	\$13,757	6,046	\$29,108
2026	4,938	\$15,646	1,217	\$13,943	6,156	\$29,589
2027	5,020	\$15,905	1,229	\$14,081	6,249	\$29,985
2028	4,862	\$19,214	1,183	\$16,888	6,045	\$36,102
2029	4,918	\$19,434	1,186	\$16,930	6,103	\$36,363
2030	4,975	\$19,662	1,189	\$16,973	6,164	\$36,634
2031	5,035	\$19,897	1,192	\$17,018	6,227	\$36,915
2032	5,097	\$20,142	1,195	\$17,064	6,292	\$37,206
2033	4,988	\$23,325	1,159	\$19,660	6,148	\$42,985
2034	5,052	\$23,624	1,163	\$19,717	6,215	\$43,341
2035	5,118	\$23,934	1,166	\$19,776	6,285	\$43,710
2036	5,187	\$24,254	1,170	\$19,838	6,357	\$44,092
2037	5,258	\$24,586	1,174	\$19,901	6,431	\$44,487
2038	5,149	\$28,578	1,139	\$22,939	6,287	\$51,517
2039	5,222	\$28,986	1,142	\$23,017	6,365	\$52,002
2040	5,298	\$29,408	1,146	\$23,097	6,445	\$52,505

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6.1 All Debt and Senior Debt Coverage Ratios (Alternative Forecast and Analysis)

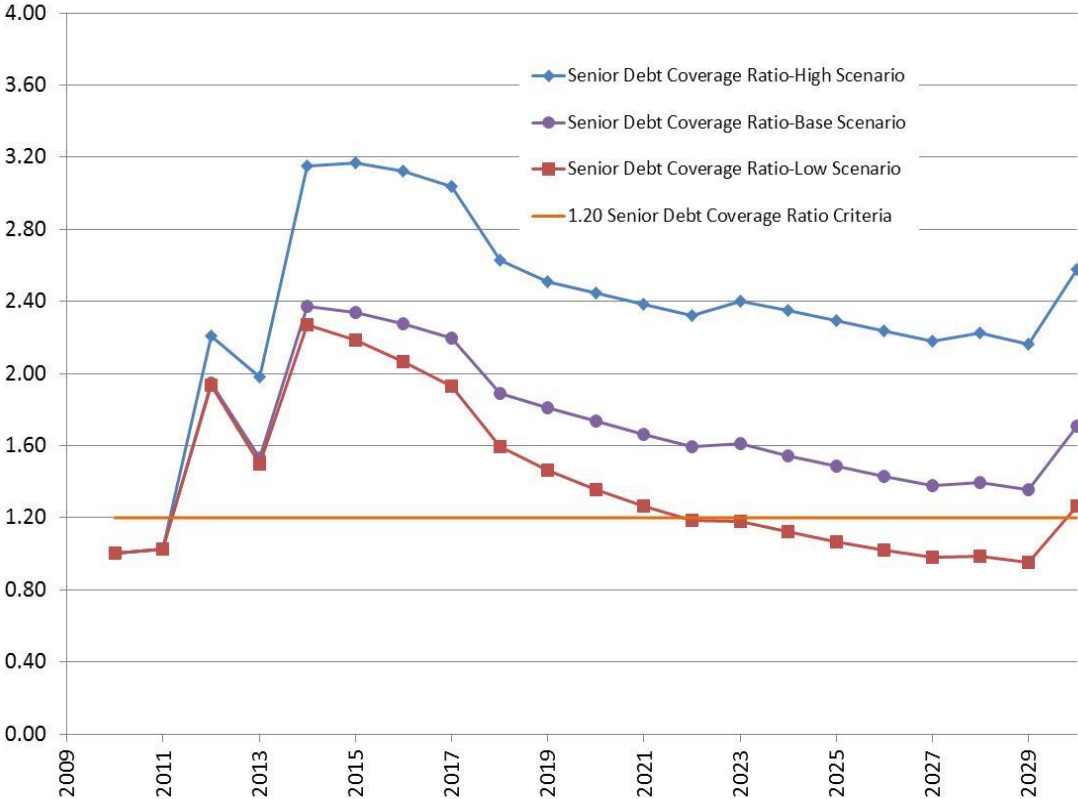
Figures 6-4 and 6-5 respectively show alternative forecast all debt and senior debt coverage ratios for all three scenarios compared to the required all debt ratio 1.10 and senior debt coverage ratio 1.20 set forth by the LA 1 official bond statement. As demonstrated in these figures, if the proposed toll schedule is implemented in addition to other recommendations described in Chapter 7, the Base Scenario can achieve the 1.20 senior loan and 1.10 all debt loan coverage ratios for all years except for 2011.

Figure 6-4 All Debt Coverage Ratio Forecasts (Alternative Forecasts and Analysis)



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Figure 6-4 Senior Debt Coverage Ratio Forecasts (Alternative Forecasts and Analysis)



7. Recommendation of Action Items

Based on the analysis presented in the previous sections, URS has the following recommendations.

Summary of Recommendations

1. Operations: Implement selected HNTB recommendations to revise toll policies and operations so as to reduce toll losses to no more than the percentages identified in Table 5-1
2. Finance: Appoint Financial Advisor (FA)
3. Finance: Make special provision for debt repayment in 2011 with FA support
4. Finance: Examine possibilities for restructuring debt
5. Toll rates: Re-evaluate benefits and tolls for commuter traffic and Grand Isle residents. Consider implementation of differential toll rates for cash and transponder toll road customers.
6. Monitoring: Closely monitor LA 1 traffic and revenue, as well as economic drivers, to anticipate and implement short-term actions for repayment
7. Analysis: Determine project-specific demand elasticity – Stated Preference Survey
8. Analysis: Determine overall economic impact of proposed toll rate schedule and identify potential alternate measures
9. Toll rates: Implement proposed schedule of toll rates Table 6-1, with initial 100% increase in toll rates from opening of Phase 1A.
10. Planning: Develop contingency plan for compliance with Bond Covenant in the medium to long term
11. Analysis: Additional T&R studies should be conducted to re-evaluate economic conditions and long term traffic projections as Eastern GOM oil development becomes more certain

Recommendation 1

HNTB has reported on the revisions to toll policies and operations that are recommended to reduce the toll losses currently being sustained. LDOTD should implement selected revisions, focusing on those that achieve the greatest benefits and the shortest timeframes for completion.

Recommendation 2

URS is not a Financial Advisor and does not provide Financial Advisor services. We recommend that an FA be appointed to assist LDOTD and LTA with the actions necessary to fulfill the contractual obligations in the LA 1 Official Bond Indenture of Trust.

Recommendation 3

URS recommends that LDOTD and LTA make special provision for debt repayment in 2011, with the support of an FA.

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URS understands that LDOTD is considering a supplement to the toll revenue account of \$350,000 from the state Transportation Trust Fund (TTF), so that the debt service due of June 1, 2011 will not impact the Debt Service Reserve Fund (DSRF). According to the Cooperative Endeavor Agreements (CEA), LDOTD is solely responsible for the collection of tolls to a level comparable to industry standards, which is approximately 95%. Due to issues with the electronic toll collection system, the collection rate achieved has averaged approximately 74%. For the period August 2009 through March 2011, the difference between the industry standard and achieved toll collection rates represents approximately \$1.6M in uncollected toll revenue. On this basis, LDOTD could justify supplementing the toll revenue with state TTF to meet the debt service repayment due on June 1st, and also for subsequent payments until the tolling system issues are corrected.

Recommendation 4

URS recommends that LDOTD and LTA investigate, with the support of an FA, the possibility of restructuring the debt.

One option promulgated by LDOTD is to negotiate with USDOT on delaying the repayment of principal of the TIFIA loan. The original TIFIA repayment schedule was predicated on a project completion date of August 8, 2008. However, due to several intense hurricanes, and delays in bidding and construction, the project will not be officially completed until the fall of 2011. Applying the original 5-year period between project completion and the start of TIFIA principal repayment gives a projected date of December 1, 2016 for the start of TIFIA principal repayment.

Recommendation 5

The residents of Grand Isle and of Lafourche Parish south of Leeville currently have a preferential toll rate of \$0.00. Prior to the construction of LA 1 toll road access to their primary residences did not require payment of a toll. However, the residents are also one of the primary beneficiaries of the construction of the toll road. Upon completion of Phase 1A they will have a hurricane evacuation route that is not subject to flooding over 10 miles, and a place of refuge from tidal and storm surges.

Commuter traffic is envisioned to be primarily composed of employees of Port Fourchon and Grand Isle businesses. As regular users of the toll road the financial burden of LA 1 usage could be considerable. However, the benefit of a \$1 reduction in toll for 20 southbound trips, applied retrospectively as a credit to their transponder account, is sufficiently large to potentially alter usage patterns, and is operationally complex. For example, the cost of 20 southbound trips as a commuter is equal to the cost of 12 southbound trips with a Geauxpass. Trips 13 to 19 continue to have a marginal cost of \$2.50, but trip 20 has a marginal benefit of \$17.50.

One potential solution would be to provide differential toll rates for pay-as-you-go customers compared to transponder account holders. This would enable LTA to reflect the differing costs of toll collection, and provide a more consistent but lower percentage savings to transponder users.

URS recommends that LDOTD and LTA review the benefits received by residents and commuters from LA 1 toll road, and determine if a revision in the toll regime is appropriate.

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Recommendation 6

The production of the toll consultant report has highlighted shortcomings in the quality of data available for the usage of LA 1. It is recommended that traffic data is collected to determine the daily traffic flows by vehicle class and the split of traffic between Port Fourchon and Grand Isle with a long-term count collected over several months. Fully detailed analyses of traffic and revenue should be conducted monthly, and reconciled against traffic count data to validate the assumptions regarding traffic split between Port Fourchon and Grand Isle, in terms of both overall flows and by vehicle classification.

The economic drivers for traffic using LA 1 should also be monitored and studied, to allow the model of usage to be refined and provide greater confidence in the projections for traffic and revenue.

The monitoring will also permit short-term actions to be taken to ensure principal debt repayments can be made, and the required debt service coverage ratios achieved.

Recommendation 7

The magnitude of toll increases required to achieve the debt service coverage ratios for all debt and senior debt is significant. As there has been no project-specific analysis of the demand elasticity for differing user groups, it is critical that a stated preference survey is undertaken to ensure that proposed toll increases remain below the maximum of the toll elasticity curve. Failure to understand and correctly interpret user choices and decision-making could result in an increase in toll rates causing a decrease in the net revenue available to service debt. Incremental toll increases could also be used to determine the revealed preferences of LA 1 users, but the operational complexities of implementation, and the acceptable limitations of study, make this option undesirable.

Recommendation 8

LA 1 serves a very specific area with well-defined user groups. URS recommends that the economic impact of the proposed toll increases on the local community and businesses be studied, so that the broader effects can be assessed as part of any decision-making process about the alternate options available to achieve the specified debt service coverage ratios for all debt and senior debt .

Recommendation 9

URS recommends that the proposed schedule of toll rates Table 6.1 is implemented after exploring all options, and the preceding recommendations have been completed. The initial increase should be made on opening of Phase 1A of LA 1 so that the toll rate sensitivities are minimized.

Recommendation 10

The risk associated with the traffic and revenue projections for LA 1 increase rapidly with time. URS recommends that a contingency plan be developed to identify and manage the risks that will affect the ability of LTA to meet the repayments of debt principal, and achieve the required debt service coverage ratios.

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Recommendation 11

The development of the Eastern Planning Area of the Gulf of Mexico oil fields will be critical for the long-term usage of LA 1. URS recommends that a full economic analysis and traffic and revenue study is commissioned when the development plans become better defined. The data currently available indicates that 2018 would be an appropriate year for this study.

Schedule for Implementation of Recommendations

1	Operations: HNTB Recommendations	Spring 2011
2	Finance: Appoint FA	Spring 2011
3	Finance: Special provision 2011	Spring 2011
4	Finance: Restructure debt	Spring/Summer 2011
5	Toll rates: Re-evaluate resident/commuter benefits and tolls	Summer 2011
6	Monitoring: LA 1 traffic and actual revenue	Spring 2011-2020
7	Analysis: Demand elasticity	Late Spring 2011
8	Analysis: Economic impact	Summer 2011
9	Toll rates: Implement proposed schedule	January 2012
10	Planning: Contingency plan	Fall 2011
11	Analysis: Eastern GOM oil development	2018

8. Disclaimers & Limitations

It is URS' opinion that the revenue projections provided in this report are reasonable for current planning level study purposes and that they have been prepared in accordance with accepted practice for Traffic & Revenue studies. However, given the uncertainties within the current international and local economic climate as well as future infrastructure programs, it is important to note the following limitations:

- This report presents the results of URS' consideration of the information available to us as of the date hereof and the application of URS' experience and professional judgment to that information. It is not a guarantee of any future events or trends.
- The traffic and revenue forecasts will be subject to future economic and social conditions, demographic developments, and regional transportation construction that cannot be predicted with certainty.
- The projections contained in this report, while presented with numerical specificity, are based on a number of estimates and assumptions which, though considered reasonable to us, are inherently subject to significant economic and competitive uncertainties and contingencies, many of which will be beyond the control of the LDODT and cannot be predicted with certainty. In many instances, a broad range of alternative assumptions could be considered reasonable. Changes in the assumptions used in each scenario are likely to result in material differences in projected outcomes.
- URS' toll revenue projections only represent its best judgment and URS does not warrant or represent that actual toll revenues will not vary from its projections, estimates and forecasts.
- If, for any reason, any of these conditions should change due to changes in the economy or competitive environment, or other factors, URS' opinions or estimates may be affected.

Statements contained in this report that are not historical facts are forward-looking statements, which are based on URS' beliefs, as well as assumptions made by, and information currently available to, the management and staff of the LDODT and URS. Because the statements are based on expectations about future events and economic performance and are not statements of fact, actual results may differ materially from those projected.

The objective of the Toll Consultant Report is to provide support to the LDODT with the aim of identifying ways in which LDODT may be able to reach the debt service targets contained in the Bond Covenants. This traffic and revenue forecast is for information only and cannot be used to obtain financing or for any other purposes. The URS work products cannot be included in any prospectus or as part of any bond sale or loan instrument.