

AN ABSTRACT OF THE CAPSTONE PROJECT OF

Gloria J. Thompson for the degree of Master of Natural Resources presented on September 18, 2014.

Title: Toledo Bend: The Potential of Changing from Hydropower to Water Sales

Abstract approved: _____

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This capstone project is presented for completion of Oregon State University's (OSU) Master of Natural Resources Program. This project is an expansion of the author's research completed as part of the Water Conflict Management and Transformation Certificate and as part of the overall Master of Natural Resources Program.

Located on the border of Texas and Louisiana, Toledo Bend is a 185,000 acre hydropower reservoir. Although Toledo Bend was first conceived to provide water for future needs, until now very little of the water is being utilized by municipalities or industry. West Texas is currently looking at the near future and the need for more water and has its eye on Toledo Bend to provide that water. At this time the ecological, economic, social and ethical considerations of water sales must be examined as well as the complex issue of putting a dollar value on water. This capstone project has been prepared to consider sustainability issues of a water sale proposal. It includes a history of the Toledo Bend Project, an existing water sale proposal, principles that should guide a water sale, guidelines for gaining cooperation among stakeholders and finally some recommendations for consideration.

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Toledo Bend: The Potential of Changing from Hydropower to Water Sales

by
Gloria J. Thompson

A CAPSTONE PROJECT

submitted to

Oregon State University

in partial fulfillment of
the requirements for the
degree of

Master of Natural Resources

Presented September 18, 2014
Commencement June 2015

Master of Natural Resources capstone project of Gloria J. Thompson presented on September 18, 2014.

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I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

Gloria J. Thompson, Author

ACKNOWLEDGEMENTS

I would like to recognize the following OSU professors who facilitated my learning in the program and provided a broad and varied view, provided support, guidance and constructive input throughout the completion of my Water Conflict Transformation Certificate and the completion of my Master of Natural Resources curriculum and development of this capstone project.

Todd Jarvis

Aaron Wolf

Badege Bishaw

Lynette de Silva

Dave Perry

I would also like to thank Dan Sheer, of Hydrologics, Inc, for the use of OASIS, a reservoir simulation program that I used to complete my project, the help of his staff, and his personal time to help with the project. Dean Randall and Sam Lebherz were very gracious with their time and patience in helping me through the project.

Further, I would like to acknowledge my family who endured the two years and all the long hours it took to complete my degree and this project. I used them as a sounding board throughout the project and really appreciate their patience.

Finally I would like to dedicate this project to my father, Carl Hester, Jr., who passed away during the completion of this project. He always joked that I was a lifetime student, but I know that he would be proud of me as he was always encouraging.

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Preface

In 2011, I was a stakeholder in this conflict, my Husband and I own several businesses that revolve around tourism and the lake, we have a home on the lake and I sit on the board of the Chamber of Commerce. This conflict is what brought me to continuing my education at Oregon State University (OSU). I attended the first Natural Resources Leadership Academy at OSU and then enrolled in their Master of Natural Resource program, with a certificate in Water Conflict Management. This project is a culmination of my studies during the past two years. As much as I've tried with this project, it's hard to distance myself from the situation, so in my presentation you might hear me say "we", when speaking of the stakeholders, because I am a stakeholder.

1. Introduction

1.1 Purpose and Objective of Project

In 2011 a proposal from a private organization to purchase 600,000 acre feet (ac-ft) of water from Toledo Bend was under consideration. Texas and Louisiana each own half of the firm yield, but this particular purchase was to be from Louisiana. The purpose of this project is to determine the feasibility of moving from predominantly hydropower to water sales. The objective is to evaluate the proposal in terms of sustainability of the ecosystem and the services it provides, economics, and the social and cultural aspects.

1.2 History of Toledo Bend

Toledo Bend was conceived and planned for 12 years prior to the ground breaking ceremony held on October 5, 1961, eight years later the dedication ceremony was held. Toledo Bend Reservoir is the only public water conservation and hydropower project in the nation to be undertaken without federal participation in its permanent financing. The Sabine River Compact (See Appendix 1) was adopted by the states of Texas and Louisiana in 1953 and 1954, respectively. “The major purposes of this Compact is to provide for an equitable apportionment between the States of Louisiana and Texas of the waters of the Sabine River and its tributaries, thereby removing the causes of present and future controversy between the States over the conservation and utilization of said waters; to encourage the development, conservation and utilization of the water resources of the Sabine River and its tributaries; and to establish a basis for cooperative planning and action by the States for the construction, operation and maintenance of projects for water conservation and utilization purposes on that reach of the Sabine River touching both States,

and for apportionment of the benefits therefrom” (“Water Code - Title 3 - Ch 44 - Sec 10” 2013).

1.3 Study Area Description and Setting

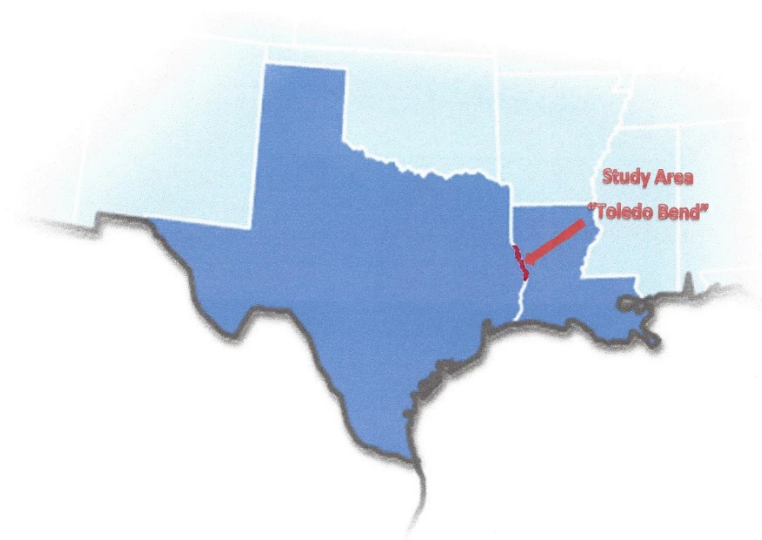
Toledo Bend is a reservoir located on the Sabine River, which serves as boundary between Louisiana and Texas (See Figure 1. Location Map).

From the dam site the reservoir extends 65 miles upriver to Logansport, Louisiana and inundates land in Sabine and DeSoto Parishes in Louisiana, and Sabine, Shelby, Panola, and Newton Counties in Texas.

Toledo Bend Reservoir is the largest man-made body of water in the South and the fifth largest in surface acres in the United States. Covering an area of 185,000 acres at 172 feet mean sea level (msl) it has a controlled storage capacity of 4,477,000 acre-feet (1,448,934,927,000 gallons).

Toledo Bend Reservoir is a large, irregularly shaped basin that consists of approximately 1,130 miles of shoreline.

Figure 1. Location Map



Toledo Bend is fed by the Sabine River Basin (See Figure 2. Sabine River Basin). The headwaters of the Sabine River originate at the watershed divide in northwestern Hunt County, from where the River flows southeasterly through the City of Greenville for a distance of approximately 60 miles to join Caddo Creek and the South Fork within Lake Tawakoni. From Iron Bridge Dam, which forms Lake Tawakoni, the River flows a distance of about 250 channel miles across Texas to the boundary between Texas and Louisiana near the town of Logansport, Louisiana, then southerly along the state line through Toledo Bend Reservoir for a distance of about 265 miles to Sabine Lake, and then into the Gulf of Mexico. The total area of the watershed is 9,756 square miles of which some 76 percent lies within the boundaries of Texas. The lower Basin or state line portion has a contributing area of some 4,910 square miles, of which approximately 2,550 square miles lie within Texas and 2,360 square miles lie within Louisiana. As a requirement of the compact between Texas and Louisiana, the minimum inflow provided by Texas at the state line is 36 cfs (“Toledo Bend DLA - Exhibit E - 3.4 Water Quantity and Quality, May 2011 - TBend_ExhE 3.4-WtrQnttyQlty-110502.pdf” 2013). The wording in the Sabine River Compact is as follows:

“Reservoirs and permits above the Stateline existing as of January 1, 1953 shall not be liable for maintenance of the flow at the stateline. After January 1, 1953, neither state shall permit or authorize any additional uses which would have the effect of reducing the flow at the stateline to less than 36 cfs. The right of each state to construct impoundment reservoirs and other works of improvement on the Sabine River or its tributaries located wholly within its boundaries is hereby recognized” (*Sabine River Compact* 1953)

This wording is important if we consider the possibility of Texas building a reservoir upstream of Toledo Bend. So if we examine the numbers this is what we see, the mean annual inflow of Toledo Bend, computed from

1972 - 2009 is 4,195,177 ac-ft, which is 5,795 cfs. The minimum annual inflow, which occurred in 1996 was 355,416 ac-ft, which is 491 cfs (“Toledo Bend DLA - Exhibit E - 3.4 Water Quantity and Quality, May 2011 - TBend_ExhE 3.4-WtrQnttyQlty-110502.pdf” 2013). The required inflow of 36 cfs is only 26,063 ac-ft. The historic drought of record in 2011 was not included in these figures. These numbers are pretty significant, especially if we consider what would happen to Toledo Bend if it only receives the minimum inflow of 36 cfs.

Figure 2. Sabine River Basin



The average annual precipitation ranges from a low of 35 inches in the Upper Sabine River basin, to about 60 inches in the Lower Sabine Basin near the Gulf Coast. Rainfall over the basin upstream of the Toledo Bend Dam averages about 45.5 inches per year (“Toledo Bend DLA - Exhibit E - 3.4 Water Quantity and Quality, May 2011 - TBend_ExhE 3.4-WtrQnttyQty-110502.pdf” 2013). Most of the annual precipitation in the Sabine River Basin occurs during the winter and spring. The mean

monthly outflow at the Toledo Bend dam between 1972 and 2009 ranged from 1,363 to 10,571 cfs (“Toledo Bend DLA - Exhibit E - 3.4 Water Quantity and Quality, May 2011 - TBend_ExhE 3.4-WtrQnttyQlty-110502.pdf” 2013).

There are no major cities surrounding Toledo Bend. Many, Louisiana, population of 2,283 (“Many, LA Population - Census 2010 and 2000 Interactive Map, Demographics, Statistics, Quick Facts - CensusViewer” 2014) is located within Sabine Parish, although it does not border Toledo Bend. Hemphill, Texas, population 1,198 (“HEMPHILL, TX ZIP Codes” 2014) is located in Sabine County, it does not border Toledo Bend either.

1.4 Governing Bodies

The Sabine River Compact Administration (SRCA) was created to provide oversight, to carry out and enforce the compact. The Sabine River Compact Commission (SRCC) represents Texas on the interstate Sabine River Compact Administration (SRCA). The SRCA consists of two representatives from each state appointed by the Governor of the respective state and one representative appointed by the President of the United States. The United States member shall be ex-officio chairman of the Administration without vote and shall not be a domiciliary of or reside in either State (“Sabine River Compact Commission” 2014).

Each state created a governing body, which jointly owns and operates Toledo Bend, the Sabine River Authority of Louisiana (SRA-LA) and the Sabine River Authority of Texas (SRA-TX). Revenues and expenses are shared equally between Louisiana and Texas. SRA-LA is governed by a board of 13 members appointed by the Governor of Louisiana, each board member serves a four year term. Each of the Parishes that border Toledo Bend or the Sabine River is represented on the board. The Sabine River Authority of Texas is governed by a nine-member Board of Directors.

Each board member serves a six-year term. Directors are required to reside within a county situated wholly or partially within the watershed of the Sabine River. The Governor of Texas appoints three board members every two years.

Rules, regulations, financial management and operation of the Toledo Bend Project are directed by the Toledo Bend Project Joint Operating Board (TBPJO) which is comprised of two board members from SRA-LA Board of Commissioners and two board members from SRA-TX Board of Directors. The General Manager of SRA-TX and the Executive Director of SRA-LA serve on the Operating Board as ex officio members. The initial costs for the construction of the project were shared equally by the two Authorities, and they continue to share in the operating cost; therefore, each state is entitled to fifty percent of the income from the sale of power generated at the facility. Management of matters relating to the reservoir, dam, spillway and power plant are handled jointly by TBPJO with each state managing its own shoreline and recreation activities.

1.5 Current Water Laws & Water Use

One of the oldest water codes is the riparian doctrine, also known as the common law of water. The riparian doctrine states that "water in a stream belongs to the public for use by fishers and for navigation, and cannot be controlled by private individuals" (Cech 2010). However, riparian landowners were allowed reasonable use of the water as long as it did not impact navigation. The doctrine of prior appropriation, which was adopted much later, allows a water user to divert water from a stream for delivery and use on non-riparian lands. This right of water, called a water right, can be sold or leased, but it must be used or it could revert back to the system. The "use it or lose it" concept. A priority date is based on the concept of "first in time, first in right" and is acquired by filing papers with the

appropriate agency. In humid regions, water laws are generally based on a concept of sharing, which is evident in the riparian doctrine, while most arid regions have moved to the private-property right of prior appropriation. Water use in the United States is permitted under one of these doctrines or a combination of the two (Cech 2010).

The amount of water available for use in a water system is called the firm yield. The firm yield of a reservoir is defined as the maximum yield that could have been delivered without failure during the historical drought of record (Archfield and Vogel 2005). A study done in 1954 and then again in 1991, by Brown & Root, determined that the firm yield of Toledo Bend is 2,086,600 acre-feet. The two studies differ by an increase of 12,100 ac-ft per year more in the 1991 study (Brown & Root, Inc. 1991).

1.5.1 Texas Water Law

Although Texas once recognized both riparian and prior appropriation rights, since 1967 only appropriative water rights are recognized (“Texas Water Law” 2014). Texas water rights are permitted thru Texas Commission on Environmental Quality (TCEQ). In the past few years there have been many changes in permits for Toledo Bend, with pending permit applications that will allow more withdrawals in the future. Certificate of Adjudication No. 05-4658C, an amendment to the original right, changed the 750,000 ac-ft of permitted water from fixed uses to multiple purpose. The amendment also allows for unlimited diversion points at any location on the perimeter of Toledo Bend. It also increases the maximum diversion rate from 3.06 cfs (2,215 ac-ft per year) to 2,590 cfs (1,875,074 ac-ft per year). There is a pending 2003 permit application for the remaining 293,300 ac-ft of allowable firm yield that had not previously been permitted by

TCEQ. According to TCEQ, this permit is in its final stage of the permitting process. An additional permit, Permit No. 05-4664 added an amendment to allow for an additional diversion point below the dam.

1.5.2 Louisiana Water Law

Louisiana's system of water law is based on the riparian system; however, free-flowing waters (surface waters) are considered state owned except where riparian claims have been made. In creating the Sabine River Authority of Louisiana, the Louisiana legislature authorized them to conserve, store, control, preserve, utilize and distribute the waters of the rivers and streams of the Sabine watershed. This authority gave SRA-LA the right to enter into a water sale agreement without further oversight. An Attorney General's opinion at the time of the proposed water sale confirmed that authority (See Appendix 2) (J. Caldwell and Henry 2011).

Louisiana's full amount of their portion of the firm yield (1,043,300 ac-ft) is available for the diversions from the reservoir. In 2007 Louisiana State Legislature amended existing statutes to restrict the use of hydroelectric power to water levels above 168' msl.

The proposed water sale in 2011 brought a lot of attention to the possibility of removing water from Toledo Bend for use in Texas. Much of this attention in the way of phone calls to our legislators. Louisiana legislators, led by Senator Long, agreed that more oversight needed to be placed on such an important, long term decision. In 2012, Louisiana Legislative Act No. 784 (Appendix 3) adds additional restrictions upon any agreements that provided for the sale, utilization, distribution, or consumption outside of the

boundaries of the State of Louisiana, these restrictions were as follows:

- The written concurrence of the governor shall be required
- The written concurrence of the Senate Committee on Natural Resources and the House Committee on Natural Resources and Environment shall be required
- At least two-thirds of the governing authorities of the parishes within the territorial jurisdiction of the authority shall concur

The governing authorities of Louisiana parishes are Police Juries. Each Police Jury has members that represent the districts within the parish, and they are elected by the public. The chart below (Table 1- Oversight) shows all of the entities that would need to agree on any future out-of-state water sale.

Table 1. Oversight

Governing Body	Procedure	Members	Votes Needed
SRA-LA	Majority Vote	13	7
Governor of Louisiana	Written Approval	1	1
Senate Committee on Natural Resources	Majority Vote	8	5
House Committee on Natural Resources and Environment	Majority Vote	21	11
Desoto Parish Police Jury	2/3 Vote	11	7
Sabine Parish Police Jury	2/3 Vote	9	6
Vernon Parish Police Jury	2/3 Vote	12	8
Beauregard Parish Policy Jury	2/3 Vote	12	8
Calcasieu Parish Police Jury	2/3 Vote	15	10
Cameron Parish Police Jury	2/3 Vote	7	5
Total Votes Needed			68

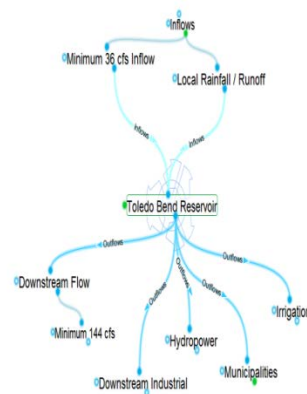
1.5.3 Current Water Use

Table 2, below, shows the current water use from Toledo Bend by both Louisiana and Texas. A total of 85,803.70 acre feet of the 2,086,600 ac/ft firm yield is being utilized. Of which only 1,793,300 ac/ft is currently permitted (1,043,300 for Louisiana and 750,000 for Texas), which makes current usage at approximately 5% of available water. Figure 3 (Toledo Bend Flow Diagram) below, shows a flow diagram for uses on Toledo Bend.

Table 2. Current Water Use

SRA-LA	Cleco	Industrial	20,148.00
	International Paper	Industrial	22,411.00
	South Toledo Bend Water District	Municipal	1,120.50
	City of Many	Municipal	10,658.00
	City of Logansport	Municipal	5,584.50
	City of Mansfield	Municipal	2,241.10
	Pendleton Water District	Municipal	1,120.50
	DeSoto Water District 1	Municipal	2,241.10
Total LA			65,524.70
SRA-TX	City of Huxley	Municipal	280.00
	El Camino Water System	Municipal	18.00
	Pendleton Utilities Corp.	Municipal	28.00
	City of Hemphill	Municipal	1,841.00
	Beechwood WSC	Municipal	190.00
	Tenaska	Municipal	17,922.00
	Neches River Basin	Industrial	0.00
Total TX			20,279.00
TOTAL			85,803.70

Figure 3 – Toledo Bend Flow Diagram



1.6 Services Provided

1.6.1 Ecology and Ecosystem Services

As mentioned before, the headwaters of the Sabine River are in Hunt County, Texas. The river flows through Lake Tawakoni, which is 36,700 acres. Lake Tawakoni has 30 permits for wastewater discharge, 1 active landfill and 5 inactive ones. Lake Tawakoni's watershed is surrounded by mainly agriculture, some

forest land and two urban areas with a total population of 75,404 (Sabine River Authority of Texas 2014) . EPA listed Lake Tawakoni as impaired in 2010 for pH, no further data is available (“Lake Tawakoni Waterbody Quality Assessment Report | WATERS | US EPA” 2014).

Lake Fork spills into the Sabine River, it covers 27,690 surface acres. It has 12 permits for wastewater discharge and a population of 14,634 and is surrounded by agriculture and upland forests (Sabine River Authority of Texas 2014). Lake Fork has not been listed as impaired.

The Sabine River then flows for another 250 miles before reaching Toledo Bend. A 25 mile section of the river above Toledo Bend has been listed as impaired for bacteria levels (“Sabine River Waterbody Quality Assessment Report | WATERS | US EPA” 2014). This 250 mile stretch and Toledo Bend are surrounded by private timber land and some residential along the shorelines of the reservoir, no industry. Toledo Bend itself, was listed as impaired in 2010 for quantities of mercury found in fish (“Toledo Bend Waterbody Quality Assessment Report | WATERS | US EPA” 2014), it continues to be listed as impaired.

Ecosystem services, as defined in “Ecosystems and Human Well-being: A Framework for Assessment” (Millennium Ecosystem Assessment 2003) are the benefits people obtain from ecosystems. These benefits include use and non-use values which validates the fact that nature has a value that can be measured and used for management decisions. The ecosystem services that Toledo Bend provides include use (or consumptive) benefits such as:

- Water supply for municipalities
- Water supply for agriculture
- Water supply for industry

- Hydropower

and non-use services include:

- Fishing
- Boating
- Swimming
- Wildlife viewing
- Flood control
- Aquatic & wildlife habitats
- Spiritual values

Hydropower is actually a non-consumptive use but as we are relating it to removing water from Toledo Bend it becomes consumptive.

All of the ecosystem services listed above depend on a healthy ecological system. Maintaining good water quality is essential for all of the services a water body provides, but water quantity is just as important for all of these services.

Toledo Bend has an issue with invasive aquatic species “salvinia molesta” or commonly known as giant salvinia. Ongoing efforts by Louisiana Wildlife & Fisheries has shown some success in controlling this species. We have no invasive fish species present.

Reservoir planners estimate the useful lifespan of a reservoir before construction ever begins. Lifespan for Texas reservoirs is considered to be 100 to 125 years (Ruesink 1978). Bodies of water are typically in one of three stages of life; the youngest being oligotrophic, mesotrophic, and oldest being eutrophic (“Pond & Lake Life Cycle” 2014). Oligotrophic lakes are young and do not have a lot of nutrients in them and therefore don’t usually have a lot of plants. Mesotrophic lakes are considered middle age and have more nutrients in them and therefore have more plants and algae. Toledo Bend would be considered a mesotrophic lake.

Eutrophic lakes are considered old or dying, are extremely well nourished with nitrogen and phosphorous and therefore are abundant with plants and algae. The larger and deeper the reservoir, the longer it takes to become eutrophic. Management practices can also slow the process down and even begin to reverse it. Inflows and outflows need to be managed so that the water continually changes, taking with it excess nutrients. As stated earlier the mean annual inflow to Toledo Bend, as computed from mean daily streamflow measurements across the period of record from 1972 to 2009, is 4,195,177 ac-ft (“Toledo Bend FLA - Exhibit E - 3.4 Water Quantity and Quality, September 2011 - TBend_ExhE 3 4-WtrQnttyQlty-110929.pdf” 2014). Toledo Bend has a capacity of 4,477,000 ac-ft which means that the retention time of water on Toledo Bend is just over a year.

1.6.2 Economic Services

The ecosystem services listed above provides the economic base of the surrounding parishes. Although there is some forestry in Sabine Parish, The major draw is tourism and retirees. Sabine Parish includes the majority of shoreline in Louisiana, therefore most of the tourism dollars go through its tax base. The Louisiana Office of Tourism estimated in a 2012 study (“The Economic Impact of Travel on Louisiana Parishes 2012” 2013, 30) that tourism in Sabine Parish accounted for 19.8 million dollars of expenditures. There are several fairs and festivals that bring in tourism but the majority of it revolves around Toledo Bend. During the historic drought of 2011 businesses reported losses of 37% to 45% (“Simple Math: The Toledo Bend Plunge - Beaumont Enterprise” 2014). This particular drought, above anything else,

proved that Toledo Bend is the economic base of the surrounding areas.

1.6.3 Social & Cultural Aspects

SRA-LA owns and operates 19 public facilities that include such amenities as picnic sites, boat launches, camping, cabins, fishing piers, and swimming areas. SRA-TX owns and operates 4 public facilities with picnic sites and boat launches but no overnight amenities. The State of Louisiana owns and operates 2 state parks, South Toledo Bend State Park and North Toledo Bend State Park. Both parks offer all amenities. There are many private accommodations to choose from ranging from private cabins to a resort hotel. The Sabine National Forest, located in east Texas consists of 160,656 acres situated on the western slopes of the Sabine River watershed within Sabine, San Augustine, Shelby, Jasper, and Newton counties (“National Forests and Grasslands in Texas - Districts” 2014). Recreational opportunities include swimming, sailing, boating, water sports and fishing.

Toledo Bend is host to 80+ tournaments a year that bring in thousands of anglers along with just as many spectators.

The cultural history of the Toledo Bend area is rich and varied, it dates back many years. Archaeological evidence indicates that nomadic Paleoindian groups were present in the region at the end of the Wisconsin Glaciation which dates back at least 12,000 years ago (“Toledo Bend FLA - Exhibit E - 3.9 Cultural Resources, September 2011 - TBend_ExhE 3.9-Cultural-110928.pdf” 2014). Native Americans from the Caddo and Alabama-Coushatta Nations occupied the Sabine River Basin for thousands of years before the French and Spanish began fighting over the territory. The Louisiana Purchase in 1803 put the Sabine River as the

dividing line between American and Spanish lands (“Toledo Bend FLA - Exhibit E - 3.9 Cultural Resources, September 2011 - TBend_ExhE 3.9-Cultural-110928.pdf” 2014). The El Camino Real was an important east/west corridor providing passage for the Spanish in establishing territories, it was used for a trade route between Mexico and Texas and later became a route for settlers immigrating to the west. This historic trail goes thru the heart of Sabine Parish and crossed Toledo Bend. This historical trail has recently been dedicated and marked.

Several Civil War battles were fought in this area and there are several museums and festivals that celebrate those events. Social structure is reflected in its history with many influences from Indian tribes such as Adai, Caddo, Choctaw-Apache as well as from the Spanish and French.

2. Water Sale Proposal

2.1 Proposal of Study

A private entity, Toledo Bend Partners, LP (TB Partners) has put together a proposal to purchase 600,000 ac-ft/yr of Louisiana's water to supply to areas of Texas, including San Antonio, Houston and Dallas. The proposal consists of the following:

- Annual quantity of 600,000 ac-ft, monthly water diversions will not exceed 75,000 ac-ft.
- Peak recreation months of July, August and September water diversions will not exceed 68,740 ac-ft.
- All water diversions are subject to a drought contingency plan
- The price of water includes a reservation fee for the first ten years and a price of \$.32/1,000 gallons (\$104.27 per ac-ft). In addition to the \$.32, the contract included additional compensation that would be tied to the overall performance of the project.
- The contract is for a length of 50 years with a 40 year option to renew.
- All costs of the project would be incurred by TB Partners.

The drought contingency plan consists of reductions in withdrawals based on four stages. These stages are initiated according to existing lake levels and are set forth as listed below:

- Stage 1 – Mild Water Shortage Conditions
Lake level falls below 168 ft.
Wise use of water is encouraged
- Stage 2 – Moderate Water Shortage Conditions
Lake level falls below 164 ft.
10% Reduction in water diversions
- Stage 3 – Serious Water Shortage Conditions
Lake level falls below 162 ft.
20% Reduction in water diversions
- Stage 4 – Severe Water Shortage Conditions
Lake level falls below 161 ft.
30% Reduction in water diversions

2.2 Sabine River Authority of Louisiana

SRA-LA's 2012-2013 Strategic Plan included the objective of developing water supply as the primary source of revenue to support the Toledo Bend Project in lieu of hydroelectric power production by 2018 ("Sabine River Authority Strategic Plan FY 2008-2009 to FY 2012-2013" 2014). On March 22, 2011 Opinion 10-0297 was issued by the Louisiana State Attorney General's office. The opinion (See Appendix 2) concluded:

"Pursuant to La. R.S. 38:2325(16) and La. R.S. 38:2337, the Sabine River Authority has the independent authority to enter into contracts or agreements to sell, utilize, distribute, or consume the waters over which it has jurisdiction. However, if any contracts and other agreements which provide for the sale, utilization, distribution, or onsumption, are with entities located outside of the boundaries of the State of Louisiana, the written concurrence of the governor is required under these same laws" (J. Caldwell and Henry 2011).

In August 2011, less than 24 hours after the SRA-LA Board of Commissioners voted unanimously to approve an out-of-state water sales agreement, the governor's office temporarily put a halt to it. A letter from Stephen Waguespack, Executive Council to the governor, indicated that written concurrence from Governor Jindal's office would not be received unless it was, at minimum, a product of a competitive request for proposal. On October 12, 2011 a request for proposal was issued for the Sale of Raw Water, by the Sabine River Authority of Louisiana. Proposals were to be received by and opened on November 9, 2011. Toledo Bend Partners was the only bidder ("Request for Proposal: Sale of Raw Water - Sabine River Authority" 2011). On January 12, 2012, at the only public meeting called by SRA-LA concerning the water sale, SRA-LA unanimously voted to suspend any negotiations regarding the water sale until a statewide water management plan could be established. The state is diligently working on a statewide water plan, but ironically, SRA will be exempt from any regulations that may come out of the plan.

2.3 Stakeholders and Interests

As with most natural resource issues, there are many stakeholders involved and the fact that Toledo Bend is a transboundary reservoir adds another complicated dimension. Stakeholders involved in the Toledo Bend water conflict are mapped in the diagram below (see Figure 4 – Toledo Bend Stakeholders). There were many concerns brought up during the course of public input, the most common issues were:

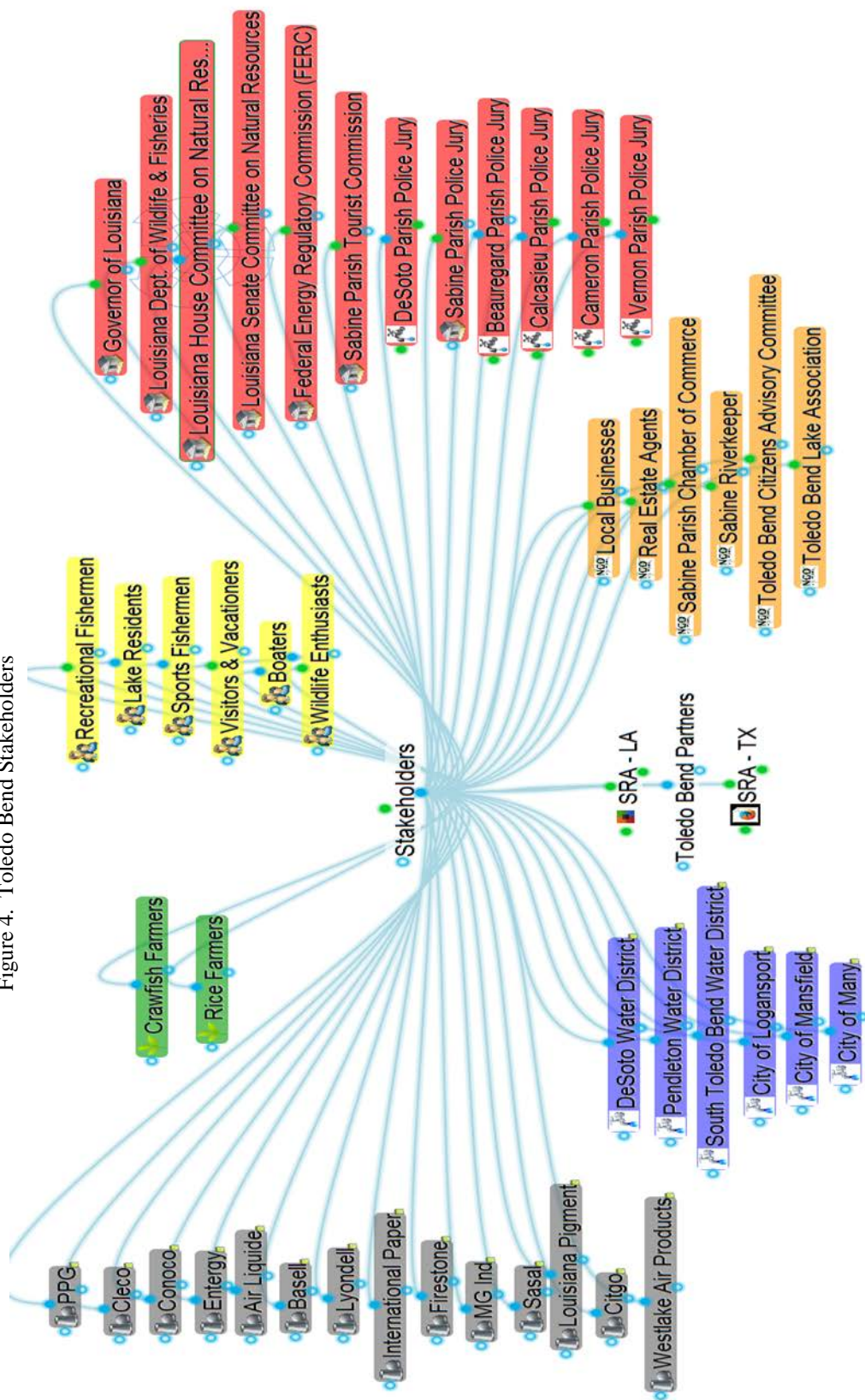
- Minimum lake level requirements need to be preserved.
- Drought contingency is not strong enough.
- Where will the money go?
- Length of contract was too long.
- There was no point at which withdrawals would cease.
- Why sell to a private organization?

As with any water conflict, there are multiple and competing interests, which makes the situation very difficult and complex, as shown in Figure 5 (Stakeholders & Interests), below. Complex does not mean unsolvable.

2.4 What Went Wrong?

Studying the proposed water sale there seems to be three major issues that caused the water sale to be stopped. The first being context, Merriam-Webster defines context as the “interrelated conditions in which something exists or occurs”. Toledo Bend was experiencing its worst drought in history, reaching an all-time low of 159.51msl on November 19, 2011. The public was angry, the businesses were scared, and local municipalities were worried about their water supply and then SRA-LA wants to sell the water.

Figure 4. Toledo Bend Stakeholders



Toledo Bend's pool stage is 172, the current lake level, at the time of the proposal was 159.51, which is 12.49 feet low and for all practical purposes, not usable, see photos below:

Photo 1 – Unusable Boat Ramp



Photo 2 – Boat Lane w/ Stumps



Photo 3 – Docks on Dry Land



All photos courtesy of John Tolivar

The second problem was lack of stakeholder engagement. “The era where water planners and managers employ the ‘decide-announce-defend’ approach is rapidly disappearing” (Priscoli and Wolf 2009). Stakeholders don’t want to be informed of decisions they want to be actively engaged in making those decisions. Representatives of SRA-LA had attended many public meetings in the past year in which they talked about the possibility and potential of a water sale. Those meetings did not identify any one proposal nor any specifics. There were no public meetings called by SRA-LA addressing this particular water sale prior to finalizing all aspects of the deal (decide-announce-defend). In the December meeting of the Board of Directors, a motion was made to delay acceptance of the water sale proposal until the public could review and submit comments. A public meeting was called by Toledo Bend Citizens Advisory Committee (TBCAC) on December 20, 2011; to inform the public of some of the facts surrounding the water sale.

The third problem that arose during the potential water sale was the lack of information available concerning the proposal, or at least the lack of

information made available to the public. Many questions were asked that could not be answered definitively.

3. New Path

“Until around the 1970’s, most water managers sought to solve specific localized water problems without worrying about the impacts that water management decisions might have on other components of natural (water quantity, water quality, ecological functions and services) and societal (economic cultural institutional) systems” Islam & Susskind (2012). In 1977 the United Nations sponsored a water conference which became known as the landmark event in water management. The event gave global recognition to the shortcomings of supply-side focused water management, there was agreement that water managers could not afford to focus on single-sector or single-commodity conditions. Instead, they needed to take a more balanced, people-oriented approach, thus Integrated Water Resources Management (IWRM) was developed. IWRM, since then, has been clearly defined as “a process which promotes the coordinated development and management of water, land, and related resources in order to maximize economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems and the environment” (Priscoli and Wolf 2009). In addition, some principles to guide water management emerged:

- a. water is a finite and vulnerable resource
- b. a participatory approach is necessary
- c. the social and economic value of water must be acknowledged
- d. the three E’s of sustainability must be given priority (economic efficiency, social equity, and ecosystem sustainability)

Many years later, the United Nations introduced a variation of that model called Adaptive Integrated Water Resources Management (AIWRM).

AIWRM acknowledges that uncertainty and variability are inherent with

water resources and seeks to explicitly design strategies that are robust and adaptive. The objective is to enhance resilience by building in strategies that are robust and adaptable.

Another method of water resource management introduced by Shafiqul Islam and Lawrence Susskind is called the Water Diplomacy Framework (WDF). The WDF was rooted in ideas of complexity theory and non-zero-sum approaches to negotiation. It acknowledges many factors:

- a. that water crosses multiple domains and boundaries at different scales
- b. that there are several different kinds of water to consider
- c. that water networks are made up of many systems
- d. that all stakeholders need to be involved at every decision-making step, including problem framing
- e. that a mutual gains approach should always be used.

For this project I have decided to use the Water Diplomacy Framework to show what steps might have been taken to change the outcome of the potential water sale. I chose this framework because it encompasses both the idea of integration and adaptation and also brings in the importance of involving stakeholders from the beginning of the process. By doing this the stakeholders take ownership in the decisions and therefore will hold themselves accountable for the decisions made.

4. The Process – Water Diplomacy Framework

In 2008, SRA-LA indentified within their strategic plan that moving from hydroelectric power to water sales was a goal. At this time the process of the Water Diplomacy Framework should have begun.

Step 1 – Idendify all stakeholders, anyone and everyone interested in the outcome of the decisions should be included. Stakeholders need to be put into working groups by interest: fishery, recreation & tourism, property & business owners, environmental, water supply, and downstream industry and the SRA should also be included as a stakeholder.

Step 2 – Stakeholder meetings, these meetings are designed to engage stakeholders, not to inform the stakeholders. These meetings should be used to decide what data is needed to make the decisions, who is responsible for collecting the data, how will the data be used and the method and extent of a model. At this stage brainstorming sessions are helpful and sometimes a facilitator can help stakeholders understand the difference between positions and interests. All analysis should be done during this stage.

Step 3 – At this point all interests need to be considered and a mutual gains approach of making decisions should be used. This involves moving from a non-zero sum approach to a decision that all stakeholders could agree upon. The table below (Table 3. Stakeholder Groups & Interests) shows stakeholders and interests. Although some groups may have the same interests, they may still be conflicting or competing. An example of this would be timing of low water levels, fisherman want to make sure that this does not occur during spawn and recreational users want to make sure that this doesn't occur during peak recreational season.

Table 3 – Stakeholder Groups & Interests

Stakeholder Groups									
Interests	SRA	Fisherman	Recreation & Tourism	Home & Business Owners	Downstream Industry	Environment	Downstream Agri.	Water Supply	Electric Companies
Water Quality	X	X	X	X	X	X	X	X	
Water Quantity	X	X	X	X	X	X	X	X	X
Downstream Flow	X				X	X	X		
Minimum Lake Levels	X	X	X	X		X		X	
Regular Drawdowns	X	X							
Timing of Low Water	X	X	X	X					
Property Value				X					

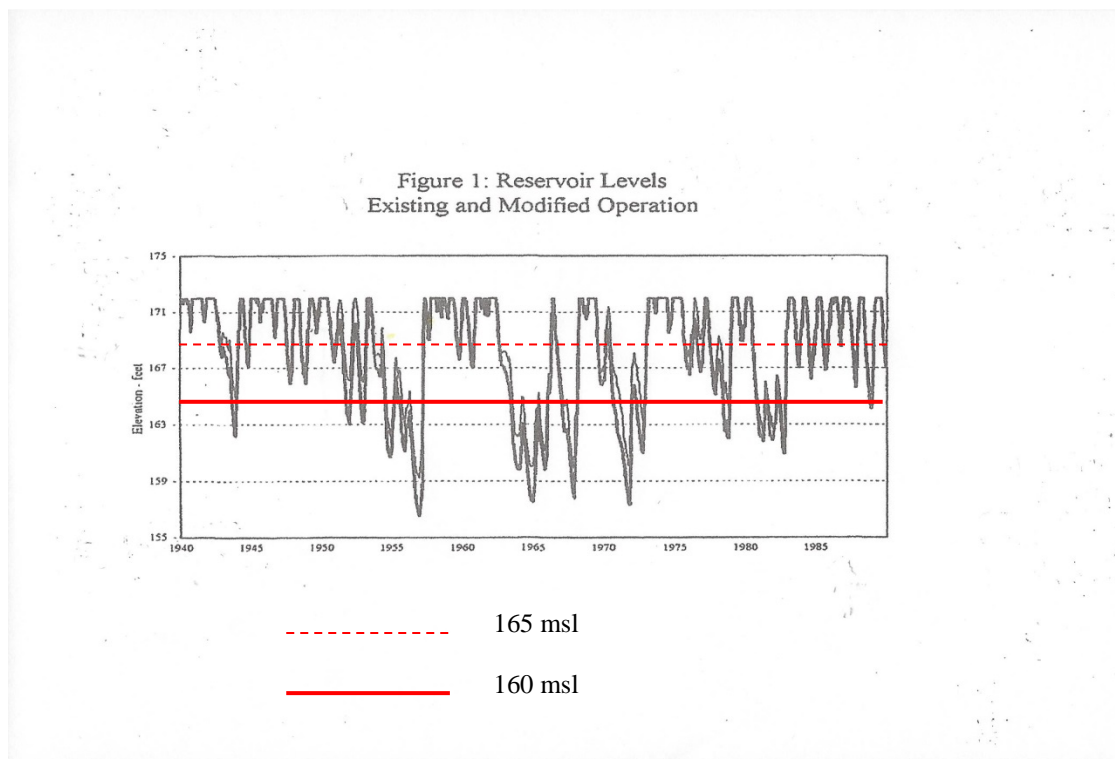
Step 4 – Performance metrics should be the outcome of the stakeholder meetings and these metrics are based on the amount of risk you are willing to accept, risk aversion is covered later in this paper (Chapter 6). All stakeholders should agree on boundaries that need to be set such as, do we want to sell our water and under what conditions? If we do decide to sell do we put a stopping point, and what would determine what that point is (or example – more than half of our boat launches are not usable below 163 msl)? Getting to this point sometimes takes years.

Step 5 – Once this process has been completed, SRA would have a set of criteria or performance metrics, under which water could be sold, and all stakeholders would be on board. Then, and only then, should an RFP be issued. In other words, the criteria for the water sale should have been determined and dictated to all interested parties.

5. Problem Analysis

In analyzing the potential for water management changes, models are critical. They can show past performance and the changes in that same time period under different scenarios, this is critical to understanding the impact of those changes to the future. It's important to understand that models can sometimes be manipulated to show a distorted truth, some examples of this follow. There have been several studies done in the past that show impacts of possible changes in water management. In April 1998, the Trans-Texas Water Program commissioned a study entitled "Impact of Potential Toledo Bend Operational Changes" (*Impact of Potential Toledo Bend Operational Changes* 1998), this study was completed by Freese and Nichols, Inc. Reservoir operations that were studied considered existing conditions and modified conditions. The existing conditions accounted for full use of existing water permits, 1,043,300 for Louisiana and 750,000 for Texas; this situation does not actually exist at this point. It assumed 90% of Louisiana's use for hydropower and 10% for water supply. The modified conditions allowed for Texas to increase use to 1,043,300 ac-ft per year, of which 672,000 ac-ft per year were assumed to be taken out of the Sabine Basin and transferred to other basins. This study was to show the effects on Toledo Bend (Figure 6 – Trans-Texas Model) and on Sabine Lake, downstream in Texas. The study period was a 50-year period from 1940 through 1989. A valid question would be to ask why they chose those years instead of a more current time frame like 1947 through 1996. Were there droughts in the years from 1989 to 1996 that would show a different picture?

Figure 6. Trans-Texas Model

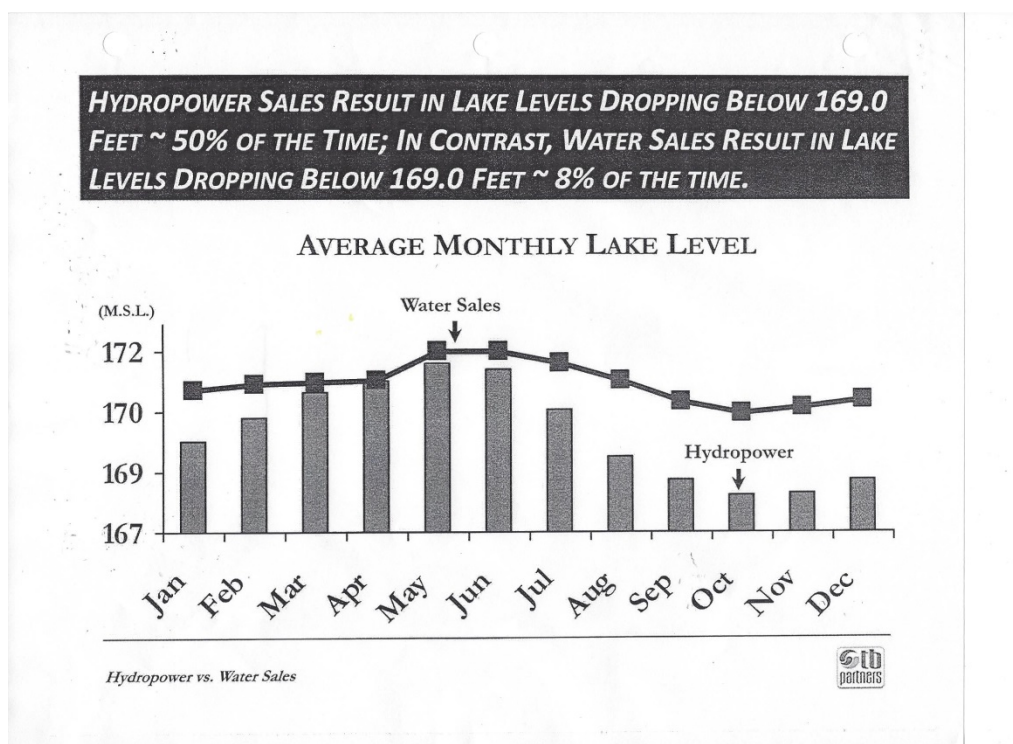


The red lines in the graph are not part of the original graph; I put them there to show the critical lake levels more clearly. The model shows two lines, very hard to see both of them from this copy; I could not locate a color copy of the graph. The point of the model is to prove that there would not be much difference in the current management and the future scenario, the only problem with that is it does not actually show current use. The only difference in the two models is that the modified operation added the additional 293,000 ac-ft of use for Texas.

TB Partners also did an operational study, their current situation model accounted for lakeside demands for both Louisiana and Texas to be 31,500 ac-ft and downstream flows were to be maintained at 144 cfs (105,120 ac-ft per year), with hydropower restrictions below 168 msl, which is a pretty accurate model. Their modified conditions accounted for diversions for a water sale of 600,000 ac-ft, lakeside demands increasing to 120,000 per year for both Louisiana and Texas, and downstream flow of 144 cfs. Hydropower was

limited to maintaining downstream flow and downstream water supply needs. It did not take into account any diversions for Texas, which is permitted 750,000 ac-ft, and has a pending application for the remaining 293,300 ac-ft of their firm yield. The graph below (Figure 7 – TB Partners Model) was presented as part of the documentation for the water sale. It does not give a time frame for the model and it also uses averages of months. In determining the effects of the water sale on the lake levels, averages are not useful; we need to know what the extremes are. This model is not considered further because it does not realistically reflect Texas' future water use.

Figure 7. TB Partners Model



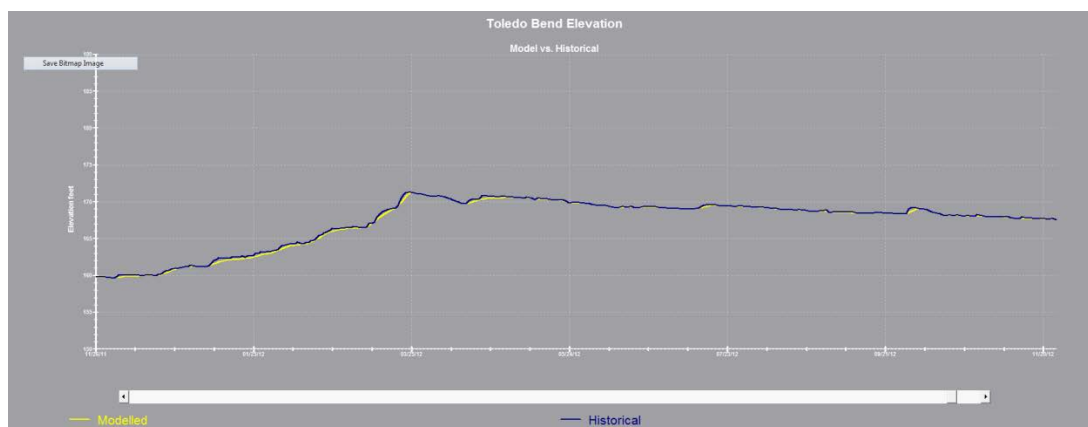
To determine what the effects of a future water sale would have on Toledo Bend there needed to be a model that would compare actual lake levels under current management practices to lake levels with different management practices, a what-if scenario. After looking at several different reservoir modelling programs, I decided to use a program called OASIS. OASIS is a

unique software program that realistically simulates the routing of water through a water resources system. Users can express all operating rules as an operating goal or an operating constraint, and can account for both human control and physical constraints on the system. To model any system, one simply needs to approach the problem as a set of goals and constraints. The software then solves for the best means of moving water through the system to meet these goals and constraints. It enables stakeholders to see how the system reacts to demand management options, supply management options, changes in operational rules, or changes in facilities, and helps provide managers with a realistic measure of their system's reliability.

“With OASIS, we have been able to demonstrate with a high degree of confidence the impact of different operating policies on everyone’s objectives. We have the ability to test the assumptions and try alternative methods right at the table, and there’s nothing ‘black box’ about it” (Roanoke River Project Director).

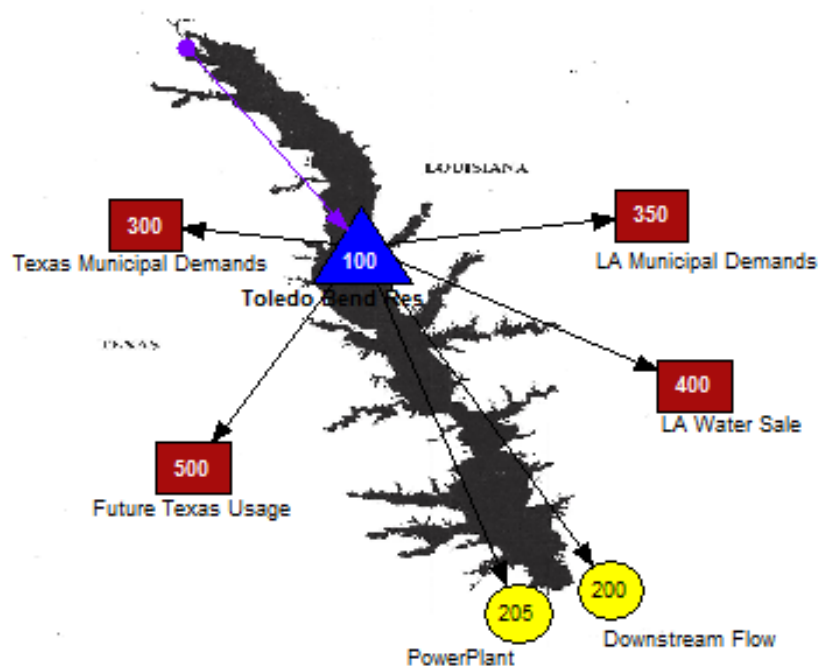
In order to validate the model a validation run was done showing actual lake levels and modeled lake levels, and as you can see in the diagram below (Figure 8. Validation Run), the runs are identical, this is critical for verification of valid runs on the other scenarios modeled.

Figure 8. Validation Run



The power of Oasis is that all the data is contained in the program and modeling a different “what-if” scenario is very simple. Below is a schematic of the flows that were used for modelling Toledo Bend (Figure 9 – Toledo Bend Flow Schematic).

Figure 9 – Toledo Bend Flow Schematic



The table below (Table 4 – Model Parameters) is a quick comparison chart of different management options. It shows the different management options and the ones that were modeled using Oasis.

Table 4 – Model Parameters

Models for Toledo Bend					
	Trans-Texas	Toledo Bend Partners	Water Sale - Restricted	Water Sale - Stop 165	Water Sale - Stop 168
Continuous Downstream Flow	144 cfs (assumed)	144 cfs	196 cfs	200 cfs	200 cfs
Lakeside Demands					
Texas	371,300 ac-ft/yr	50,000 ac-ft/yr	371,300 ac-ft/yr	371,300 ac-ft/yr	371,300 ac-ft/yr
Louisiana	104,330 ac-ft/yr (10%)	70,000 ac-ft/yr	70,000 ac-ft/yr	70,000 ac-ft/yr	70,000 ac-ft/yr
Texas - Transferred out of Basin	672,000 ac-ft/yr		672,000 ac-ft/yr	672,000 ac-ft/yr	672,000 ac-ft/yr
Hydropower	938,970 ac-ft/yr (LA 90%)	None	None	None	None
Water Sale (not to exceed 68,740 Jul, Aug, Sep)		600,000 ac-ft/yr	600,000 ac-ft/yr	600,000 ac-ft/yr	600,000 ac-ft/yr
Drought Contingency		<= 164' msl - 10% Reduction	<= 164' msl - 10% Reduction	No water <=165 msl	No water <=168 msl
		<= 162' msl - 20% Reduction	<= 162' msl - 20% Reduction		
		<= 161' msl - 30% Reduction	<= 161' msl - 30% Reduction		

The OASIS model covers the analysis period from 1972 to 2013, a period of 42 years. The “Restricted Water Sale” shows that the lake would have dropped below 165’ msl a total of 2817 days, and below 160’ msl a total of 745 days. Remember, this is total days, not events. In this scenario the Louisiana water sale demand would not have been totally met 1572 times, and not met at all 156 times, because the lake drops below 155’ msl, and that was designated as a stopping point.

The “Water Sale Stop 165”, which restricts withdrawals for the Louisiana water sale if the lake drops below 165’ msl, shows that the lake would have dropped below 165’ msl a total of 2221 days, and below 160’ msl a total of 387 days. The demand for the Louisiana water sale would not have been met 14% of the time.

The “Water Sale Stop 168”, which restricts withdrawals for the Louisiana water sale if the lake drops below 168’ msl, shows that the lake would have dropped below 168’ msl a total of 1274 days, and below 160’ msl a total of 221 days. The demand for the Louisiana water sale would not have been met 30% of the time.

The graphs below (Figure 10. Scenario Model 2006 and Figure 11. Scenario Model 2012) show the varying lake levels at critical points in history, under different scenarios.

Figure 10. Scenario Model 2006

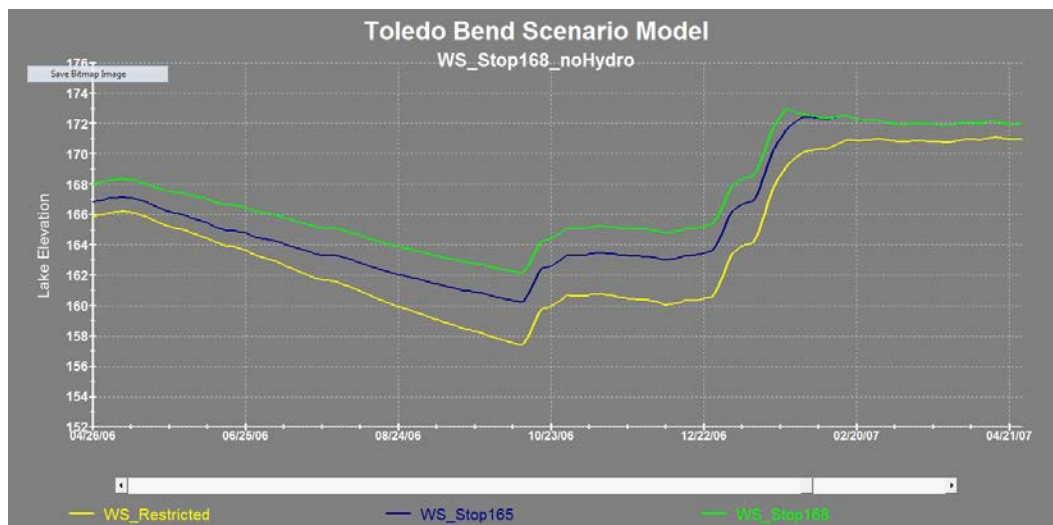
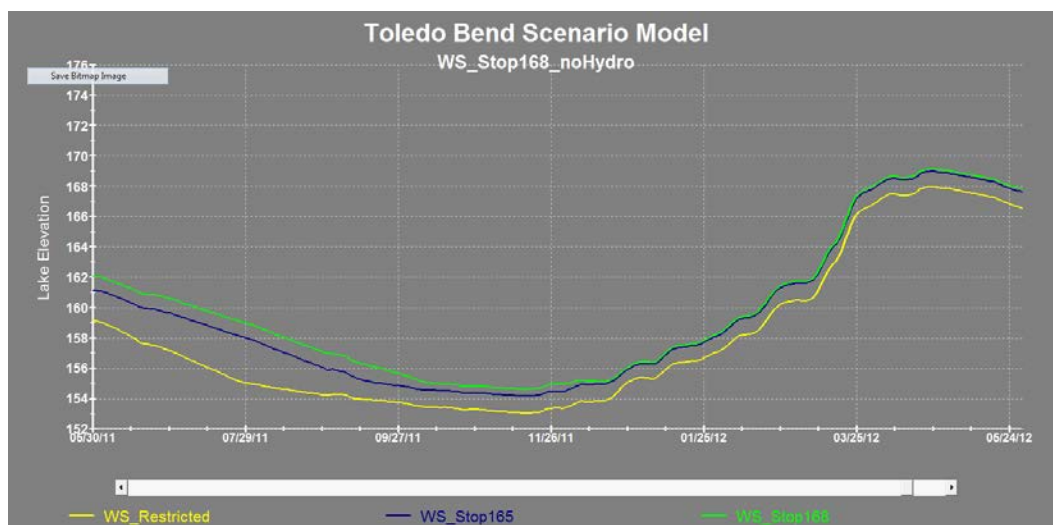


Figure 11. Scenario Model 2012



6. Risk Aversion

Water contracts and transfer agreements must have clearly defined terms and decision rules to be effectively implemented. In developing these rules, careful consideration should be given to the risk tolerance of both buyer and seller because these factors can significantly impact the nature of the agreements. For the seller these can include seasonal and volume-based transfer limits that ensure its ability to meet the demands of its own customers and uses before making transfers. Rule of thumb says that the more risk-averse that the agreement is, the more expensive the project is, but even the most risk-averse agreements were still less expensive than comparable structural alternatives for improving supply reliability (C. Caldwell and Characklis 2014). The seller should not consider transfer agreements that come close to testing the limits of their systems and these limits should have already been set with the performance metrics established in the stakeholder engagement process. In the proposed TB Partners water sale, the stakeholders assumed all of the risk.

7. Ethical Considerations

Is water a human right or a commodity to be sold to the highest bidder, or could we possibly consider a combination of both? Assuming that we all agree that everyone should have access to basic amounts needed for health and sanitation, distribution after that becomes very complicated. Ethical considerations are critical when it comes to distribution of water here on Toledo Bend and around the world. Water is generally taken for granted because the value is not realized. If water were to be priced according to its value and its growing scarcity each and every one of us would think twice before we take a 30 minute shower, or water the lawn, or wash the car. Water, like any commodity, should reflect the cost of availability and infrastructure. Privatizing water is very controversial with good and bad examples out there. America's water infrastructure will require millions of dollars to be invested in the upcoming years just to keep up with repairs ("ASCE | 2013 Report Card for America's Infrastructure | Home" 2014). The United States Government does not have the capital to put into these projects. There are three options, one would be to amend the Internal Revenue Code (26 USC 146) to remove the volume cap applicable to private activity bonds for public-purpose water and wastewater projects; which would allow local communities to leverage private capital markets in combination with other finance mechanisms and provide an influx of low cost private capital to finance water infrastructure projects ("Private Activity Bond Volume Cap | AGC - The Associated General Contractors of America" 2014). The second option is to allow private companies to invest in projects that would help improve our water supply infrastructure. The third option is to raise the price of water to reflect its true costs for supply and infrastructure. Our government does not go into debt without it costing the public; usually in the form of new taxes. Allowing private investors into the water sector would help close the gap. If the private investors were middle-men and not service providers some of the problems in the past, such as companies refusing to service lower income areas, could be

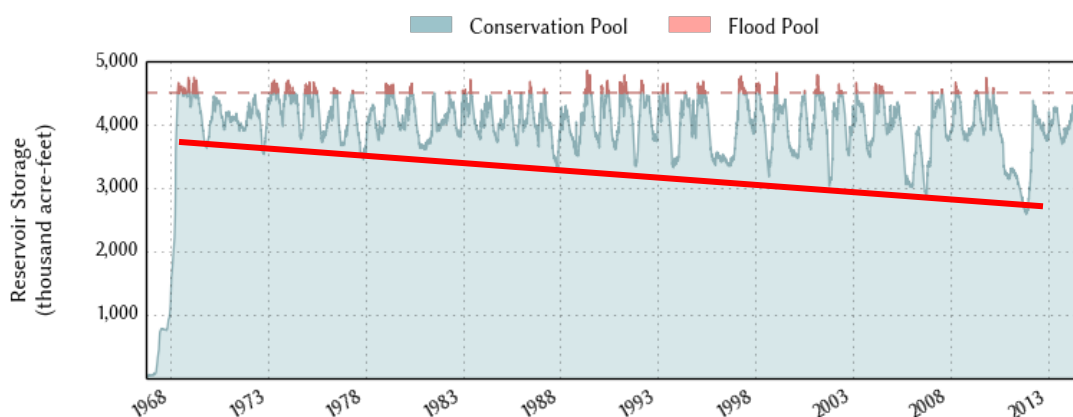
prevented. Keeping government owned municipalities would ensure equal distribution of water to everyone.

One thing is certain, as our population continues to grow, human needs will come first. Toledo Bend stakeholders should understand that the principle of “use it or lose it” will come into play. As stated by Charles Fishman in “The Big Thirst” (2001), “everything about water is about to change – how we use water, how we share it, how we think about it.”

8. Conclusion

The future is hard to predict, climate change, global warming, or just the natural cycle, whichever you choose to call it, shows that we are currently in a warming cycle. How long that will last or the extent of it could only be speculation. The graph below (Figure 12. Historic Reservoir Storage) shows the trend that Toledo Bend has experienced.

Figure 12. Historic Reservoir Storage



These changing conditions prove the importance of having a robust agreement with constraints, a robust system for water can evolve and change as the conditions evolve and change. The rules are set up in advance and everyone should know what portion of water they will receive. Mike Young is a water economist, he emphasizes the importance of putting the environment first. Young believes that the first portion of water is for the environment. “It’s water necessary to keep the natural water system itself – the river, the aquifer – alive, stable, and healthy. Without water for the system, there is no water for anyone. That is, a good system starts out safeguarding the very renewable resource you’re trying to allocate” (Fishman 2011). This seems like it should be obvious, but there are rivers all over the

world that are so overused that they never reach their final destination. This layer should be reflected in our firm yield studies, but these studies need to be updated regularly to account for the changing environment. The table below (Table 5. Water Releases), reproduced from SRA-TX 2013 Annual Report (*FY 2013 SRA-TX Annual Report* 2014) shows water releases for the past 44 years. Looking at the total releases you can see that 11 times in the past 44 years, combining spillway and hydropower releases, the total firm yield has not been released, this is 25% of the time.

Table 5. Water Releases

WATER RELEASES AT DAM (M AC-FT)*			
YEAR	FOR POWER	THRU SPILLWAY	TOTAL
1970	1,741.69	242.68	1,984.37
1971	780.35	72.64	852.99
1972	2,381.49	68.46	2,449.95
1973	5,130.22	820.21	5,950.43
1974	5,371.21	993.71	6,364.92
1975	6,559.87	726.80	7,286.67
1976	2,547.69	61.56	2,609.25
1977	2,788.76	44.03	2,832.79
1978	1,280.88	58.98	1,339.86
1979	5,339.78	779.75	6,119.53
1980	3,661.29	640.26	4,301.55
1981	1,099.35	136.72	1,236.07
1982	1,032.06	899.69	1,931.75
1983	4,312.85	1,001.45	5,314.30
1984	2,463.50	131.84	2,595.34
1985	2,904.88	129.84	3,034.72
1986	3,365.58	302.14	3,667.72
1987	4,229.98	122.64	4,352.62
1988	3,045.76	130.73	3,176.49
1989	4,637.04	1,778.49	6,415.53
1990	5,190.33	798.41	5,988.74
1991	5,115.02	1,535.43	6,650.45
1992	5,580.32	667.36	6,247.68
1993	5,333.34	351.44	5,684.78
1994	3,382.03	133.37	3,515.40
1995	5,720.85	665.16	6,386.01
1996	442.54	145.10	587.64
1997	3,438.93	1,795.45	5,234.38
1998	4,278.58	705.40	4,983.98
1999	4,719.81	882.64	5,602.45
2000	1,121.24	127.19	1,248.43
2001	4,713.73	1,862.62	6,576.35
2002	3,372.89	1,613.49	4,986.38
2003	2,653.30	1,125.52	3,778.82
2004	2,623.94	1,110.80	3,734.74
2005	4,126.21	128.78	4,254.99
2006	1,043.84	138.19	1,182.03
2007	2,629.63	306.76	2,936.39
2008	2,863.27	577.21	3,440.48
2009	1,934.87	137.63	2,072.50
2010	4,343.56	1,139.70	5,483.26
2011	589.73	153.51	743.24
2012	907.01	232.49	1,139.50
2013	1,091.95	139.63	1,231.58

One of the first rules of negotiation is to always know the BATNA (Best Alternative to a Negotiated Agreement) of the other party. Toledo Bend Partners did not take into account the BATNA of the stakeholders, which was the 168' msl lake level that was negotiated several years prior. In using the Water Diplomacy Framework, the importance of understanding the mutual gains approach is proven

here. What did the stakeholders have to gain with this proposal? They only had something to lose. Since the SRA-LA used the old school “decide-announce-defend” method, they did not consider that stakeholders should be part of the negotiating process.

Texas has completed several studies in the past few years, in April 1998 the “Impact of Potential Toledo Bend Operational Changes”, and in March 2009 the “Inter-Regional Coordination on the Toledo Bend Project”. Both studies discuss removing water from Toledo Bend for use in the Dallas area. The Inter-regional coordination report is a pipeline routing and cost analysis. The executive summary for that reports states “The 2007 State Water Plan recommends moving water from Toledo Bend Reservoir in East Texas to water providers in North Texas to satisfy projected increased demands in the Metroplex. The project consists of transporting from 500,000 to 700,000 acre feet per year of water from Toledo Bend Reservoir to other lakes in Texas” (*Inter-Regional Coordination on the Toledo Bend Project* 2009). There is no doubt that Texas plans on utilizing their share of the firm yield without consideration to tourism and other ecosystem services. If Texas removes their share of the water, at a considerable gain in income; and Louisiana is forced to leave their share in the lake for ecosystem services, would Louisiana share in Texas’ income? Texas has not developed tourism on Toledo Bend because they understood that water supply was their top priority, where does that leave Louisiana? Stakeholders must get involved in the Texas process as well, it significantly impacts Louisiana’s decisions.

Toledo Bend has been in the Federal Energy Regulatory Commission (FERC) relicensing process since 2011. On August 29, 2014, a new license was issued by FERC. Some of the wording of this license clearly impacts future management decisions. Article 406 – Reservoir Levels, states that the licensees shall maintain the project reservoir surface elevation between 168 and 172 msl and can only fall outside this range for the following conditions:

- Due to storm or high water events;
- Due to reservoir drawdown necessary for inspection;

- For releases needed to satisfy continuous release requirements under Article 402;
- For releases needed to satisfy the licensees' **current** water supply or downstream customers;
- To avoid an insufficient supply of firm or non-interruptible power.

The wording of this article indicates that demand for future customers cannot result in lake levels below 168. This includes Louisiana customers and Texas customers. The article also requires an annual report outlining instances when reservoir levels were outside the required range along with an explanation of each deviation. SRA-LA and SRA-TX are appealing this article.

Could Toledo Bend, specifically Louisiana, move from hydropower to water sales? The scenario models show that it is possible, but also show that some constraints must be in place in order to ensure that the ecological, economical, and social systems of Toledo Bend will remain intact for future generations.

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Appendix 1
Sabine River Compact

WATER CODE

TITLE 3. RIVER COMPACTS

CHAPTER 44. SABINE RIVER COMPACT

Sec. 44.001. RATIFICATION. The Sabine River Compact, the text of which is set out in Section [44.010](#) of this code, was ratified by the legislature of this state in Chapter 63, Acts of the 53rd Legislature, Regular Session, 1953, after having been signed at Logansport, Louisiana, on January 26, 1953, by Roy T. Sessums, representative for the State of Louisiana, and Henry L. Woodworth and John W. Simmons, representatives for the State of Texas, and approved by Louis W. Prentiss, representative of the United States.

Acts 1971, 62nd Leg., p. 110, ch. 58, Sec. 1, eff. Aug. 30, 1971.

Sec. 44.002. ORIGINAL COPY. An original copy of the compact is on file in the office of the secretary of state.

Acts 1971, 62nd Leg., p. 110, ch. 58, Sec. 1, eff. Aug. 30, 1971.

Sec. 44.003. MEMBERS. The governor, with the advice and consent of the senate, shall appoint two members to represent this state on the administration established by Article VII of the compact.

Acts 1971, 62nd Leg., p. 110, ch. 58, Sec. 1, eff. Aug. 30, 1971.

Sec. 44.004. TERMS OF OFFICE. The members hold office for staggered terms of six years, with the term of one member expiring every three years. Each member holds office until his successor is appointed and has qualified.

Acts 1971, 62nd Leg., p. 110, ch. 58, Sec. 1, eff. Aug. 30, 1971.

Sec. 44.005. OATH. Each member shall take the constitutional oath of office and shall also take an oath to faithfully perform his duties as a member of the compact administration.

Acts 1971, 62nd Leg., p. 110, ch. 58, Sec. 1, eff. Aug. 30, 1971.

Sec. 44.006. COMPENSATION; EXPENSES. Each member is entitled to compensation as provided by legislative appropriation

and to reimbursement for actual expenses incurred in the discharge of his or her duties.

Acts 1971, 62nd Leg., p. 110, ch. 58, Sec. 1, eff. Aug. 30, 1971. Amended by Acts 1979, 66th Leg., p. 5, ch. 4, Sec. 1, eff. Feb. 22, 1979.

Sec. 44.007. EMPLOYEES; ADMINISTRATIVE EXPENSES. The members may make investigations and appoint engineering, legal, and clerical employees as necessary to protect the interest of this state and to carry out and enforce the compact. They may incur necessary office expenses and other expenses incident to the proper performance of their duties and the proper administration of the compact.

Acts 1971, 62nd Leg., p. 110, ch. 58, Sec. 1, eff. Aug. 30, 1971.

Sec. 44.0071. NOTICE OF COMPACT MEETINGS. For informational purposes, the commissioners shall file with the secretary of state notice of compact meetings for publication in the Texas Register.

Added by Acts 1985, 69th Leg., ch. 222, Sec. 1, eff. Sept. 1, 1985.

Sec. 44.008. POWERS AND DUTIES. (a) The members are responsible for administering the provisions of the compact, and have all the powers and duties prescribed by the compact.

(b) The members may meet and confer with the Louisiana members at any place the administration considers proper.

Acts 1971, 62nd Leg., p. 110, ch. 58, Sec. 1, eff. Aug. 30, 1971.

Sec. 44.009. COOPERATION OF TEXAS NATURAL RESOURCE CONSERVATION COMMISSION. The Texas Natural Resource Conservation Commission shall cooperate with the members in the performance of their duties and shall furnish them any available data and information they need.

Acts 1971, 62nd Leg., p. 110, ch. 58, Sec. 1, eff. Aug. 30, 1971. Amended by Acts 1985, 69th Leg., ch. 222, Sec. 2, eff. Sept. 1, 1985; Acts 1985, 69th Leg., ch. 795, Sec. 1.135, eff. Sept. 1, 1985; Acts 1987, 70th Leg., ch. 977, Sec. 34, eff. June 19, 1987; Acts 1995, 74th Leg., ch. 76, Sec. 11.317, eff. Sept. 1, 1995.

Sec. 44.010. TEXT OF COMPACT. The Sabine River Compact reads as follows:

SABINE RIVER COMPACT

Entered Into by the States of

LOUISIANA and TEXAS

Logansport, Louisiana
January 26, 1953

SABINE RIVER COMPACT

The State of Texas and the State of Louisiana, parties signatory to this Compact (hereinafter referred to as "Texas" and "Louisiana", respectively, or individually as a "State", or collectively as the "States"), having resolved to conclude a compact with respect to the waters of the Sabine River, and having appointed representatives as follows:

For Texas:	Henry L. Woodworth, Interstate Compact Commissioner for Texas; and John W. Simmons, President of the Sabine River Authority of Texas;
For Louisiana:	Roy T. Sessums, Director of the Department of Public Works of the State of Louisiana;

and consent to negotiate and enter into the said Compact having been granted by Act of the Congress of the United States approved November 1, 1951 (Public Law No. 252; 82nd Congress, First Session), and pursuant thereto the President having designated Louis W. Prentiss as the representative of the United States, the said representatives for Texas and Louisiana, after negotiations participated in by the representative of the United States, have for such Compact agreed upon Articles as hereinafter set forth. The major purposes of this Compact are to provide for an equitable apportionment between the States of Louisiana and Texas of the waters of the Sabine River and its tributaries, thereby removing the causes of present and future controversy between the States over the conservation and utilization of said waters; to encourage the development, conservation and utilization of the water resources of the Sabine River and its tributaries; and to establish a basis for cooperative planning and action by the States for the construction, operation and maintenance of projects for water conservation and utilization purposes on that

reach of the Sabine River touching both States, and for apportionment of the benefits therefrom.

ARTICLE I

As used in this Compact:

(a) The word "Stateline" means the point on the Sabine River where its waters in downstream flow first touch the States of both Louisiana and Texas.

(b) The term "waters of the Sabine River" means the waters either originating in the natural drainage basin of the Sabine River, or appearing as streamflow in said River and its tributaries, from its headwater source down to the mouth of the River where it enters into Sabine Lake.

(c) The term "Stateline flow" means the flow of waters of the Sabine River as determined by the Logansport gauge located on the U.S. Highway 84, approximately four (4) river miles downstream from the Stateline. This flow, or the flow as determined by such substitute gauging station as may be established by the Administration, as hereinafter defined, pursuant to the provisions of Article VII of this Compact, shall be deemed the actual Stateline flow.

(d) The term "Stateline reach" means that portion of the Sabine River lying between the Stateline and Sabine Lake.

(e) The term "the Administration" means the Sabine River Compact Administration established under Article VII.

(f) The term "Domestic use" means the use of water by an individual, or by a family unit or household for drinking, cooking, laundering, sanitation and other personal comforts and necessities; and for the irrigation of an area not to exceed one acre, obtained directly from the Sabine River or its tributaries by an individual or family unit, not supplied by a water company, water district or municipality.

(g) The term "stock water use" means the use of water for any and all livestock and poultry.

(h) The term "consumptive use" means use of water resulting in its permanent removal from the stream.

(i) The terms "domestic" and "stock water" reservoir mean any reservoir for either or both of such uses having a storage capacity of fifty (50) acre feet or less.

(j) "Stored water" means water stored in reservoirs (exclusive of domestic or stock water reservoirs) or water withdrawn or released from reservoirs for specific uses and the identifiable return flow from such uses.

(k) The term "free water" means all waters other than "stored waters" in the Stateline reach including, but not limited to, that appearing as natural stream flow and not withdrawn or released from a reservoir for specific uses. Waters released from reservoirs for the purpose of maintaining stream flows as provided in Article V, shall be "free water". All reservoir spills or releases of stored waters made in anticipation of spills, shall be free water.

(l) Where the name of the State or the term "State" is used in this Compact, it shall be construed to include any person or entity of any nature whatsoever of the States of Louisiana or Texas using, claiming, or in any manner asserting any right to the use of the waters of the Sabine River under the authority of that State.

(m) Wherever any State or Federal official or agency is referred to in this Compact, such reference shall apply equally to the comparable official or agency succeeding to their duties and functions.

ARTICLE II

Subject to the provisions of Article X, nothing in this Compact shall be construed as applying to, or interfering with, the right or power of either signatory State to regulate within its boundaries the appropriation, use and control of water, not inconsistent with its obligation under this Compact.

ARTICLE III

Subject to the provisions of Article X, all rights to any of the waters of the Sabine River which have been obtained in accordance with the laws of the States are hereby recognized and affirmed; provided, however, that withdrawals, from time to time, for the satisfaction of such rights, shall be subject to the availability of supply in accordance with the apportionment of water provided under the terms of this Compact.

ARTICLE IV

Texas shall have free and unrestricted use of all waters of the Sabine River and its tributaries above the Stateline subject, however, to the provisions of Articles V and X.

ARTICLE V

Texas and Louisiana hereby agree upon the following apportionment of the waters of the Sabine River:

(a) All free water in the Stateline reach shall be divided equally between the two States, this division to be made without reference to the origin.

(b) The necessity of maintaining a minimum flow at the Stateline for the benefit of water users below the Stateline in both States is recognized, and to this end it is hereby agreed that:

(1) Reservoirs and permits above the Stateline existing as of January 1, 1953 shall not be liable for maintenance of the flow at the Stateline.

(2) After January 1, 1953, neither State shall permit or authorize any additional uses which would have the effect of reducing the flow at the Stateline to less than 36 cubic feet per second.

(3) Reservoirs on which construction is commenced after January 1, 1953, above the Stateline shall be liable for their share of water necessary to provide a minimum flow at the Stateline of 36 cubic feet per second; provided, that no reservoir shall be liable for a greater percentage of this minimum flow than the percentage of the drainage area above the Stateline contributing to that reservoir, exclusive of the watershed of any reservoir on which construction was started prior to January 1, 1953. Water released from Texas' reservoirs to establish the minimum flow of 36 cubic feet per second, shall be classed as free water at the Stateline and divided equally between the two States.

(c) The right of each State to construct impoundment reservoirs and other works of improvement on the Sabine River or its tributaries located wholly within its boundaries is hereby recognized.

(d) In the event that either State constructs reservoir storage on the tributaries below Stateline after January 1, 1953, there shall be deducted from that State's share of the flow in the Sabine River all reductions in flow resulting from the operation of the tributary storage and conversely such State

shall be entitled to the increased flow resulting from the regulation provided by such storage.

(e) Each State shall have the right to use the main channel of the Sabine River to convey water stored on the Sabine River or its tributaries located wholly within its boundaries, downstream to a desired point of removal without loss of ownership of such stored waters. In the event that such water is released by a State through the natural channel of a tributary and the channel of the Sabine River to a downstream point of removal, a reduction shall be made in the amount of water which can be withdrawn at the point of removal equal to the transmission losses.

(f) Each State shall have the right to withdraw its share of the water from the channel of the Sabine River in the Stateline reach in accordance with Article VII. Neither State shall withdraw at any point more than its share of the flow at that point except, that pursuant to findings and determination of the Administration as provided under Article VII of this Compact, either State may withdraw more or less of its share of the water at any point providing that its aggregate withdrawal shall not exceed its total share. Withdrawals made pursuant to this paragraph shall not prejudice or impair the existing rights of users of Sabine River waters.

(g) Waters stored in reservoirs constructed by the States in the Stateline reach shall be shared by each State in proportion to its contribution to the cost of storage. Neither State shall have the right to construct a dam on the Stateline reach without the consent of the other State.

(h) Each State may vary the rate and manner of withdrawal of its share of such jointly stored waters on the Stateline reach, subject to meeting the obligations for amortization of the cost of the joint storage. In any event, neither State shall withdraw more than its prorata share in any one year (a year meaning a water year, October 1st to September 30th) except by authority of the Administration. All jointly stored water remaining at the end of a water year shall be reapportioned between the States in the same proportion as their contribution to the cost of the storage.

(i) Except for jointly stored water, as provided in (h) above, each State must use its apportionment of the natural stream flows as they occur and there shall be no allowance of accumulation of credits or debits for or against either State. The failure of either State to use the stream flow or any part thereof, the use of which is apportioned to it under the terms of this Compact, shall not constitute a relinquishment of the right to such use in the future; conversely, the failure of either State to use the water at the time it is available does not give it the right to the flow in excess of its share of the flow at any other time.

(j) From the apportionment of waters of the Sabine River as defined in this Article, there shall be excluded from such apportionment all waters consumed in either State for domestic and stock water uses. Domestic and stock water reservoirs shall be so excluded.

(k) Each State may use its share of the water apportioned to it in any manner that may be deemed beneficial by that State.

ARTICLE VI

(a) The States through their respective appropriate agencies or subdivisions may construct jointly, or cooperate with any agency or instrumentality of the United States in the construction of works on the Stateline reach for the development, conservation and utilization for all beneficial purposes of the waters of the Sabine River.

(b) All monetary revenues growing out of any joint State ownership, title and interest in works constructed under Section (a) above, and accruing to the States in respect thereof, shall be divided between the States in proportion to their respective contributions to the cost of construction; provided however, that each State shall retain undivided all its revenues from recreational facilities within its boundaries incidental to the use of the waters of the Sabine River, and from its severally State-owned recreational facilities constructed appurtenant thereto.

(c) All operation and maintenance costs chargeable against any State ownership, title and interest in works constructed under Section (a) above, shall be assessed in proportion to the contribution of each State to the original cost of construction.

ARTICLE VII

(a) There is hereby created an interstate administrative agency to be designated as the "Sabine River Compact Administration" herein referred to as "the Administration".

(b) The Administration shall consist of two members from each State and of one member as representative of the United States, chosen by the President of the United States, who is hereby requested to appoint such a representative. The United States member shall be ex-officio chairman of the Administration without vote and shall not be a domiciliary of or reside in either State. The appointed members for Texas and Louisiana

shall be designated within thirty days after the effective date of this Compact.

(c) The Texas members shall be appointed by the Governor for a term of six years; provided, however, that one of the original Texas members shall be appointed for a term to establish a half-term interval between the expiration dates of the terms of such members, and thereafter one such member shall be appointed each three (3) years for the regular term. The Louisiana members shall be residents of the Sabine Watershed and shall be appointed by the Governor for a term of four years, which shall run concurrent with the term of the Governor. Each state member shall hold office subject to the laws of his state or until his successor has been duly appointed and qualified.

(d) Interim vacancy, for whatever cause, in the office of any member of the Administration shall be filled for the unexpired term in the same manner as hereinabove provided for regular appointment.

(e) Within sixty days after the effective date of this Compact, the Administration shall meet and organize. A quorum for any meeting shall consist of three voting members of the Administration. Each State member shall have one vote, and every decision, authorization, determination, order or other action shall require the concurring votes of at least three members.

(f) The Administration shall have power to:

(1) Adopt, amend and revoke by-laws, rules and regulations, and prescribe procedures for administration of and consistent with the provisions of this Compact;

(2) Fix and determine from time to time the location of the Administration's principal office;

(3) Employ such engineering, legal, clerical and other personnel, without regard to the civil service laws of either State, as the Administration may determine necessary or proper to supplement State-furnished assistance as hereinafter provided, for the performance of its functions under this Compact; provided, that such employees shall be paid by and be responsible to the Administration and shall not be considered to be employees of either State;

(4) Procure such equipment, supplies and technical assistance as the Administration may determine to be necessary or proper to supplement State-furnished assistance as hereinafter provided, for the performance of its functions under this Compact;

(5) Adopt a seal which shall be judicially recognized.

(g) In cooperation with the chief official administering water rights in each State and with appropriate Federal agencies, the Administration shall have and perform powers and duties as follows:

(1) To collect, analyze, correlate, compile and report on data as to water supplies, stream flows, storage, diversions, salvage and use of the waters of the Sabine River and its tributaries, and as to all factual data necessary or proper for the administration of this Compact;

(2) To designate as official stations for the administration of this Compact such existing water gauging stations (and to operate, maintain, repair and abandon the same), and to locate, establish, construct, operate, maintain, repair and abandon additional such stations, as the Administration may from time to time find and determine necessary or appropriate;

(3) To make findings as to the deliveries of water at Stateline as hereinabove provided, from the stream-flow records of the Stateline gauge which shall be operated and maintained by the Administration or in cooperation with the appropriate Federal agency, for determination of the actual Stateline flow unless the Administration shall find and determine that, because of changed physical conditions or for any other reason, reliable records are not obtainable thereat; in which case such existing Stateline station may with the approval of the Administration be abandoned and, with such approval, a substitute Stateline station established in lieu thereof;

(4) To make findings as to the quantities of reservoir storage (including joint storage) and releases therefrom, diversions, transmission losses and as to incident stream-flow changes, and as to the share of such quantities chargeable against or allocable to the respective States;

(5) To record and approve all points of diversion at which water is to be removed from the Sabine River or its tributaries below the Stateline; provided that, in any case, the State agency charged with the administration of the water laws for the State in which such point of diversion is located shall first have approved such point for removal or diversion; provided further, that any such point of removal or diversion once jointly approved by the appropriate State agency and the Administration, shall not thereafter be changed without the joint amendatory approval of such State agency and the Administration;

(6) To require water users at their expense to install and maintain measuring devices of approved type in any ditch, pumping station or other water diversion works on the Sabine River or its tributaries below the Stateline, as the Administration may determine necessary or proper for the purposes of this Compact; provided that the chief official of each State charged with the administration of water rights therein shall

supervise the execution and enforcement of the Administration's requirements for such measuring devices;

(7) To investigate any violation of this Compact and to report findings and recommendations thereon to the chief official of the affected State charged with the administration of water rights, or to the Governor of such State as the Administration may deem proper;

(8) To acquire, hold, occupy and utilize such personal and real property as may be necessary or proper for the performance of its duties and functions under this Compact;

(9) To perform all functions required of the Administration by this Compact, and to do all things necessary, proper or convenient in the performance of its duties hereunder.

(h) Each State shall provide such available facilities, supplies, equipment, technical information and other assistance as the Administration may require to carry out its duties and function, and the execution and enforcement of the Administration's orders shall be the responsibility of the agents and officials of the respective States charged with the administration of water rights therein. State officials shall furnish pertinent factual and technical data to the Administration upon its request.

(i) Findings of fact made by the Administration shall not be conclusive in any court or before any agency or tribunal but shall constitute prima facie evidence of such facts.

(j) In the case of a tie vote on any of the Administration's determinations, orders or other actions subject to arbitration, then arbitration shall be a condition precedent to any right of legal action. Either side of a tie vote may, upon request, submit the question to arbitration. If there shall be arbitration, there shall be three arbitrators: one named in writing by each side, and the third chosen by the two arbitrators so elected. If the arbitrators fail to select a third within ten days, then he shall be chosen by the Representative of the United States.

(k) The salaries, if any, and the personal expenses of each member of the Administration, shall be paid by the Government which he represents. All other expenses incident to the administration of this Compact and which are not paid by the United States shall be borne equally by the States. Ninety days prior to the Regular Session of the Legislature of either State, the Administration shall adopt and transmit to the Governor of such State for his approval, its budget covering anticipated expenses for the forthcoming biennium and the amount thereof payable by such State. Upon approval by its Governor, each State shall appropriate and pay the amount due by it to the Administration. The Administration shall keep accurate accounts

of all receipts and disbursements and shall include a statement thereof, together with a certificate of audit by a certified public accountant, in its annual report. Each State shall have the right to make an examination and audit of the accounts of the Administration at any time.

(1) The Administration shall, whenever requested, provide access to its records by the Governor of either State or by the chief official of either State charged therein with the administration of water rights. The Administration shall annually on or before January 15th of each year make and transmit to the Governors of the signatory States, and to the President of the United States, a report of the Administration's activities and deliberations for the preceding year.

ARTICLE VIII

(a) This Compact shall become effective when ratified by the Legislature and approved by the Governors of both States and when approved by the Congress of the United States.

(b) The provisions of this Compact shall remain in full force and effect until modified, altered or amended, or in the same manner as hereinabove required for ratification thereof. The right so to modify, alter or amend this Compact is expressly reserved. This Compact may be terminated at any time by mutual consent of the signatory States. In the event this Compact is terminated as herein provided, all rights then vested hereunder shall continue unimpaired.

(c) Should a court of competent jurisdiction hold any part of this Compact to be contrary to the constitution of any signatory State or of the United States of America, all other severable provisions of this Compact shall continue in full force and effect.

ARTICLE IX

This Compact is made and entered into for the sole purpose of effecting an equitable apportionment and providing beneficial uses of the waters of the Sabine River, its tributaries and its watershed, without regard to the boundary between Louisiana and Texas, and nothing herein contained shall be construed as an admission on the part of either State or any agency, commission, department or subdivision thereof, respecting the location of said boundary; and neither this Compact nor any data compiled for the preparation or administration thereof shall be offered, admitted or considered in evidence, in any dispute, controversy,

or litigation bearing upon the matter of the location of said boundary.

The term "Stateline" as defined in this Compact shall not be construed to define the actual boundary between the State of Texas and the State of Louisiana.

ARTICLE X

Nothing in this Compact shall be construed as affecting, in any manner, any present or future rights or powers of the United States, its agencies, or instrumentalities in, to and over the waters of the Sabine River Basin.

IN WITNESS WHEREOF, the Representatives have executed this Compact in three counterparts hereof, each of which shall be and constitute an original, one of which shall be forwarded to the Administrator, General Services Administration of the United States of America and one of which shall be forwarded to the Governor of each State.

DONE in the City of Logansport, in the State of Louisiana, this 26th day of January, 1953.

(SIGNED--	Henry L. Woodworth) HENRY L. WOODWORTH, Representative for the State of Texas
(SIGNED--	John W. Simmons) JOHN W. SIMMONS, Representative for the State of Texas
(SIGNED--	Roy T. Sessums) ROY T. SESSUMS, Representative for the State of Louisiana

APPROVED:
(SIGNED--Louis W.
Prentiss)
LOUIS W. PRENTISS,
Representative of the
United States.

Acts 1971, 62nd Leg., p. 110, ch. 58, Sec. 1, eff. Aug. 30, 1971.
Amended by Acts 1973, 63rd Leg., p. 824, ch. 374, Sec. 1, eff.
June 12, 1973; Acts 1989, 71st Leg., ch. 885, Sec. 1, eff. June
14, 1989.

Appendix 2
Attorney General's Opinion

SENATE BILL NO. 436

BY SENATORS LONG, AMEDEE, BROWN, CORTEZ, CROWE, GUILLORY, JOHNS, KOSTELKA, MORRELL, MORRISH, MURRAY, PEACOCK, RISER, JOHN SMITH, TARVER, THOMPSON, WALSWORTH AND WHITE AND REPRESENTATIVES HOWARD, BERTHELOT, BILLIOT, WESLEY BISHOP, BROWN, BURFORD, HENRY BURNS, CARMODY, COX, DANAHAAY, EDWARDS, FOIL, GAROFALO, HARRIS, HAZEL, HENRY, HILL, HONORE, HUNTER, KATRINA JACKSON, JONES, NANCY LANDRY, LEBAS, LEOPOLD, LIGI, LORUSSO, MORENO, NORTON, ORTEGO, REYNOLDS AND WILLMOTT

1 AN ACT

2 To amend and reenact R.S. 38:2325(A)(16), relative to the Sabine River Authority; to
3 provide for the powers and duties of the authority; to provide rules, conditions, and
4 requirement for the sale, utilization, distribution, or consumption of water outside the
5 state; and to provide for related matters.

6 Be it enacted by the Legislature of Louisiana:

7 Section 1. R.S. 38:2325(A)(16) is hereby amended and reenacted to read as follows:

8 §2325. Powers

9 A. Said authority shall have the power:

10 * * *

11 (16)(a) To enter into any and all contracts and other agreements with any
12 person, real or artificial, any public or private entity, any government or
13 governmental agency, including the United States of America, the state of Texas, the
14 Sabine River Authority of Texas, the state of Louisiana, and the agencies, bureaus,
15 departments, and political subdivisions thereof, which contracts and other
16 agreements may provide for the sale, conservation, storage, utilization, preservation,
17 distribution, or consumption, whether within or without the state of Louisiana, of the
18 waters over which the ~~Aa~~ authority has jurisdiction or over which the ~~Aa~~ authority has
19 legal control;

20 ~~(b) however, the~~ **The** written concurrence of the governor shall be required
21 for any contracts and other agreements which provide for the sale, utilization,
22 distribution, or consumption, outside of the boundaries of the state of Louisiana, of

the waters over which the ~~Authority~~ **authority** has jurisdiction or control.

(c) The written concurrence of the Senate Committee on Natural Resources and the House Committee on Natural Resources and Environment shall be required for any contracts and other agreements which provide for the sale, utilization, distribution, or consumption, outside of the boundaries of the state of Louisiana, of the waters over which the authority has jurisdiction or control.

(d) In addition, at least two-thirds of the governing authorities of the parishes within the territorial jurisdiction of the authority shall concur before the authority can enter into any contracts or other agreements which provide for the sale, utilization, distribution, or consumption, outside of the boundaries of the state of Louisiana, of the waters over which the authority has jurisdiction or control. However, the concurrence from each of the parish governing authorities shall be by resolution, adopted by a two-thirds vote of the members of each of the parish governing authorities.

* * *

PRESIDENT OF THE SENATE

SPEAKER OF THE HOUSE OF REPRESENTATIVES

GOVERNOR OF THE STATE OF LOUISIANA

APPROVED: _____

Appendix 3
Louisiana Attorney General's Opinion

March 22, 2011
OPINION 10-0297

90-A-1 90-A-4 110 172-B	PUBLIC FUNDS & CONTRACTS GENERAL CONTRACTS - State STATE – Surplus Property WATERS – Natural Resources
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La. Const. Art. IX, § 1
 La. C.C. Arts. 471
 La. R.S. 30:961-963, 38:2211-2296, 38:2325, 38:2337, 39:11, 39:330.1, 39:1551, et seq., 39:1554, 39:1556, 41:1211, et. seq., 49:125
 La. Atty. Gen. Op. No. 79-1222, 86-32, 91-455, 92-646, 97-287, 98-416, 07-0061, 07-0093, 09-0166, and 10-0173

Sabine River Authority
 Chairman Robert Conyer
 15091 Texas Highway
 Many, LA 71449

Dear Mr. Conyer,

Pursuant to La. R.S. 38:2325(16) and 38:2337, the Sabine River Authority has the independent authority to enter into contracts or agreements to sell, utilize, distribute, or consume the waters over which it has jurisdiction. However, if any contracts and other agreements which provide for the sale, utilization, distribution, or consumption, are with entities located outside of the boundaries of the State of Louisiana, the written concurrence of the Governor is required under these same laws.

You have requested an opinion of this Office regarding what “procurement” procedures, if any, the Sabine River Authority (“SRA”) must follow, prior to entering into a contract or agreement which provides for the sale, utilization, distribution, or consumption of water (over which the SRA has jurisdiction or control) to entities located outside the boundaries of the State of Louisiana (“State”). The SRA, as an agency and instrumentality of the State, has a unique legislative history which has been detailed in numerous opinions of this Office.¹ However, your inquiry stems from a bidding process matter described in a report of the Louisiana Inspector General (“LIG”) dated November 23, 2005.² Although the details of the LIG matter do not directly relate to your current opinion request, that matter does serve as the background for the reason why you have requested this opinion.

The LIG report specifically stated:

SRA used RFP [request for proposal] guidelines as specified in the Louisiana Procurement Code, La. R.S. 39:1551, *et seq.* However, SRA’s use of the Procurement Code is not applicable for this venture since the proposed lease of its property is a situation where SRA seeks to generate revenue. The Procurement Code is intended for the use by state agencies for the buying, purchasing, renting, leasing, or the obtaining of supplies,

¹ See La. Atty. Gen. Op. Nos. 86-32, 91-455, 92-646, 97-287, 98-416, 07-0093, and 09-0166.

² Louisiana Inspector General Report No. 1-05-0028.

services, or major repairs. In other words, the Procurement Code is used when state entities expend funds.³

Pursuant to the questions that you presented regarding this finding by the LIG, this opinion provides you with: (1) an explanation of the relevant statutes authorizing the SRA to enter into contracts or agreements for the sale, utilization, distribution, or consumption of water within its jurisdiction; (2) a brief recitation and analysis of laws of general applicability in our State, including the Procurement Code, Public Bid Law, Public Lease Law, and laws involving the sale of surplus property; and (3) the procedure to be used by the SRA for entering into contracts for the sale, utilization, distribution, or consumption of water (over which the SRA has jurisdiction or control) to entities located inside and outside the boundaries of the State.⁴

SABINE RIVER AUTHORITY

La. R.S. 38:2325 states, in pertinent part, that the Sabine River Authority:

shall have the power: (3) To make and enter into contracts, conveyances, mortgages, deeds or trusts, bonds, and leases in the carrying out of its corporate objectives...;(9) To do all things necessary or convenient to carry out its functions; (10) To conserve, store, control, preserve, utilize, and distribute the waters of the rivers and streams of the Sabine watershed including but not limited to all waters flowing through the Sabine River Channel and Diversion System.

With regard to contracts or agreements that specifically provide for the sale, utilization, distribution, or consumption of water, La. R.S. 38:2325 also states that the SRA shall have the following powers:

(16) To enter into any and all contracts and other agreements with any person, real or artificial, any public or private entity, any government or governmental agency, including the United States of America, the state of Texas, the Sabine River Authority of Texas, the state of Louisiana, and the agencies, bureaus, departments, and political subdivisions thereof, **which contracts and other agreements may provide for the sale,**

³ *Id.* at 7.

⁴ It should be noted that while this opinion discusses the procedure to be used by the SRA for entering into or procuring contracts and/or agreements for the sale, utilization, distribution, or consumption of water, any contract or agreement that is entered into by the SRA must comply with La. Const. Art. VII § 14, since water is a thing of value. La. Const. Art. VII § 14 (A) states that “property, or things of value of the state or any political subdivision shall not be loaned, pledged, or donated to or for any person, association, or corporation, public or private.”

conservation, storage, utilization, preservation, distribution, or consumption, whether within or without the state of Louisiana, of the waters over which the Authority has jurisdiction or over which the Authority has legal control; **however, the written concurrence of the governor shall be required for any contracts and other agreements which provide for the sale, utilization, distribution, or consumption, outside of the boundaries of the state of Louisiana**, of the waters over which the Authority has jurisdiction or control.⁵

The latter law not only authorizes the SRA to independently enter into contracts and other agreements that provide for the sale, conservation, storage, utilization, preservation, distribution, or consumption of water within its jurisdiction to entities located within or without the territorial boundaries of the State, but it also provides a very specific method for entering into contracts with entities outside the boundaries of the State. As quoted above “any contracts and other agreements which provide for the sale, utilization, distribution, or consumption, **outside of the boundaries** of the state of Louisiana, of the waters over which the Authority has jurisdiction or control require the written concurrence of the governor.”⁶

As explained in previous opinions of this Office, the SRA’s statutory authority and independence makes it a unique governmental entity.⁷ In further support of this notion, La. R.S. 38:2337 states that:

[t]his Chapter shall be full, complete and independent authority for the performance of all acts herein authorized, and no other statute or legislative act shall be construed to be applicable to the carrying out of the powers herein granted unless herein expressly so made applicable.

In La. Atty. Gen. Op. No. 97-0287, which also involved the SRA, this Office asserted that “[r]arely in our law do we find such a sweeping grant of independent authority to an agency of the state.” Therefore, while appreciating this delegation of “complete and independent authority for the performance of all acts” within the authority of the SRA, we must now consider the effect of the general laws affecting the purchasing, leasing, and sale of public property by public entities in our State.

⁵ Emphasis added. La. R.S. 38:2325(16) was enacted pursuant to Act 251 of the 2005 Regular Session.

⁶ *Id.*

⁷ See La. Atty. Gen. Op. Nos. 86-32, 91-455, 92-646, 97-287, 98-416, 07-0093, and 09-0166.

PROCUREMENT CODE, PUBLIC BID LAW, PUBLIC LEASE LAW, THE SALE OF SURPLUS PROPERTY, AND OTHER RELEVANT STATE LAWS

Procurement Code

In considering your inquiry and specifically what “procurement procedures” the SRA must follow to sell water to out of state entities, it should be noted that Black's Law Dictionary defines “procurement” as “[t]he act of getting or obtaining something or of bringing something about.”⁸ While the Louisiana Procurement Code (La. R.S. 39:1551, *et. seq.*) contains several express exceptions, it states, in pertinent part, that “this Chapter shall apply to every **expenditure** of public funds irrespective of their source ... by this state, acting through a governmental body defined herein, under any contract for supplies, services, or major repairs defined herein.”⁹ Thus, although you have used the word “procurement” in your request, it is apparent that the general definition of the term “procurement” and the actual scope of Louisiana’s Procurement Code are somewhat different. With regard to the application of the Procurement Code, it is important to note that the sale, utilization, distribution, or consumption of water is not an “expenditure,” much less a “contract for supplies, services, or major repairs.”¹⁰ Thus, it is our opinion that the Procurement Code does not apply to SRA-contemplated water sales.

Public Bid Law

In addition to the Louisiana Procurement Code, Louisiana also has public bid statutes. The Louisiana Public Bid Law, La. R.S. 38:2211-2296, regulates contracts by public entities when the contracts relate to the construction of public works or the acquisition of materials and supplies.¹¹ Because, in planning to sell water within its control, the SRA is not buying, purchasing, renting, leasing, or obtaining supplies, services, or major repairs, nor is it entering into a contract for the construction of public works or the acquisitions of materials and supplies, it is our opinion that the Louisiana Public Bid law also does not apply to the current scenario.

⁸ Black's Law Dictionary (9th ed. 2009).

⁹ La. R.S. 39:1554 (emphasis added).

¹⁰ La. R.S. 39:1556(4) defines “contract” as “all types of state agreements, regardless of what they may be called, for the purchase of supplies, services, or major repairs. It includes awards and notices of award; contracts of a fixed-price, cost, cost-plus-a-fixed-fee, or incentive type; contracts providing for the issuance of job or task orders; leases; letter contracts; and purchase orders. It also includes supplemental agreements with respect to any of the foregoing.”

¹¹ La. Atty. Gen. Op. No. 07-0061.

Public Lease Law

Louisiana Public Lease Law is set forth in La. R.S. 41:1211, *et seq.* The aforementioned report of the LIG examined the SRA's compliance with the Public Lease Law with regard to the SRA's awarding of an Option and Ground Lease Agreement for the construction of a telecommunications tower to increase cellular reception in the Toledo Bend area. The current situation is distinguishable from the one detailed in the LIG's reference to Louisiana Public Lease Law. It should be noted that the sale, utilization, distribution, or consumption of water is not capable of being "leased" to an out-of-state entity, because such a sale would ultimately result in the conveyance of a movable thing (water) as opposed to the transfer of the "right to use" of the water in exchange for consideration.¹² Therefore, while the public lease law may have been applicable in the leasing of land for a telecommunications tower, it is not applicable to the sale, utilization, distribution, or consumption of water within the SRA's jurisdictional boundaries.

Sale of Surplus Movable Property

Generally, any surplus movable property of the State, or of any board, commission, agency, or department of the State, can only be sold through the Division of Administration on its behalf, and then only at public auction after appropriate advertisement or by compliance with the Public Bid Law provided in La. R.S. 39:330.1 and La. R.S. 49:125.¹³ While these statutes provide the general rule for the sale of surplus movable property by State agencies, this Office has maintained that a public entity [specifically the SRA] may be exempt from the operation of general regulatory laws when the entity is granted broad and sweeping discretion and authority within its special statutes.¹⁴ In considering the SRA's explicit authority to enter contracts or agreements for the sale, utilization, distribution, or consumption of water within the SRA's jurisdictional boundaries, this Office is of the opinion that the SRA is exempt from the operation of the general laws governing the sale of surplus movable property.

La. R.S. 39:11

With regard to the administration and supervision of lands, waterbottoms, and facilities owned or leased by the State, La. R.S. 39:11 requires that the Commissioner of Administration "shall be an essential party to all transactions involving **immovable**

¹² La. C.C. Art. 2668 defines a lease as "a synallagmatic contract by which one party, the lessor, binds himself to give to the other party, the lessee, the use and enjoyment of a thing for a term in exchange for a rent that the lessee binds himself to pay."

¹³ La. Atty. Gen. Op. No. 79-1222.

¹⁴ La. Atty. Gen. Op. 07-0093, citing *Arnold v. Board of Levee Commissioners of the Orleans Levee District*, 366 So.2d 1321 (La. 1978). See also, La. Atty. Gen. Op. No. 97-287.

property in which the state has an interest. No such immovable property shall be acquired, transferred, leased, or encumbered without the commissioner being a party to the transaction.”¹⁵ Because the Louisiana Civil Code classifies corporeal movables as “things, whether animate or inanimate, that normally move or can be moved from one place to another,” the water to be sold by the SRA is in fact a corporeal movable which is not affected by the requirements of La. R.S. 39:11.¹⁶

Act 955 of 2010 Regular Session

Given the increased interest in the withdrawal of surface waters in our State, the Legislature recently enacted Act 955 of the 2010 Regular Session. That law creates a mechanism for the withdrawal and sale of running surface waters by implementing a procedure to allow the Department of Natural Resources (“DNR”) to enter into cooperative endeavor agreements for the withdrawal of running surface water from bodies of water in Louisiana.¹⁷

Act 955 of the 2010 Regular Session, states in pertinent part:

La. R.S. 30:961. Cooperative endeavor agreements; withdrawal of surface water; intent

A. As provided by this Chapter and **except as otherwise provided by law, a person or entity may enter into a cooperative endeavor agreement to withdraw running surface water as described in this Chapter...Unless otherwise provided by law**, all cooperative endeavor agreements to withdraw running surface water, and any assignment of such agreement, shall be approved by the secretary as provided in this Chapter. No provision contained in this Chapter should be construed as a requirement for any person or entity to enter into any cooperative endeavor agreement to withdraw running surface water...

B. No agency or subdivision of the state otherwise authorized to enter into a cooperative endeavor agreement to withdraw running surface water, or assignment of such shall do so unless the said agreement is in writing, provides for fair market value to the state, is in the public interest, and is contained on an uniform form developed and prescribed by the State

¹⁵ Emphasis added.

¹⁶ La. C.C. Art. 471.

¹⁷ La. Atty. Gen. Op. No. 10-0173. Act 955 of the 2010 Regular Session enacted Chapter 9-B of Title 30 of the Louisiana Revised Statutes, specifically La. R.S. 30:961-963.

Mineral and Energy Board and approved by the attorney general. Fair market value to the state shall include, but not be limited to, the economic development, employment, and increased tax revenues created by the activities associated with the withdrawal of running surface water. No such cooperative endeavor agreement to withdraw running surface water shall be valid unless and until such agreement is approved by the secretary following the submission of an application for approval, which the secretary shall develop and prescribe.

C. **Unless otherwise provided by law**, the secretary is authorized to enter into any cooperative endeavor agreement to withdraw running surface water, provided that any such agreement complies with the prohibition against gratuitous donation of state property by ensuring that the state receives fair market value for any water removed, and the substance of the agreement is contained within a written cooperative endeavor agreement as provided for in Article VII, Section 14 of the Constitution of Louisiana.

La. R.S. 30:963. Management by the Department of Natural Resources

A. **Except as otherwise provided by law**, the Department of Natural Resources shall be the state agency charged with managing and monitoring the implementation of all cooperative endeavor agreements to withdraw running surface water or assignments thereof...¹⁸

In considering that La. R.S. 38:2337 states that the Chapter of laws governing the SRA “shall be [the] full, complete and independent authority for the performance of all acts herein authorized, and no other statute or legislative act shall be construed to be applicable to the carrying out of the powers herein granted unless herein expressly so made applicable,” and that the procedures included in Act 955 of the 2010 Regular Session are only applicable “except as otherwise provided by law,” this Office is of the opinion that La. R.S. 30:961, *et seq.* (Act 955 of 2010), does not apply to or affect the SRA’s authority to enter into any contracts or other agreements which provide for the sale, utilization, distribution, or consumption of water within the SRA’s jurisdictional boundaries.

However, because DNR holds the authority to enter into cooperative endeavor agreements for the withdrawal of running surface water for the majority of the State, it is

¹⁸ Emphasis added.

advisable for the SRA to discuss any agreements which provide for the sale, utilization, distribution, or consumption of water within the SRA's jurisdictional boundaries with DNR to ensure that all State entities are consistently ensuring that "the natural resources of the state, including...water...[are] protected, conserved, and replenished insofar as possible and consistent with the health, safety, and welfare of the people," as required by La. Const. Art. IX, § 1, also known as the "Public Trust Mandate".

In interpreting the Public Trust Mandate, the Louisiana Supreme Court in *Save Ourselves, Inc. v. Louisiana Environmental Control Com'n*, 452 So.2d 1152 (La. 1984) has held that:

[i]t is the well settled law of this country that a state holds title to land under navigable waters within its limits and that the title is held in trust for the people of the state that they may enjoy and use the waters free from obstruction or interference. *Illinois Central R. Co. v. Illinois*, 146 U.S. 387, 13 S.Ct. 110, 36 L.Ed. 1018 (1892). A public trust for the protection, conservation and replenishment of all natural resources of the state was recognized by art. VI § 1 of the 1921 Louisiana Constitution. The public trust doctrine was continued by the 1974 Louisiana Constitution, which specifically lists air and water as natural resources, commands protection, conservation and replenishment of them insofar as possible and consistent with health, safety and welfare of the people, and mandates the legislature to enact laws to implement this policy. La. Const. art. IX § 1; Cf. *Id.* art. IX § 3; *Gulf Oil Corp. v. State Mineral Board*, 317 So.2d 576, 580 (1975) (on rehearing).

Therefore, because both the DNR and SRA are obligated to comply with the Public Trust Mandate while executing their separate statutory duties, this Office advises the SRA to collaborate with DNR with regard to any agreements which provide for the sale, utilization, distribution, or consumption of State-owned water.

PROCEDURE TO BE USED BY SRA PRIOR TO ENTERING INTO A CONTRACT OR AGREEMENT WHICH PROVIDES FOR THE SALE, UTILIZATION, DISTRIBUTION, OR CONSUMPTION OF WATER WITHIN ITS JURISDICTION

While much of the law and history provided above is of no consequence to the actual procedure to be used by the SRA for entering into any contracts and other agreements which provide for the sale, utilization, distribution, or consumption of water within the SRA's jurisdictional boundaries, the review above is necessary to answering your question.

Given the sweeping grant of independent authority to the SRA by the Legislature for the purpose of entering into any contracts and other agreements which provide for the sale,

utilization, distribution, or consumption of water within its jurisdictional boundaries, and the non-applicability of Procurement Code, Public Bid Law, Public Lease Law, it is the opinion of this Office that the procedure detailed in La. R.S. 38:2325(16) is the only one with which the SRA must comply in this specific situation.

Therefore, pursuant to La. R.S. 38:2325, the SRA has the independent authority to sell, utilize, distribute, or consume the waters over which it has jurisdiction, provided that, if any contracts and other agreements which provide for the sale, utilization, distribution, or consumption, are with entities located outside of the boundaries of the State, the written concurrence of the Governor is required.

CONCLUSION

Pursuant to La. R.S. 38:2325(16) and La. R.S. 38:2337, the Sabine River Authority has the independent authority to enter into contracts or agreements to sell, utilize, distribute, or consume the waters over which it has jurisdiction. However, if any contracts and other agreements which provide for the sale, utilization, distribution, or consumption, are with entities located outside of the boundaries of the State of Louisiana, the written concurrence of the Governor is required under these same laws.

Yours very truly,

JAMES D. "BUDDY" CALDWELL
ATTORNEY GENERAL

BY:

DANIEL D. HENRY JR.
Assistant Attorney General

JDC/DDH/jv

**SYLLABUS
OPINION 10-0297**

90-A-1 PUBLIC FUNDS & CONTRACTS
90-A-4 GENERAL CONTRACTS - State
110 STATE – Surplus Property
172-B WATERS – Natural Resources

La. Const. Art. IX, § 1

La. C.C. Arts. 471

La. R.S. 30:961-963, 38:2211-2296, 38:2325, 38:2337, 39:11, 39:330.1, 39:1551, et seq, 39:1554, 39:1556, 41:1211, et. seq., 49:125

La. Atty. Gen. Op. No. 79-1222, 86-32, 91-455, 92-646, 97-287, 98-416, 07-0061, 07-0093, 09-0166, and 10-0173

Pursuant to La. R.S. 38:2325(16) and 38:2337, the Sabine River Authority has the independent authority to enter into contracts or agreements to sell, utilize, distribute, or consume the waters over which it has jurisdiction. However, if any contracts and other agreements which provide for the sale, utilization, distribution, or consumption, are with entities located outside of the boundaries of the State of Louisiana, the written concurrence of the Governor is required under these same laws.

Sabine River Authority
Chairman Robert Conyer
15091 Texas Highway
Many, LA 71449

DATE RECEIVED: 12/20/10

DATE RELEASED: March 22, 2011

Daniel D. Henry Jr.
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