



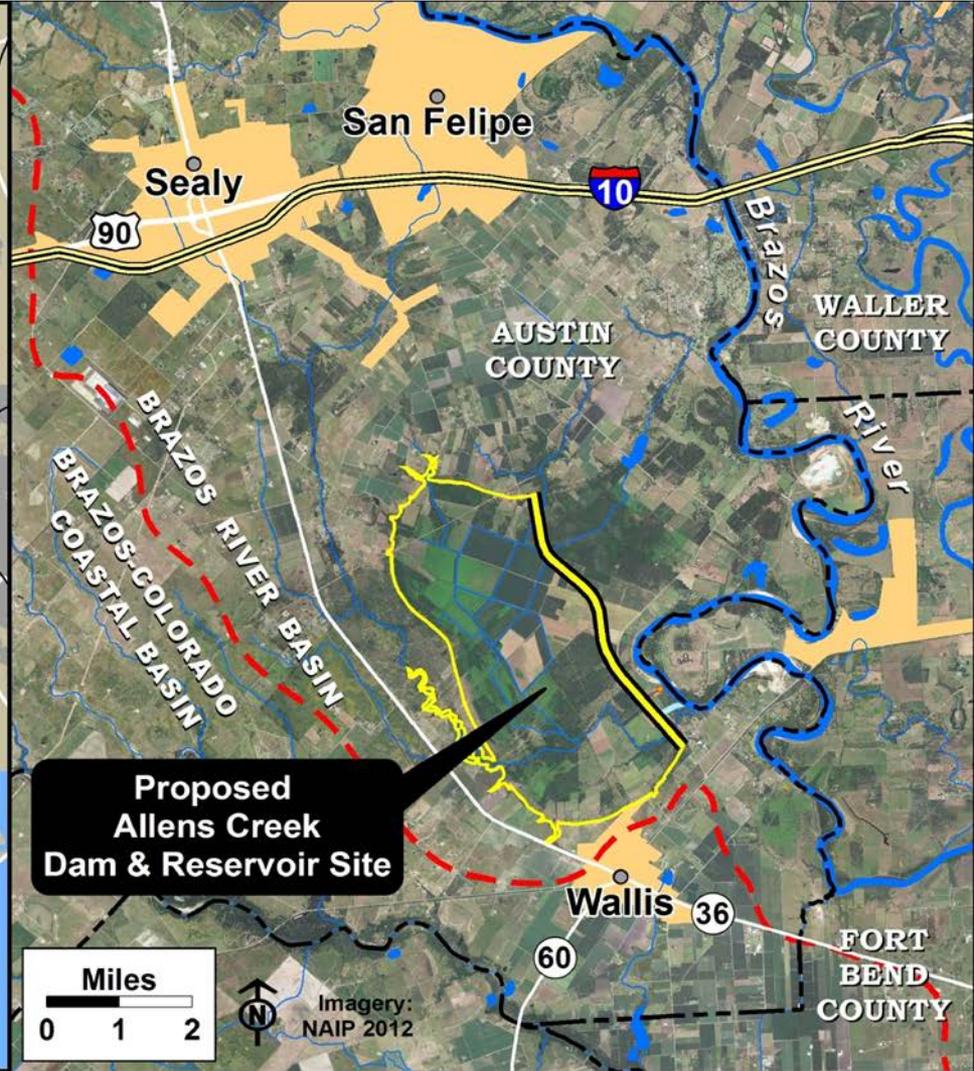
Welcome

***Presented by
Phil Ford
General Manager/CEO***



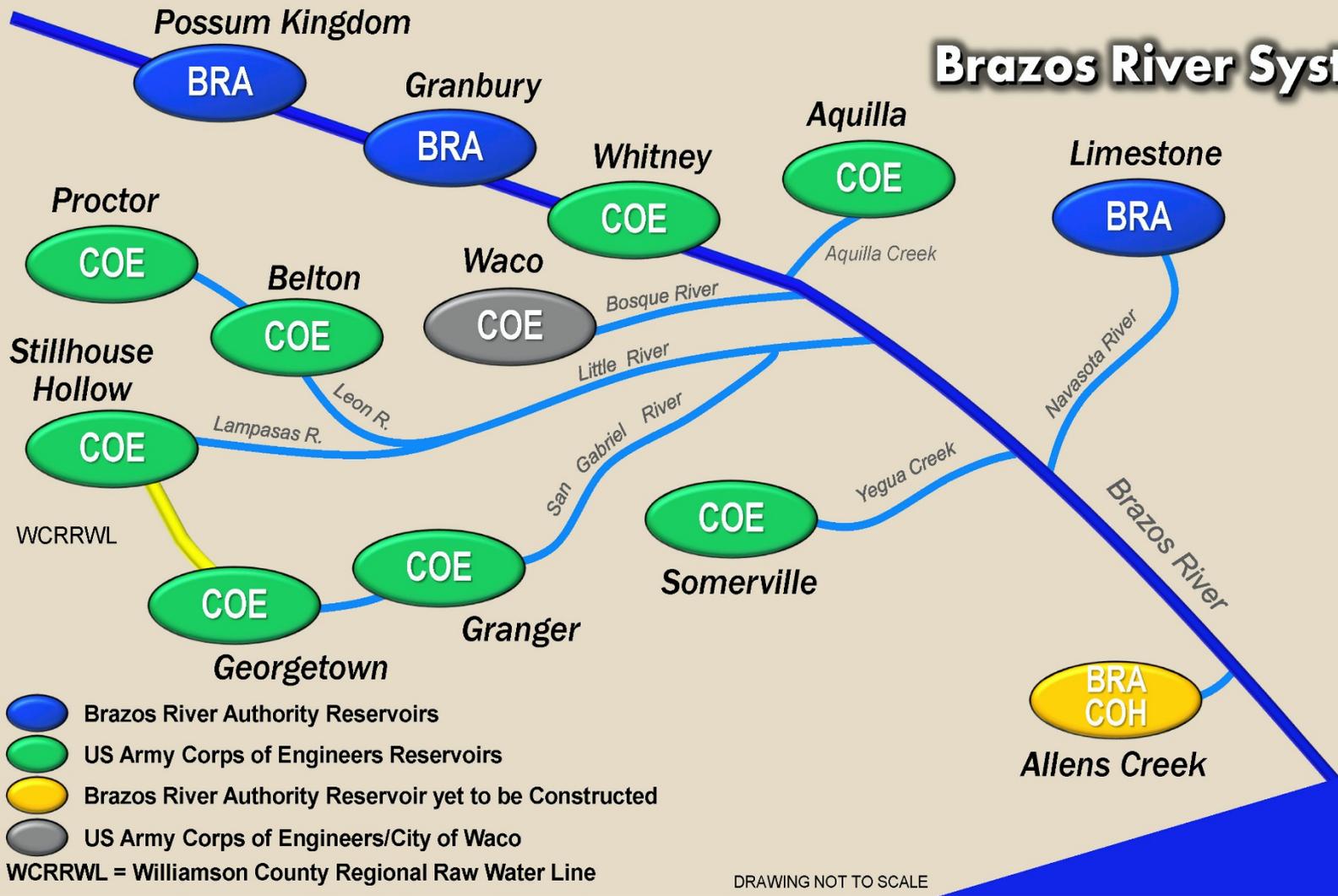
Allens Creek Reservoir

***Presented by
David Collinsworth
Central/Lower Basin Regional Manager***





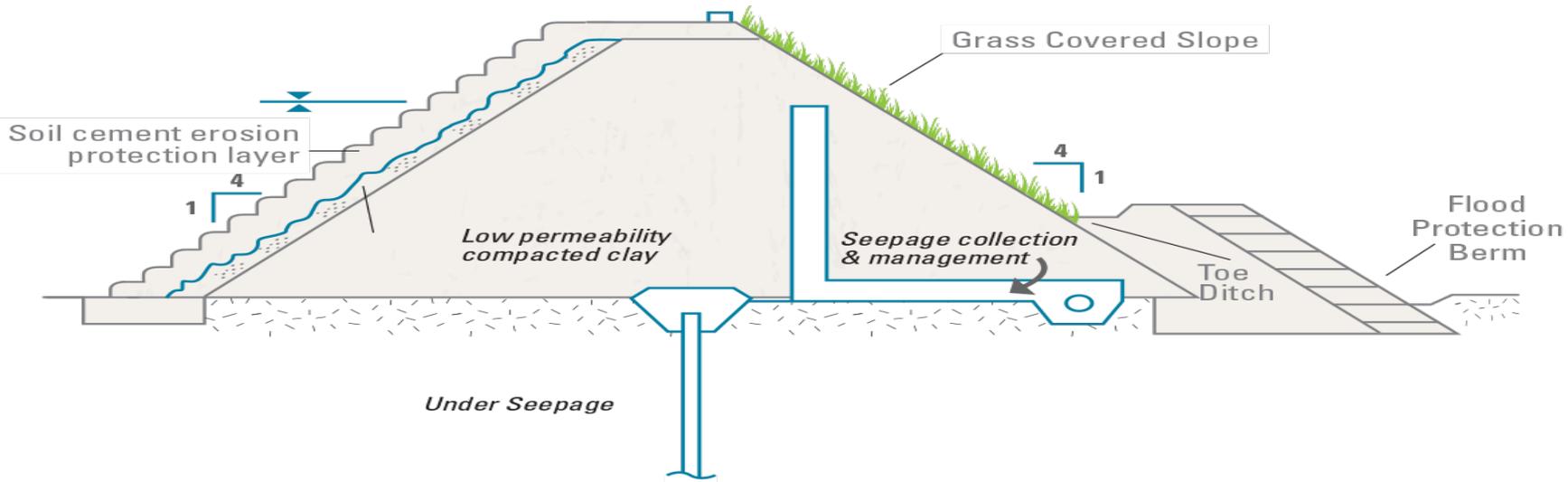
Brazos River System



Gulf
Of
Mexico

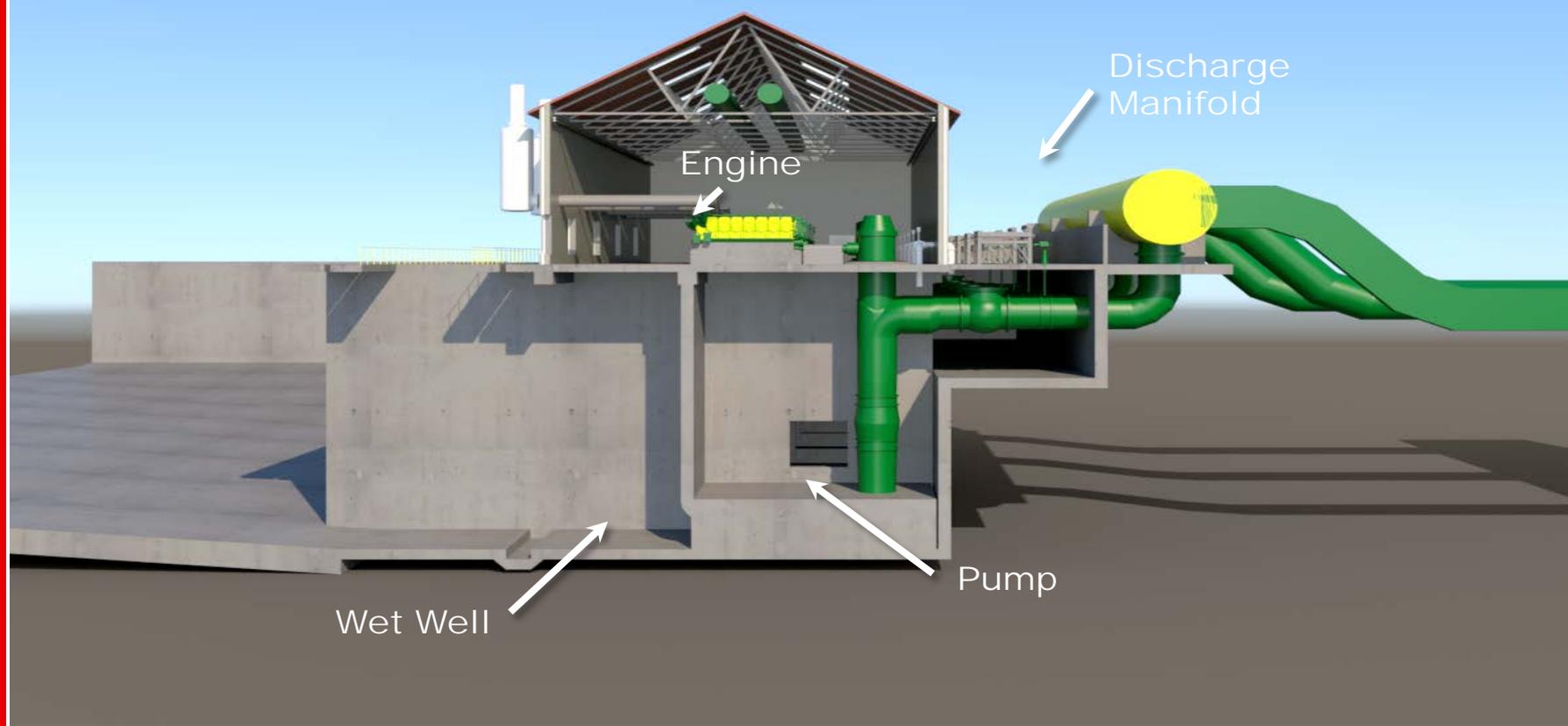


Embankment Dam





Pump Station





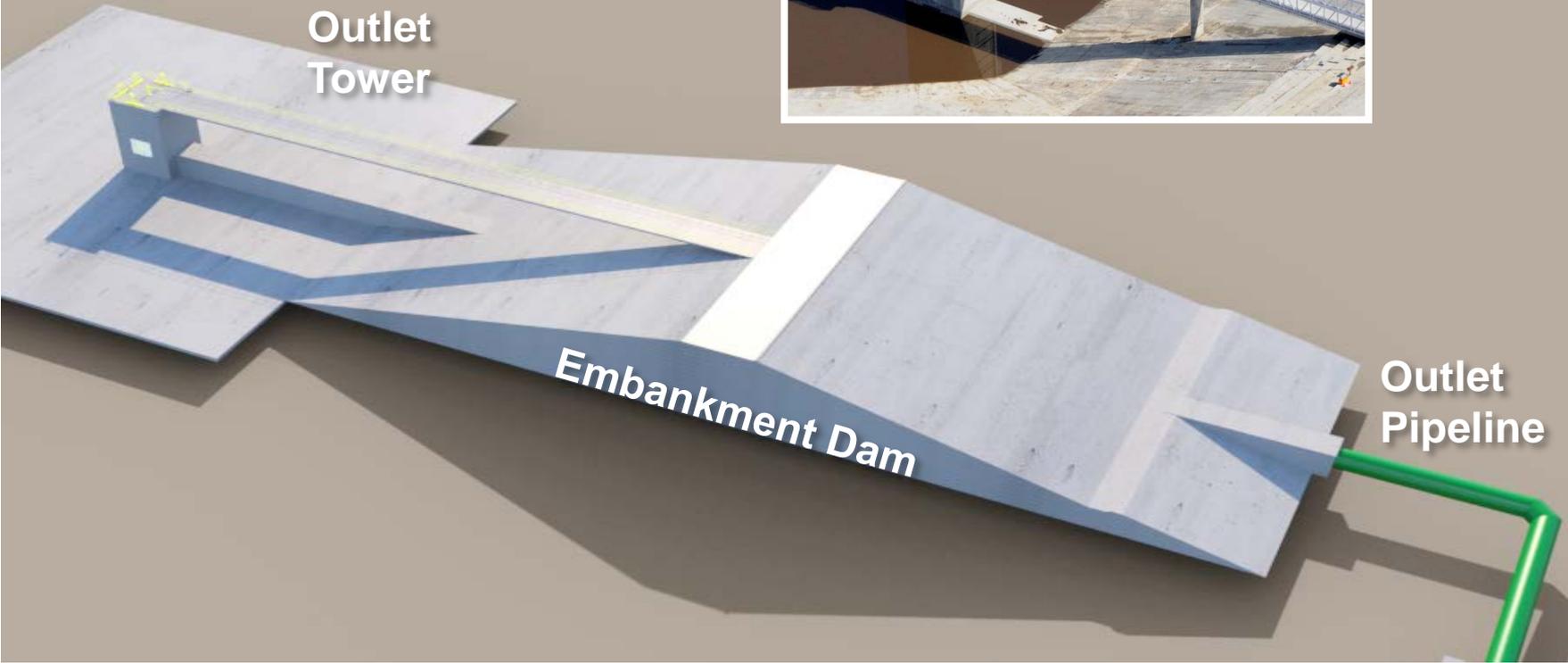
Reservoir Outlet



Outlet Tower

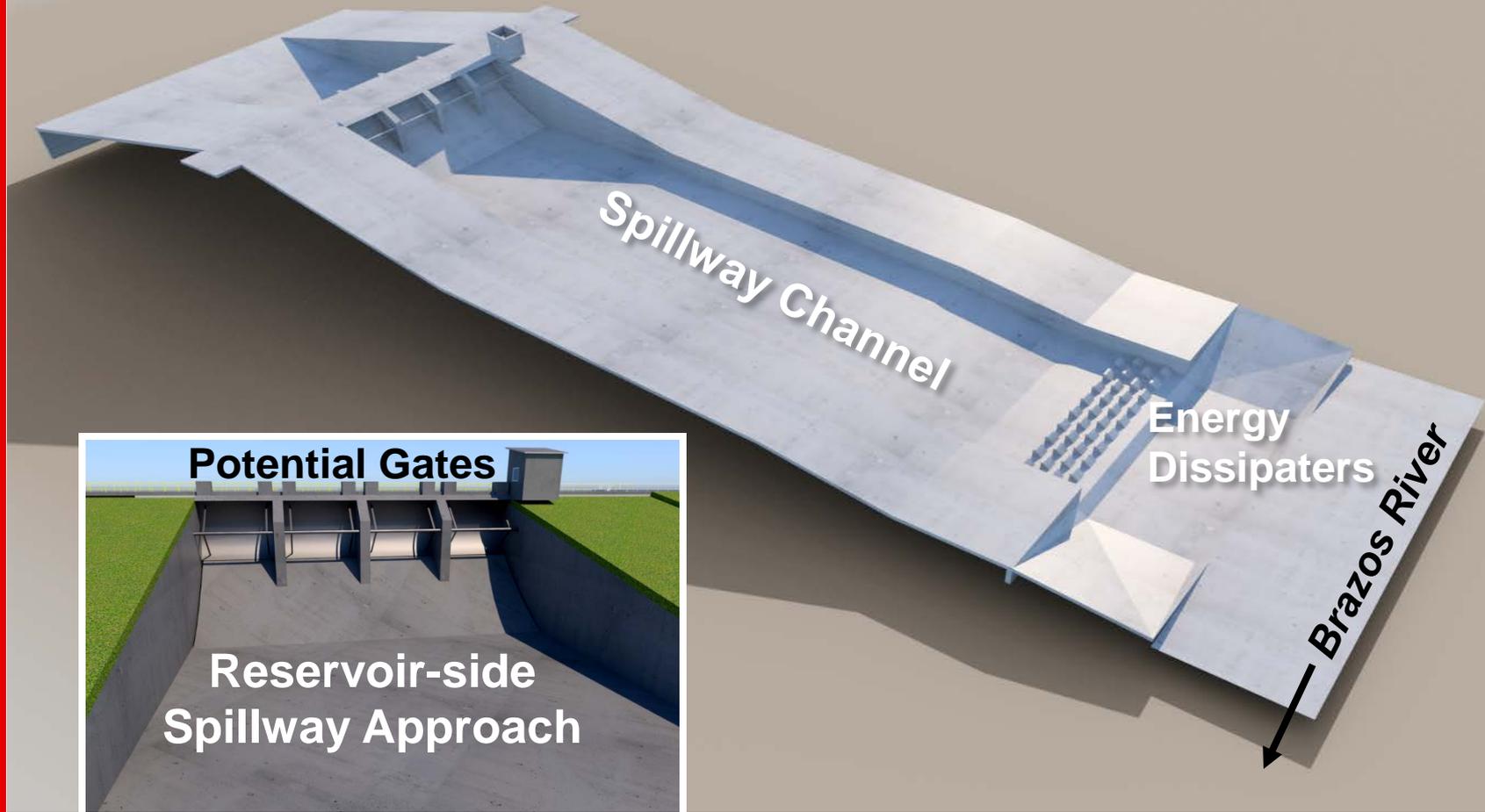
Embankment Dam

Outlet Pipeline



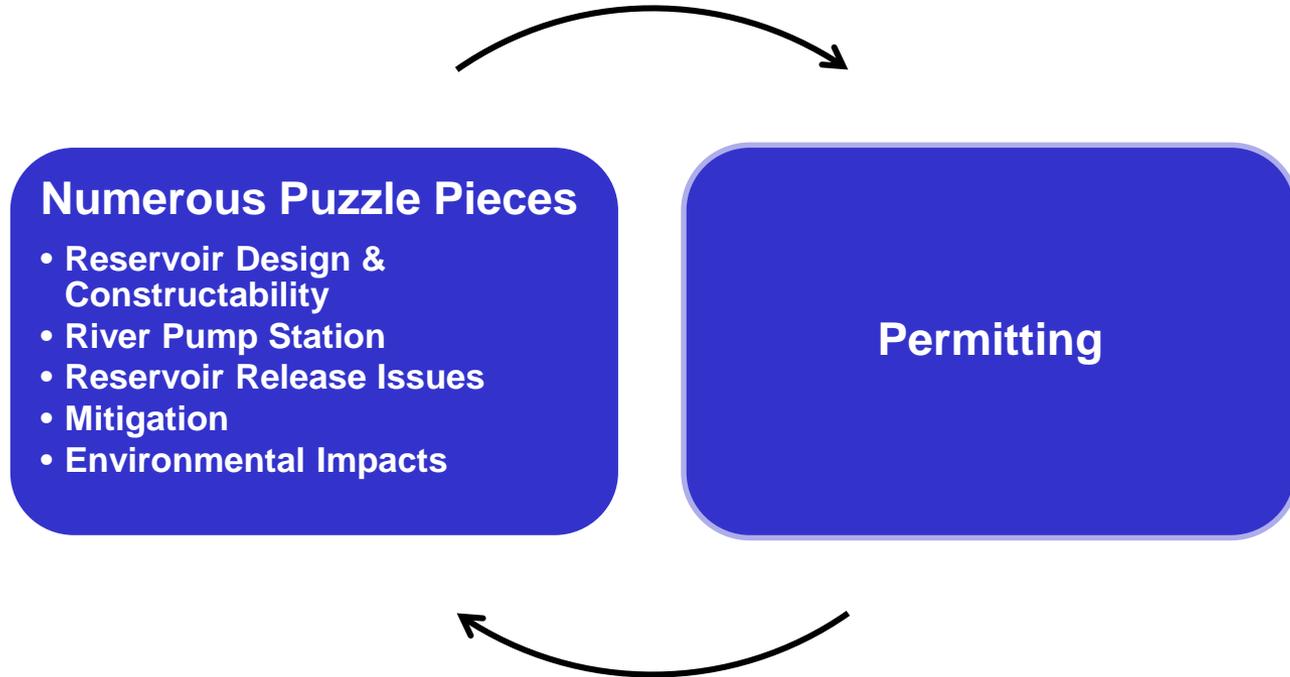


Spillway





Challenges

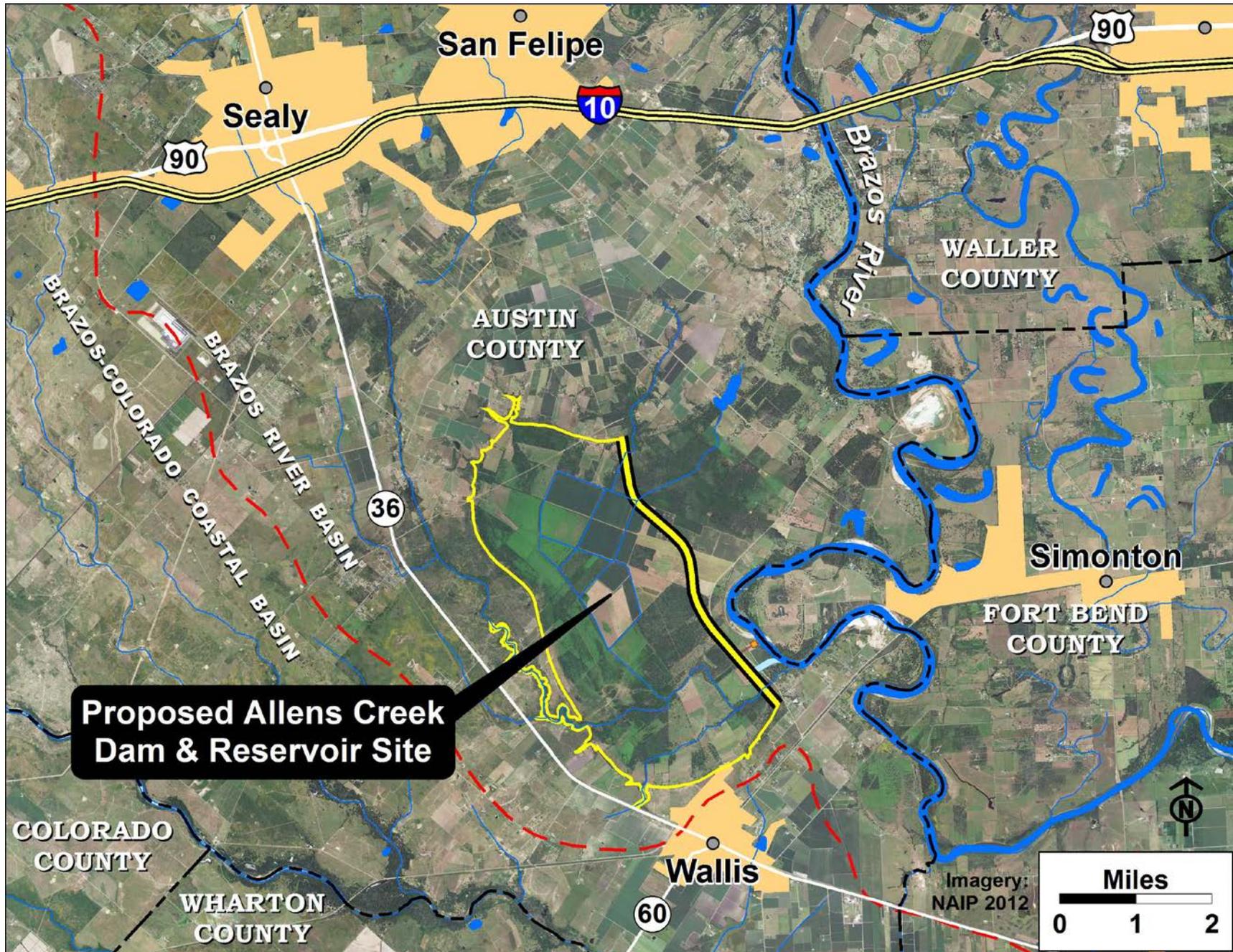




Allens Creek Reservoir

Project Phases & Timeline:

- **Phase I** **Environmental Assessments and 30% Design (2016-2019)**
- **Phase II** **Permit Approval Process, Public Interaction, Archaeological Relocation, Construction Preparation (2019-2021)**
- **Phase III** **Construction (2021-2025)**
- **Contract** **Not-to-Exceed \$86,002,318 (MWH)**





Water Supply

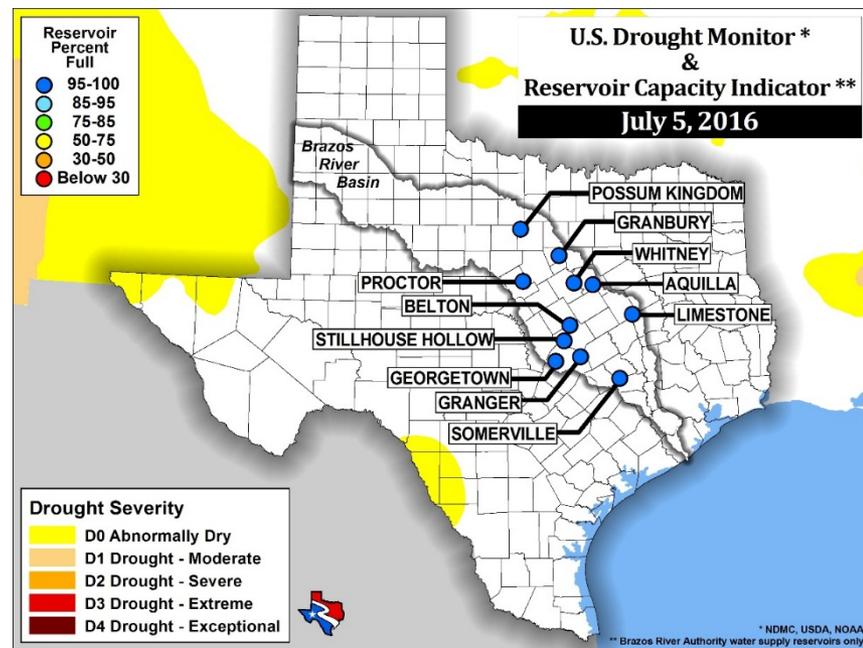
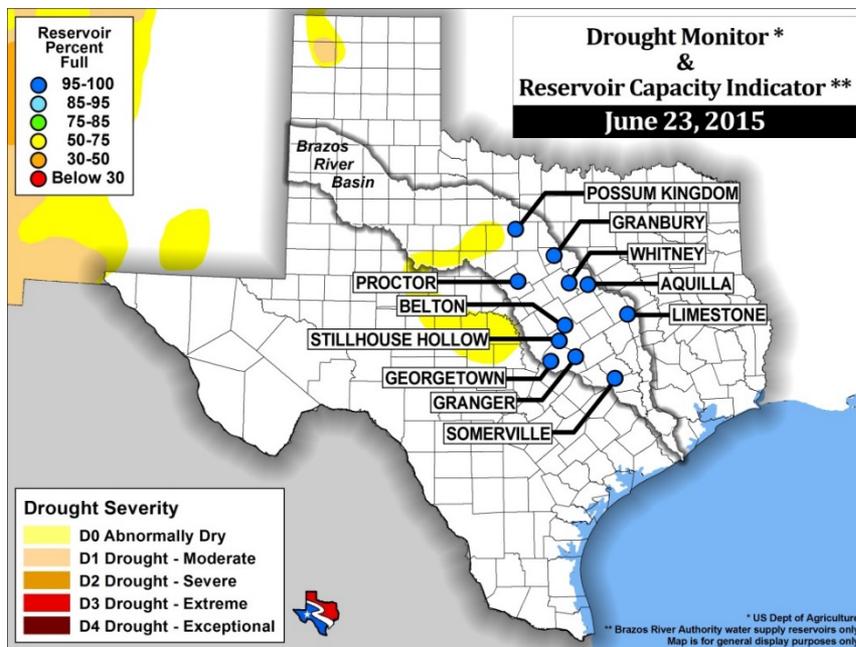
***Presented by
Brad Brunett
Water Services Manager***



Drought Monitor & Reservoir Status

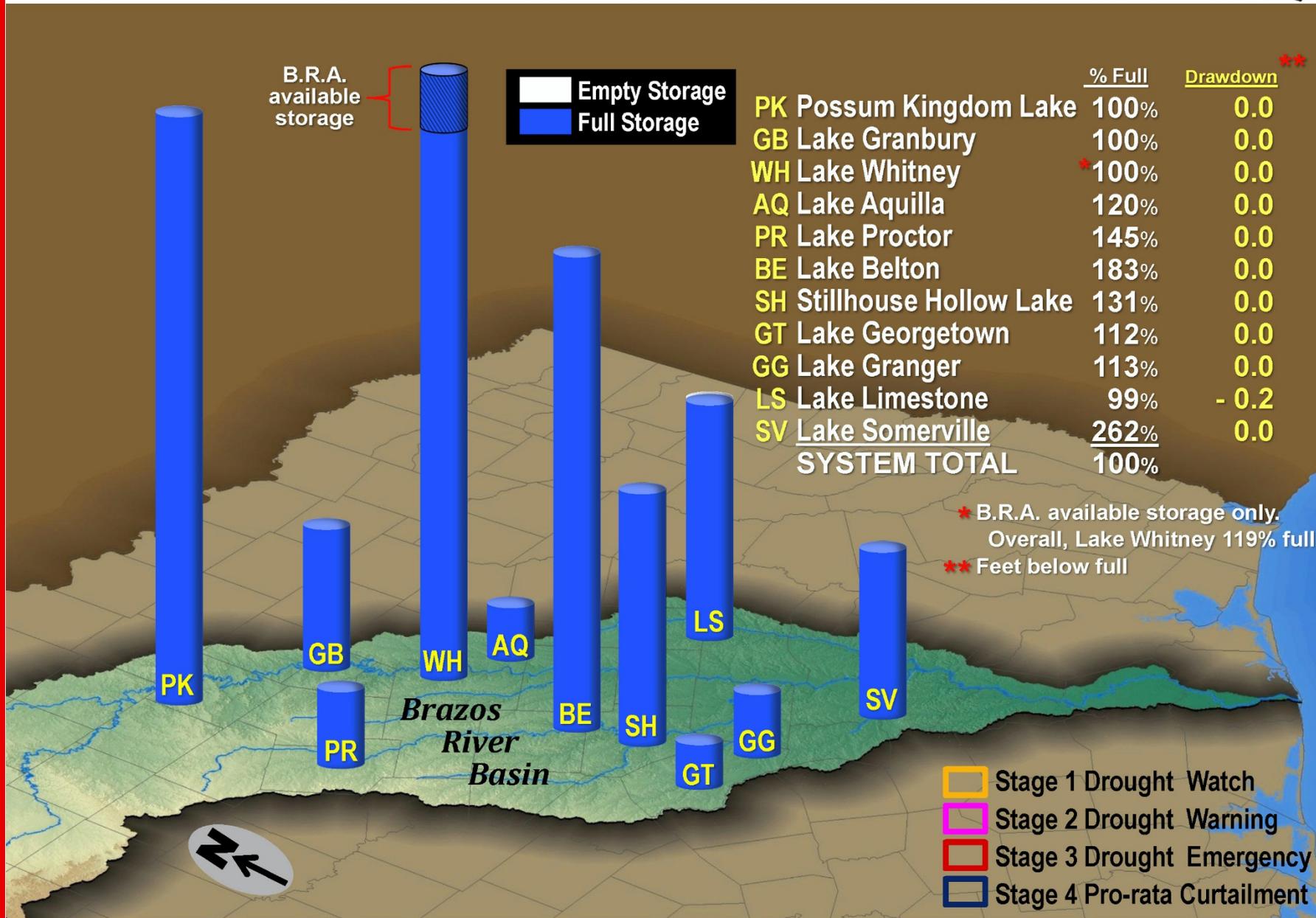
Last Year...

This Year...



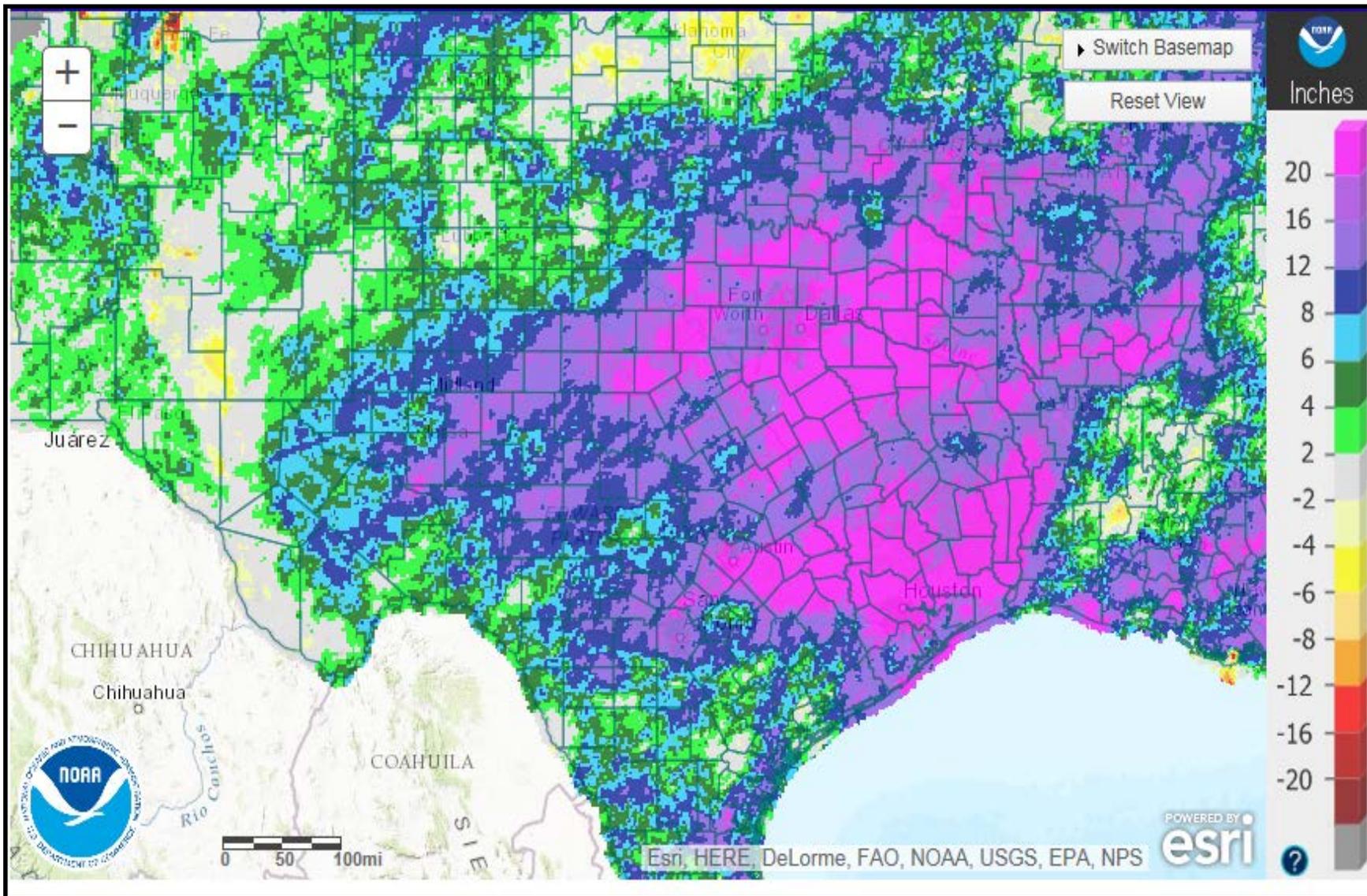


B.R.A. Water Supply Reservoirs "PERCENT FULL" July 6, 2016





Departure from Normal Rainfall October 1, 2015 – July 8, 2016





BRA Reservoir Operating Rules During Floods

- **Don't release based on weather forecasts**
- **Don't make flooding worse downstream than it would have been without the reservoir being present**
- **Prevent water overtopping flood gates**
- **Attempt to minimize flood potential on upper end of lakes**
- **Ensure good communication**
 - **BRA Central Office and Lake Office staff**
 - **Downstream Call Lists**
 - **West Gulf River Forecast Center & Other Agencies**
 - **Emergency Management Officials**
 - **General Public**
 - **Media**

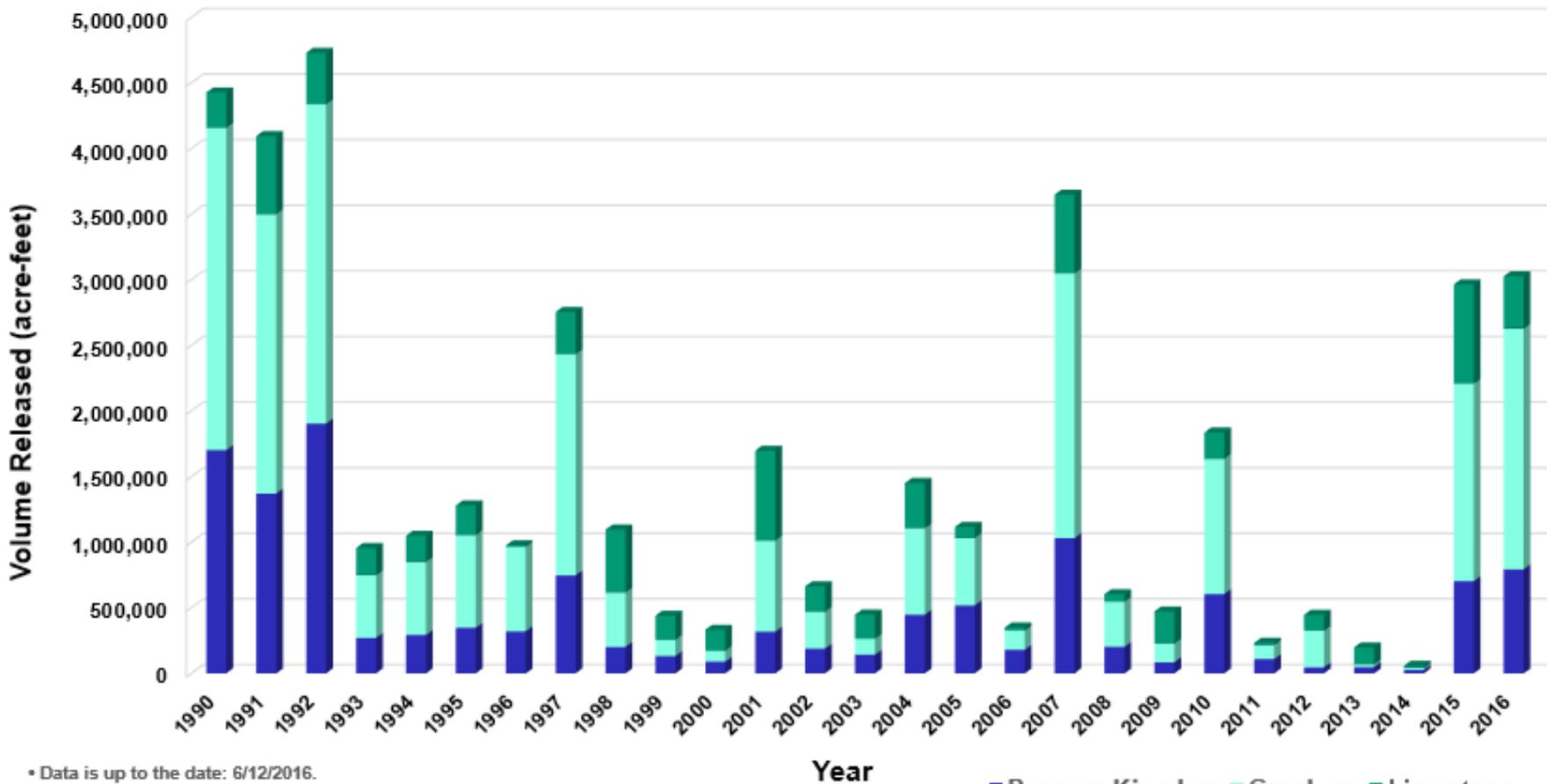


Morris Sheppard Dam at Possum Kingdom Lake

05/27/2015



Annual Release Volumes from BRA Reservoirs Since 1990



• Data is up to the date: 6/12/2016.

• For PK, turbine release is included in data until hydropower was discontinued in August

■ Possum Kingdom ■ Granbury ■ Limestone

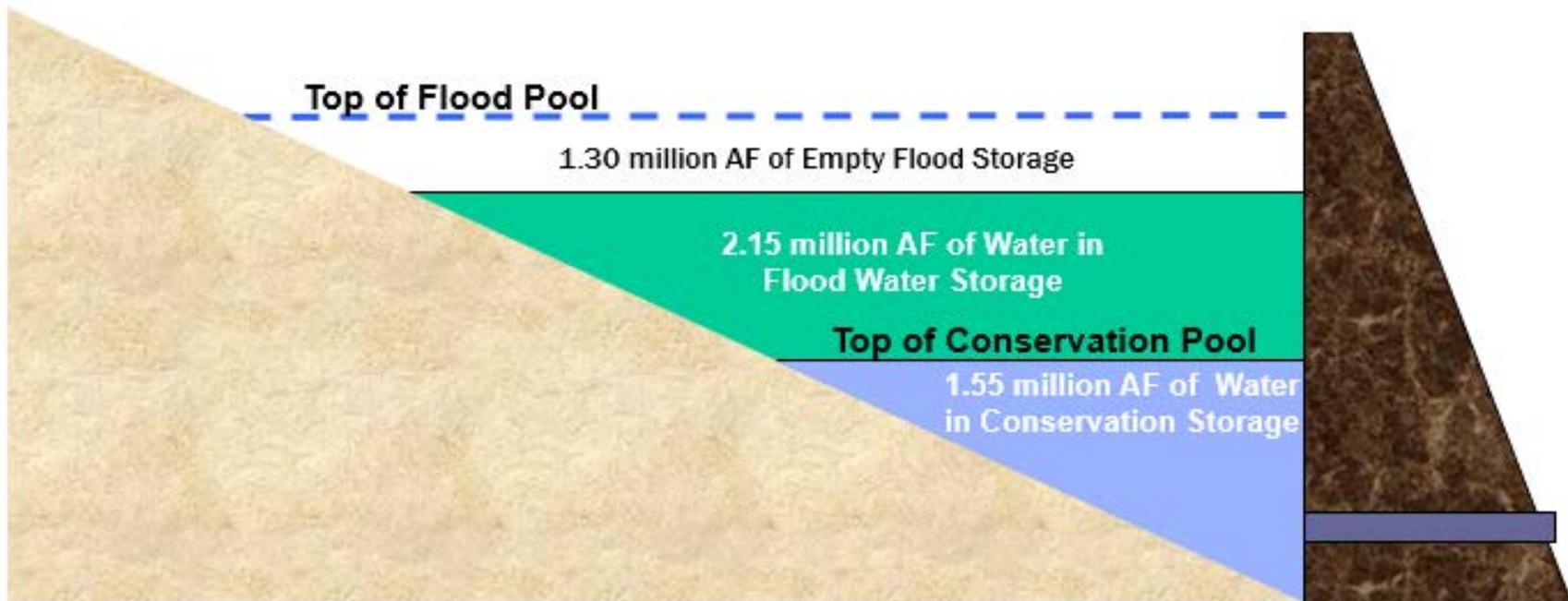


Lake Somerville Emergency Spillway, Late May



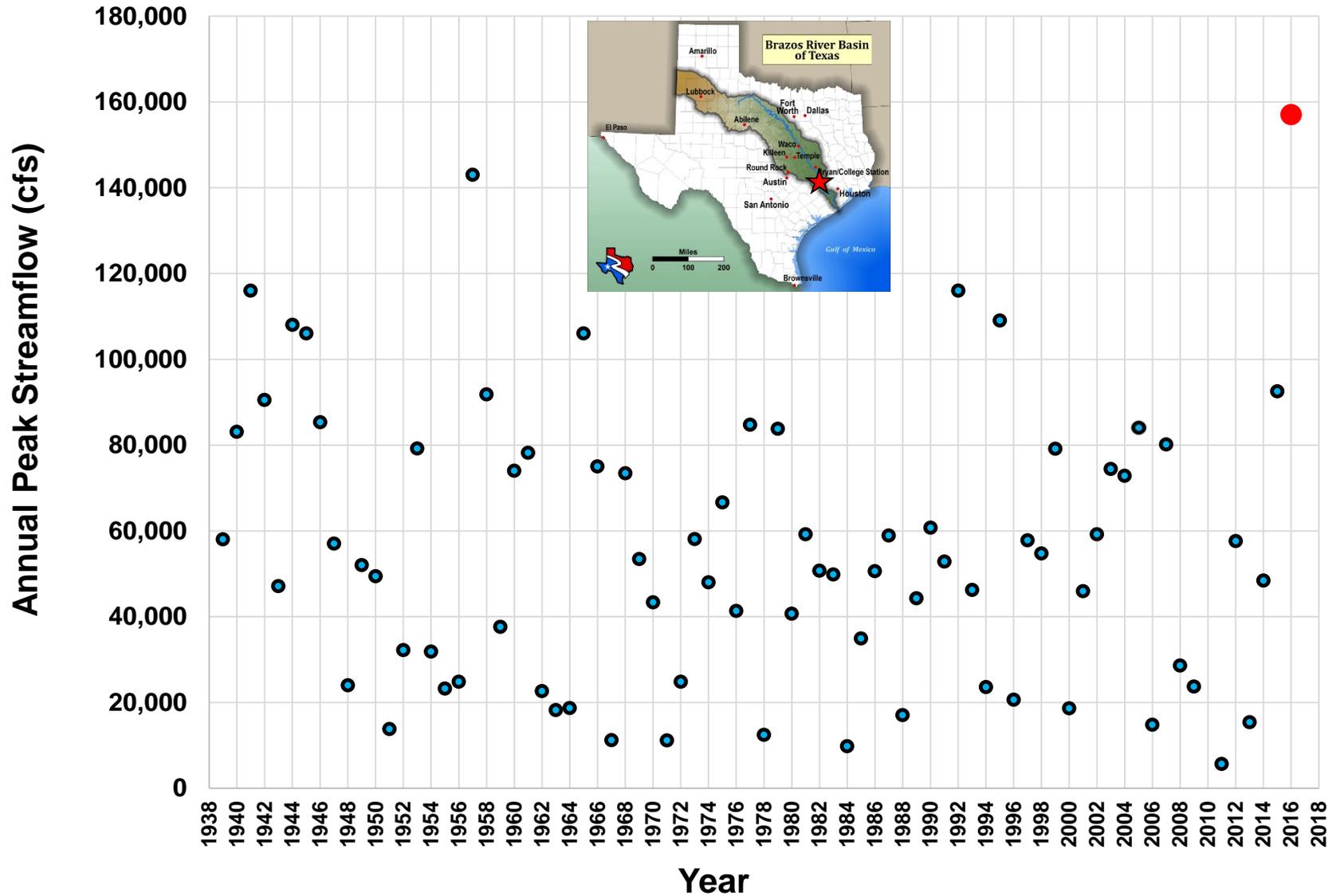


Status of Corps Flood Control Reservoirs on June 8



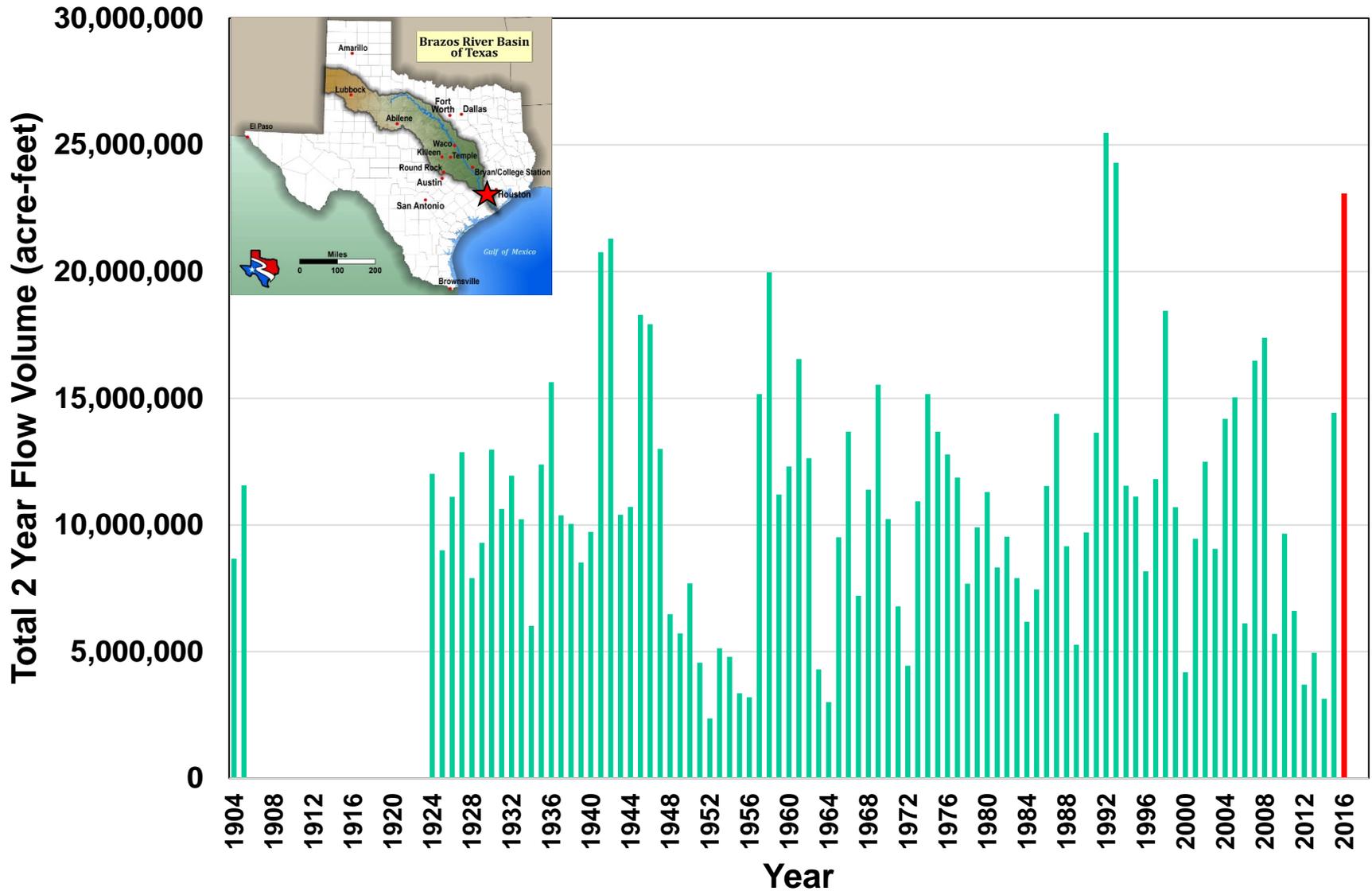


Annual Peak Flow Rates Brazos River near Hempstead





2 Year Total Flow Volumes, 1903-2016* Brazos River at Richmond



*Note: Gage was not operable between July 1906 and September 1922. 2016 data ends on June 14, 2016.



Water Sales

- **Board to consider 2017 Interruptible Water in October**
- **Will consider additional long-term contracts upon completion of Drought Study**



2015 Annual Water Use & Reservoir Accounting Summary now Available on BRA Website

Brazos River Authority

Brazos River Authority 2015 Customer Water Use and Reservoir Accounting Summary

2015 WATER USE BY FIRM WATER CUSTOMERS	VOLUME (ACRE-FEET)
POSSUM KINGDOM LAKE	
DOUBLE DIAMOND PROPERTIES, INC	674
POSSUM KINGDOM MFC	1,053
RANCH OWNER'S ASSOCIATION	147
SPORTSMAN'S WORLD MUD	386
TEXAS PARKS & WILDLIFE DEPT.	962
WEST CENTRAL BRAZOS PIPELINE	725
SUBTOTAL:	3,727

2015 WATER USE BY FIRM WATER CUSTOMERS	VOLUME (ACRE-FEET)
BRAZOS RIVER BELOW POSSUM KINGDOM LAKE	
CARB-THOMAS RANCH	2
JAY MILLS CONTRACTING, INC	2
FALCO PRINTO CO. MWD NO. 1	152
SUGAR TREE, INC	181
PARKER COUNTY SUD	301
VULCAN CONST. MATERIALS, L.P.	122
SUBTOTAL:	773

2015 WATER USE BY FIRM WATER CUSTOMERS	VOLUME (ACRE-FEET)
LAKE GRANBURY	
ACTION MUNICIPAL UTILITY DIST.	8
BRAZOS REGIONAL PUBLIC UTILITY AGENCY	3,043
DECORDOVA BOND ESTATES OWNERS	75
GRANBURY RECREATIONAL ASSOC	20
GRANBURY, CITY OF	218
KING RANCH TURFGRASS, L.P.	94
LENMO INC.	1,605
LIF DEVELOPMENT CORP.	37
MONARCH UTILITIES, L.P.	522
PECAN PLANTATION OWNER'S ASSOC.	234
TXU - LUMINANT ELECTRIC COMPANY	40,479
WOLF HOLLOW SERVICES, LLC	1,979
SUBTOTAL:	48,374

2015 WATER USE BY FIRM WATER CUSTOMERS	VOLUME (ACRE-FEET)
BRAZOS RIVER BELOW LAKE GRANBURY	
EDG RESOURCES INC. WESTERN DIV	129
SUBTOTAL:	129

2015 WATER USE BY FIRM WATER CUSTOMERS	VOLUME (ACRE-FEET)
LAKE WHITNEY	
WHITE BLUFF PROPERTY OWNERS ASSOC	635
BRAZOS RIVER BELOW LAKE WHITNEY	
CAURINE BOSQUE ENERGY CENTER, LLC	3,747
LORENA, CITY OF	182
NRG TEXAS, LLC	39,888
SELECT ENERGY SERVICES LLC	509
VULCAN CONST. MATERIALS, L.P.	129
SUBTOTAL:	44,655

2015 WATER USE BY FIRM WATER CUSTOMERS	VOLUME (ACRE-FEET)
LAKE AQUILLA	
AQUILLA WATER SUPPLY DISTRICT	2345
CLEBURNE, CITY OF	1927
SUBTOTAL:	4,272

2015 WATER USE BY FIRM WATER CUSTOMERS	VOLUME (ACRE-FEET)
LAKE PROCTOR	
LAKE PROCTOR IRRIGATION AUTH.	568
UPPER LEON RIVER MUNICIPAL	2,706
SUBTOTAL:	3,274

2015 WATER USE BY FIRM WATER CUSTOMERS	VOLUME (ACRE-FEET)
LEON RIVER BELOW LAKE PROCTOR	
LAKE PROCTOR IRRIGATION AUTH.	356
NORTH LEON RIVER IRRIGATION	2,025
SUBTOTAL:	2,381

2015 WATER USE BY FIRM WATER CUSTOMERS	VOLUME (ACRE-FEET)
LAKE BELTON	
439 WATER SUPPLY CORP.	196
BELL CO. WATER CONTROL & IMP.	30,559
CORVELL CITY WATER SUPPLY DIST	300
FORT GATES WRC	200
THE GROVE WATER SUPPLY CORP.	143
BLUEBONNET WATER SUPPLY CORP.	2,815
GATESVILLE, CITY OF	5,228
SUBTOTAL:	35,442

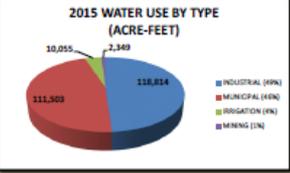
2015 WATER USE BY FIRM WATER CUSTOMERS	VOLUME (ACRE-FEET)
LEON RIVER BELOW LAKE BELTON	
TEMPLE, CITY OF	6,391
WILDFLOWER COUNTRY CLUB, INC.	196
SUBTOTAL:	6,587

2015 WATER USE BY FIRM WATER CUSTOMERS	VOLUME (ACRE-FEET)
LAKE STILLHOUSE HOLLOW	
CENTRAL TEXAS WATER SUPPLY CORP.	3,660
KEMPER WATER SUPPLY CORP.	2,400
LAMPASAS, CITY OF	1,676
SUBTOTAL:	7,736

2015 WATER USE BY FIRM WATER CUSTOMERS	VOLUME (ACRE-FEET)
LAMPASAS RIVER BELOW LAKE STILLHOUSE HOLLOW	
COLUMBIAN HARBOR	2
LAKE GEORGETOWN	
GEORGETOWN, CITY OF	7,824
ROUND ROCK, CITY OF	19,473
BROOKLYN CREEK MWD	2,670
CHEVROLIM TRAIL SUD	2,816
SUBTOTAL:	32,885

2015 WATER USE BY FIRM WATER CUSTOMERS	VOLUME (ACRE-FEET)
LAKE GRANGER	
EAST WILLIAMSON CO WATER	3,800
LAKE LIMESTONE	
NRG TEXAS, LLC	11,377
S.C. WATER SUPPLY	105
TXU - LUMINANT ELECTRIC COMPANY	14,379
SUBTOTAL:	25,661

2015 TOTAL WATER USE
242,721 Acre-Feet



2015 WATER USE BY INTERRUPTIBLE AND LAKESIDE LOCAL WATER CUSTOMERS

2015 WATER USE BY INTERRUPTIBLE AND LAKESIDE LOCAL WATER CUSTOMERS	VOLUME (ACRE-FEET)
POSSUM KINGDOM LAKE	
HILL COUNTRY HARVEST, L.P.	123
LAKESHORE HOME OWNERS	0.6
RE LAND DEVELOPMENT, INC.	1
TEXAS PARKS & WILDLIFE DEPT.	1
WACO BOND RANCH, LTD	15
LAKESIDE LOCAL USE	245
SUBTOTAL:	2,036

2015 WATER USE BY INTERRUPTIBLE AND LAKESIDE LOCAL WATER CUSTOMERS	VOLUME (ACRE-FEET)
BRAZOS RIVER BELOW POSSUM KINGDOM LAKE	
J&J LAND & LIVESTOCK CO	6
JAY MILLS CONTRACTING, INC	3
SUBTOTAL:	9

2015 WATER USE BY INTERRUPTIBLE AND LAKESIDE LOCAL WATER CUSTOMERS	VOLUME (ACRE-FEET)
LAKE GRANBURY	
COUNTY OF SOMERVELL	232
LENMO INC.	877
LAKESIDE LOCAL USE	327
SUBTOTAL:	1,437

2015 WATER USE BY INTERRUPTIBLE AND LAKESIDE LOCAL WATER CUSTOMERS	VOLUME (ACRE-FEET)
BRAZOS RIVER BELOW LAKE GRANBURY	
BRANDON WAREY	14
EDG RESOURCES INC. WESTERN DIV	18
INDRAM CONCRETE LLC	45
LATTIMORE MATERIALS	239
LOWELL UNDERWOOD	45
RYAN HOUSTON	35
SUBTOTAL:	367

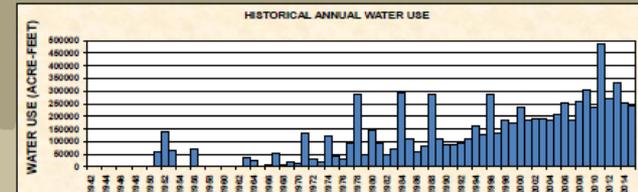
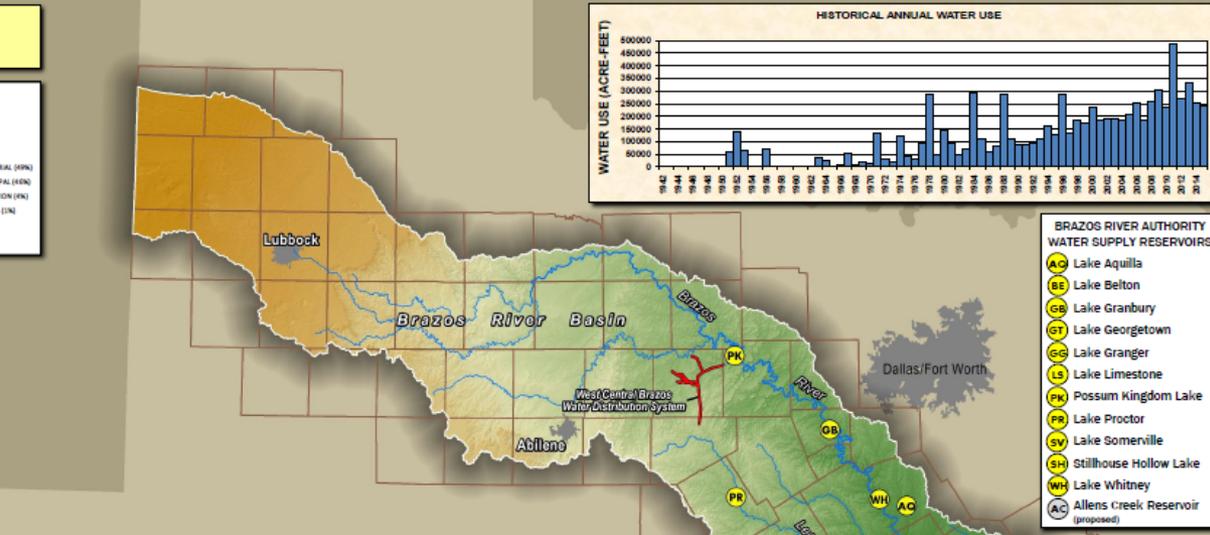
2015 WATER USE BY INTERRUPTIBLE AND LAKESIDE LOCAL WATER CUSTOMERS	VOLUME (ACRE-FEET)
LAKE WHITNEY	
DOUBLE DIAMOND PROPERTIES, INC.	256
WHITE BLUFF PROPERTY OWNERS ASSOC	251
LAKESIDE LOCAL USE	155
SUBTOTAL:	662

2015 WATER USE BY INTERRUPTIBLE AND LAKESIDE LOCAL WATER CUSTOMERS	VOLUME (ACRE-FEET)
LAKE BELTON	
LAKESIDE LOCAL USE	23
SUBTOTAL:	23

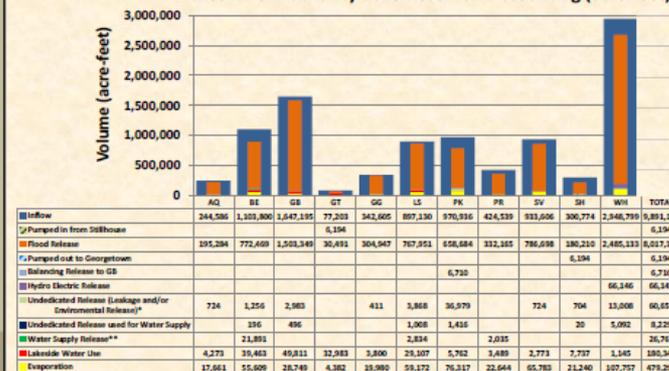
2015 WATER USE BY INTERRUPTIBLE AND LAKESIDE LOCAL WATER CUSTOMERS	VOLUME (ACRE-FEET)
LAKE STILLHOUSE HOLLOW	
LAKESIDE LOCAL USE	1
SUBTOTAL:	1

2015 WATER USE BY INTERRUPTIBLE AND LAKESIDE LOCAL WATER CUSTOMERS	VOLUME (ACRE-FEET)
LAMPASAS RIVER BELOW LAKE STILLHOUSE HOLLOW	
THOMAS LINDERS	17
LAKE LIMESTONE	
NRG TEXAS, LLC	3,332
XTO ENERGY	19
LAKESIDE LOCAL USE	95
SUBTOTAL:	3,463

2015 WATER USE BY INTERRUPTIBLE AND LAKESIDE LOCAL WATER CUSTOMERS	VOLUME (ACRE-FEET)
NAVASOTA RIVER BELOW LAKE LIMESTONE	
HANNOCKWOOD ENERGY OPERATIONS, LLC	31
NEW GULF RESOURCES, LLC	15
ROSEWOOD RESOURCES, INC.	18
SUBTOTAL:	64



Brazos River Authority 2015 Reservoir Accounting (acre-feet)



* Leakage has not been quantified by the US Army Corp of Engineers for Lake Georgetown, Granger and Proctor.
 ** 12,900 acre-feet of the 21,845 acre-feet of water released for water supply for the City of Richmond under its own water right. Therefore, this 12,900 acre-feet is not reflected in BRA's water use for 2015.
 *** 21,845 acre-feet of water used under MCO BRA contract was pumped at their downstream pumping point near the City of Richmond under the BRA's Excess Flow permit. This water pumped under the Excess Flow permit is not-of-flow water and not released from any of the BRA system reservoirs. It is not reflected in this reservoir accounting.
 NOTE: Lakeside Water use (58,343 acre-feet) + Water Supply Release (26,762 acre-feet) + Undeclared Release used for Water Supply (9,229 acre-feet) - Temple Water Right (12,500 acre-feet) + Excess Flows (39,288 acre-feet) = Total 2015 BRA Water Use (242,721 acre-feet)





***System Operation Permit
And
Long Range Financial Plan***

***Presented by
Jim Forte'
Planning and Development Manager***



System Operation Permit and Water Management Plan

- **Water Availability Model (WAM) Analysis of Water Rights and Hydrology of the Basin**
- **Access to Uncontrolled Flows and Previously Unappropriated Return Flows**
- **Storage from 3 BRA and 8 USACE Reservoirs**
- **Complies with SB3 Environmental Flows**
- **Water Supply Strategy for Brazos G and Region H**
- **Water Management Plan (WMP)**

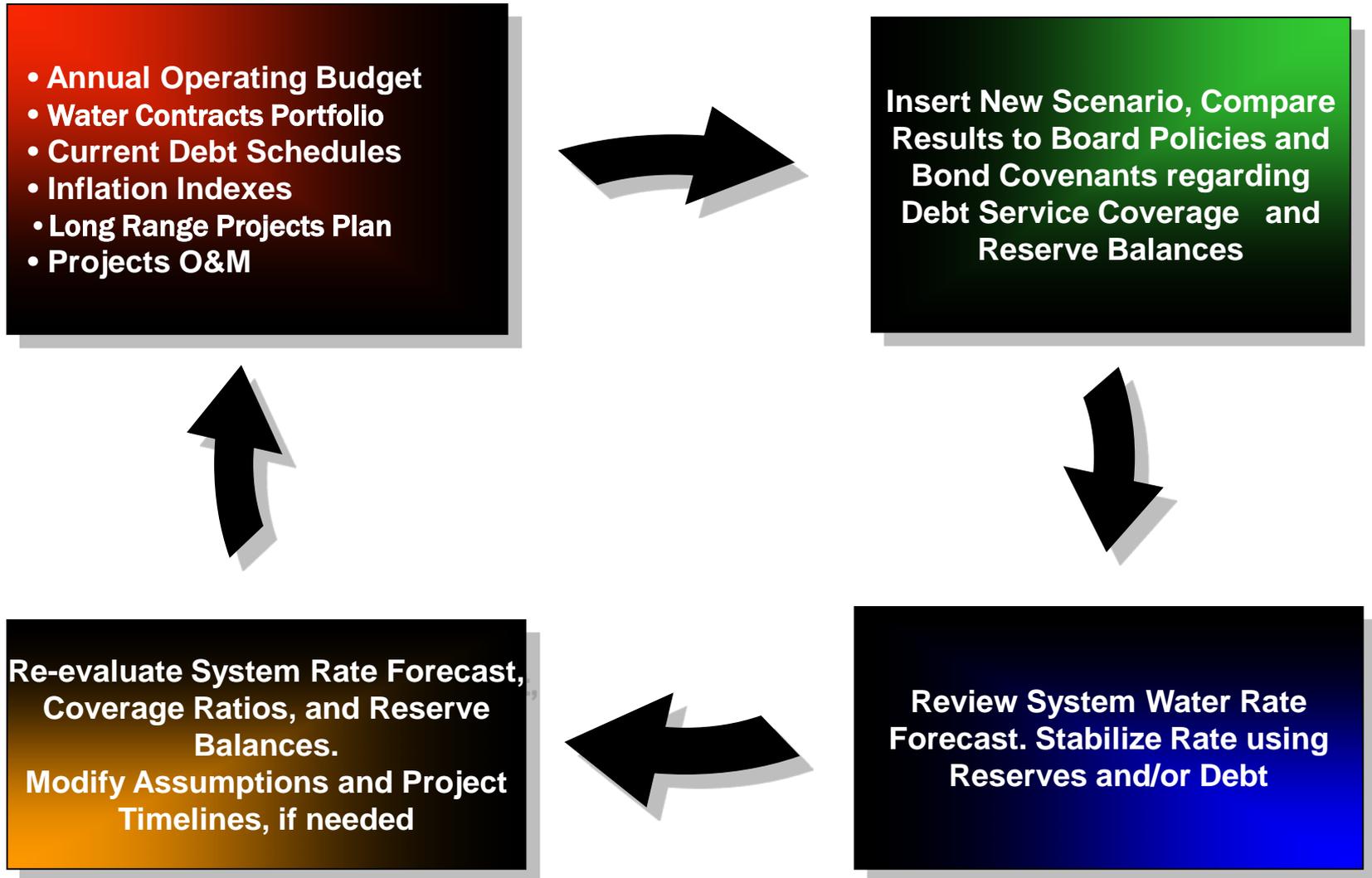


System Operation Permit/Water Management Plan

- **Application – June 25, 2004**
- **1st SOAH Hearing on the Merits – May/June, 2011**
- **1st TCEQ Consideration – January 25, 2012**
- **2nd SOAH Hearing on Merits – Feb. 16-26, 2015**
- **2nd TCEQ Consideration – January 20, 2016**
 - **Remand for Reuse and Reservoir Sedimentation**
- **Supplemental Proposal for Decision – June 03, 2016**
- **3rd TCEQ Consideration - ?**
- **Drought of Record Study – Nine Months following approval of Permit**



Long Range Financial Plan





Long Range Financial Plan

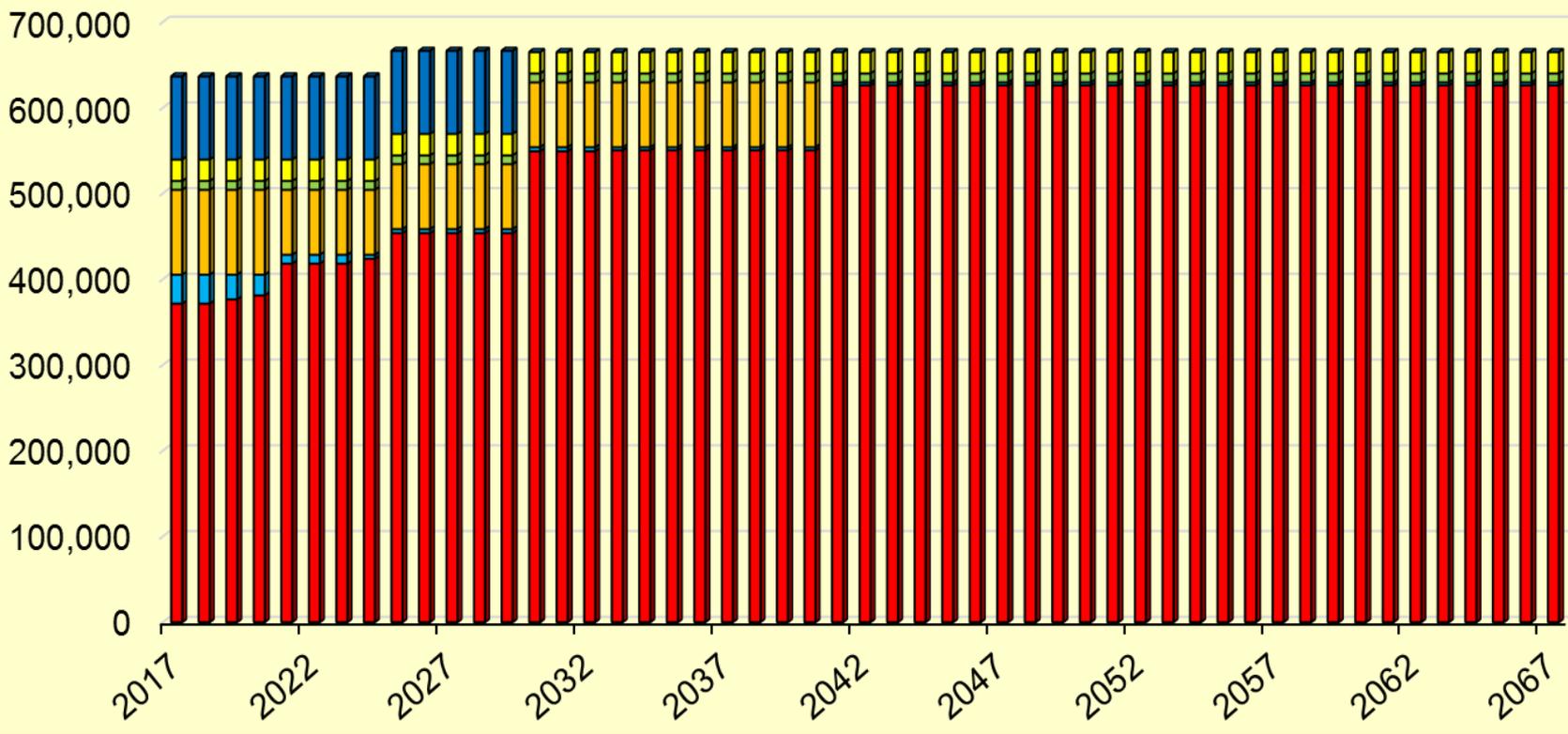
- **Assumptions**
 - **O&M Costs inflated by Category Specific Indices**
 - **Deleted State Water Plan Projects with BRA as Default sponsor**
 - **Adjusted Allens Creek Financing to assume TWDB 80% Board Participation**
 - **No Water Sales from System Operation Permit**



Long Range Financial Plan

Long Term Contract Conversions (AF)

Legend: Long Term System (Red), LT Other Price (Light Blue), Two-Tier Rate (Yellow), Agriculture (Light Green), LT Colorado Basin (Light Yellow), Utility Water (Dark Blue)





Long Range Projects Plan

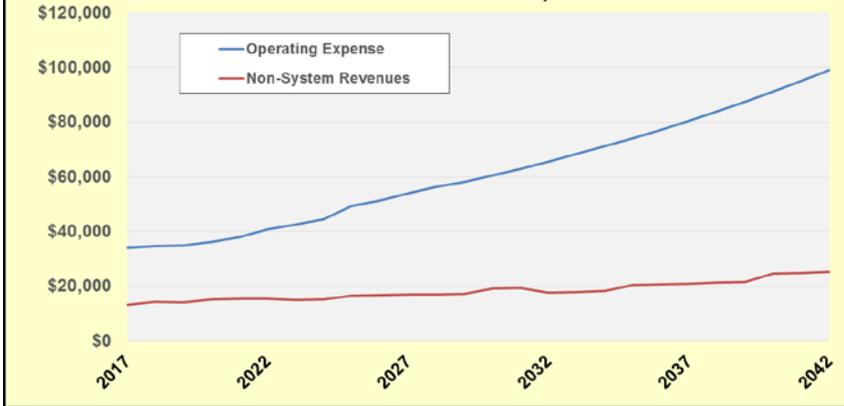
(in thousands)

PROJECTS	2017	2018	2019	2020	2021	2022-26	2027-31	2032-36	2037-41	2042-46	2047-67	Total
New Water	10,255	6,830	7,320	14,495	8,220	113,627	72,500	-	-	-	-	\$ 233,247
Central Services	1,997	2,270	-	-	-	2,500	2,500	2,500	2,500	2,500	10,500	\$ 27,267
New Infrastructure	445	880	2,110	2,110	425	14,195	25,323	9,650	-	-	-	\$ 55,138
Infrastructure Security	1,651	-	-	-	-	-	-	-	-	-	-	\$ 1,651
Infrastructure Maintenance	10,038	10,300	14,650	8,985	3,040	221	-	55,000	550,000	-	-	\$ 652,234
Water Quality	673	411	4,071	4,257	185	5,210	5,000	5,000	5,000	5,000	21,000	\$ 55,807
Other	817	605	-	-	-	-	-	-	-	-	-	\$ 1,422
ANNUAL TOTALS	\$ 25,876	\$ 21,296	\$ 28,151	\$ 29,847	\$ 11,870	\$ 135,753	\$ 105,323	\$ 72,150	\$ 557,500	\$ 7,500	\$ 31,500	\$ 1,026,766

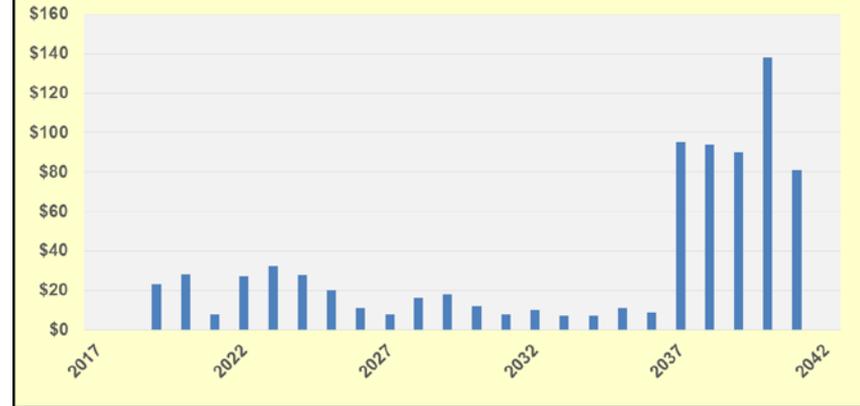


Long Range Financial Plan

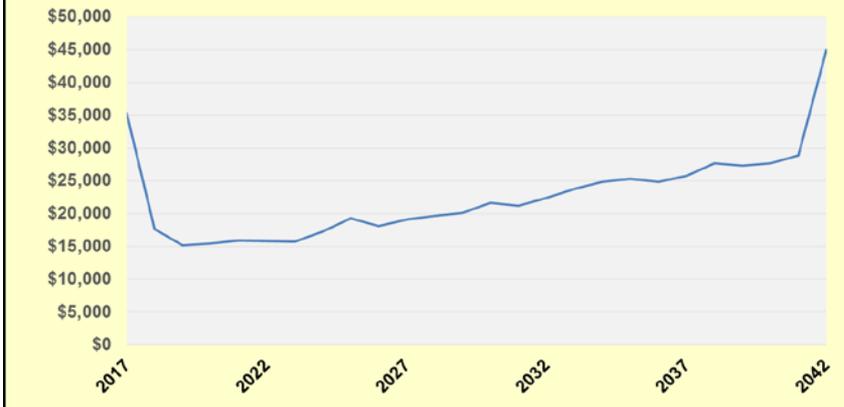
Operating Expenses/Non-System Revenue (in thousands)



Debt Issued (in millions)



Ending Reserves (in thousands)

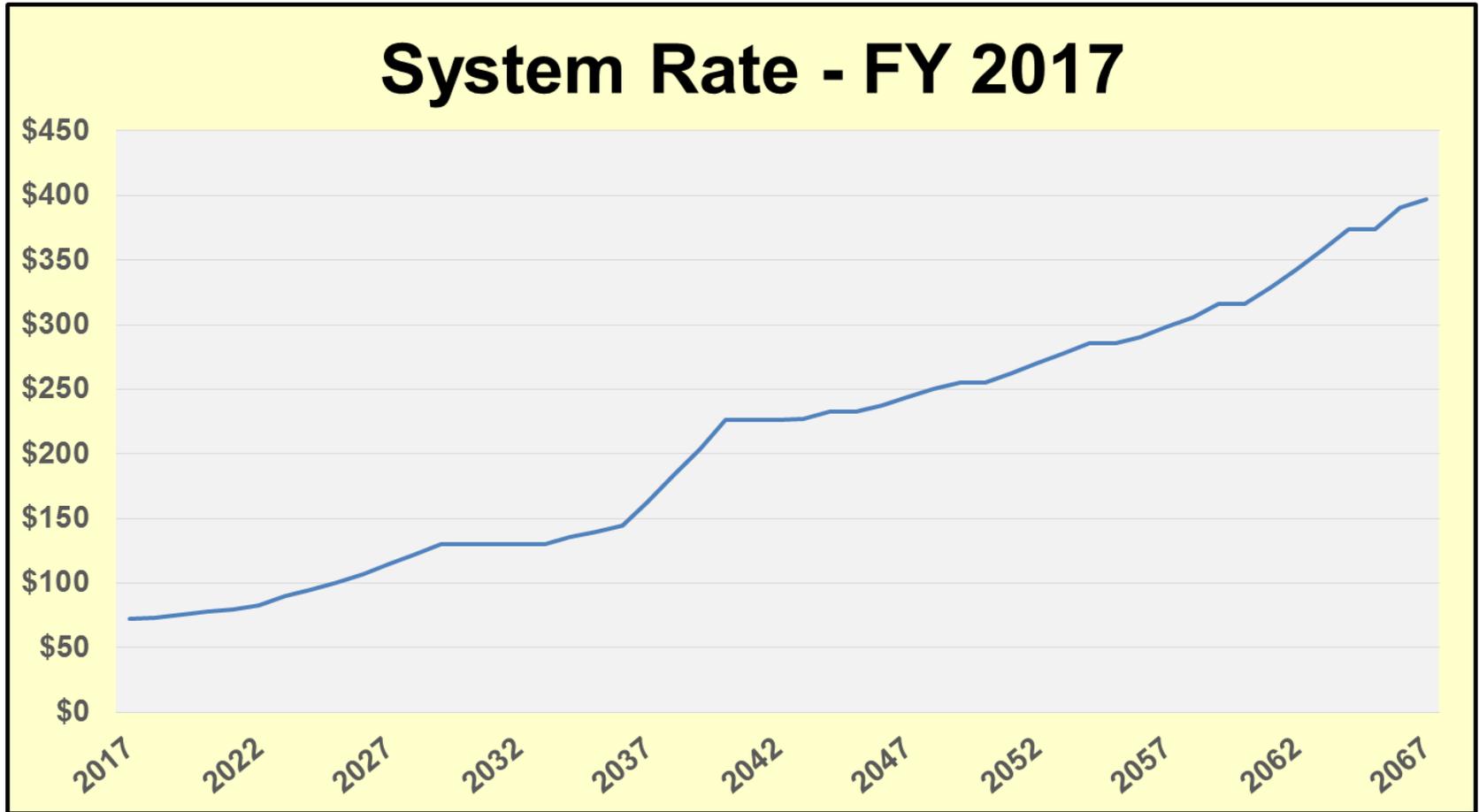


System Rate - FY 2017





Long Range Financial Plan



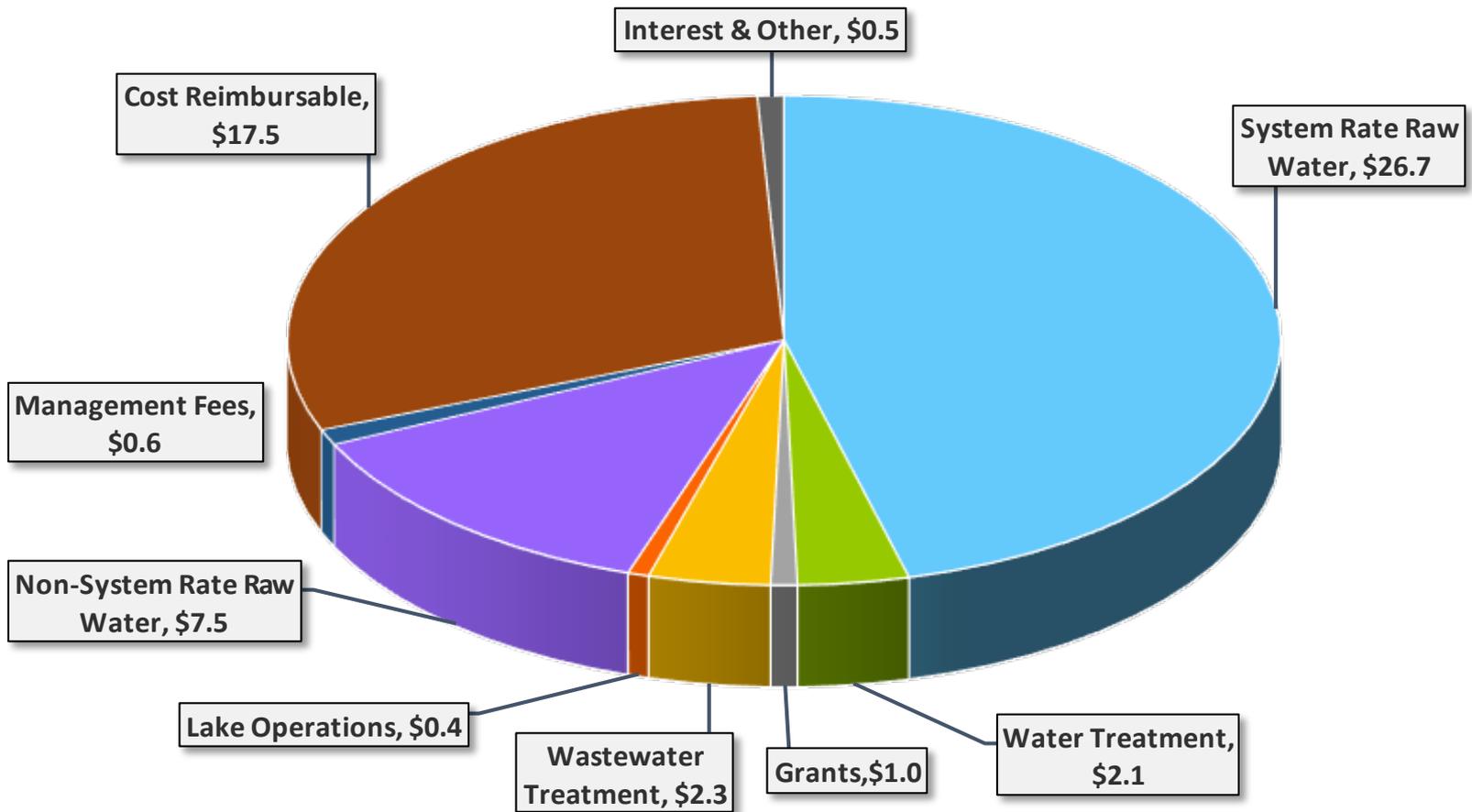


Financial Overview

***Presented by
David Thompson
Chief Financial Officer***

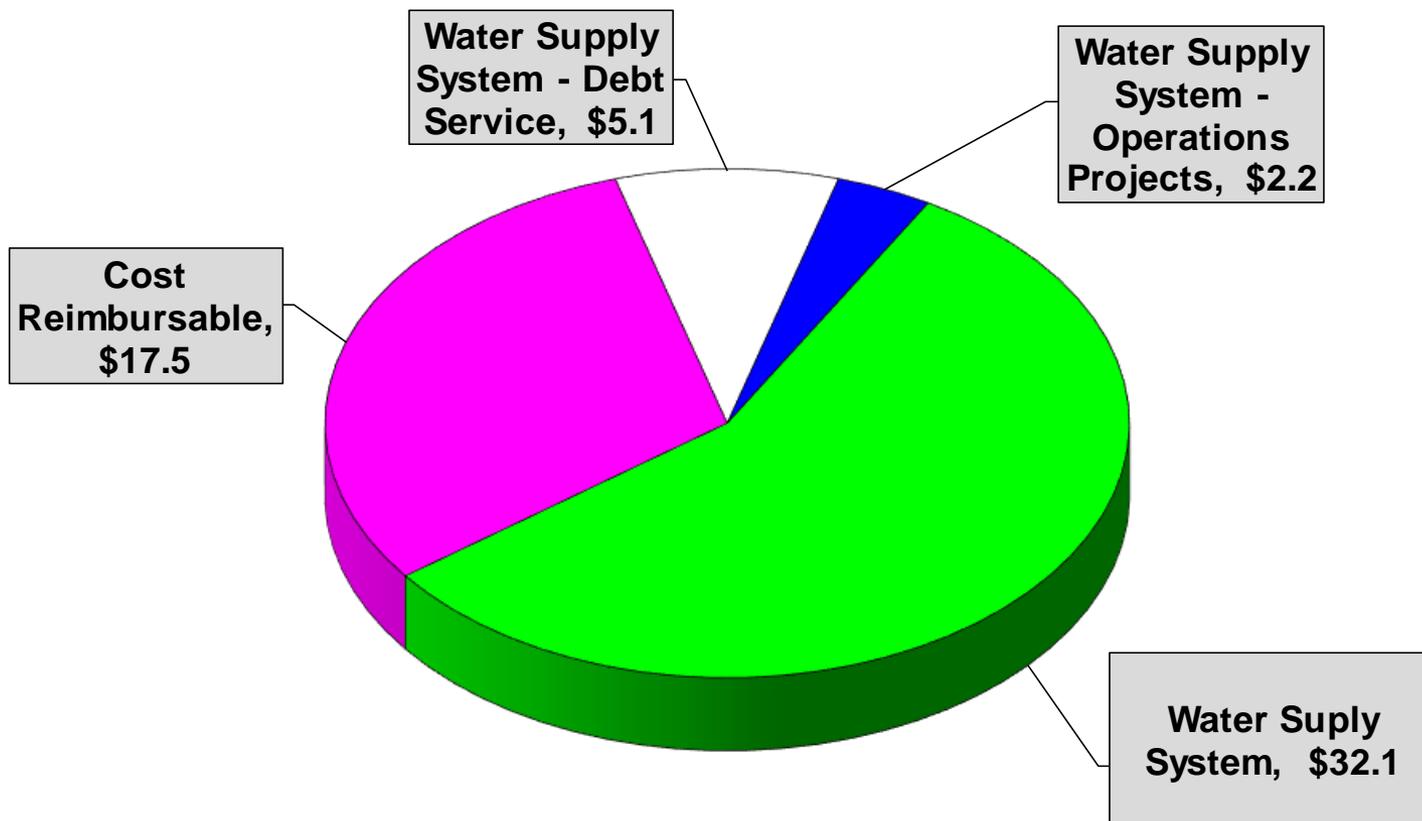


FY2017 Proposed Revenues \$58.6M



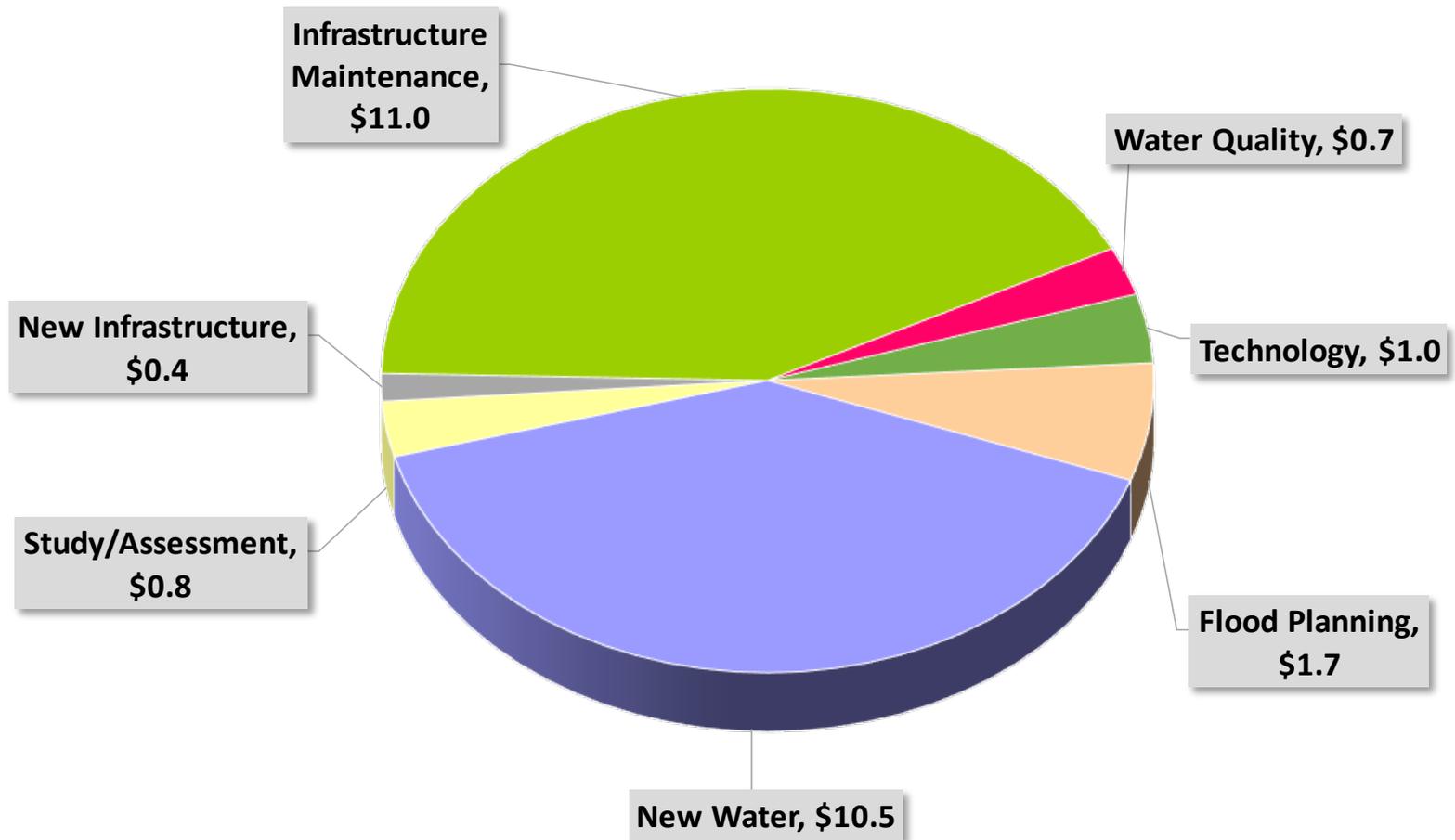


FY2017 Proposed Operating Expenses \$56.9M





FY2017 All Projects by Type \$26.1M





FY2017 Capital Projects

(in thousands)

<u>Project Name</u>	<u>Total Project Cost</u>	<u>FY2017 Projected Expenditures</u>	<u>Est. Completion Date</u>
Allens Creek Reservoir	\$ 100,000	\$ 5,749	2022+
Trinity Groundwater	20,817	1,940	2022+
System Permit Application	23,761	1,026	2022+
DeCordova Bend Dam Improvements	12,116	3,736	2020
Morris Sheppard Dam Improvements	13,225	4,486	2020
Sterling Robertson Dam Improvements	32,111	1,817	2021
Graham Flood Mitigation	6,843	1,651	2017
Potential Future Water Management Strategies	5,000	500	2022+
Enterprise Financial System Software	860	395	2017
Central Office Improvements - HVAC,etc.	2,856	912	2018
Other	150,593	1,693	2022+
Total		\$ 23,905	



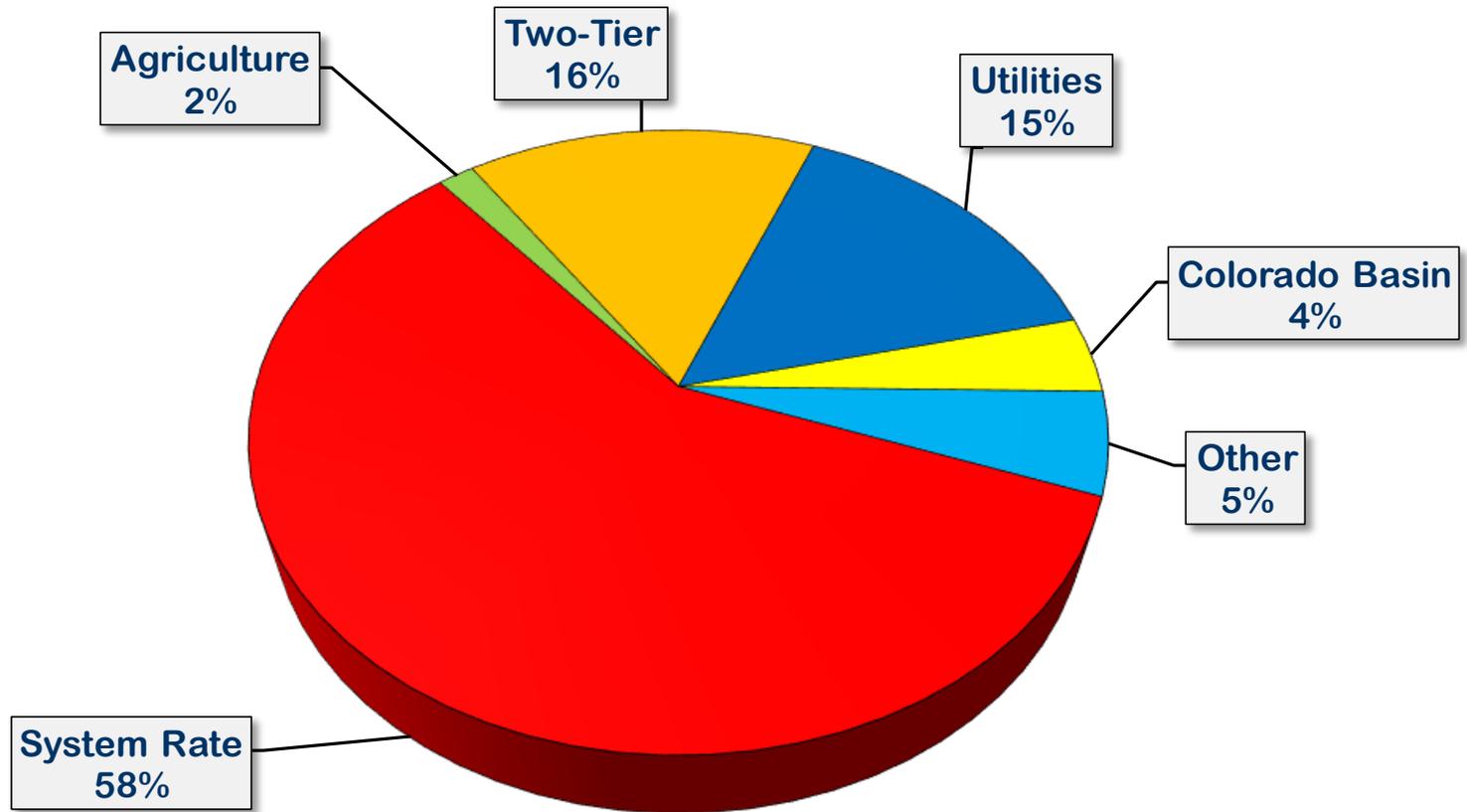
FY2017 Operations Projects

(in thousands)

<u>Project Name</u>	<u>FY2017 Projected Expenditures</u>
Corps of Engineers Pool Rise Feasibility	\$ 184
HB 1437 No Net Loss	200
Duck Creek Aquatic Life Assessment	48
Environmental Laboratory Design	200
Replace Aging IT Equipment	260
LB Floodplain Protection Study Phase 1 & 2	444
Polycom Replacements	160
PK Dam Fiber Optic Cable Replacement	65
PK Natural Resource Inventory Study	100
Security Cameras	134
PK Recreational Maintenance	315
PK Southside Facility	105
	<hr/>
	\$ 2,215
Less Grant/Stakeholder Funding	(529)
	<hr/>
Net BRA Expense	\$ 1,686

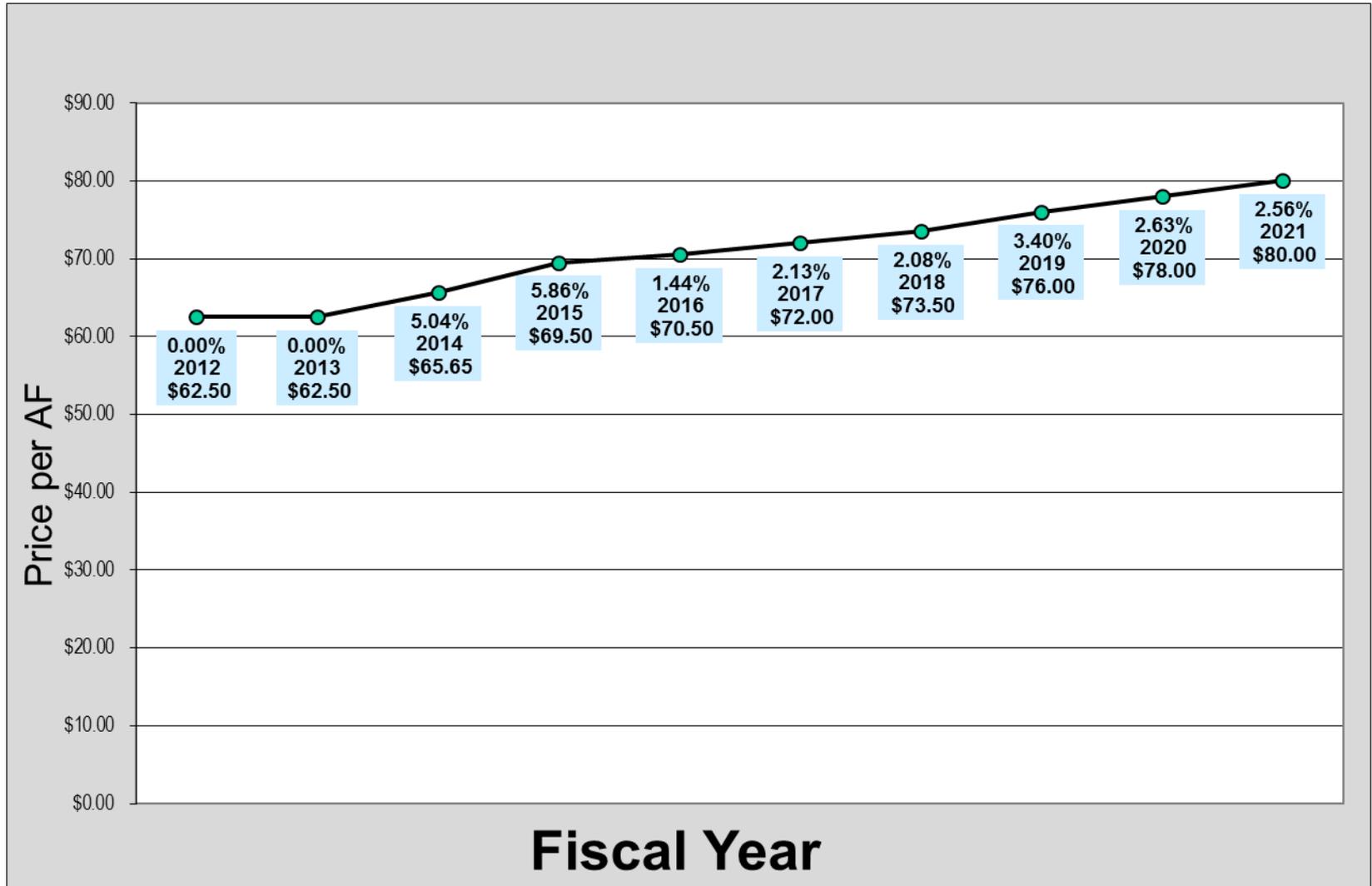


FY2017 Long Term Raw Water Sales 636,484 AF





System Rate Trends





Long Term Billing Units & Average Price

	FY2016			FY2017		
	Units	Avg Price	%	Units	Avg Price	%
System Rate	320,785	\$70.50	48%	371,422	\$72.00	58%
Agricultural	10,285	\$49.35	2%	10,285	\$50.40	2%
Two-Tier	98,999	\$17.25	15%	98,999	\$17.25	16%
Other Fixed Price	33,778	\$18.76	5%	33,778	\$18.96	5%
Utilities	180,447	\$12.17	27%	97,000	\$18.58	15%
Colorado Basin	25,000	\$88.61	4%	25,000	\$79.72	4%
	<u>669,294</u>		<u>100%</u>	<u>636,484</u>		<u>100%</u>



System Rate Requirement Water Supply System (in millions)

	<u>FY2016</u>	<u>FY2017</u>	<u>Variance</u>
<u>Expenses:</u>			
O & M	\$ 32.3	\$ 32.1	\$ (0.2)
Debt Service	5.1	5.1	0.0
Operations Projects	0.9	1.7	0.8
	<hr/>	<hr/>	<hr/>
Subtotal	38.3	38.9	0.6
	<hr/>	<hr/>	<hr/>
Debt Coverage and Reserve Requirements	0.8	1.8	1.0
	<hr/>	<hr/>	<hr/>
<u>Less Revenues:</u>			
Raw Water Non-System	9.6	7.5	(2.1)
Other	6.1	6.4	0.3
	<hr/>	<hr/>	<hr/>
Subtotal	15.7	13.8	(1.8)
	<hr/>	<hr/>	<hr/>
System Water Revenue Requirement	<u>\$ 23.4</u>	<u>\$ 26.8</u>	<u>\$ 3.4</u>



System Rate Summary

System Revenue Requirement	\$26.8M
System Water Contracts	371,422 acre-feet
FY2017 System Rate (2.1% increase)	\$72.00/acre-foot



Water Rates

<u>System Rate</u>	<u>System Water</u>	<u>Agricultural Water</u>
FY2017 Proposed	\$72.00/ac ft (22.1¢ /1,000 gals)	\$50.40/ac ft (15.5¢ /1,000 gals)
FY2016 Current	\$70.50/ac ft (21.6¢ /1,000 gals)	\$49.35/ac ft (15.1¢ /1,000 gals)

<u>Two-Tier</u>	<u>Option</u>	<u>Election</u>
FY2017 Proposed	\$13.43/ac ft (4.1¢ /1,000 gals)	\$26.86/ac ft (8.2¢ /1,000 gals)
FY2016 Current	\$13.43/ac ft (4.1¢ /1,000 gals)	\$26.86/ac ft (8.2¢ /1,000 gals)



Questions and Answers



Brazos River Authority



**Brazos
River
Authority**