LA 1 Toll Road Project

LA 1 Toll Consultant Report 2012 Update: Rev 4.0

URS

July 27, 2012

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Toll Consultant Report 2012 Update

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by:

URS

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LA 1 Toll Consultant Report 2012 Updates

Executive Summary

The URS 2011 LA1 Toll Consultant Report evaluated the sufficiency of the LA1 toll schedule to meet the debt service coverage requirements for the LA1 Toll Road (also known as the "LA1 Expressway"). Recommendations which would enable the Louisiana Department of Transportation and Development (LaDOTD) to possibly reach these targets were included in the 2011 report.

The purpose of the LA1 Toll Consultant Report 2012 Update is to incorporate current data into the traffic and revenue forecasts originally developed by URS for the 2011 LA1 Toll Consultant Report, and to update the recommendations. Current data provided to URS for the 2012 Update include the Traveler's Stated Preference Survey, conducted in April 2012 by Resource Systems Group (RSG) and the latest traffic counts and economic development data from Port Fourchon and Grand Isle, which are the primary destinations related to the LA1 toll road. Additionally, HNTB and LADOTD conducted a thorough review of the collected revenue from the opening data to June 2012. The revised transaction and collected revenue data were included in this report.

URS used this data to develop toll elasticity curves, update traffic growth rates and update transaction and revenue forecasts. URS developed three scenarios for growth: base case, low case and high case. The base case is projected to be the most likely scenario; the low case assumes low growth based upon low oil production growth at Port Fourchon and low tourism activities at Grand Isle; the high case assumes high growth based upon high oil production growth at Port Fourchon and high tourism activities at Grand Isle. URS evaluated the potential of achieving the all debt coverage ratio of 1.10 and the senior debt coverage of 1.20 for each of the three scenarios.

Conclusion

URS's July 27 2012 update indicates that using the Base Scenario model the 1.10 all debt coverage ratio is not achieved until after 2031, when the senior debt has been repaid, and the 1.20 senior debt coverage ratio is never achieved after 2019.

URS proposes an alternative revenue analysis and revenue forecast based upon achieving all debt service coverage ratios for the Base Scenario model. Using this approach, both all and senior debt bond covenant requirements might be achieved by increasing the toll rates by 108% from January 2013.

URS recommends that LaDOTD consult extensively with the local communities to gain acceptance of the required 2013 toll increase and restructures the debt so that the all debt coverage ratio can be achieved, and the further significant increases proposed after 2013 can be reduced. The primary and secondary economic impacts of the required toll increases are shown to be a significant percentage of the additional toll revenue generated.

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This Toll Consultant Report (the "Report") was prepared exclusively for the Louisiana Department of Transportation and Development and any use of or reliance upon this Report by any other party or entity without the prior written authorization of URS is prohibited. The disclaimers and limitations for this report are described more fully in section 8.0.

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1. Introduction

In 2011, facing the challenge of debt service requirements of the Louisiana Route One (LA 1) Project Senior Lien Toll Revenue Bonds Series 2005A (and US DOT's TIFIA Loan associated therewith), Louisiana Department of Transportation and Development (LaDOTD) engaged HNTB, with URS as a sub-consultant, as the toll consultant to provide a report to Louisiana Transportation Authority (LTA) regarding the sufficiency of the toll schedule and to recommend if any adjustments are necessary. The 2011 LA 1 Toll Consultant Report was submitted in May 2011. One of the recommendations of that report was to conduct additional studies to re-evaluate economic conditions, necessary traffic counts and stated preference surveys. The LA 1 Toll Consultant Report 2012 Update contains URS' updated analyses, forecasts and recommendations based upon most current data.

1.1 Purpose of the 2012 Update Report

The purposes of this study are to review the 2011 LA 1 Toll Consultant Report, 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 LaDOTD may be able to reach the debt service target.

1.2 Study Approach – 2012 update

To update the 2011 LA1 Toll Consultant Report, URS utilized a Stated Preference (SP) survey which was conducted by an independent transportation survey consultant company, RSG Inc. to evaluate the potential impact of toll increases to both commercial and passenger vehicles. Additionally, the latest traffic counts and economic development data were collected from Port Fourchon and Grand Isle, which are critical destinations related to this project. URS used this data to develop toll elasticity curves, update traffic growth rates and update revenue forecasts. URS developed three scenarios for growth: base case, low case and high case. The base case is assumed to be the most likely scenario; the low case assumes low growth based upon low oil production growth at Port Fourchon and low tourism activities at Grand Isle; the high case assumes high growth based upon high oil production growth at Port Fourchon and high tourism activities at Grand Isle. URS evaluated the likelihood of achieving the all debt coverage ratio of 1.10 and the senior debt coverage of 1.20 for each of the three scenarios.

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 presents alternative revenue streams via different toll scenarios. Chapter 7 lists the recommendations of action items in order to meet the debt service requirements. The limitations of the analysis and this report, together with disclaimers, are defined in Chapter 8.

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2. LA 1 Toll Project Background

2.1 Project Description

LA 1 Toll Road (also known as the "LA1 Expressway") is an elevated toll road over the tidal marshes of the Mississippi River delta constructed to replace the previous low elevation route of LA1, which included a vertical lift bridge at Leeville over Bayou Lafourche. The lift bridge has been demolished, and LA1 Toll Road is now the sole land route to Port Fourchon, which is the principal land base for extensive oil and gas operations in the Gulf of Mexico (GOM), the Louisiana Offshore Oil Port (LOOP), and to Grand Isle, which is a major tourist destination for recreational fishing.

Figure 2-1 LA 1 Toll Facility Project Phases

Phase 1 of the LA 1 Toll Facility Project is an 8 mile elevated, two-lane highway which extends from Leeville to the LA 1/LA 3090 (Port Fourchon) junction and includes the Leeville Bridge over Bayou Lafourche. Phases 1B and 1C (shown in the aerial photograph below) 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.

Figure 2-2 Aerial Photograph of LA 1 Phases 1B and 1C

Phase 1A, consisting of about 6.8 miles of elevated roadway, was completed and open to traffic in December 2011.

Phase 2 in the future will extend the toll road northwards from Leeville to Golden Meadow where it will connect with an existing 4 lane road (LA3235) inside the coastal levee system.

LA 1 at Leeville is about 45 miles south of New Orleans. However, the road heads generally northwest towards Baton Rouge because of the configuration of bays, bayous and other channels. LA 1 connects with US 90, the major route east to New Orleans and west to Lafayette and I-10, at Raceland, about 58 miles from Port Fourchon. 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 3235, a 4-lane road to the West. South of Golden Meadow, LA 1 is the only highway down the peninsula on which approximately 35,000 people live.

2.2 LA 1 Economic Drivers- Oil and Gas Industry and Tourism

Since the mid-1990s, there has been a steady increase in Gulf drilling due to advancements in deep-water drilling technology, 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 departure 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.

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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 vertical lift 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, by Act 826 of 2010, the Legislature eliminated the $0.50 toll 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 Existing 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

Table 2-1 Notes

(A) Upon opening in August 2009.

(B) On January 1 of the respective years. The toll increase is scheduled to occur 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. Act 826 for 2010 eliminated this toll for residents.

(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) Full-fare transponder toll for infrequent users.

The toll schedule also includes toll increases programmed for implementation in five-year intervals, in 2013, 2018, 2023 and 2028, which are designed to be higher than the average consumer price escalation. 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

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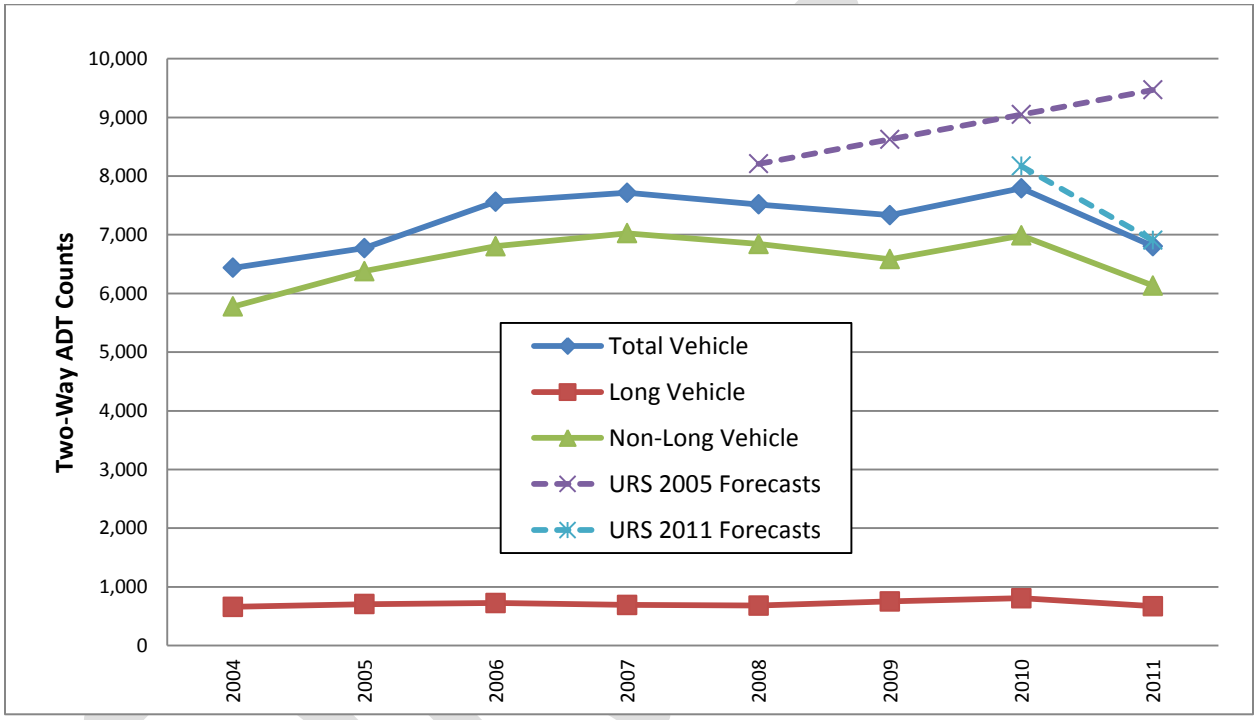
efficiency, if necessary. The doubling of tolls by 2029 is equivalent to an escalation rate of 3.5 percent annually.

2.4 Traffic on LA 1

The daily traffic on LA 1 was about 6,805 in both directions in 2011, which is about a 12.7% decrease from 2010. Historical Average Annual Daily Traffic (AADT) count data was compared with 2005 and 2011 URS forecast results, illustrated in Figure 2-3.

Figure 2-3 2-Way AADT Counts with URS 2005 and 2011 Forecasts



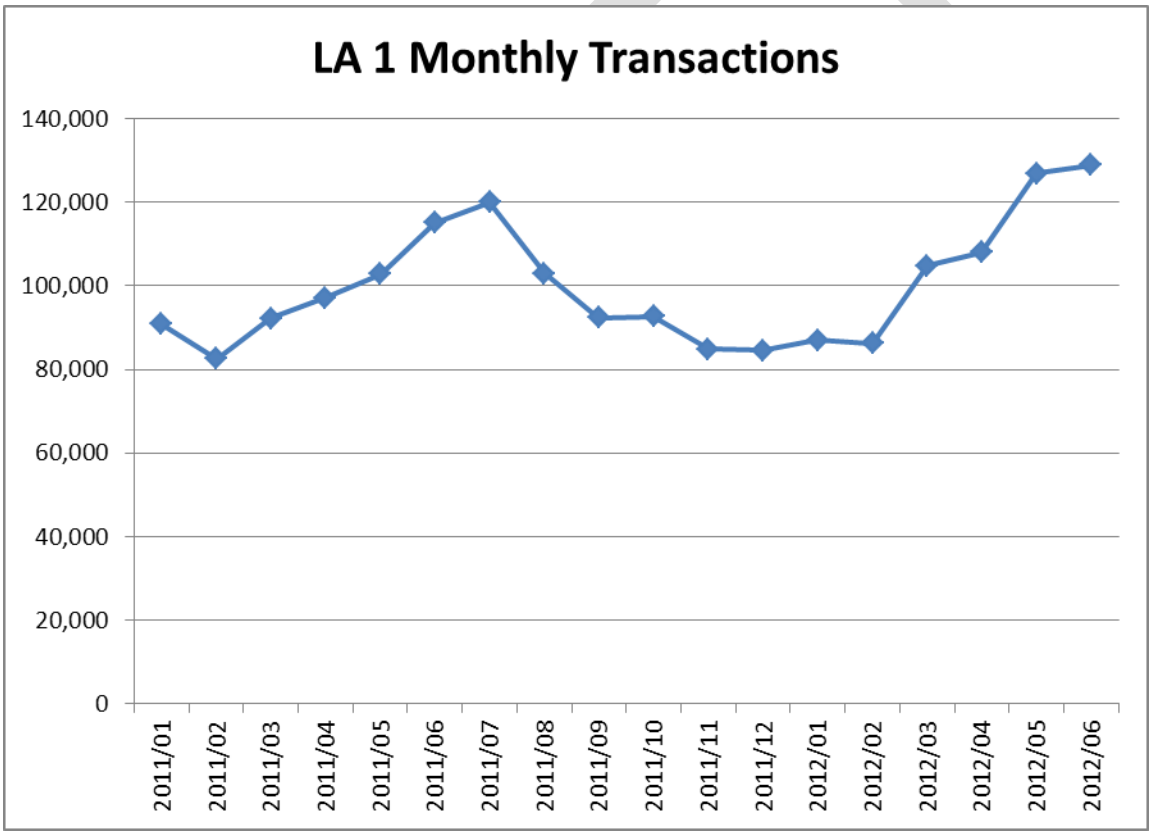
The 2005 traffic projection was based on the extension of the traffic growth trends between 2004 and 2007. However, the actual traffic has decreased since 2007. There are a number of events that have occurred since 2005 which have contributed to this decrease including:

- 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
- Substantial build-out of Port Fourchon

- A 6 month moratorium on all deep water offshore drilling on the Outer Continental Shelf commencing May 30, 2010. The moratorium was in response to the Macondo oil spill in the Gulf of Mexico.
- Revised regulatory requirements for drilling permits.

The 2011 traffic projection revised the 2005 projection, based on the latest traffic counts and toll transaction data. Actual 2011 traffic decreased about 12.7% from 2010. This is believed to be partly due to the slow recovery from the 2010 drilling permit moratorium, and partly due to the completion of construction activities for LA 1 Phase 1A and the Caminada Bay Bridge. The early months of 2012 saw further reductions in traffic from 2011 levels, but since March 2012 there has been marked growth in traffic flow, which appears to be driven by the increased number of drilling permits granted and the consequential increases in exploratory deep-water drilling.

Figure 2-4 LA 1 Monthly Transactions 2011 and 2012



3. Economic Drivers - Forecasts and Impacts

Traffic on LA 1 is generated by two primary economic drivers: oil and gas related industries at Port Fourchon, together with tourism and commercial fishing at Grand Isle.

In the 2011 Toll Consultant Report, three economic analysis scenarios - the base case, the low case and the high case - were developed as the basis for traffic growth forecasts. In the 2012 Update, the three scenarios are maintained. The 2012 Update includes toll road traffic impacts to the local economy, both primary and secondary effects, which were evaluated to assess the benefit and cost of toll increase strategies.

3.1 Oil and Gas Related Industries – Forecast (Port Fourchon)

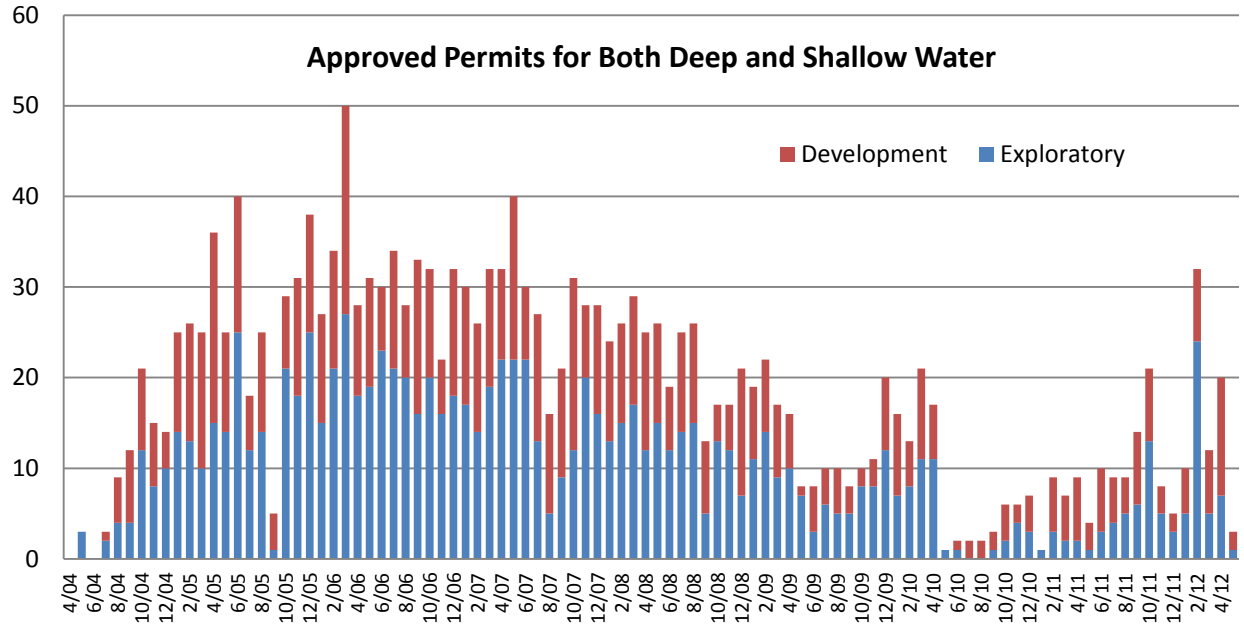
Port Fourchon has developed into the largest Gulf of Mexico (GOM) supply base for offshore oil and gas services due to its central location with easy access to the GOM and availability of port infrastructure. Distinct advantages to the port are its proximity to offshore installations in the Central Planning 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 the 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.

3.1.1 Recent Drilling Permit in Gulf of Mexico

Port Fourchon's traffic has a strong relationship with the drilling activities in the Gulf of Mexico. Reviewing the historic and recent trends of drilling permits reveals some patterns of the Port Fourchon traffic.

Figure 3-1 shows the exploratory and development drilling permits approved since April 2004. These permits include both deep water (greater than 500 feet deep) and shallow water (less than and equal to 500 feet deep). The 6-month moratorium on all deep water offshore drilling from May 2010 can be clearly seen in Figure 3-3.

Figure 3-1: GOM Offshore Drilling Permits Approved



Source: The Bureau of Ocean Energy Management, Regulation and Enforcement (http://www.data.bsee.gov/homepg/data_center/plans/apdform/master.asp)

Figures 3-2 and 3-3 show the deep water and shallow water separately. The deep water drilling permit approval trends in recent months have substantially resumed the levels achieved before the 2010 Gulf Spill. However, the shallow water permit approval patterns still show a significantly below-average trend. After a permit is approved, it usually takes 6 or more months before drilling activities start. From that point of view, the Port Fourchon traffic in recent months shows a similar pattern to the shallow water drilling permits. However, URS previous communication with Port Fourchon indicated the Port's drilling activities were considered to be more related to the deep water exploratory drilling. Based on this information, but noting the inconsistency in the data, we will continue to use the previous three scenarios suggested in the 2011 report.

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Figure 3-2: GOM Offshore Drilling Permits Approved in Shallow Water

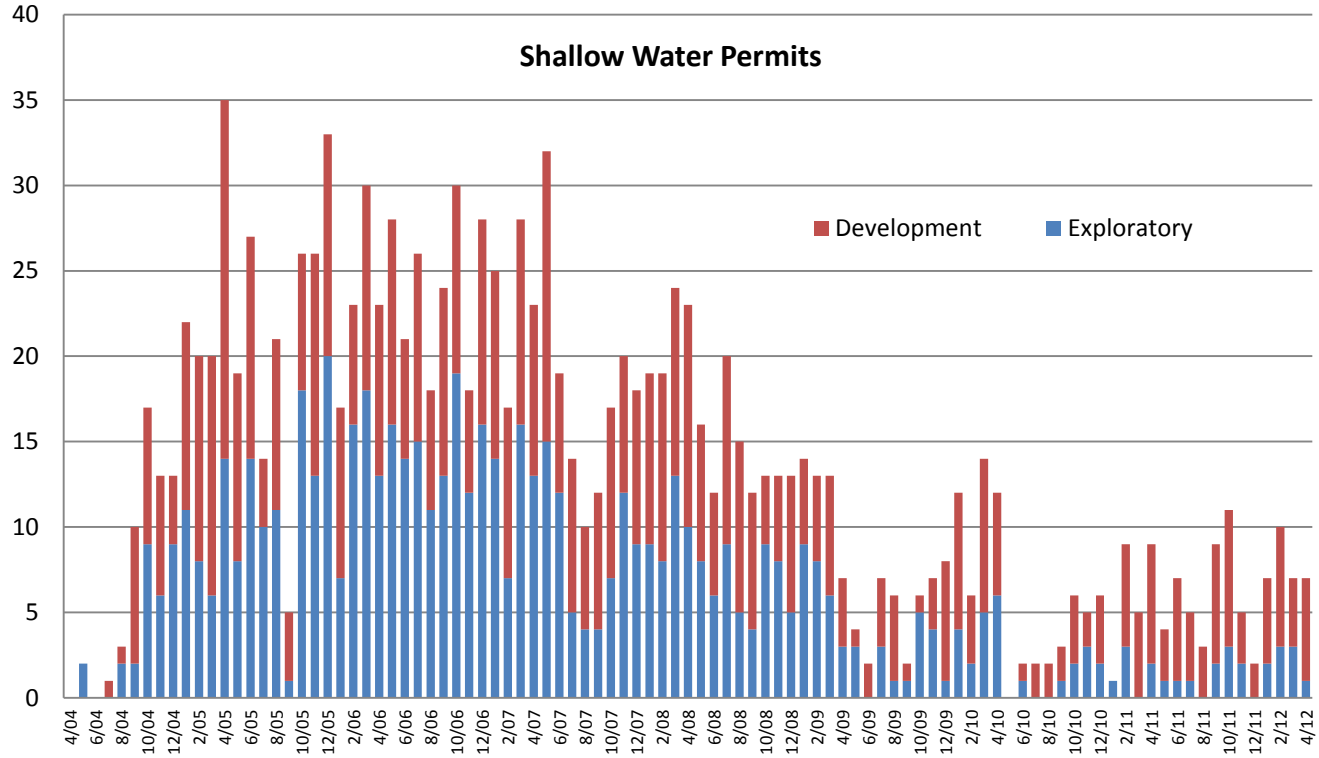
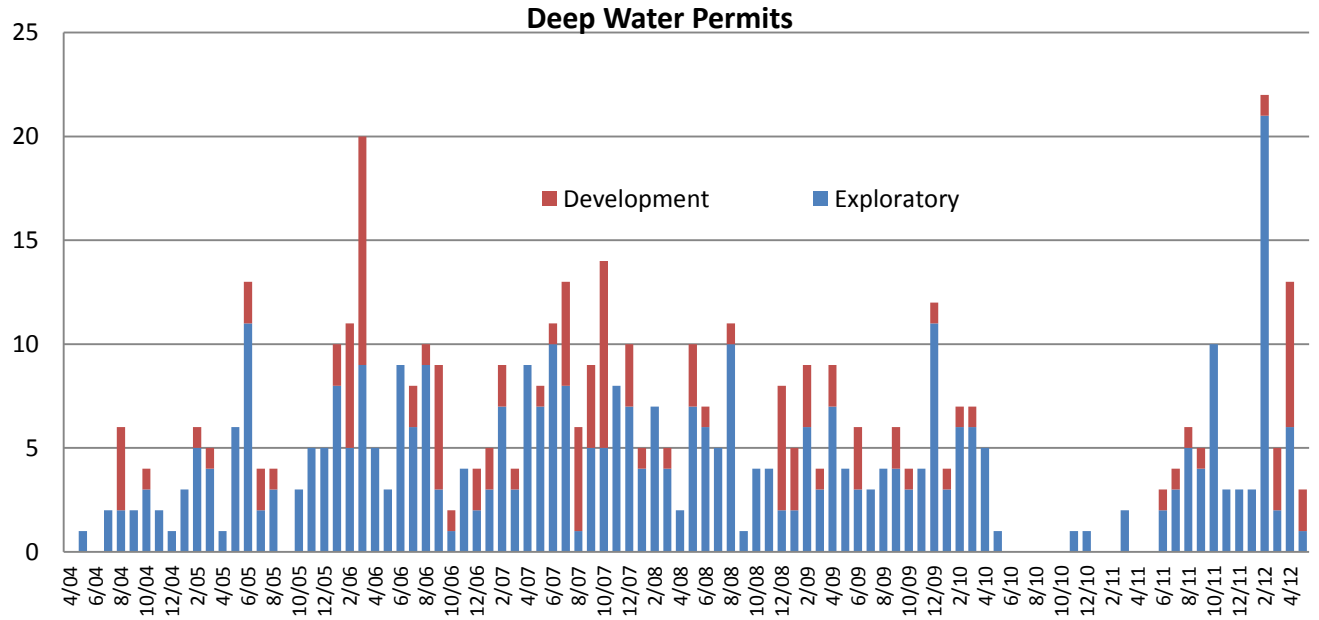


Figure 3-3: GOM Offshore Drilling Permits Approved in Deep Water



3.1.2 Short-Term Oil Production and Drilling Activity Forecast Methodology

The Minerals Management Service (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. Note that BOEMRE has as of October 2011 been replaced by Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE).

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 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. Based on URS communications with the Louisiana Department of Natural Resources (DNR) 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.

3.1.3 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.theoildrum.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.

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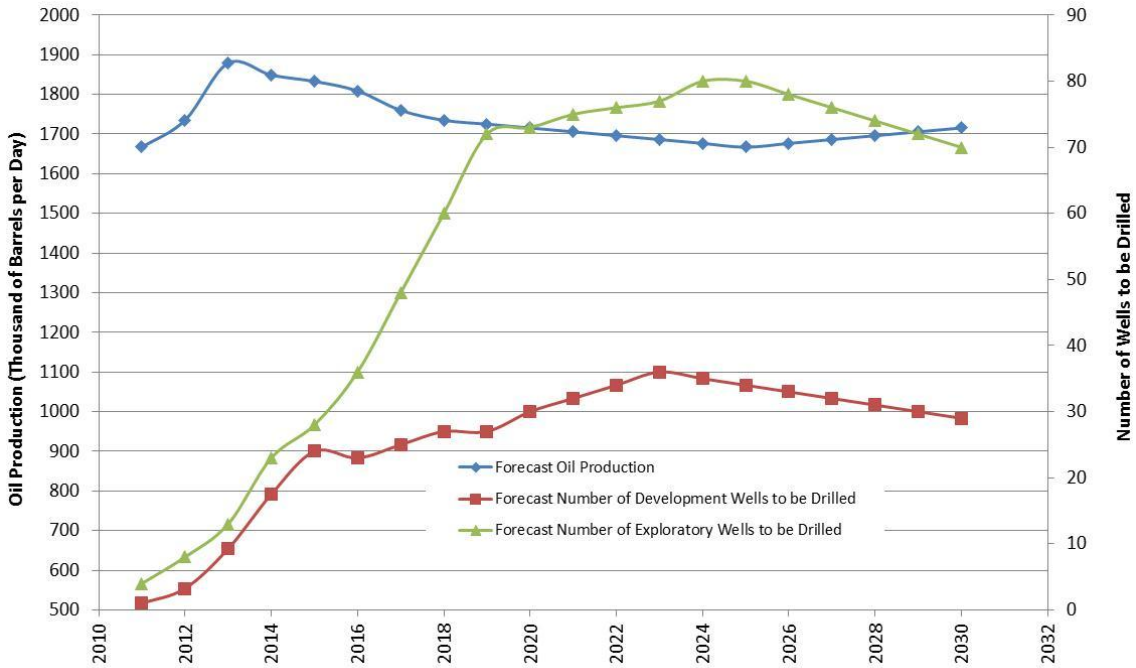
Figure 3-4: GOM Oil Production and Drilling Activity Forecast



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 avaialble oil production forecast and oil industry articles such as "USA Gulf of Mexico Oil production Forecast Update" at http://www.theoildrum.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.

3.2 Recreational Fishing/Tourism - Forecast (Grand Isle)

The majority of LA 1 trips to Grand Isle are directly or indirectly 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 Travels America Visitor 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 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 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 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

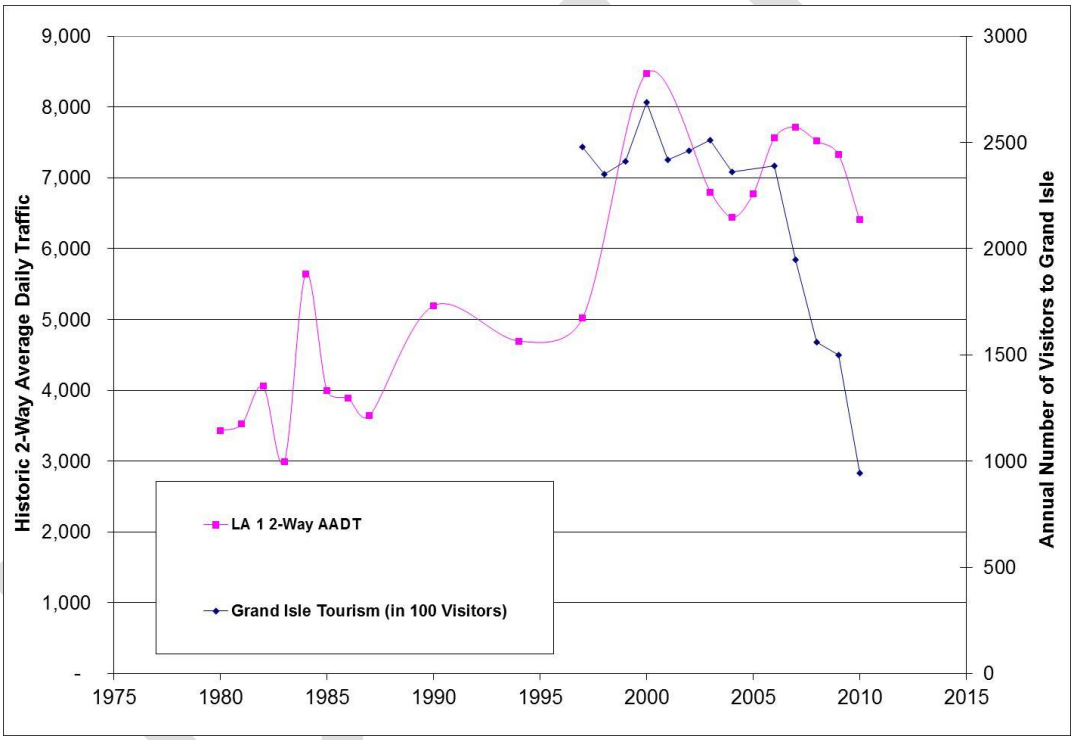
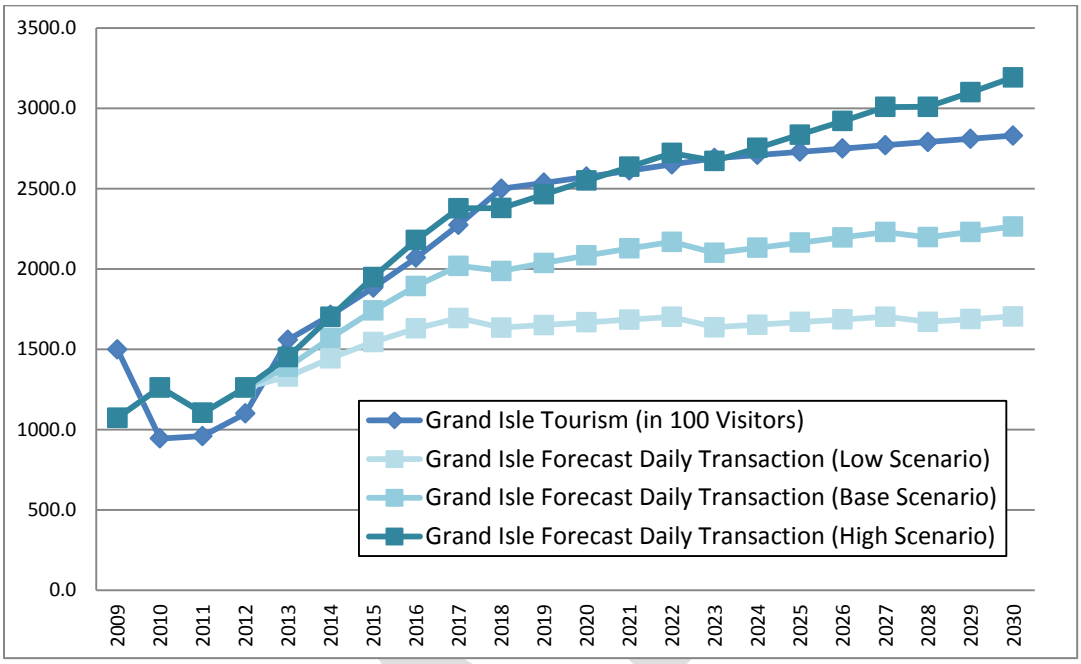


Figure 3-6: Grand Isle Annual Visitor Forecast



3.3 LA 1 Economic Impacts (2012 Update)

3.3.1 Direct Impacts

LA 1 traffic is critical to the economic health of both Port Fourchon and Grand Isle. Regional financial reports are probably the best sources to reflect the direct economic impact from the toll road project. The Greater Lafourche Port Commission (GLPC) was established by the state of Louisiana in 1960 and exercises jurisdiction over an area of Lafourche Parish south of the Intracoastal Waterway, including Port Fourchon and the South Lafourche Leonard Miller, Jr. Airport. The GLPC Financial Report provides information on the GLPC operating revenues and expenses and non-operating income and expenses.

Table 3-1 below presents GLPC's total operating profit (revenues – expenses) from 2004 to 2010. Operating revenues from leases are the primary means of funding of the ports ongoing operations (around 80% of total revenues). Operating expenses include personnel services, maintenance, lease expenses.

Table 3-1: GLPC Total Operating Profit

Year	Operating Profit
2004	$3,010,115
2005	$3,990,689
2006	$3,881,587
2007	$4,665,489
2008	$5,320,203
2009	$4,447,219
2010	$4,258,810

The direct economic impacts yield the profit or loss of the port commission. However, those profit or loss was not directly reflected in the public welfare. To evaluate the public welfare, the secondary impacts may be more important.

3.3.2 Secondary Impacts

Secondary impact refers to the indirect economic effects, through sales tax or income tax, of LA 1 traffic.

The population living south of the LA 1 Toll road resides entirely in Grand Isle. There are no residents in Port Fourchon. The Census 2010 found a population of 1,296 residents in Grand Isle. There were a total of 1,945 housing units including 565 being occupied. Among the 1,380 vacant housing units, 1,201 are estimated to be vacant for seasonal, recreational or occasional use.

3.3.2.1 Offshore Oil & Gas Activities in Port Fourchon

Table 3-2 below presents the value for each of the four variables estimated in the County Business Patterns in Golden Meadow, LA from 2004 to 2009. Port Fourchon is located in Golden Meadow, LA.

Table 3-2: Golden Meadow (Zip code 70357) Secondary Impacts Indicators

Variable	2004	2005	2006	2007	2008	2009
Number of establishments:	127	124	130	123	127	129
Paid employees for pay period including March 12:	2,051	2,424	3,034	3,965	3,430	3,104
First-quarter payroll in $1,000:	16,110	20,818	24,796	40,533	38,916	36,117
Annual payroll in $1,000:	67,989	90,019	116,349	186,651	162,738	141,881

Source: U.S. Census Bureau

Loren C. Scott & Associates estimated primary and secondary impacts from Port Fourchon on the National and Houma MSA economies in 2006 in the report: "The Economic Impacts of Port Fourchon on the National and Houma MSA Economies" date April 2008. They sent a survey to firms located in Port Fourchon and used the Bureau of Economic Analysis RIMS II model. The authors found that in 2006 construction expenditures at the port by these firms totaled $49.3 million. Annual revenues in 2006 of

those port businesses exceeded $922.6 million. They also found that $1,501 million in business sales in the Houma MSA are tied to the port and that $351.4 million in household earnings of MSA residents can be traced back to the port. 8,169 jobs in the Houma MSA were estimated to be dependent on the presence of the port. A lower bound was estimated as $12,053,899 in local sales taxes collected in 2006 due to the presence of Port Fourchon. This figure does not include property taxes paid by these firms. The payroll tax in this region is about 9.5%.

3.3.2.2 Recreational Activities in Grand Isle

Census data from the County Business Patterns survey provide information at the zip code level regarding the number of establishments, employment during the week of March 12, first quarter payroll, and annual payroll. The County Business Patterns series excludes data on self-employed individuals. Table 3-3 below presents the value for each of these four variables in Grand Isle, LA from 2004 to 2009.

Table 3-3: Grand Isle (Zip code 70358) Secondary Impacts Indicators

Variable	2004	2005	2006*	2007	2008	2009
Number of establishments:	33	36	34	32	29	24
Paid employees for pay period including March 12:	589	392	757	344	214	217
First-quarter payroll in $1,000:	4,128	3,531	7,840	3,760	1,895	2,142
Annual payroll in $1,000:	18,111	16,786	32,312	14,522	8,504	10,434

Source: U.S. Census Bureau
*Possible Hurricane Katrina Impact

Average Expenditures Per Recreational Visitor

Recreational expenditures for visitors traveling south of the LA 1 toll road can be spent in two locations: at the marina in Port Fourchon and at the city of Grand Isle. Most expenditure will occur in Grand Isle because of the availability of many different lodging and businesses options there. The two major recreational activities in the Grand Isle and Port Fourchon area are fishing and bird-watching.

The following four studies were reviewed as being relevant to recreational expenditure in the study area (henceforth Grand Isle):

a. Jack Coburn Isaacs and Yeong Nain Chi from the Louisiana Department of Wildlife and Fisheries (henceforth LDWF), Socioeconomic Research and Development Section in Baton Rouge, Louisiana conducted a travel cost analysis in 2005 at a bird-watching festival in Grand Isle State Park and estimated a total expenditure of $157.94 per visitor spent in Grand Isle and another $54.70 in other Louisiana areas. The average length of the trip was 2.57 days.
b. Southwick Associates prepared a study: ”The Economic Benefits of Fisheries, Wildlife and Boating Resources in the State of Louisiana – 2006” for the Louisiana Department of

Wildlife and Fisheries in May 2008 and estimated the average trip spending by boater per boat day in Louisiana at $79.31.

c. The 2004 NOAA report: "The Economic Importance of Marine Angler Expenditure in the United States" by Scott Steinback, Brad Gentner and Jeremy Castle estimated total fishing trip expenditure for Louisiana residents in Louisiana at $152,348,000 in 1999.

d. The OCS Study MMS 2002-01 : "Economic Impact of Recreational Fishing and Diving Associated with Offshore Oil and gas Structures in the Gulf of Mexico – Final Report" estimated Marine Recreational Private Boat Fishing Trips in Louisiana at 2,067,076 in 1999.

These estimates were compiled and expressed in a same unit of expenditure per visitor per day (visitor-day). The values were also expressed in 2011 dollars using the Consumer Price Index from the Bureau of Labor Statistics. From the Bird-watching survey (LDWF), the total expenditure spent in Louisiana was combined ($157.94 + $54.70) and divided by the average stay to obtain the average bird-watching expenditure per visitor-day. Total fishing trip expenditure in 1999 estimated from NOAA was divided by the total number of boat trip in Louisiana in 1999 estimated by MMS to obtain the total expenditure by fishing trip for Louisiana boaters in 1999 (152,348,000/2,067,076 =$73.20). A match between the estimates from these two studies is reasonable as they present aggregated figures on recreational fishing for the same year. Table 3-4 below presents the calculations that lead to the estimation of the average expenditure per visitor-day at: $94.20.

Table 3-4: Actual and $2011 Expenditures for Recreational Activities from Selected Studies

Year	CPI (BLS)	Southwick Study (2006)	LDWF Study (2005)	NOAA & MMS* (1999)	Average
2011	224.9	**$86**	**$95**	**$99**	**$94**
2010	218.1				
2009	214.5				
2008	215.3				
2007	207.3				
2006	201.6	$80			
2005	195.3		$83		
2004	188.9				
2003	184.0				
2002	179.9				
2001	177.1				
2000	172.2				
1999	166.6			$73	

*includes the estimates from the 2004 NOAA Report and the OCS Study MMS 2002-01.

Not all of these expenses will be spent in Grand Isle. As such we use the same breakdown from the LDWF study which found that 74% of the total trip expenditures were spent in Grand Isle. To estimate expenditures in Grand Isle versus expenditure in other regions of LA, the 74% factor was applied to the $94 for an estimate of $70 of daily expenditures in Grand Isle.

Number of Visitor-Days

In its April 2011 report to the Louisiana Department of Transportation and Development: "LA 1 Toll Consultant Report", URS reported that the number of visitors to Grand Isle was around 250,000 per year between 1995 and 2006. In 2007, the number of visitors fell just below 200,000. In 2009 and 2010, annual visitors stayed around 150,000 and in 2010 after the oil spill the number of visitors was further reduced to 100,000. In its April 2011 report, URS estimated that the number of visitors would steadily rebound and regain 250,000 annual visitors by 2018. In this memo, the value of 250,000 potential visitors was used.

Since many visitors to Grand Isle stay one night or longer on the island, it is important to estimate the number of visitor-days. The average length of the recreational stay at the Grand Isle State Park for bird-watchers was used as a proxy: 2.57 days. With 250,000 visitors this corresponds to 642,500 (250,000 x 2.57) visitor-days. Based on the difficult travel from Baton Rouge and New Orleans to Grand Isle, a multi-day stay per trip is reasonable.

Total Recreational Expenditure

Total Recreational Expenditure in Grand Isle was estimated using the data presented above which took into account both fishing and bird-watching activities. Although the beaches at Grand Isle and at Port Fourchon are the only beaches in Eastern Louisiana, the Mississippi, Alabama and Florida gulf coast are more popular for beach recreation. Table 3-5 below presents the estimated recreational expenditure per visitor-day in Grand Isle.

Table 3-5: Total Recreational Expenditure Estimate in Grand Isle

Estimated Number of visitor-days	Average Recreational Expenditure per visitor-day	Total Expenditures	% In Grand Isle	Recreational Expenditure per visitor-days in Grand Isle
642,500	$70	$44,797,240	74%	$33,149,958

An analysis for alternate recreational destinations was not conducted. However for New Orleans residents, the marinas of Plaquemines Parish are an attractive alternative for inland and offshore recreational activities, with LA 23 providing easy transit. Since there is an attractive alternative for much of the population visiting Grand Isle, an increase in tolls could cause a 10% reduction in visitation. According to our estimates, a 10% decrease in the number of tourists will lead to 25,000 fewer visitors.

Table 3-6 presents the number of visitor-days with a 10% decrease in the number of tourists. Total number of visitor day is expected to decrease from (642,500 to 578,250).

Table 3-6: Number of Visitor-Days with a 10% Decrease in Visitors

Number of Visitors	Average length of stay	Number of Visitor-days
225,000	2.57	578,250

Table 3-7 presents the resulting recreational expenditure estimate in Grand Isle with a 10% decrease in tourists.

Table 3-7: Total Recreational Expenditure Estimate in Grand Isle with a 10% Decrease in Visitors

Number of visitor-days	Average Recreational Expenditure per visitor-day	Total Expenditures	% In Grand Isle	Recreational Expenditure per visitor-days in Grand Isle
578,250	$70	$40,317,516	74%	$29,834,962

A 10% decrease in the number of recreational visitors would lead according to the parameters estimated above to $3,314,996 less expenditure spent in Grand Isle. This loss would be shared with the 41 different lodging establishments (including Bed and Breakfasts, Cabins, Motels and Camps), the 11 restaurants and delis and the other 14 businesses listed in the Grand Isle tourist information website.

Sales Tax in the Town of Grand Isle

The sales tax rate in Grand Isle is equal to 8.75% (4% Louisiana state tax rate and 4.75% Jefferson parish tax rate).

The town of Grand Isle receives back from Jefferson Parish 3.5% of the total taxable sales in the town of Grand Isle. Per phone conversation with Ray Santini (town of Grand Isle tax accountant), the town of Grand Isle received in FY2011 (June 30th), approximately $600,000 of sales tax back from Jefferson Parish.

As such taxable sales in the town of Grand Isle totaled $17,142,857 ($17,142,857 x 3.5% = $600,000) in FY2011.

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4. Traffic and Revenue Growth Trends

The historical and existing date of LA 1 traffic patterns at 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 2-way AADT counts provided by Radar Vehicle Detector (RVD) from 2004 to 2011. 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 and 2011 were 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 and 2011 in Table 4-2 was estimated using the available LA 1 toll bridge transaction counts.

Table 4-1 Recent 2-Way AADT Counts from RVD Data

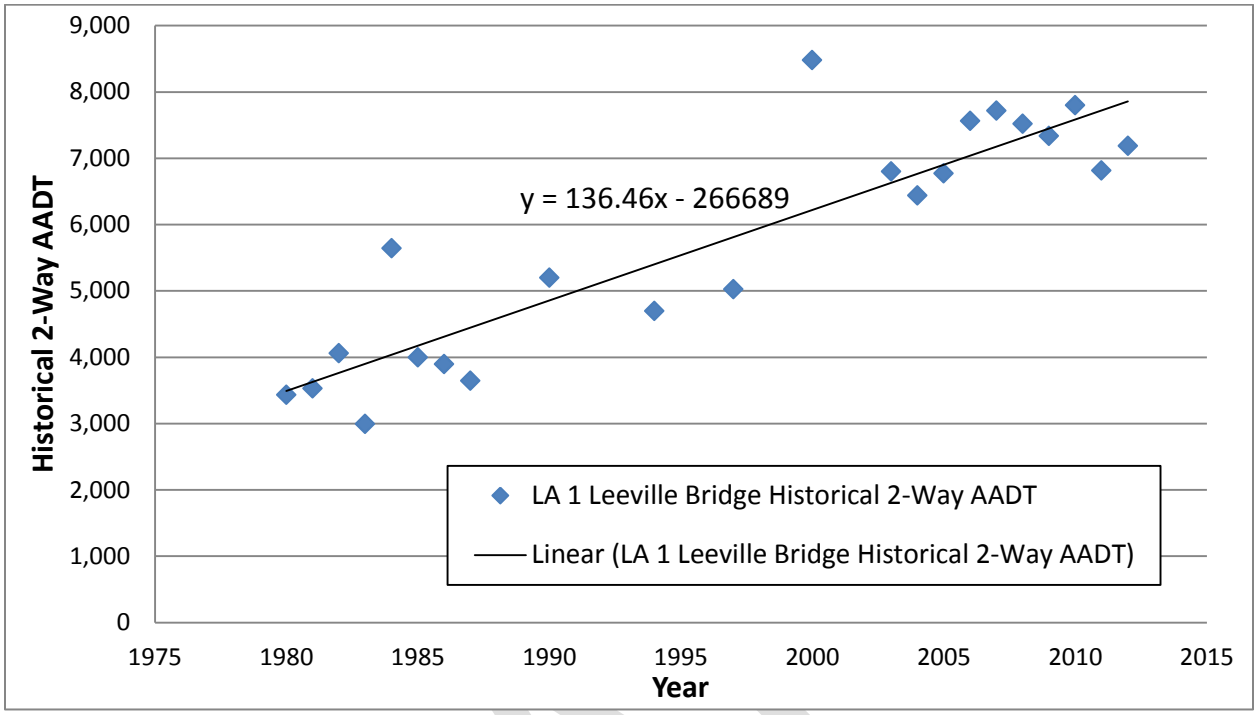
Year	LV	Non-LV	Total	% LV
2004	659	5,776	6,438	10.2%
2005	704	6,381	6,772	10.4%
2006	723	6,805	7,562	9.6%
2007	690	7,026	7,716	8.9%
2008	679	6,842	7,517	9.0%
2009	750	6,583	7,333	10.2%
2010	805	6,986	7,791	10.3%
2011	670	6,135	6,805	9.8%
2012	681	6,504	7,185	9.5%

The RVD count data was compared with 2005 and 2011 URS forecast results, and the comparison is illustrated in Figure 2-2. As shown in Figure 2-2, the 2-way AADT kept increasing until year 2007, 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 approximately 700 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 4-2. As shown in Table 4-2, if the 2-way AADT follows the historical traffic growth trend, the traffic growth rate would stay between 1.2% and 1.8% without considering the impact of other socioeconomic factors. The 2012 2-way AADT was estimated using the first quarter data and factoring to the yearly average. Hence, 2012 traffic growth was assessed approximately 5.42%, comparing to the decrease in 2011. The linear trend line also pointed to the 2013 traffic volumes to 11.29% growth from 2012. Again, this reflects the considerable decrease after 2010. After 2013, the trend line suggests steady 1.71 to 1.18% growth rates from 2014 to 2040.

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

Year	Trend Line Forecast	
	2-Way AADT	Annual Growth%
2011	6,814	
2012	7,185	5.45%
2013	7,984	11.12%
2014	8,120	1.71%
2015	8,257	1.68%
2016	8,393	1.65%
2017	8,529	1.62%
2018	8,666	1.60%
2019	8,802	1.57%
2020	8,938	1.55%
2021	9,075	1.53%
2022	9,211	1.50%
2023	9,347	1.48%
2024	9,483	1.46%
2025	9,620	1.44%
2026	9,756	1.42%
2027	9,892	1.40%
2028	10,029	1.38%
2029	10,165	1.36%
2030	10,301	1.34%
2031	10,438	1.32%
2032	10,574	1.31%
2033	10,710	1.29%
2034	10,847	1.27%
2035	10,983	1.26%
2036	11,119	1.24%
2037	11,255	1.23%
2038	11,392	1.21%
2039	11,528	1.20%
2040	11,664	1.18%

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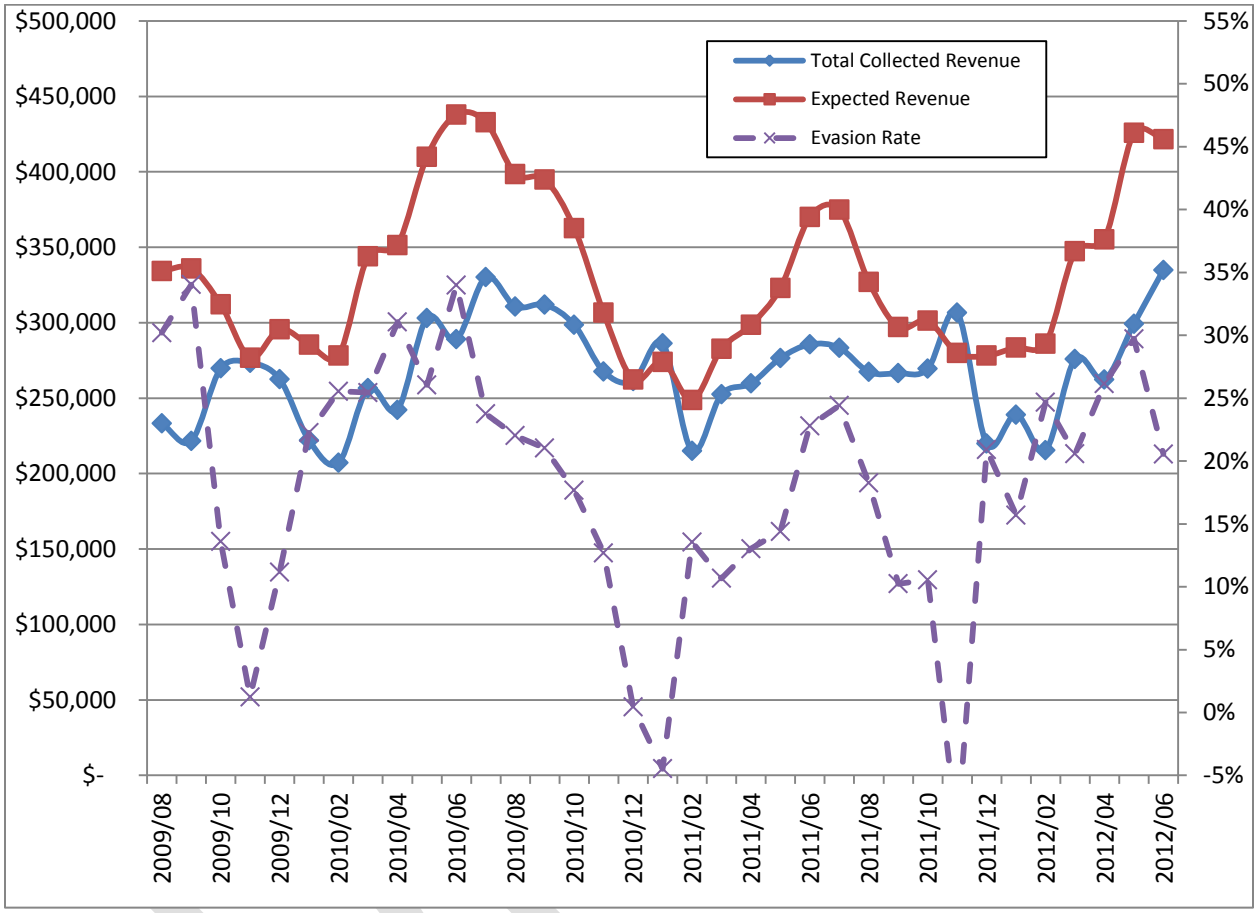
4.3 Historical Traffic Revenue

Figure 4-2 shows the actual collected revenue and expected revenue (based on transaction data). The uncollected revenue was measured using the evasion rate, which is the ratio of uncollected revenue versus the expected revenue. Additionally, the expected revenue was adjusted for the commuter discount (i.e., the qualified commuter who was charged full toll rate would be credited back the overcharged portion). 2011 toll forecasts were based on the previous trend and expected revenue

(assuming improved toll collection practice). The collected revenues in the first quarter of 2012 were lower than projected in the 2011 report, but in the second quarter of 2012 have increased significantly, with early indications from the implementation of automatic toll machines in June 2012 also being positive.

Figure 4-2 LA 1 Historical Revenue



4.4 Traveler's Stated Preference Survey (2012 Update)

A project-specific Stated Preference (SP) survey that provides an indication of travelers' willingness to pay tolls was conducted in April 2012 by Resource Systems Group (RSG) via email, online questionnaire and phone call. The primary objective of the survey work was to estimate the price elasticity of travel demand for travelers in the LA 1 corridor in response to these potential toll changes. Three separate survey questionnaires were developed to achieve this objective:

- Questionnaire for automobile drivers;
- Questionnaire for commercial vehicle drivers; and
- Questionnaire for commercial vehicle fleet managers, dispatchers, or business owners with operations in the Port Fourchon region.

The automobile survey collected responses from the personal vehicle owners that either live, work or visit areas south of the Leeville Bridge and travel across the bridge in an automobile. This survey asked the users about the number of trips they made across the bridge by three trip purposes—work commute, business related, and recreational/others—and how they might change their travel for each trip purpose under different toll scenarios.

The commercial vehicle driver survey concentrated on respondents travelling across the bridge in a commercial vehicle (e.g. delivery trucks, oil or drilling equipment carriers). This survey asked the respondents about their operations in the region and other necessary details such as monthly amount paid in tolls. These users were also presented with three different toll scenarios and were asked to identify how they might change their travel in response to each scenario.

The operation or fleet managers at companies with offices in the Port Fourchon region were also contacted to participate in this survey. As with the automobile and commercial vehicle surveys, these respondents were asked how they might change their travel or fleet operations under different toll increase scenarios. The questionnaire design was generally similar to the commercial driver survey.

The survey questionnaires were programmed by RSG for online and telephone administration. The survey instruments were customized for each respondent by presenting questions and modifying wording based on respondents' previous answers. These dynamic survey features provide an accurate and efficient means of data collection and allow presentation of realistic future conditions that correspond with the respondents' reported experiences.

The survey was administered using two approaches:

1. Through emails sent to automobile and commercial vehicle drivers with active GeauxPass accounts
2. Through telephone calls to commercial vehicle fleet managers or company owners made by Corey Canapary & Galanis Research (CC&G), a call center with experience in commercial vehicle research

The automobile and commercial vehicle survey link was distributed by LA DOTD, on RSG's request, via email to GeauxPass electronic tag holders. Telephone interviewers at CC&G called the listed telephone numbers of companies in the Port Fourchon region and requested to speak with their fleet or operations manager. A total of 467 automobile owners, 107 commercial vehicle drivers, and 21 fleet managers completed the survey through these methods.

The survey data were used to calculate the percent reduction in automobile and commercial vehicle trips at three levels of increase to existing toll rates: 50%, 150%, and 300%. The data were weighted by total trips per year to reflect the relative importance of overall trip frequency in the trip reduction rates. As shown in Table 4-3, the reported reduction in trips across the bridge if higher tolls were levied varied between 12% and 29% for automobiles and between 4% and 19% for commercial vehicles. The toll elasticity curves for LA1, developed using the scenario results, are shown in Figure 4-3.

For more details about the survey, please refer to the RSG report titled "Louisiana Highway 1 Travel Survey Report" dated May 2012.

Table 4-3 Toll Elasticity Scenarios

Effect of Toll Increase	Toll Increase					
	50%	100%	150%	200%	250%	300%
Auto Transaction Reduction	12%	17%	21%	24%	26%	29%
Auto Elasticity	*24.0%*	*17.0%*	*14.0%*	*12.0%*	*10.4%*	*9.7%*
Truck Transaction Reduction	4%	8%	11%	14%	16%	19%
Elasticity	*8.0%*	*8.0%*	*7.3%*	*7.0%*	*6.4%*	*6.3%*

Figure 4-4 LA 1 Toll Elasticity Based on SP Survey

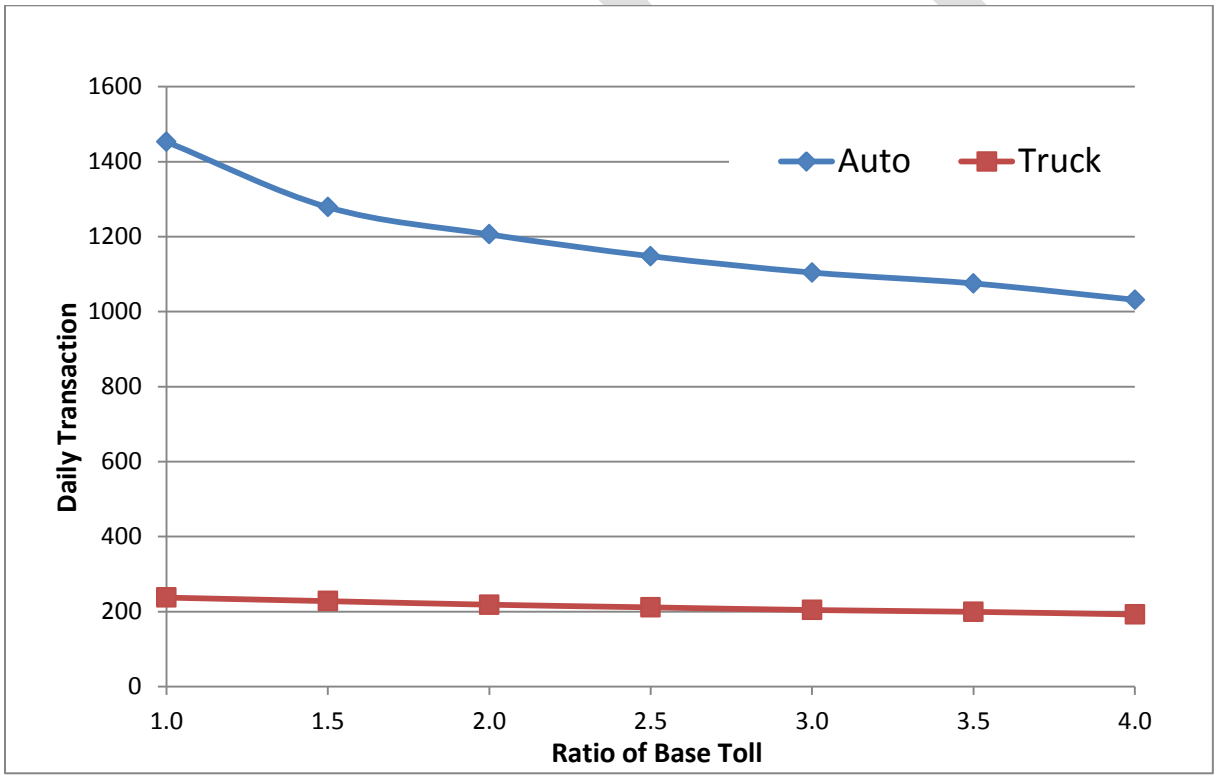
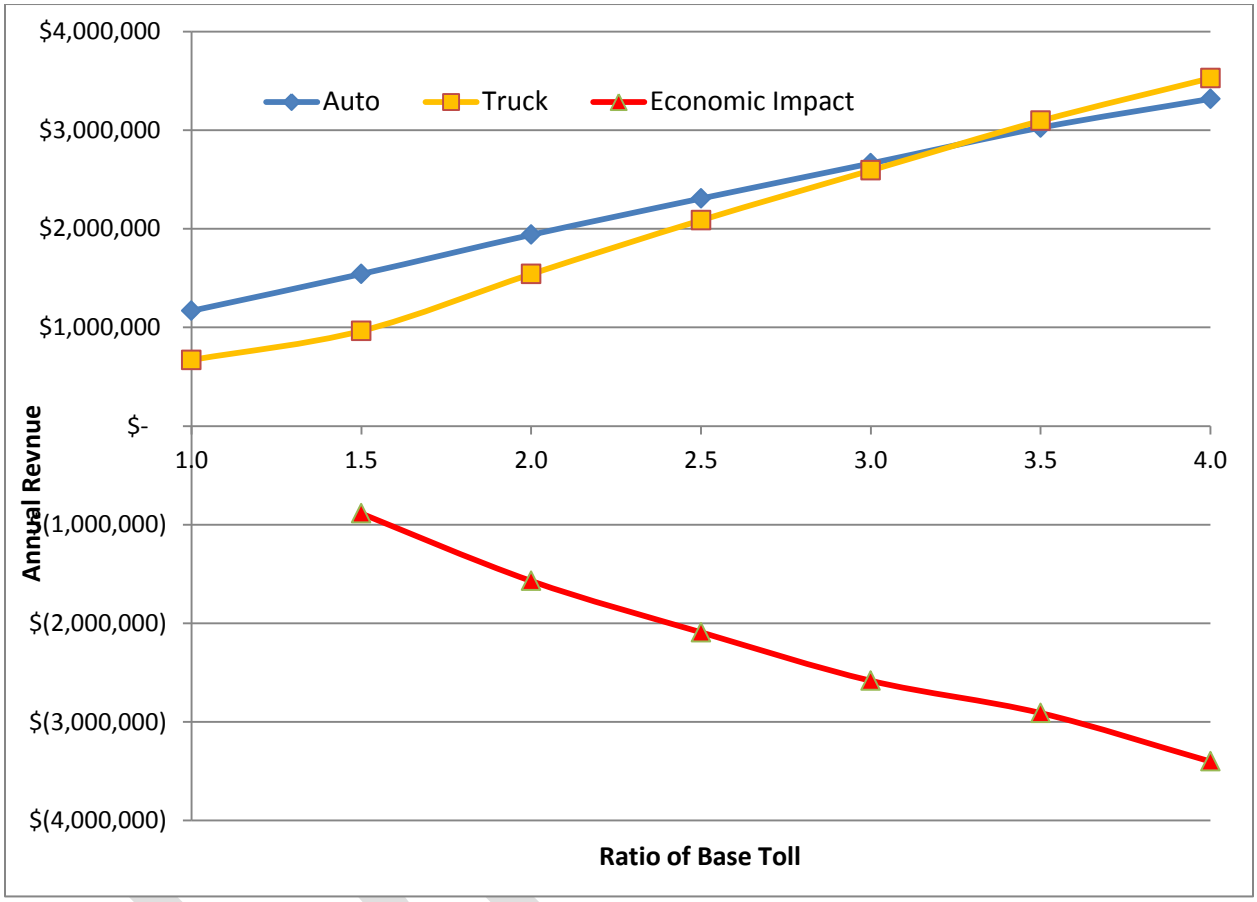


Figure 4-3 indicates that commercial vehicles reflect less elasticity in respect to tolls, comparing to passenger cars. As the toll increases, it is expected that the total revenue will increase even the toll transaction will decrease. However, from the public welfare viewpoint, the revenue increase comes with the price of less traffic and ultimately the sacrifice of local economy. Economic impacts discussed in previous sections can also be assessed against the possible toll increase policy, as shown in Figure 4-4.

The economic impact analysis revealed that for a doubling of the LA 1 toll rates there was a projected reduction in the personal and sales tax from Port Fourchon and Grand Isle equivalent to 45% of the increase in toll revenue. This analysis is believed to be conservative, i.e. the reduction in tax revenue could be greater in percentage terms.

Figure 4-5 LA 1 Toll Elasticity and Economic Impact



4.5 Port Fourchon and Grand Isle Traffic Counts

With the help of Houma-Thibodaux MPO, the classification traffic counts were conducted in the intersection of LA 1 and FM 3090 from April to May 2012. Figure 4-5 illustrated the locations of the traffic survey. Based on these traffic count data and the toll transaction data from LA 1, the LA 1 southbound traffic splits between Port Fourchon and Grand Isle are calculated to be 69% and 31%, which is somewhat different from the less robust calculation results of 77% and 23% used in the 2011 analysis and report.

Figure 4-6 LA 1 Traffic Classification Count Locations

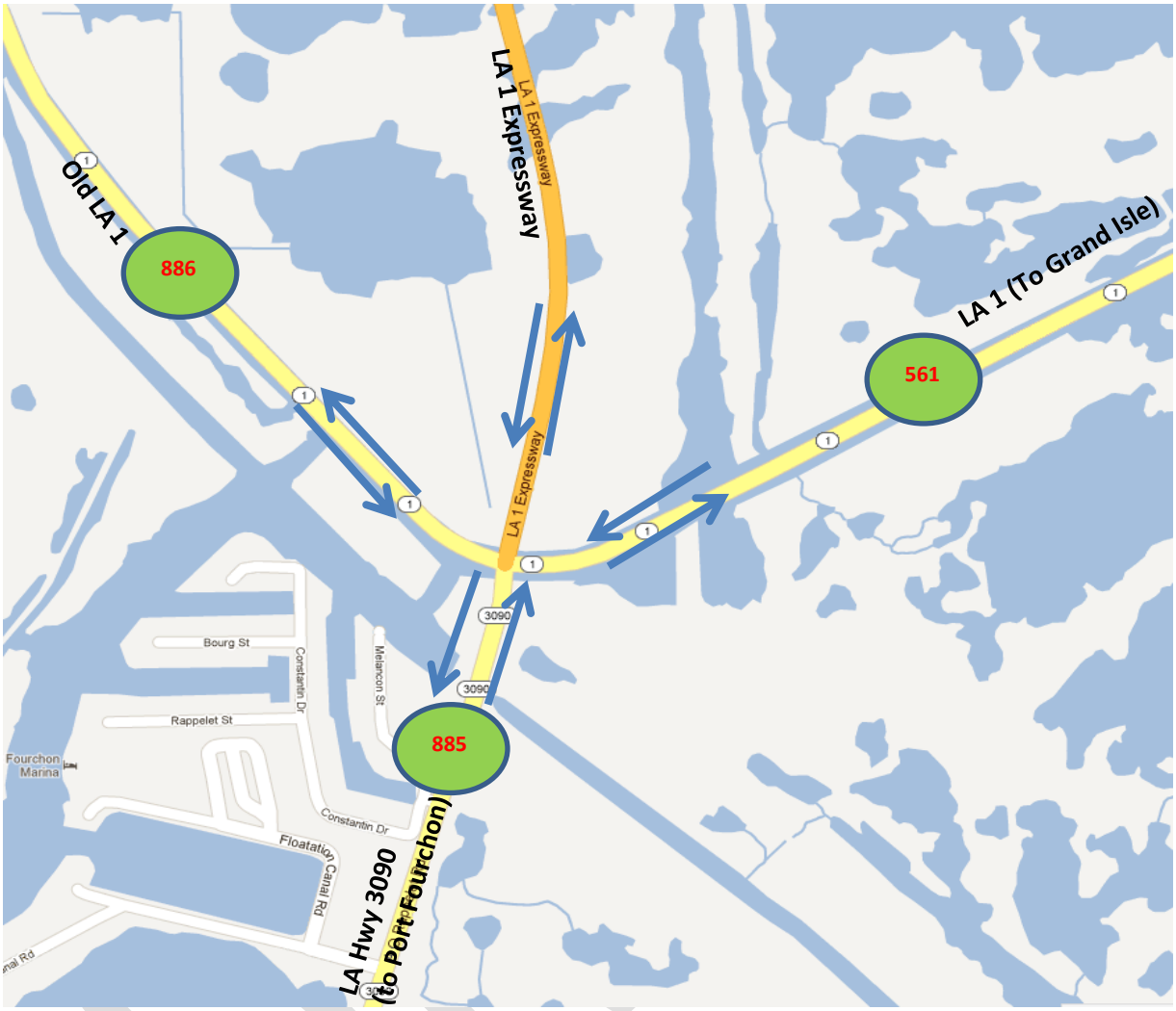


Table 4-4 LA 1 and FM 3090 Traffic Classification Counts

Count Location	NB/EB			SB/WB			Total			Truck%
	Auto	Truck	Total	Auto	Truck	Total	Auto	Truck	Total	
561 (Grand Isle)	1,556	178	1,734	1,586	188	1,774	3,142	366	3,508	10.4%
885 (Port Fourchon)	1,883	434	2,317	1,875	430	2,305	3,758	864	4,622	18.7%
886	96	15	111	119	17	135	215	31	246	12.7%

Source: Houma-Thibodaux MPO. Vehicle classification was based on FHWA Type F scheme

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 the expected and the collected revenue. Since 2011, several toll collection improvement recommendations from HNTB have been implemented, including automated cash and credit card toll machines which opened to traffic June 20, 2012. This report does not focus on the details of such improvements, 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 the 2012 Update report are based on the assumptions listed below:

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 the 2012 Update. Most recently, Phase 1A was completed and opened to traffic in December 2011.

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.

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 0% and 30% during the operating period from July 2010, with an average evasion rate of 21.7%. This evasion rate range is considered very high, and it is has been advised by LaDOTD that the revenue evasion rate should be assumed to reduce to 5.0% by the year 2015. In the more recent revenue collection review conducted by HNTB and LADOTD, the long term 5.0% goal was confirmed to be achievable, particularly when the legal definition of fees and penalties as toll revenue is considered.

The toll collection process also has direct impact on evasion rate assumptions. For example, the lag of adjusting collected revenue regarding commuter discount, video toll collection surcharge, and violation and administration fees. The operations assumptions used for these factors are :

- Commuter discount: lag of 45 days after transaction; and

- Video collections/violations: lag of 90 days after transaction.

The historic evasion rates calculated from the toll system data, and projected evasion rates based on the above assumptions, are detailed in Table 5-1.

Table 5-1 Evasion Rate

Year	Evasion Rate
2009	19.9%
2010	22.9%
2011	17.8%
2012	18.0%
2013	7.5%
2014	5.0%
2015 and Beyond	5.0%

Annualization Factor

The annualization factor was calculated using the daily transaction counts from the project operation in 2009 (August to December), 2010 (full year), 2011 (full year), and 2012 (January to April). 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.

Toll Rate Elasticity

In this study, a set of toll rate elasticity numbers were assumed to estimate the toll transaction decreases caused by a toll increase as summarized in Table 4-3. These elasticity numbers were obtained from the recent stated-preference survey described in section 4.3 of this report.

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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 5-2 summarizes the calculation of the weighted-average toll charges.

Table 5-2 Weighted-Average Toll Charges

Vehicle Class	% of Total Vehicles	Toll Rates									
	2009-2012	2009	2010	2011	2012	2013	2018	2023	2028	2033	2038
2-axle/4-tire vehicles (Auto)	**100.00%**	**$2.39**	**$2.36**	**$2.49**	**$2.51**	**$2.93**	**$3.64**	**$4.35**	**$4.86**	**$4.86**	**$4.86**
Resident	**1.60%**	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Commuter	**23.13%**	$1.50	$1.50	$1.50	$1.50	$1.80	$2.25	$2.70	$3.00	$3.00	$3.00
Cash/full-fare transponder	**65.59%**	$2.50	$2.50	$2.50	$2.50	$3.00	$3.75	$4.50	$5.00	$5.00	$5.00
With 1-axle trailer	**3.14%**	$3.75	$3.75	$3.75	$3.75	$4.50	$5.50	$6.50	$7.50	$7.50	$7.50
With 2-axle trailer	**6.54%**	$5.00	$5.00	$5.00	$5.00	$6.25	$7.50	$8.75	$10.00	$10.00	$10.00
Multi-axle vehicles (Truck)	**100.00%**	**$9.14**	**$9.08**	**$9.10**	**$9.23**	**$11.39**	**$13.69**	**$15.95**	**$18.25**	**$18.25**	**$18.25**
2-axle/6-tire vehicles	**0.00%**	$3.75	$3.75	$3.75	$3.75	$4.50	$5.50	$6.50	$7.50	$7.50	$7.50
3-axle vehicles	**16.57%**	$5.00	$5.00	$5.00	$5.00	$6.25	$7.50	$8.75	$10.00	$10.00	$10.00
4-axle vehicles	**11.82%**	$7.50	$7.50	$7.50	$7.50	$9.25	$11.25	$13.00	$15.00	$15.00	$15.00
5-axle vehicles	**59.16%**	$10.00	$10.00	$10.00	$10.00	$12.50	$15.00	$17.50	$20.00	$20.00	$20.00
6-axle vehicles	**12.45%**	$12.00	$12.00	$12.00	$12.00	$15.00	$18.00	$21.00	$24.00	$24.00	$24.00

The toll transaction percentage of each vehicle class was obtained through the actual toll transaction counts of each year from 2009 to 2012 (used to calculate the weighted-average toll for year 2009, 2010, 2011 and 2012) and the total of years 2009 to 2012 (used to calculate the weighted-average toll for all the future years from 2013). The data for 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.

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, together with the toll transaction data and the classification traffic counts obtained with the assistance of Houma-Thibodaux MPO. The calculation results showed that 69% of the total traffic would go in the Port Fourchon direction, and 31% would go in the Grand Isle direction.

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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 *Annual Compound Growth Rates* (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.

Traffic Growth for Grand Isle

Traffic growth rates used for this analysis are consistent with the forecast Grand Isle visitor growths described under "**Economic Drivers – Forecasts and Impacts**" chapter of this report.

Toll Transaction Growth Rates – Low, Base and High Scenarios

Based on historic traffic data and economic analysis described under the "**Economic Drivers – Forecasts and Impacts**" 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 than the Low Scenario.

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.

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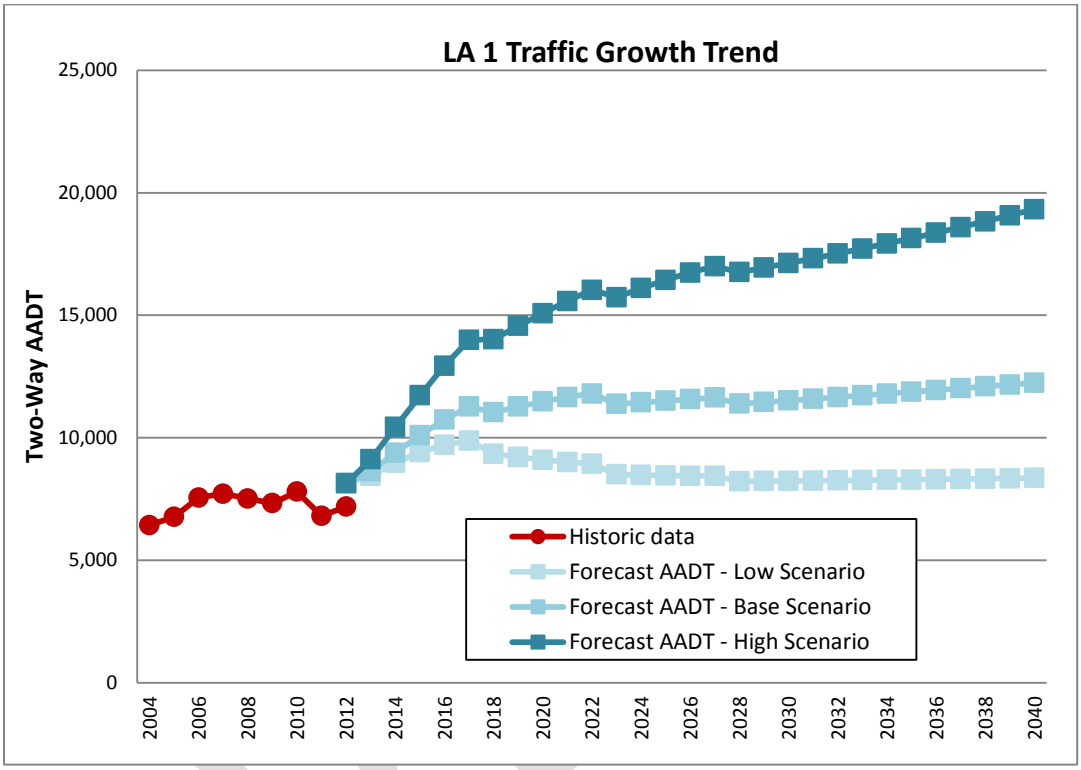
The methodology used to develop the traffic growth rates for all these scenarios are described below. Figures 5-1 demonstrates the historic and forecast Annual Average Daily Traffic (AADT) for all scenarios.

Figure 5-1 Historic and Forecast Traffic (2012 Update)



5.3 Revenue Forecasts

Toll revenue forecasts for LA 1 were generated for the three scenarios: Low, Base, and High for the 2012-2040 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 5-3 thru 5-5 show the traffic and revenue forecasts for the three scenarios.

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

(July 27, 2012 Update)

2012 LA 1 T&R Study - Low Case						
Year	Autos		Trucks		Total	
	Daily Transaction	Revenue (000)	Daily Transaction	Revenue (000)	Daily Transaction	Revenue (000)
2009	2,974	$774	487	$486	3,461	$1,261
2010	3,542	$2,093	531	$1,207	4,073	$3,300
2011	3,098	$2,060	465	$1,129	3,562	$3,189
2012	3,496	$2,342	574	$1,412	4,070	$3,754
2013	3,631	$3,203	592	$2,027	4,223	$5,231
2014	3,867	$3,503	625	$2,199	4,492	$5,702
2015	4,057	$3,675	650	$2,286	4,707	$5,961
2016	4,193	$3,798	665	$2,340	4,858	$6,138
2017	4,268	$3,867	670	$2,357	4,938	$6,224
2018	4,044	$4,549	629	$2,660	4,674	$7,209
2019	3,991	$4,489	614	$2,594	4,605	$7,083
2020	3,948	$4,441	601	$2,538	4,549	$6,979
2021	3,915	$4,404	589	$2,491	4,504	$6,895
2022	3,890	$4,376	580	$2,453	4,471	$6,829
2023	3,703	$4,976	549	$2,705	4,252	$7,681
2024	3,695	$4,966	544	$2,680	4,240	$7,646
2025	3,691	$4,960	540	$2,659	4,231	$7,619
2026	3,689	$4,958	536	$2,641	4,225	$7,599
2027	3,690	$4,959	533	$2,626	4,223	$7,586
2028	3,594	$5,396	517	$2,912	4,110	$8,308
2029	3,600	$5,405	515	$2,902	4,115	$8,307
2030	3,606	$5,415	513	$2,892	4,120	$8,307
2031	3,613	$5,425	512	$2,882	4,125	$8,307
2032	3,620	$5,435	510	$2,872	4,130	$8,308
2033	3,627	$5,446	508	$2,863	4,135	$8,309
2034	3,635	$5,457	506	$2,853	4,141	$8,310
2035	3,642	$5,469	505	$2,844	4,147	$8,312
2036	3,650	$5,480	503	$2,834	4,153	$8,315
2037	3,658	$5,492	501	$2,825	4,159	$8,317
2038	3,666	$5,505	500	$2,816	4,166	$8,321
2039	3,675	$5,518	498	$2,807	4,173	$8,324
2040	3,683	$5,531	497	$2,798	4,180	$8,328

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Table 5-4 Total Daily Transactions and Annual Revenue for LA 1 Toll Road (Base Scenario)

(July 27, 2012 Update)

2012 LA 1 T&R Study - Base Case						
Year	Autos		Trucks		Total	
	Daily Transaction	Revenue (000)	Daily Transaction	Revenue (000)	Daily Transaction	Revenue (000)
2009	2,974	$774	487	$486	3,461	$1,261
2010	3,542	$2,093	531	$1,207	4,073	$3,300
2011	3,098	$2,060	465	$1,129	3,562	$3,189
2012	3,496	$2,342	574	$1,412	4,070	$3,754
2013	3,712	$3,274	599	$2,052	4,311	$5,326
2014	4,051	$3,670	644	$2,264	4,695	$5,934
2015	4,368	$3,957	685	$2,408	5,053	$6,365
2016	4,650	$4,212	721	$2,536	5,371	$6,748
2017	4,884	$4,425	751	$2,643	5,636	$7,068
2018	4,784	$5,382	734	$3,103	5,519	$8,485
2019	4,890	$5,500	749	$3,166	5,639	$8,667
2020	4,982	$5,604	762	$3,219	5,743	$8,823
2021	5,060	$5,692	771	$3,260	5,831	$8,952
2022	5,123	$5,763	778	$3,289	5,901	$9,052
2023	4,942	$6,641	749	$3,690	5,691	$10,331
2024	4,972	$6,682	750	$3,695	5,722	$10,377
2025	5,003	$6,724	751	$3,700	5,754	$10,424
2026	5,035	$6,766	752	$3,705	5,787	$10,471
2027	5,067	$6,809	753	$3,710	5,820	$10,519
2028	4,960	$7,448	735	$4,139	5,695	$11,587
2029	4,992	$7,496	736	$4,145	5,728	$11,641
2030	5,025	$7,545	737	$4,151	5,761	$11,696
2031	5,058	$7,594	738	$4,157	5,795	$11,751
2032	5,091	$7,644	739	$4,163	5,830	$11,807
2033	5,125	$7,695	740	$4,170	5,865	$11,865
2034	5,159	$7,747	741	$4,176	5,900	$11,923
2035	5,194	$7,799	742	$4,182	5,936	$11,982
2036	5,230	$7,852	743	$4,189	5,973	$12,041
2037	5,266	$7,906	745	$4,196	6,010	$12,102
2038	5,302	$7,961	746	$4,202	6,048	$12,164
2039	5,339	$8,017	747	$4,209	6,086	$12,226
2040	5,377	$8,073	748	$4,216	6,125	$12,289

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

(July 27, 2012 Update)

2012 LA 1 T&R Study - High Case						
Year	Autos		Trucks		Total	
	Daily Transaction	Revenue (000)	Daily Transaction	Revenue (000)	Daily Transaction	Revenue (000)
2009	2,974	$774	487	$486	3,461	$1,261
2010	3,542	$2,093	531	$1,207	4,073	$3,300
2011	3,098	$2,060	465	$1,129	3,562	$3,189
2012	3,496	$2,342	574	$1,412	4,070	$3,754
2013	3,924	$3,461	637	$2,181	4,561	$5,642
2014	4,498	$4,075	723	$2,542	5,221	$6,617
2015	5,060	$4,584	806	$2,836	5,867	$7,421
2016	5,585	$5,059	884	$3,111	6,469	$8,170
2017	6,042	$5,474	953	$3,353	6,995	$8,826
2018	6,056	$6,812	956	$4,041	7,012	$10,853
2019	6,289	$7,074	994	$4,201	7,283	$11,275
2020	6,512	$7,326	1,030	$4,352	7,542	$11,678
2021	6,725	$7,565	1,063	$4,492	7,788	$12,056
2022	6,924	$7,789	1,093	$4,619	8,017	$12,408
2023	6,796	$9,133	1,072	$5,282	7,869	$14,415
2024	6,958	$9,351	1,095	$5,392	8,053	$14,743
2025	7,107	$9,550	1,113	$5,485	8,220	$15,035
2026	7,241	$9,731	1,128	$5,558	8,370	$15,290
2027	7,361	$9,893	1,140	$5,613	8,501	$15,506
2028	7,264	$10,908	1,117	$6,291	8,381	$17,199
2029	7,352	$11,039	1,119	$6,308	8,471	$17,346
2030	7,442	$11,174	1,122	$6,324	8,564	$17,498
2031	7,535	$11,313	1,125	$6,341	8,660	$17,655
2032	7,630	$11,457	1,129	$6,359	8,759	$17,816
2033	7,729	$11,604	1,132	$6,377	8,860	$17,982
2034	7,830	$11,757	1,135	$6,396	8,965	$18,153
2035	7,934	$11,913	1,139	$6,416	9,073	$18,329
2036	8,042	$12,075	1,142	$6,436	9,184	$18,510
2037	8,153	$12,241	1,146	$6,456	9,298	$18,697
2038	8,267	$12,412	1,150	$6,477	9,416	$18,890
2039	8,384	$12,589	1,153	$6,499	9,537	$19,088
2040	8,505	$12,770	1,157	$6,522	9,662	$19,292

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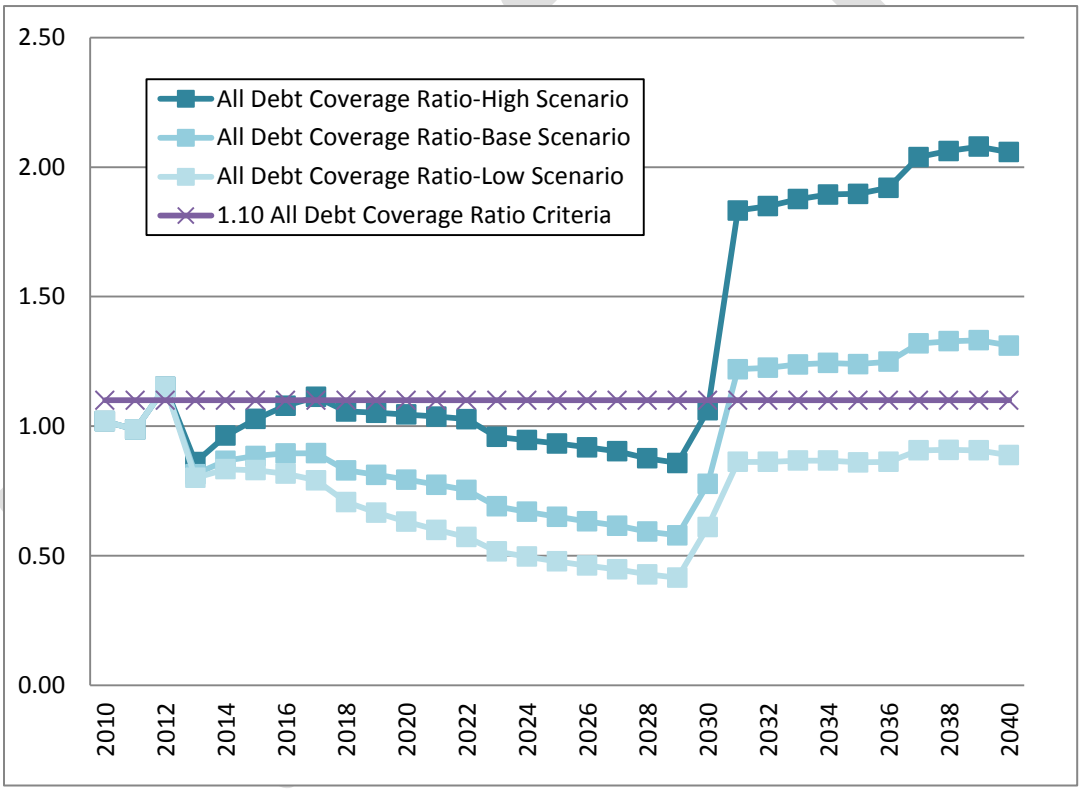
5.4 All Debt and Senior Debt Coverage Ratios

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 5-2 and 5-3 respectively show the all debt and senior debt coverage ratios for all three scenarios compared with the required coverage ratios.

The analysis and summary figure 5-2 demonstrates that for the all debt service coverage:

- The High Scenario might achieve the all debt coverage ratio in 2017;
- The High and Base Scenarios are unlikely to achieve the all debt coverage ratio until after 2030, when senior debt repayments are complete;
- The Low Scenario is unlikely to ever achieve the all debt coverage ratio.

Figure 5-2 All Debt Coverage Ratio Forecasts

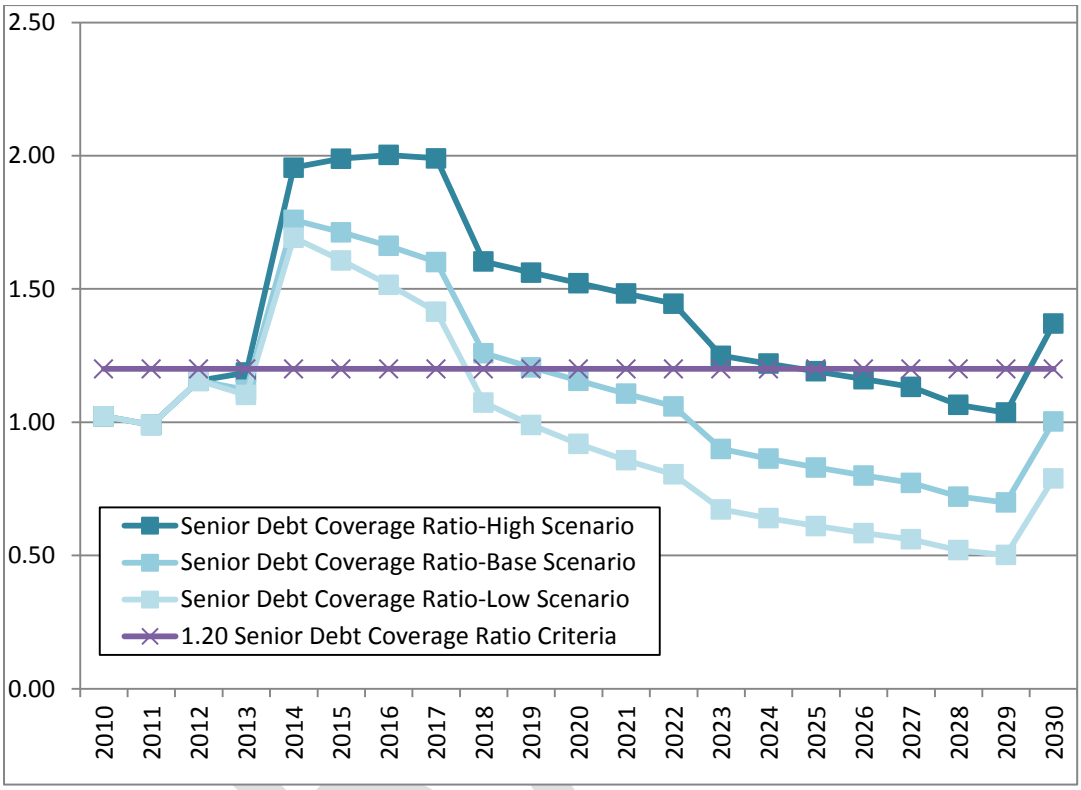


And for the senior debt service coverage the analysis and summary figure 5-3 demonstrates:

- The High Scenario is likely to achieve the senior debt coverage ratio between 2013 and 2024, but is unlikely to achieve the senior debt coverage ratio from 2025 to 2019;
- The Base Scenario is likely to achieve the senior debt coverage ratio between 2014 and 2019, but is unlikely to achieve the senior debt coverage ratio from 2020 onwards;

- The Low Scenario is likely to achieve the senior debt coverage ratio between 2014 and 2017, but is unlikely to achieve the senior debt coverage ratio from 2018 onwards.

Figure 5-3 Senior Debt Coverage Ratio Forecasts



The analyses indicate that the existing toll schedule, which includes increases above the projected consumer price index in 2013/2018/2023/2028, is unlikely to consistently achieve the all debt and senior debt service coverage ratios for any revenue scenario. It is therefore recommended that LTA consider revised toll schedules and alternate actions so as to meet the requirements of the Bond Covenant. The all debt service coverage ratio is demonstrated from the above analyses to be the controlling criterion.

6. LA 1 Alternative Analysis and Revenue Forecast

In the 2011 Toll Consultant Report, the three fundamental options of LTA were evaluated to meet the all debt and senior debt obligations set forth by the LA 1 Project Official Bond Indenture of Trust:

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

LaDOTD 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 LaDOTD and HNTB, and has been used consistently for the 2012 Update analyses. No modification of the operational loss assumptions is included within the alternative analysis and revenue forecast.

If LTA is to meet the all debt obligations, after taking the recommended actions to reduce operational losses, it will be necessary to modify the current toll schedule by very significantly increasing the magnitude of the currently scheduled toll increases. Table 6-1 presents in comparison with the existing scheduled increases, the toll rate increases that would be required to meet the all debt and senior debt service coverage ratios if no other action, such as restructuring of debt, or special provision for repayment of debt, takes place.

Table 6-1 Required Toll Rate Increases

Year of Increase / Schedule	Toll Rate Increases					
	2013	2018	2023	2028	2033	2038
Existing Toll Schedule	20%	25%	20%	11%	0%	0%
Required - Base Scenario	108%	37%	61%	25%	0%	0%
Required - Low Scenario	124%	120%	78%	25%	0%	0%

The required toll rate increases take 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 LaDOTD and LTA. The effects on traffic of implementation of such major toll increases beyond 2013 cannot be accurately forecast using the current SP survey, and additional elasticity determinations should be performed prior to the scheduled toll increases in 2018 and 2023.

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 LaDOTD 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. The operational data made available to URS demonstrates that

the benefit to LTA in removing the residents' $0.00 toll charge is very small, of the order of $2,500 per year, as there are only approximately 100 transactions per month recorded by residents. URS understands that a change in legislation would be required to effect a change in toll rate for residents, and therefore does not recommend any change in this rate.

The operational data indicates that 23% of transactions are made by commuters, who receive a $1.00 discount per transaction. Removing the commuter discount would have the effect of increasing the 2012 toll revenue by approximately $211,000 per year.

The required toll schedules have been developed with no change in the preferential toll rates provided to residents and commuters. The removal of the commuter discount credit affects only the initial toll increase in 2013, reducing the increase required by about 20% for the Base Scenario.

Table 6-2 shows the required toll schedule to meet the all and senior debt service coverage ratios for the Base Scenario.

Table 6-2 Required Toll Schedule for Base Scenario

Vehicle Class	Toll (A)				
	Existing (B)	2013 (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	$3.10	$4.20	$6.70	$8.40
Transponder/Cash toll (F)	$2.50	$5.20	$7.10	$11.40	$14.20
2-axle/6-tire vehicles	$3.75	$7.70	$10.50	$16.80	$21.00
3-axle vehicles					
2-axle/4-tire with 1-axle trailer	$3.75	$7.70	$10.50	$16.80	$21.00
Trucks and buses	$5.00	$10.30	$14.10	$22.60	$28.20
4-axle vehicles					
2-axle/4-tire with 2-axle trailer	$5.00	$10.30	$14.10	$22.60	$28.20
Trucks	$7.50	$15.50	$21.20	$34.00	$42.40
5-axle vehicles	$10.00	$20.70	$28.30	$45.40	$56.60
6+ axle vehicles (maximum toll)	$12.00	$24.80	$33.90	$54.40	$67.80

(A) Allowance is made for non-toll traffic pursuant to Louisiana RS 40:1392 and other applicable Louisiana statues.

(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.

Table 6-3 shows the required toll schedule to meet the all and senior debt service coverage ratios for the Low Scenario.

Table 6-3 Required Toll Schedule for Low Scenario

Vehicle Class	Toll [A]				
	Existing [B]	2013 [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	$3.40	$7.50	$13.40	$16.70
Transponder/Cash toll [F]	$2.50	$5.60	$12.30	$21.90	$27.30
2-axle/6-tire vehicles	$3.75	$8.40	$18.50	$33.00	$41.20
3-axle vehicles					
2-axle/4-tire with 1-axle trailer	$3.75	$8.40	$18.50	$33.00	$41.20
Trucks and buses	$5.00	$11.20	$24.60	$43.80	$54.60
4-axle vehicles					
2-axle/4-tire with 2-axle trailer	$5.00	$11.20	$24.60	$43.80	$54.60
Trucks	$7.50	$16.80	$36.90	$65.70	$81.90
5-axle vehicles	$10.00	$22.40	$49.20	$87.70	$109.40
6+ axle vehicles (maximum toll)	$12.00	$26.90	$59.10	$105.30	$131.30

The major differences between the required toll schedules for the Low and Base Scenarios occur in 2018 and beyond. Therefore, for the remainder of this report the analysis presented is that for the Base Scenario to achieve the all debt and senior debt service coverage ratios.

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Figure 6-1 displays the historic and forecast AADT for all scenarios under the required toll schedule for the Base Scenario. Tables 6-4 thru 6-6 show the alternative traffic and revenue forecasts for the three scenarios using the required toll schedule for the Base Scenario.

Figure 6-1 LA 1 Historic and Forecast Traffic – All Scenarios (Alternative Analysis and Forecast)

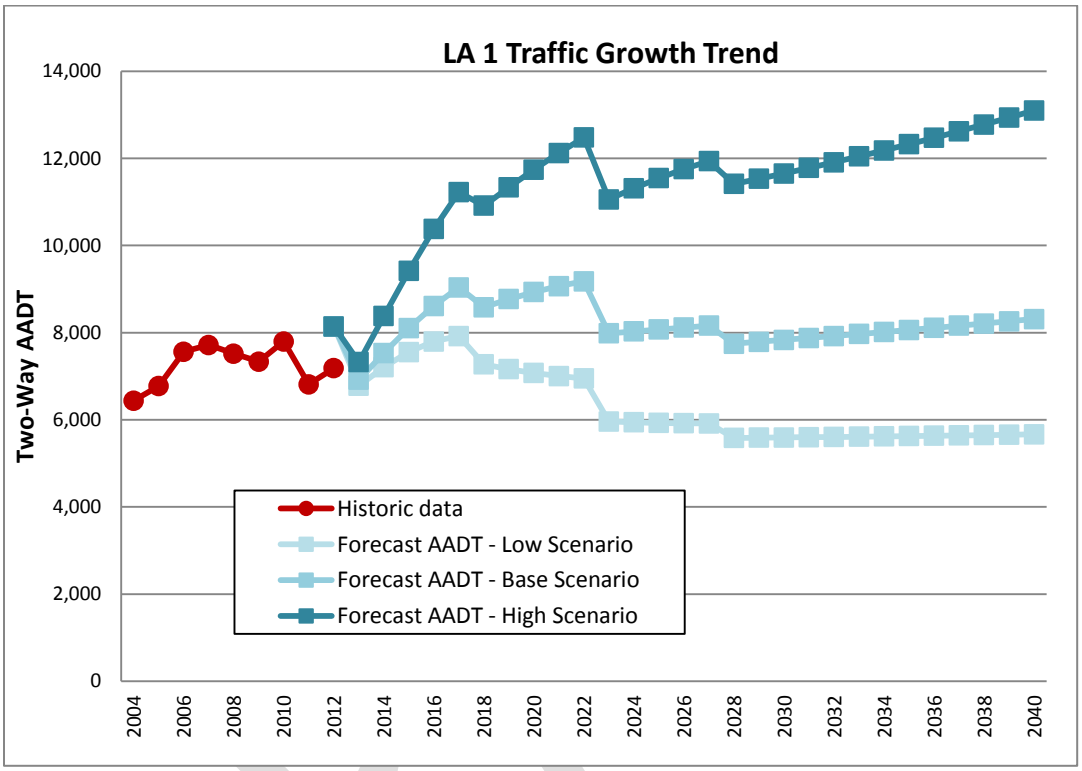

Table 6-4 Total Daily Transactions and Annual Revenue for LA 1 Toll Road-Low Scenario (Alternative Analysis and Forecast with Base Scenario Schedule – Table 6-2)

Year	Autos		Trucks		Total	
	Daily Transaction	Revenue (000)	Daily Transaction	Revenue (000)	Daily Transaction	Revenue (000)
2009	2,974	$774	487	$486	3,461	$1,261
2010	3,542	$2,093	531	$1,207	4,073	$3,300
2011	3,098	$2,060	465	$1,129	3,562	$3,189
2012	3,496	$2,342	574	$1,412	4,070	$3,754
2013	2,912	$4,415	479	$2,717	3,391	$7,132
2014	3,100	$4,827	506	$2,946	3,606	$7,773
2015	3,252	$5,063	526	$3,063	3,777	$8,126
2016	3,360	$5,232	538	$3,135	3,898	$8,367
2017	3,419	$5,324	542	$3,158	3,961	$8,482
2018	3,142	$6,675	494	$3,937	3,636	$10,612
2019	3,100	$6,585	482	$3,839	3,582	$10,424
2020	3,066	$6,512	471	$3,756	3,537	$10,268
2021	3,039	$6,456	463	$3,686	3,502	$10,142
2022	3,019	$6,414	456	$3,629	3,475	$10,044
2023	2,591	$8,826	390	$4,987	2,981	$13,813
2024	2,585	$8,806	387	$4,942	2,972	$13,747
2025	2,581	$8,793	384	$4,902	2,965	$13,695
2026	2,580	$8,787	381	$4,869	2,960	$13,656
2027	2,580	$8,788	379	$4,841	2,959	$13,629
2028	2,435	$10,348	356	$5,680	2,792	$16,028
2029	2,439	$10,364	355	$5,660	2,795	$16,024
2030	2,443	$10,381	354	$5,640	2,797	$16,021
2031	2,447	$10,398	353	$5,621	2,800	$16,019
2032	2,452	$10,416	352	$5,601	2,803	$16,017
2033	2,456	$10,435	350	$5,582	2,806	$16,017
2034	2,460	$10,454	349	$5,563	2,810	$16,017
2035	2,465	$10,474	348	$5,544	2,813	$16,018
2036	2,470	$10,494	347	$5,525	2,817	$16,019
2037	2,475	$10,515	346	$5,507	2,820	$16,022
2038	2,480	$10,537	344	$5,488	2,824	$16,025
2039	2,485	$10,559	343	$5,470	2,829	$16,029
2040	2,491	$10,582	342	$5,452	2,833	$16,034

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Table 6-5 Total Daily Transactions and Annual Revenue for LA 1 Toll Road-Base Scenario (Alternative Analysis and Forecast with Base Scenario Schedule – Table 6-2)

Year	Autos		Trucks		Total	
	Daily Transaction	Revenue (000)	Daily Transaction	Revenue (000)	Daily Transaction	Revenue (000)
2009	2,974	$774	487	$486	3,461	$1,261
2010	3,542	$2,093	531	$1,207	4,073	$3,300
2011	3,098	$2,060	465	$1,129	3,562	$3,189
2012	3,496	$2,342	574	$1,412	4,070	$3,754
2013	2,976	$4,512	485	$2,749	3,460	$7,261
2014	3,247	$5,056	521	$3,033	3,767	$8,089
2015	3,499	$5,449	554	$3,226	4,053	$8,675
2016	3,724	$5,799	583	$3,397	4,307	$9,196
2017	3,911	$6,090	608	$3,540	4,519	$9,631
2018	3,716	$7,893	576	$4,592	4,292	$12,486
2019	3,797	$8,067	588	$4,686	4,385	$12,753
2020	3,869	$8,218	598	$4,764	4,466	$12,982
2021	3,929	$8,346	606	$4,824	4,534	$13,171
2022	3,978	$8,450	611	$4,868	4,588	$13,317
2023	3,460	$11,788	533	$6,806	3,993	$18,594
2024	3,481	$11,858	533	$6,815	4,014	$18,673
2025	3,502	$11,930	534	$6,824	4,036	$18,754
2026	3,524	$12,003	535	$6,833	4,058	$18,836
2027	3,545	$12,077	535	$6,842	4,081	$18,919
2028	3,365	$14,299	507	$8,077	3,872	$22,376
2029	3,387	$14,388	508	$8,088	3,894	$22,476
2030	3,408	$14,479	508	$8,099	3,916	$22,578
2031	3,430	$14,571	509	$8,110	3,938	$22,681
2032	3,451	$14,664	510	$8,122	3,961	$22,786
2033	3,474	$14,759	510	$8,134	3,984	$22,893
2034	3,496	$14,856	511	$8,145	4,008	$23,001
2035	3,519	$14,953	512	$8,157	4,031	$23,111
2036	3,543	$15,052	513	$8,170	4,055	$23,222
2037	3,566	$15,153	513	$8,182	4,080	$23,335
2038	3,590	$15,255	514	$8,195	4,105	$23,450
2039	3,615	$15,359	515	$8,208	4,130	$23,566
2040	3,640	$15,464	516	$8,221	4,156	$23,685

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Table 6-6 Total Daily Transactions and Annual Revenue for LA 1 Toll Road-High Scenario (Alternative Analysis and Forecast with Base Scenario Schedule – Table 6-2)

Year	Autos		Trucks		Total	
	Daily Transaction	Revenue (000)	Daily Transaction	Revenue (000)	Daily Transaction	Revenue (000)
2009	2,974	$774	487	$486	3,461	$1,261
2010	3,542	$2,093	531	$1,207	4,073	$3,300
2011	3,098	$2,060	465	$1,129	3,562	$3,189
2012	3,496	$2,342	574	$1,412	4,070	$3,754
2013	3,146	$4,770	515	$2,923	3,661	$7,693
2014	3,606	$5,614	585	$3,406	4,190	$9,020
2015	4,056	$6,315	652	$3,800	4,708	$10,115
2016	4,475	$6,968	715	$4,168	5,190	$11,136
2017	4,841	$7,539	771	$4,492	5,612	$12,030
2018	4,707	$9,999	751	$5,981	5,457	$15,980
2019	4,888	$10,384	781	$6,219	5,669	$16,603
2020	5,062	$10,753	809	$6,442	5,870	$17,195
2021	5,227	$11,104	835	$6,649	6,061	$17,753
2022	5,382	$11,433	858	$6,837	6,240	$18,270
2023	4,766	$16,234	763	$9,747	5,528	$25,981
2024	4,879	$16,619	778	$9,949	5,657	$26,568
2025	4,982	$16,972	792	$10,119	5,774	$27,091
2026	5,076	$17,290	802	$10,255	5,878	$27,544
2027	5,159	$17,573	810	$10,354	5,969	$27,927
2028	4,936	$20,970	771	$12,282	5,706	$33,252
2029	4,993	$21,215	773	$12,312	5,766	$33,527
2030	5,053	$21,467	775	$12,343	5,827	$33,810
2031	5,114	$21,726	777	$12,376	5,890	$34,102
2032	5,177	$21,994	779	$12,409	5,955	$34,402
2033	5,241	$22,269	781	$12,443	6,022	$34,712
2034	5,308	$22,553	783	$12,478	6,091	$35,030
2035	5,377	$22,845	785	$12,514	6,162	$35,359
2036	5,448	$23,146	788	$12,551	6,235	$35,697
2037	5,521	$23,456	790	$12,589	6,311	$36,045
2038	5,596	$23,775	793	$12,629	6,388	$36,404
2039	5,673	$24,104	795	$12,669	6,468	$36,773
2040	5,753	$24,442	798	$12,711	6,551	$37,153

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

Figures 6-2 and 6-3 respectively show the alternative forecast of 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, using the required toll schedule for the Base Scenario.

As demonstrated in these figures, if the required toll schedule is implemented the 1.10 all debt service coverage ratio can be achieved by the Base Scenario, and the 1.20 senior debt coverage is also achieved throughout the term of the debt.

Figure 6-2 All Debt Coverage Ratio Forecasts (Alternative Analysis and Forecast)

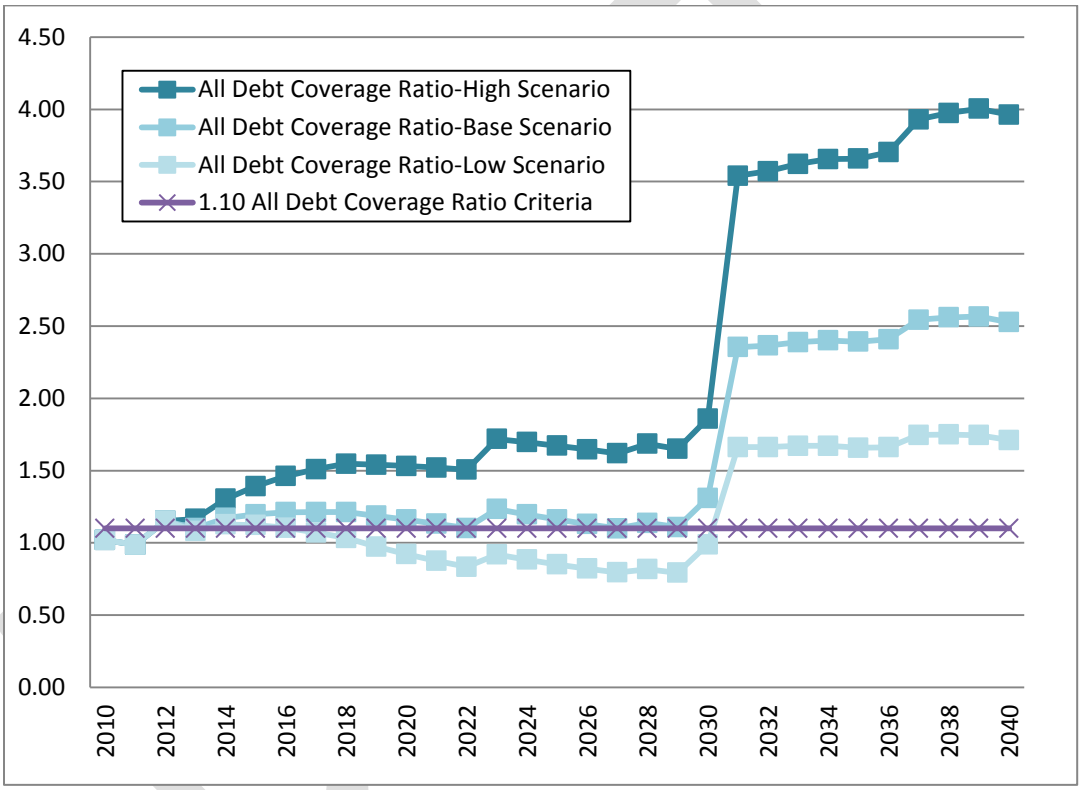
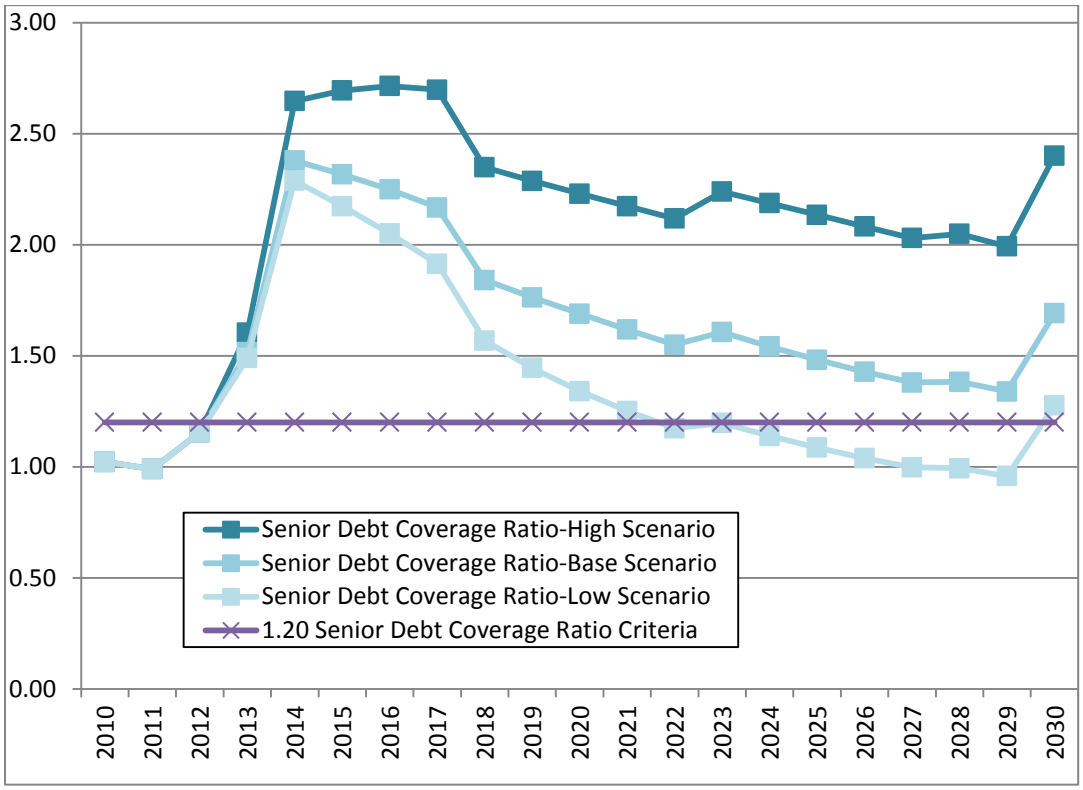


Figure 6-3 Senior Debt Coverage Ratio Forecasts (Alternative Analysis and Forecast)



However, the impact on the local economy of the required toll schedule for the Base Scenario will be significant, because of the absence of alternate routes to Port Fourchon and Grand Isle. The combined primary and secondary economic effects of a 108% toll increase in 2013 are projected to be a loss of government revenue (personal and sales taxes) of $1.65m, compared to the projected increase in toll revenue of $1.94m for the Base Scenario. The reduction in economic performance of the area south of Leeville Bridge is driven by a 20% reduction in traffic using LA 1. The marginal increase in government revenue for the 2013 toll increase is therefore $290,000.

7. Recommendation of Action Items

The 2011 Toll Consultant Report by URS made the following recommendations:

Summary of 2011 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

Some of the above recommendations were accepted and implemented by LTA and LaDOTD. This section reviews the progress made since the 2011 Toll Consultant Report.

Recommendation 1 – Implementation in progress

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

LaDOTD is implementing revisions in toll operations, including installation of cash toll booths. LaDOTD should continually review and improve the performance of toll operations over the life of the facility.

Recommendation 2 – Implementation in progress

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

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Recommendation 3 – Implementation in progress

URS recommends that LaDOTD and LTA make special provision for debt repayment in 2012 and beyond, with the support of an FA.

According to the Cooperative Endeavor Agreements (CEA), LaDOTD 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 been significantly less than the industry standard and on this basis, LaDOTD could justify supplementing the toll revenue with state TTF to meet the debt service repayments until the tolling system issues are corrected.

Recommendation 4 – Implementation in progress

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

One option promulgated by LaDOTD 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, 2014 for the start of the TIFIA principal repayment.

Recommendation 5 – Implementation under consideration

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 LaDOTD 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.

Recommendation 6 – Implementation in progress

It is recommended that traffic data is collected using permanent traffic counters to determine the daily traffic flows by vehicle class and the split of traffic between Port Fourchon and Grand Isle. 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, to allow the model of usage to be refined and improve confidence in the long-term 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 over the duration of the indentures.

This report includes traffic data updates from the tolling system and temporary traffic counters.

Recommendation 7 – Implementation complete

The magnitude of toll increases required to achieve the debt service coverage ratio for all debt and senior debt is significant. The project-specific analysis of the demand elasticity for differing user groups, has been completed through a stated preference survey by Resource Systems Group (RSG). A summary of the results is contained in this report.

Recommendation 8 – Implementation complete

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.

The results of the economic analysis are included in this report.

Recommendation 9 – Implementation under consideration

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 to coincide with the built-in toll increase scheduled for January 1, 2013.

The toll schedule proposed in 2011 Toll Consultant Report is no longer relevant due to major traffic flow changes from 2010 through 2012.

Recommendation 10 – Implementation under consideration

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 – Implementation under consideration

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.

Current Schedule for Implementation of 2011 Recommendations

1	Operations: HNTB Recommendations	Summer 2012
2 ✓	Finance: Appoint FA	Fall 2011
3 ✓	Finance: Special provision 2011	Spring 2011
4	Finance: Restructure debt	Fall 2012
5 ✓	Toll rates: Re-evaluate resident/commuter benefits and tolls	Spring 2012
6	Monitoring: LA 1 traffic and actual revenue	Spring 2011-2020
7 ✓	Analysis: Demand elasticity	Spring 2012
8 ✓	Analysis: Economic impact	Fall 2011
9	Toll rates: Implement proposed schedule	January 2013
10	Planning: Contingency plan	Fall 2012
11	Analysis: Eastern GOM oil development	2018

Note: ✓ indicates implementation completion.

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Summary of 2012 Preliminary Recommendations

1. Operations: Continue to 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. Consultation: Discuss overall economic impact of proposed toll rate schedule with local communities and identify potential alternate measures
3. Finance: Examine possibilities for restructuring debt, so that the all debt service coverage ratio can be achieved and the need for major increases after 2013 is reduced.
4. Finance: Make special provision for debt repayment in 2012 and 2013 with FA support
5. Toll rates: Simplify toll schedule and vehicle classifications
6. Toll rates: Re-evaluate benefits and tolls for commuter traffic.
7. Toll rates: Implement required schedule of toll rates Table 6-2, with 108% increase in toll rates in 2013, unless recommendations 2 to 6 result in a reduction in the required toll rates.
8. Planning: Develop contingency plan for compliance with Bond Covenant in the medium to long term
9. Monitoring: Continue to closely monitor LA 1 traffic and revenue, as well as economic drivers, to anticipate and implement short-term actions for repayment
10. Analysis: Determine project-specific demand elasticity prior to any toll rate increases greater than 25% after 2013
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

Proposed Schedule for Implementation of 2012 Recommendations

1	Operations: HNTB Recommendations	Summer 2012
2	Consultation: Economic impact	Summer/Fall 2012
3	Finance: Restructure debt	Fall 2012
4	Finance: Special provision 2012 and 2013 senior debt	Summer/Fall 2012
5	Toll rates: Simplify toll schedule and vehicle classifications	Summer/Fall 2012
6	Toll rates: Re-evaluate commuter benefits and tolls	Summer/Fall 2012
7	Toll rates: Implement proposed schedule	January 2013
8	Planning: Contingency plan	Fall 2012
9	Monitoring: LA 1 traffic and actual revenue	Summer 2012-2020
10	Analysis: Demand elasticity increases after 2013	Spring 2012
11	Analysis: Eastern GOM oil development	2018

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As part of URS recommendation 5, HNTB has recommended that the classification table for the toll schedule is modified. The benefits of this change are predominantly operational, improving the efficiency of the toll collection system, both back office and at the toll collection points. The motivation for users to set up transponder accounts is also anticipated to have a significant effect on the reduction of toll losses.

Proposed Classification

The following simplified classification table is proposed by HNTB:

Class	Vehicle Class Description	Cash Fare	AVI Fare	Comments
Class 1	2 Axle Vehicle	t.b.a.	t.b.a.	
Class 2	3 Axle Vehicle	t.b.a.	t.b.a.	
Class 3	4 Axle Vehicle	t.b.a.	t.b.a.	
Class 4	5 Axle Vehicle	t.b.a.	t.b.a.	
Class 5	6 Axle Vehicle or more	t.b.a.	t.b.a.	
Class 6	Not used	-	-	
Class 7	Not used	-	-	
Class 8	Not used	-	-	
Class 9	Not used	-	-	
Class 10	Grand Isle Resident	0	0	Have to meet residency requirements
Class 11	Non Rev	0	0	

This recommendation by HNTB is based on operational issues, customer communications and the difficulty of determining the number of tires on a vehicle. It was recognized that the second highest class of vehicle is currently dual tire rear-axle vehicles, which will impact the revenue. However, it was found extremely difficult to clearly communicate the existing classification to the customers, especially at the Automatic Toll Payment Machine (ATPM) where efforts were being made to simplify things to cut the transaction time down. The accuracy of the detection of the dual tires was also less than desirable, which was not uncommon. HNTB also recommended that a differential tolls be implemented for cash customers that are 50% higher than the AVI rate, to the nearest quarter. Rounding to the nearest quarter will also help reduce transaction time at the ATPM.

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8. Disclaimers & Limitations

This Toll Consultant Report (the "Report") was prepared exclusively for the Louisiana Department of Transportation and Development and any use of or reliance upon this Report by any other party or entity without the prior written authorization of URS is prohibited. Notwithstanding the foregoing, URS consents to the use of this Report by the United States Department of Transportation (USDOT) solely in connection with LaDOTD's negotiations with USDOT concerning possible restructuring of the existing TIFIA loan.

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 professional judgment and URS does not warrant or represent that actual toll revenues will not vary materially 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 LaDOTD 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 LaDOTD with the aim of identifying ways in which LaDOTD 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. This Toll Consultant Report may not be included in any prospectus or as part of any bond sale or loan instrument.

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