WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN

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Contents

List of Tables

List of Figures

Appendices

Section 1 – Introduction

1.1 Sabine River Authority

The Sabine River Authority of Texas (SRA) was created by the Legislature in 1949 as an official agency of the State of Texas. SRA was created as a conservation and reclamation district with responsibilities to control, store, preserve, and distribute the waters of the Sabine River and its tributary streams in the Texas portion of the Sabine River Basin (Basin) for useful purposes. The Sabine River Authority, State of Louisiana (SRA-LA), was formed in 1950 by the Louisiana Legislature to provide for economic utilization and preservation of the waters of the Sabine River and its tributaries by promoting economic development, irrigation, navigation, improved water supply, drainage, public recreation, and hydroelectric power for the citizens of Louisiana. Representatives from the two states ultimately developed the Sabine River Compact, which is responsible for the allocation of waters in the Basin between the two states. Representatives of the state legislatures and Congress approved the Sabine River Compact in 1953.

The Sabine River has its headwaters in northwest Hunt County at an elevation of about 700 feet (see Figure 1 Map of SRA's Service Area, pg. 4). The river flows eastward and is joined by the South Fork at the intersection of Hunt, Van Zandt, and Rains Counties within Lake Tawakoni. From Lake Tawakoni, the river flows about 250 channel miles southeasterly to the boundary between Texas and Louisiana near the town of Logansport, Louisiana. The river then flows southward at the Texas-Louisiana boundary, emptying into Sabine Lake on the Gulf Coast. The total drainage area of the Basin is 9,756 square miles, with 7,426 square miles in Texas and 2,330 square miles in Louisiana.[1]

SRA is committed to providing adequate supplies of high quality raw, untreated water to municipal, industrial, agricultural, mining, and recreational users. Water conservation is an integral element of that commitment.

1.2 Purpose for Water Conservation

Holders of water rights of 1,000 acre-feet per year (ac-ft/yr) or more for municipal, industrial and other uses and 10,000 ac-ft/yr for irrigation are required to submit a water conservation plan (Title 30, Texas Administrative Code (TAC), Chapter 288). According to TAC Rule §288, conservation means "Those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water, or increase the recycling and reuse of water so that a water supply is made available for future or alternative uses."

[1] Basin 05, Sabine River, *https://www.tceq.texas.gov/assets/public/waterquality/swqm/assess/02twqi/basin5.pdf, accessed 2/1/2024*.

Section 2 – Service Area and System Evaluation

2.1 Description of Service Area

SRA's statutory area of responsibility consists of the total contributing watershed of the Sabine River within the State of Texas and includes all or portions of twenty-one counties (see Figure 1 Map of SRA's Service Area, pg. 4): Collin, Franklin, Gregg, Harrison, Hopkins, Hunt, Jasper, Kaufman, Newton, Orange, Panola, Rains, Rockwall, Rusk, Sabine, San Augustine, Shelby, Smith, Upshur, Van Zandt, and Wood Counties. SRA supplies raw, untreated water within the Basin and outside of it via interbasin transfers to the Trinity River Basin, Sulphur River Basin, and the Neches River Basin. SRA's service area within its Basin is not well defined because it includes a multitude of water users, some of which purchase raw, untreated water from SRA and others that purchase water from other wholesale water providers or store and divert water under their own water rights. Also, some of SRA's customers have other sources of water supply in addition to SRA.

SRA owns and operates four major projects in the Basin: the John W. Simmons Gulf Coast Canal System and Earl Williams Pump Station (Gulf Coast Canal System), Iron Bridge Dam and Reservoir (Lake Tawakoni), Lake Fork Dam and Reservoir, and Toledo Bend Dam and Reservoir. Water diverted from the Gulf Coast Canal System is used for industrial, municipal, and irrigation purposes. The three reservoirs primarily serve as sources of raw, untreated municipal water supply and provide recreational opportunities. Hydroelectric power generation is a secondary use of Toledo Bend, a joint project of SRA and SRA-LA.

The Gulf Coast Division operates the Gulf Coast Canal System which comprises the John W. Simmons Gulf Coast Canal System and the Earl Williams Pump Station which serves current and future customers in Orange and Newton Counties. The main canal is approximately 40 miles long and has over 35 miles of lateral canals including 7-mile, 66-inch prestressed concrete pipeline, conveying water from Earl Williams Pump Station to the main canal, that branch off to serve customers in the area. There are eleven fixed diversions from the canal system with contract maximums totaling 75,682 acre-feet per year (ac-ft/yr) or 67.5 million gallons per day (MGD). The John W. Simmons pump station has a capacity in excess of 180 MGDand the Earl Williams Pump station has a capacity in excess of 85 MGD with future potential of 285 MGD.The conveyance capacity of the canal system is 346,000 ac-ft/yr (309 MGD). The canal system supplies raw, untreated water to one municipality and several industries including petrochemical plants, a pulp and paper mill, a steel mill, and an electric generating station. The canal system also supplies irrigation water for miscellaneous agricultural uses such as crawfish and rice farming.

The Toledo Bend Dam and Reservoir, managed by the Toledo Bend Division, lies on the state boundary of Texas and Louisiana. The reservoir yield of 2,086,600 ac-ft/yr (1,863 MGD) is shared equally between the two states. The storage capacity of the reservoir is 4,477,000 ac-ft. SRA has seven long-term water supply contracts -- four municipal, two industrial, and one mining -- totaling 26,806 ac-ft/yr (23.9 MGD). In addition to serving as a raw water supply source, Toledo Bend Dam provides hydroelectric power that represented a non-consumptive use of 3,215,390 ac-ft in 2023.

The Iron Bridge Dam and Lake Tawakoni are in parts of Hunt, Rains, and Van Zandt Counties and are managed by SRA's Lake Tawakoni Division. The reservoir has an as-built storage capacity of 927,440 ac-ft and a permitted yield of 238,100 ac-ft/yr (213 MGD). Lake Tawakoni Division has a total of nine firm water supply contracts which allow diversion of up to 236,716 ac-ft/yr (211 MGD) of raw, untreated water from Lake Tawakoni. The Lake Tawakoni Division operates and maintains all facilities for the Iron Bridge Dam and Lake Tawakoni Reservoir and operates Wind Point Park wastewater treatment

system, the Lake Tawakoni State Park WWTP and Tawakoni WWTP which serve areas near the reservoir.

The Lake Fork Dam and Reservoir, operated by the Lake Fork Division of SRA, is in Wood, Rains, and Hopkins Counties. The reservoir has an as-built storage capacity of 675,819 ac-ft and a permitted yield of 188,660 ac-ft/yr (168 MGD). Seven entities have Lake Fork Division firm water supply contracts to divert up to 157,222 ac-ft/yr of raw, untreated water from Lake Fork Reservoir, with 35,262 ac-ft/yr of that total amount contracted for release to four downstream customers. The Lake Fork Division also operates the Lake Fork WWTP No. 1 which serves some areas near the reservoir.

The Lake Tawakoni and Lake Fork water rights have a joint use operation authorization that allows SRA to contract water from one reservoir with the water being diverted from the other reservoir, provided all appropriate permit conditions are met. SRA currently allows nine entities with contracts for 14,670 ac-ft/yr of water from Lake Fork Reservoir to divert their Lake Fork Reservoir water supplies from Lake Tawakoni Reservoir under this joint use operation authorization.

The total contracted diversion amounts from Lake Tawakoni and Lake Fork identified above do not include diversions under a contract referred to as the North Texas Municipal Water District (NTMWD) Interim Water Contract. The Interim Water Contract allows NTMWD to use water reserved for SRA wholesale customers (other than Dallas) but not currently needed. The NTMWD Interim Water Contract is subordinate to pre-existing SRA wholesale customers' contracts. The annual amount of interim water available to NTMWD under the NTMWD Interim Water Contract is determined prior to each calendar year based upon the estimated amount of water which is expected to be unused during the coming year by the existing wholesale customers who have contracted for long-term future supplies beyond their current actual required usage.

2.2 SRA Service Area Population, Historical and Projected Use

Although, twenty-one counties lie entirely or partially within the Basin, the population and area currently served by SRA's wholesale raw water supply cannot be defined because many entities in the Basin do not receive any water supply from SRA and many SRA-supplied entities receive water from multiple sources and, in turn, distribute water to multiple customers. Therefore, SRA relies upon the TWDB regional water planning Basin population projections for Basin population estimates.

Figure 1 Map of SRA's Service Area

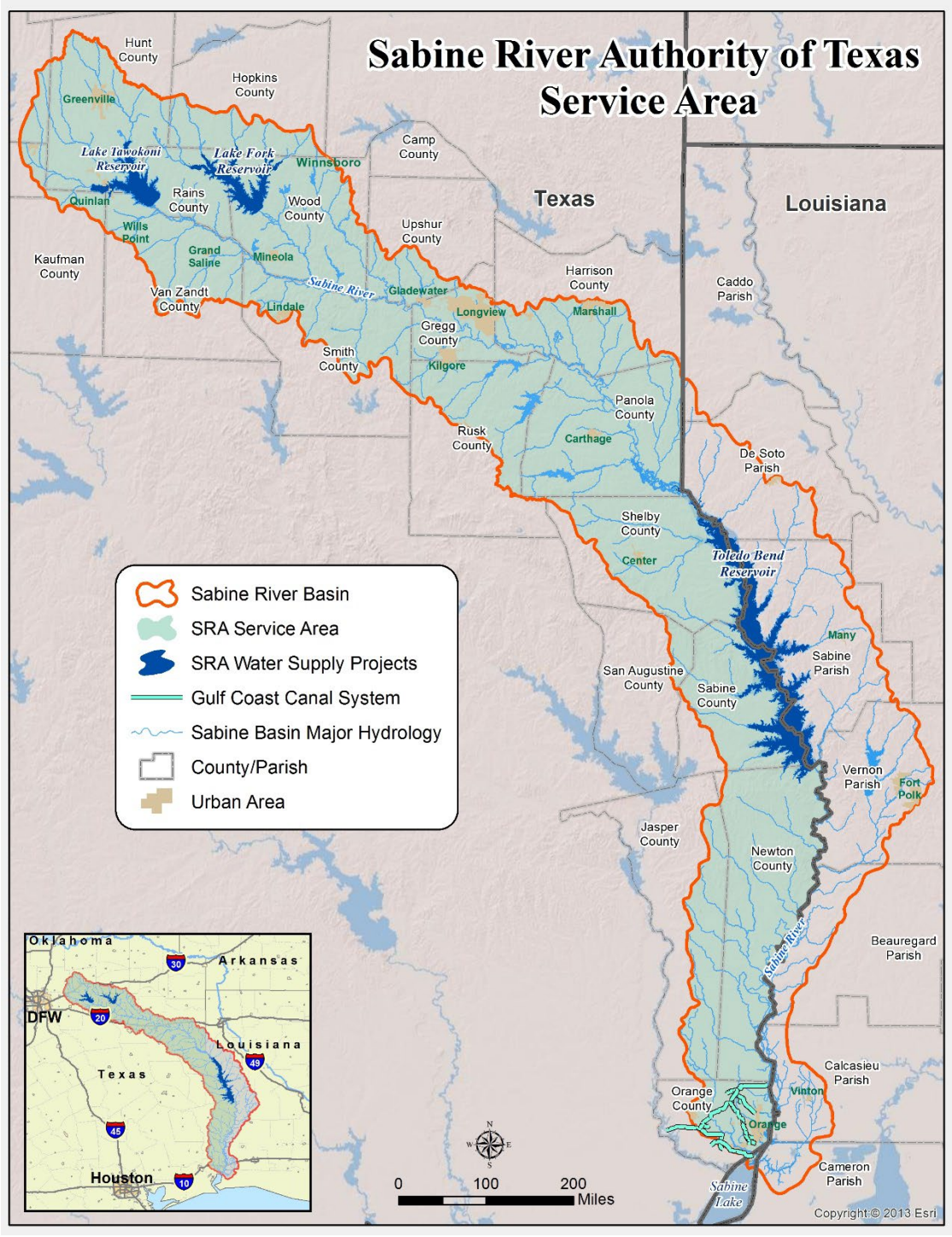

Table 1 shows the projected population for the Basin for each decade until 2070 (through the 50-year planning horizon of the 2021 Regional and 2022 State Water Plans).[2]

Table 1 Projected Population for Sabine River Basin 2020-2070

Decade	P2020	P2030	P2040	P2050	P2060	P2070
Population	619,509	694,878	777,413	890,880	1,030,382	1,193,809

Table 2 lists SRA's wholesale raw water customers (through 2023), the contracted amount of water for each, and the amount of water delivered in Calendar Year 2023. Note that since water availability varies significantly from the upper Basin (Lake Tawakoni/Lake Fork) to the lower Basin (Toledo Bend/Gulf Coast Division), each division is summarized separately and then totaled.

Table 2 Wholesale Customers, Contracted Amount, and Amount Delivered in Calendar 2023

Contractor Name	Contracted Amount (ac-ft)	Calendar 2023 Amount of Water Delivered (ac-ft)
Gulf Coast Division		
Chevron Phillips	1,841	1,302
City of Rose City	228	78
E.I. DuPont	24,643	10,739
Entergy	4,481	2,564
Lion Elastomers	1,473	719
Optimus Steel	1,120	787
Honeywell	1,120	805
International Paper	22,403	15,595
Arlanxeo	4,481	3,173
NRG Cottonwood Plant	13,442	5,919
Gulf Coast Division Totals	**75,232**	**41,681**
Toledo Bend Division		
City of Hemphill	476	482
City of Huxley	280	198
El Camino WSC	37	22
G-M WSC	560	465
Invista	31	14
Tenaska	17,922	3,364
XTO	7,500	0
Toledo Bend Division Totals	**26,806**	**4,545**
Lake Fork Division		
NTMWD (Ables Springs)**	1,120	1,120
Bright Star Salem SUD	840	150
Cash SUD**	4,125	113
City of Dallas	120,000	47,983
City of Edgewood**	840	333
City of Emory**	2,016	0
City of Henderson	5,041	1,564

[2] TWDB Complete Regional Population Projections in Texas By River Basins (http://www.twdb.texas.gov/waterplanning/data/projections/2022/popproj.asp, referenced 2/1/2024).

Contractor Name	Contracted Amount (ac-ft)	Calendar 2023 Amount of Water Delivered (ac-ft)
City of Kilgore	6,721	2,240
City of Longview	20,000	9,124
City of Point**	224	60
City of Quitman	1,120	270
Combined Consumers SUD**	2,240	855
Eastman Chemical	3,500	0
Mac Bee SUD**	2,240	885
South Tawakoni WSC**	1,680	541
Tawakoni Plant Farm Ltd**	184	75
Lake Fork Division Totals	**171,891**	**65,313**
Iron Bridge Division		
Cash SUD	1,679	1,679
City of Dallas	190,480	26,353
City of Emory	1,213	1,110
City of Greenville	21,283	8,318
City of Point	224	224
City of West Tawakoni	1,120	289
City of Wills Point	2,240	675
Commerce Water District	8,396	1,164
NTMWD (Terrell)	10,081	10,081
Iron Bridge Division Totals	**236,716**	**49,893**
Total All Divisions	**510,645**	**161,432**

***Indicates a Lake Fork Division contract but water is diverted from Lake Tawakoni under the joint use water right authorization.*

Table 3 Raw Water Provided Under Annual Wholesale Contracts for Previous Five Calendar Years (ac-ft)

Year	Treated Water	Raw Water
2019	NA	141,678
2020	NA	136,992
2021	NA	142,011
2022	NA	159,874
2023	NA	161,432

The total contracted amounts from Lake Tawakoni Division and Lake Fork Division identified above do not include the up to 40,000 ac-ft/yr of water contracted to NTMWD under the Interim Water Supply Contract as described in Section 2.1.

Table 4 lists the total amount of raw water diverted for the previous five calendar years for all uses, including hydroelectric.

Table 4 Total Amount of Water Diverted for All Water Uses for the Previous Five Calendar Years (ac-ft)

	2019	2020	2021	2022	2023
Jan	826,193	17,879	783,545	41,186	621,721
Feb	710,303	397,580	259,323	12,420	776,927
Mar	725,115	850,100	551,482	339,327	653,339
Apr	771,666	712,824	369,688	136,406	331,169
May	830,230	619,192	914,614	267,659	492,427
Jun	756,497	295,721	798,256	155,094	162,719
Jul	750,605	438,943	390,415	233,030	165,794
Aug	337,876	154,545	299,304	38,243	88,118
Sep	37,055	416,649	88,374	70,065	70,663
Oct	31,756	140,778	19,982	17,165	20,917
Nov	28,351	32,707	19,429	14,310	16,525
Dec	39,061	253,183	16,654	221,292	9,093
Totals In ac-ft	**5,844,708**	**4,330,328**	**4,511,066**	**1,546,197**	**3,409,412**

Table 5 illustrates the total amount of water diverted for municipal use for calendar years 2019 - 2023.

Table 5 Total Amount of Water Diverted for Municipal Use for the Previous Five Calendar Years (ac-ft)

Year	Annual Water Diverted for Municipal Use (ac-ft)
2019	90,873
2020	104,776
2021	108,774
2022	126,464
2023	136,820

Table 6 TCEQ Permit Limits for SRA Systems within the Sabine River Basin

System	SRA Water Right No.	Diversion Right (ac-ft/yr)
Toledo Bend	CA-4658	945,650
Gulf Coast Canal System	CA-4662	147,100
Lake Fork	CA-4669	188,660
Lake Tawakoni	CA-4670	238,100
Totals		**1,519,510**

SRA, as a river authority and a regional raw wholesale water supplier, depends on the TCEQ for data on the wastewater treatment systems in its Basin. Table 7 describes the wastewater treatment plants owned and operated by SRA.

Table 7 Wastewater Treatments Plants Owned and Operated by SRA (CN600801864)

TCEQ Name	TCEQ Number	Design Capacity, MGD	How treated wastewater disposed	Receiving Stream	Location	Description of area serviced
Lake Tawakoni State Park WWTP	RN103014023	0.030	Direct discharge into Lake Tawakoni (Segment 0507)	Lake Tawakoni	Approx. 3500 ft S-SE of Spring Point & approx. 4000 ft NW of Autumn Point near White Deer Ranch on the SW shore of Lake Tawakoni in Hunt County	Serves Tawakoni State Park and adjacent mobile home community
Wind Point Park	RN102076510	0.020	Direct ground application via sprinkler system	NA	Approx. 4.5 miles southwest of the intersection of US HWY 69 and FM 1571 on Park Road 55 in Hunt County	Serves a largely transient, seasonal recreation population
Lake Fork Country Club Estates WWTF	RN102183308	0.030	Direct discharge into 6-acre pond; then to Lake Fork (Segment 0512)	Lake Fork	Located 200 ft E of FM 2946 approx. 1.2 mi S of the intersection of FM 2946 and HWY 514 and approx. 7.5 mi ENE of the City of Emory in Rains County	Serves a residential golf course community

Tawakoni WWTP	RN103014973	0.040	Direct Discharge into Lake Tawakoni (Segment 0507)	Lake Tawakoni	Approx. 1,000 feet southwest of the intersection of Farm-To-Market Road 429 and Lake Tawakoni in Hunt County.	Serves 429 Marina, Sunset, Waters Edge Subdivisions.
Frontier Park WWTP	RN107118572	0.008	Direct discharge into Toledo Bend Reservoir	Toledo Bend Reservoir, Segment No. 504 of the Sabine River Basin	1.43 miles NE of intersection of FM 3121 and SH 21, NW of SH 21 between Canal Drive and Frontier Drive, Sabine County; 5461 SH 21E, Hemphill, TX 75948	Serves Lost Frontier Park Marina and Canal Drive residents.

Section 3 – Conservation Practices for a Regional Wholesale Supplier

SRA's conservation activities consist of those that improve its efficiency in producing and marketing raw water and those that encourage or support the conservation of supplies by its customers. SRA recognizes that it can promote conservation most effectively by protecting the resources it has developed through efficient system operation and watershed management planning. A discussion follows of the conservation practices applicable to SRA as a wholesale raw water supplier in compliance with Texas Administrative Code (TAC) Rule §288.5.

As described in more detail within the previous sections of this document, while SRA is the exclusive water right holder for both Lake Fork and Lake Tawakoni, large quantities of both reservoirs are contracted to DWU. DWU is a wholesale water provider with a large service area throughout the Dallas Metroplex served by multiple water sources. DWU, as required by TAC Rule §288, also maintains a comprehensive water conservation and drought contingency plan for its system and SRA's Water Conservation and Drought Contingency Plan (WCDCP) is not intended to extend to DWU's service area.

3.1 Targets for Water Savings

3.1.1 Target Goals for Municipal Use in Gallons Per Capita Per Day

Per-capita water use, measured by gallons per person per day (gpcd), varies according to climate, geography, and an individual water utility's population and service profile.[3] This is especially true in the Sabine Basin due to its large size and variable geographic and hydrologic conditions.

In a special report to the 79th Legislature, the TWDB recommends that a Municipal Water Conservation Plan consider establishing targets and goals for a minimum reduction of one percent in total gpcd, based upon a five-year rolling average, until such time as the entity achieves a total gpcd of 140 or less.[4] SRA encourages its municipal water customers to establish this goal within their Water Conservation Plans, and will assist them in reducing their gpcd in any way that is practical, reasonable, and cost-effective.

3.1.2 Target Goals for Maximum Acceptable Unaccounted-for Water

Unaccounted-for water (UFW) is the difference between the amount of water delivered to a customer (by SRA or other supplies) and the amount of water accounted for through individual retail customer metering. As a general rule of thumb, a well-managed water distribution system typically experiences 10-15 percent UFW, and the American Water Works Association (AWWA) Leak Detection and Accountability Committee recommended 10 percent as a benchmark for UFW[5].

SRA encourages its municipal water customers to reduce the maximum ratio of UFW to total water supplied by 10 percent. Each customer is encouraged to take measures to control UFW as part of their routine

[3] Several of SRA's municipal customers have other sources of water, including ground water, run-of-river water rights, and other sources of surface water.
[4] Texas Water Development Board Special Report: Water Conservation Implementation Task Force Report to the 79th Legislature, November 2004, https://www.twdb.texas.gov/conservation/resources/doc/WCITF_Leg_Report.pdf, referenced 2/1/2024 (pg. 5).
[5] "Committee Report: Water Accountability", AWWA Leak Detection and Water Accountability Committee, Journal AWWA, July 1996.

operations; and if the UFW exceeds the 10 percent goal, the customer is encouraged to implement a water audit that identifies and then develops a plan to reduce the source(s) of UFW.

3.2 Practices and Devices to Measure Water Diverted

Flow meters are used to measure and account for all water diverted from SRA's water supply system and all water sales will continue to be metered to accurately record the amount of water used. SRA installs, operates, and maintains measuring equipment at the point of release from the water supply, or requires the customer to install and maintain this equipment. All new and renewed raw water supply contracts require the buyer to furnish and maintain water meters that must measure in accordance with AWWA Standards with an accuracy tolerance not to exceed two percent. Meters are calibrated by their owner with the other party having the right to be present during the calibration.

3.3 Monitoring and Record Management Program

Diversion tracking meters on the canal system are read by SRA personnel and recorded in a journal at the Gulf Coast Division office. Water supply customers taking water from the reservoirs or run of the river read their meters and report the amount of water taken to the appropriate operations division and these totals are subsequently reported to SRA's Operations Branch office. Annually, monthly diversion totals for each SRA water right are reported to the TCEQ. Copies of these reports and supporting data are on file at the Authority General Office in Orange, Texas.

3.4 Leak Detection and Repair

Raw water conveyance systems owned and operated by SRA include the John W. Simmons Gulf Coast Canal System and Earl Williams Pump Station. SRA experience variable water loss from the canal system depending, to a great extent, on weather conditions. SRA has an ongoing program for rapid leak detection and repair. Key components of this program include:

- Regular inspections and maintenance of the canal system and pump station by SRA.
- An annual inspection of the entire canal system and the pump station by an outside engineering firm to identify inefficiencies and maintenance requirements.
- Regular maintenance activities and improvements to the pump station and canal systems are identified to ensure that the system is operating as efficiently as possible.

3.5 Reservoir Systems Operations Plans

The Lake Tawakoni and Lake Fork water rights have a joint use operation authorization that allows SRA to contract water from one reservoir with the water being diverted from the other reservoir provided all appropriate permit conditions are met. This joint use authorization allows entities with intakes on Lake Fork to contract for Lake Fork water and divert water it from Lake Tawakoni, and vice versa.

In *Section 4.7 Criteria and Actions Required for Drought Response Stages for Lake Tawakoni and Lake Fork Divisions*, Lake Tawakoni and Lake Fork Reservoirs are considered a combined system for the SRA Drought Contingency Plan. Therefore, the drought triggers will take effect when SRA's allocation of combined storage in both reservoirs falls below the stated trigger criteria. The SRA portion of the reservoir storage for Lake Fork and Lake Tawakoni will be computed using an operational drought accounting model. This drought accounting model records monthly inflows, releases, net rainfall/evaporation, and reported diversions.

3.6 Conservation and Drought Contingency Stipulations of Water Sales Contracts

In accordance with TAC Title 30, Chapter TAC Title 30, Rule 288.5 (1)(F), SRA water supply contracts require each wholesale customer to develop and implement a water conservation plan or water conservation measures using the applicable elements of Chapter 288. If SRA allows the customer to resell water, then the SRA contract states that the contract for the resale of the water must have water conservation requirements so that each successive customer in the resale of the water will be required to implement water conservation measures in accordance with applicable provisions of Chapter 288. SRA customers must also adopt SRA's WCDCP as well as develop and implement its own TCEQ-approved water conservation and drought contingency plan if required by TCEQ.

3.7 Implementation and Enforcement of Plan

SRA's operations divisions, through the routine operation and maintenance of reservoirs and the canal system, implement conservation measures directed at improving SRA's water conservation and efficiency.

The terms and conditions of new and renewed water contracts specify the required conservation measures for each customer and implement SRA's conservation and drought contingency program as it relates to water sales. Current new and renewed contracts stipulate that all customers 1) must comply with all TCEQ, TWDB, or any other federal, state, or local rules and regulations pertaining to the beneficial use and conservation of water including the development and implementation of conservation plans, 2) must install and maintain measuring equipment meeting AWWA or other current industry standards to accurately measure the amount of water diverted, and 3) must calibrate all measuring equipment at least every two years and provide a report of the calibration to SRA.

The SRA Board of Directors will adopt this WCDCP as indicated by SRA Board Resolution Adopting Conservation and Drought Contingency Plans in Appendix A.

3.8 Coordination with the Regional Water Planning Groups (RWPG)

SRA facilitates regional water conservation and drought contingency planning through its participation in RWPG activities for its service area, mainly Regions D and I but also a small part of Region C. SRA will provide a copy of this WCDCP to the chairman of each of these Regions. SRA serves as a river authority representative for Region D and Region I. As such, SRA is actively involved in regional planning activities in the Basin and adequate coordination between the RWPG planning efforts and those of SRA is assured.

3.9 Review and Update Schedule

SRA will continue to review and update this WCDCP every five years hereafter to coincide with the RWPG planning cycle.

3.10 Additional Water Conservation Strategies

3.10.1 Education and Information Program

SRA offers a coordinated water conservation public education and information program in cooperation with its customers. Key components of SRA's education and information program include:

- SRA welcomes visitors to Division offices and conducts tours of the reservoir facilities to educate the public about the importance of conserving water and protecting water resources from pollution.

- SRA provides knowledgeable staff speakers for civic meetings and classroom invitations to discuss water issues, including water conservation.

- SRA participates in the *Major Rivers* conservation education program for fourth grade students.[6] *Major Rivers* was developed to help educate Texas students about water and the importance of using it wisely. SRA distributes the educational materials at no charge to elementary schools throughout the Basin.

- SRA maintains a website[7] to provide the public with current information on water resource management activities, conservation opportunities, and data on water supply and quality conditions. A copy of this WCDCP is available for download from the website as well.[8]

- SRA provides an overview of its WCDCP at its annual Sabine Basin Steering Committee meetings which are usually conducted in April as part of the Texas Clean Rivers Program.

- SRA includes water conservation information and materials at public events at which it participates, such as boat shows, eco-fairs, and other community events.

3.10.2 Technical Assistance in Development of Conservation Plans

SRA provides a copy of this WCDCP via its website and offers technical assistance toward the development of conservation plans to each SRA water supply customer.

3.10.3 Best Management Practices (BMPs)

The TWDB has BMP guides for most water user types on its website. SRA provides a link to this TWDB website this on its own website[9] and encourages its water customers to implement water conservation BMPs that are applicable, proven, and cost-effective.

3.10.4 Community Assistance Program

SRA's Community Assistance Program[10]2023 provides competitive grants of up to $20,000 that can complement or leverage water project funds for entities within the Basin. Funds provided for the grant program must fall within four project categories, one of which is water conservation.

[6] http://www.twdb.texas.gov/conservation/education/kids/MajorRivers/, referenced 2/1/2024.
[7] http://www.sratx.org, referenced 2/1/2024.
[8] https://www.sratx.org/wp-content/uploads/SRA-WCDCP_FINAL_20190711.pdf, referenced 2/1/2024.
[9] Water Conservation in the Sabine River Basin, http://www.sratx.org/basin/water_conservation/default.asp, referenced 2/1/2024.
[10] http://www.sratx.org/services/ecodev/cap/default.asp, referenced 2/1/2024

Section 4 – Drought Contingency Plan

4.1 Declaration of Policy, Purpose, and Intent

To conserve the available water supply and/or to protect the integrity of water supply facilities, with regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortages and other water supply emergency conditions, SRA adopts the following Drought Contingency Plan (DCP).

4.2 Public Involvement

SRA provided its wholesale raw water customers and the public the opportunity to comment on and provide input to the development of this DCP by:

- Posting a draft version of this DCP on the SRA website and accepting comments on the draft DCP.
- Notifying all SRA water customers of the proposed DCP and its location on the SRA website (see Appendix B – DCP Public Involvement Notifications).
- Providing those customers or the public who did not have access to SRA website a copy of the draft DCP at their request.
- Providing notice to the public on the draft DCP and the public meeting on the draft DCP (see Appendix B – DCP Public Involvement Notifications).

SRA provided the opportunity for the public and its wholesale water customers to suggest input into this revision of the DCP at the April 2024 Sabine Basin Steering Committee meetings, part of the Texas Clean Rivers Program. The Sabine Basin Steering Committee is comprised of members from entities and interested parties throughout the Basin. In addition, the current version of SRA's Water Conservation and Drought Contingency Plan (WCDCP) (of which this DCP is a part) is available to the public on SRA's Water Conservation Webpage.[11]

4.3 Wholesale Raw Water Customer Education

Wholesale raw water customer education was provided through the public involvement meetings described in the previous section and through SRA's Water Conservation Webpage. In addition, *Section 3.10.1* of SRA's WCDCP (of which this DCP is a part) outlines the overall education program of SRA.

4.4 Coordination with Regional Water Planning Groups (RWPG)

SRA's service area is located within portions of the Senate Bill 1 East Texas Regional Water Planning Area (Region I), the North East Texas Regional Water Planning Area (Region D), and Region C. SRA will provide a copy of the final adopted DCP to these RWPGs.

[11]https://www.sratx.org/wp-content/uploads/SRA-WCDCP_FINAL_20190711.pdf, referenced 2/1/2024.

4.5 Authorization

SRA's Executive Vice President and General Manager (General Manager), as approved by the SRA Board of Directors, is authorized to implement the applicable provisions of this DCP upon determination that implementation is necessary to protect public health, safety, and welfare. The General Manager has the authority to initiate or terminate drought or other water supply emergency response measures as described in this DCP.

4.6 Application

The provisions of the DCP apply to all wholesale customers using water provided by SRA with the limited exception of those customers served under contracts with DWU, as further explained below. As a term of a new contract or contract renewal, SRA requires its customers to adopt this DCP and to create specific water conservation and drought contingency plans for their respective retail systems. Additionally, the contracts require that the locally developed plans must be at least as stringent as the adopted SRA DCP.

SRA contracts with DWU are excepted from these provisions. The DWU system serves both retail and wholesale customers and is covered by a separate and independent DCP developed by DWU for its entire system. Because of the size and complexity of the DWU system and as a result of the availability of multiple sources of water supply for this system, it is more appropriate that DWU operate under a separate DCP for its entire system. The following criteria and actions required for drought response stages as outlined below are therefore only applicable to SRA customers other than DWU.

4.7 Criteria and Actions Required for Drought Response Stages for Iron Bridge and Lake Fork Divisions

The General Manager will monitor water supply conditions monthly, and when conditions warrant, initiate or terminate each stage of the DCP by implementing the following described actions. Customer notification of the initiation or termination of drought response stages will be made by mail, telephone, email, and/or SRA's website. The news media will also be informed.

Lake Tawakoni and Lake Fork Reservoirs are considered a combined system for the SRA DCP. Therefore, the drought triggers will take effect when SRA's allocation of combined storage[12] in both reservoirs falls below the trigger criteria identified below. The SRA portion of the reservoir storage for Lake Fork and Lake Tawakoni will be computed using an operational drought accounting model. This drought accounting model records monthly inflows, releases, net rainfall/evaporation, and reported diversions.

As outlined in more detail in the report sections below for the Lake Tawakoni and Lake Fork Divisions, Table 8 summarizes the drought triggers for successively more severe drought stages and corresponding reduction targets for diversions under these drought response stages.

[12] Lake Tawakoni storage volume is based on TWDB's Volumetric and Sedimentation Survey of LAKE TAWAKONI, June - August 2009 Survey (http://www.twdb.texas.gov/hydro_survey/tawakoni/2009-08/Tawakoni2009_FinalReport.pdf, referenced 2/1/2019). Lake Fork storage volume is based on TWDB's Volumetric and Sedimentation Survey of LAKE FORK RESERVOIR, October 2009 Survey (http://www.twdb.texas.gov/hydro_survey/fork/2009-10/Fork2009_FinalReport.pdf, referenced 2/1/2024).

Table 8 Summary of Drought Triggers and Diversion Reduction Goals for Lake Tawakoni and Lake Fork Divisions

Drought Stage	Drought Trigger: Percent of Combined Reservoir Storage Allocation for SRA*	Drought Trigger: Combined Reservoir Storage Allocation for SRA (ac-ft)	Drought Response: Diversion Reduction Target**
1- Mild	65%	527,048	4,000 ac-ft/yr (~4%)
2- Moderate	55%	445,963	6,000 ac-ft/yr (~6%)
3- Severe	45%	364,879	8,000 ac-ft/yr (~8%)
4- Critical	30%	243,253	10,000 ac-ft/yr (~10%)
5- Emergency***	Time in Stage 4 > 6 mo	N/A	General Mgr. Decision

** The drought stages take effect when the SRA allocation of combined storage in Lake Tawakoni and Lake Fork falls to and remains at or below the trigger level for two consecutive months.*
*** Reduction target percentages are based on the total SRA permanent contracted amount (less DWU contracts) of 98,129 ac-ft/yr for Lake Tawakoni and Lake Fork.*
*******Stage 5 is not triggered on the combined reservoir storage remaining, but on the length of time the storage is below 30%****. This is an extreme condition during which the General Manager will determine the drought response based on reservoir conditions and need.*

Based on the 2009 TWDB volumetric survey of Lake Tawakoni, its storage volume at the conservation pool elevation of 437.5 ft is 871,693 ac-ft. SRA's contractual allocation of Lake Tawakoni storage is 174,339 ac-ft (20%). Based on the 2009 TWDB volumetric survey of Lake Fork, its storage volume at the conservation pool elevation of 403.0 ft is 636,504 ac-ft. Therefore, SRA's allocation of the combined storage in Lake Fork and Lake Tawakoni totals to 810,843 ac-ft.

4.7.1 Stage 1 – Mild Water Shortage Conditions

4.7.1.1 Requirement for initiation

SRA will recognize that *mild water shortage conditions* exist in the service areas of the Lake Fork and Lake Tawakoni Divisions when:

- SRA's allocation of the combined storage in Lake Tawakoni and Lake Fork falls to and remains at or below 65% of the full storage allocation for two consecutive months (65% of SRA's allocation of combined Lake Fork and Lake Tawakoni storage is 527,048 ac-ft).

4.7.1.2 Requirements for termination

Termination of the mild water shortage condition and corresponding measures will take place when conditions that initiated the mild water shortage condition no longer exist. Conditions are no longer considered to exist when SRA's allocation of the combined storage in Lake Tawakoni and Lake Fork remains above the drought trigger for two consecutive months. SRA will inform its customers and the news media of the termination of mild water shortage conditions in the same manner as in its initiation.

4.7.1.3 Goal

Achieve a 4,000 ac-ft/yr reduction of total annual diversions, or an average monthly amount of 333 ac-ft. Based on SRA's permanent contract amount of 98,129 ac-ft/yr, this amounts to an approximately 4% reduction goal.

4.7.1.4 Measures

1) When mild water shortage conditions exist, the allowable contract diversion amount will be reduced until the required diversion goal is achieved by first reducing from temporary and short-term contract/s and, if these contract/s are not sufficient to achieve the reduction goal, by then applying proportionate reductions on the contract amounts of long-term water contract holders.

2) During drought conditions, the General Manager may limit SRA customer diversions to each customer's maximum usage over the last five calendar years. The General Manager may waive the limit on a case by case basis for identified, specific purposes.

3) SRA will inform its customers of the drought condition by mail, telephone, email, or SRA's website.

4) Customers will be asked to activate an appropriate system for answering inquiries from the citizens. Each customer entity in turn will follow its individual measures for the water shortage condition. At the same time, representatives of SRA and its customers will initiate discussion of the drought condition and its impact on the water supply situation with the news media.

5) SRA will notify the TCEQ Executive Director within five business days of implementing any mandatory provisions of the DCP.

4.7.2 Stage 2 – Moderate Water Shortage Conditions

4.7.2.1 Requirement for initiation

SRA will recognize that *moderate water shortage conditions* exist in the service areas of the Lake Fork and Lake Tawakoni Divisions when:

- SRA's allocation of the combined storage in Lake Tawakoni and Lake Fork falls to and remains at or below 55% of the full storage allocation for two consecutive months (55% of SRA's allocation of combined Lake Fork and Lake Tawakoni storage is 445,963 ac-ft).

4.7.2.2 Requirements for termination

Termination of the moderate water shortage condition and corresponding measures will take place when conditions that initiated the moderate water shortage condition no longer exist. Conditions are no longer considered to exist when SRA's allocation of the combined storage in Lake Tawakoni and Lake Fork remains above the drought trigger for two consecutive months. SRA will inform its customers and the news media of the termination of moderate water shortage conditions in the same manner as in its initiation.

4.7.2.3 Goal

Achieve a 6,000 ac-ft/yr reduction of total annual diversions, or an average monthly amount of 500 ac-ft. Based on SRA's permanent contract amount of 98,129 ac-ft/yr, this amounts to an approximately 6% reduction goal.

4.7.2.4 Measures

1) When moderate water shortage conditions exist, the allowable contract diversion amount will be reduced until the required diversion goal is achieved by first reducing from temporary and short-term contract/s and, if these contract/s are not sufficient to achieve the reduction

goal, by then applying proportionate reductions on the contract amounts of long-term water contract holders.

2) During drought conditions, the General Manager may limit SRA customer diversions to each customer's maximum usage over the last five calendar years. The General Manager may waive the limit on a case by case basis for identified, specific purposes.

3) SRA will inform its customers by mail, telephone, email, or SRA's website that the drought has reached the moderate trigger level.

4) SRA will notify the TCEQ Executive Director within five business days of implementing any mandatory provisions of the DCP.

4.7.3 Stage 3 – Severe Water Shortage Conditions

4.7.3.1 Requirements for initiation

SRA will recognize that *severe water shortage conditions* exist in the service areas of the Lake Fork and Lake Tawakoni Divisions when:

- SRA's allocation of the combined storage in Lake Tawakoni and Lake Fork falls to and remains at or below 45% of the full storage allocation for two consecutive months (45% of SRA's allocation of the combined Lake Fork and Lake Tawakoni storage is 364,879 ac-ft).

4.7.3.2 Requirements for termination

Termination of the severe water shortage condition and corresponding measures will take place when conditions that initiated the severe water shortage condition no longer exist. Conditions are no longer considered to exist when SRA's allocation of the combined storage in Lake Tawakoni and Lake Fork remains above the drought trigger for two consecutive months. SRA will inform its customers and the news media of the termination of severe water shortage conditions in the same manner as in its initiation.

4.7.3.3 Goal

Achieve an 8,000 ac-ft/yr reduction of total annual diversions, or an average monthly amount of 667 ac-ft. Based on SRA's permanent contract amount of 98,129 ac-ft/yr, this amounts to an approximately 8% reduction goal.

4.7.3.4 Measures

1) When severe water shortage conditions exist, the allowable contract diversion amount will be reduced until the required diversion goal is achieved by first reducing from temporary and short-term contract/s and, if these contract/s are not enough to achieve the reduction goal, by then applying proportionate reductions on the contract amounts of permanent long-term water contract holders.

2) During drought conditions, the General Manager may limit SRA customer diversions to each customer's maximum usage over the last five calendar years. The General Manager may waive the limit on a case by case basis for identified, specific purposes.

3) When severe water shortage conditions exist, SRA will inform its customers by mail, telephone, email, or SRA's website about the serious water supply situation. The news media also will be informed. Situation reports will be issued to SRA's customers and the news media weekly. SRA may call emergency meetings with its customers to discuss

major operational changes if it finds such action necessary during the progress of a severe drought.

4) SRA will notify the TCEQ Executive Director within five business days of implementing any mandatory provisions of the DCP.

4.7.4 Stage 4 - Critical Water Shortage Conditions

4.7.4.1 Requirements for initiation

SRA will recognize that *critical water shortage conditions* exist in the appropriate part(s) of its system when:

- SRA's allocation of the combined storage in Lake Tawakoni and Lake Fork falls to and remains at or below 30% of the full storage allocation for two consecutive months (30% of SRA's allocation of the combined Lake Fork and Lake Tawakoni storage is 243,253 ac-ft).

4.7.4.2 Requirements for termination

Termination of the critical water shortage condition and corresponding measures will take place when conditions that initiated the critical water shortage condition no longer exist. Conditions are no longer considered to exist when SRA's allocation of the combined storage in Lake Tawakoni and Lake Fork remains above the drought trigger for two consecutive months. SRA will inform its customers and the news media of the termination of critical water shortage conditions in the same manner as in its initiation.

4.7.4.3 Goal

Achieve a 10,000 ac-ft/yr reduction of total annual diversions, or an average monthly amount of 833 ac-ft. Based on SRA's permanent contract amount of 98,129 ac-ft/yr, this amounts to an approximately 10% reduction goal.

4.7.4.4 Measures

1) When critical water shortage conditions exist, the allowable contract diversion amount will be reduced until the required diversion goal is achieved by first reducing from temporary and short-term contract/s and, if these contract/s are not enough to achieve the reduction goal, by then applying proportionate reductions on the contract amounts of long-term water contract holders.

2) During drought conditions, the General Manager may limit SRA customer diversions to each customer's maximum usage over the last five calendar years. The General Manager may waive the limit on a case by case basis for identified, specific purposes.

3) SRA will request its municipal customers to prohibit all outdoor water use (except for livestock watering) and to activate applicable drought measures to minimize indoor uses until the drought condition changes to a Stage 3 (Severe) condition or better.

4) When critical water shortage conditions exist, SRA will inform its customers by mail, telephone, email, or SRA's website about the critical water shortage situation. The news media also will be informed. Situation reports will be issued to SRA's customers and the news media weekly. SRA may call emergency meetings with its customers to discuss major operational changes if it finds such action necessary during the progress of a severe drought.

5) SRA will notify the TCEQ Executive Director within five business days of implementing any mandatory provisions of the DCP.

4.7.5 Stage 5 – Emergency Water Shortage Conditions (related to drought)

4.7.5.1 Requirements for initiation

SRA will recognize that *emergency water shortage conditions (related to drought)* exist in the appropriate part(s) of its system when:

- SRA's allocation of the combined storage in Lake Tawakoni and Lake Fork falls to and remains at or below 30% of the full storage allocation for **six consecutive months** (30% of SRA's allocation of the combined Lake Fork and Lake Tawakoni storage is 243,253 ac-ft).

4.7.5.2 Requirements for termination

Termination of the emergency water shortage condition (related to drought) and corresponding measures will take place when conditions that initiated the critical water shortage condition (Stage 4) no longer exist. Conditions are no longer considered to exist when SRA's allocation of the combined storage in Lake Tawakoni and Lake Fork remains above the Stage 4 drought trigger for two consecutive months. SRA will inform its customers and the news media of the termination of emergency water shortage conditions (related to drought) in the same manner as in its initiation.

4.7.5.3 Goal

Reduce delivery as appropriate to alleviate the emergency condition.

4.7.5.4 Measures

1) When emergency water shortage conditions (related to drought) exist, the General Manager, monthly, will determine the allowable monthly diversion for each customer based on need and the condition of the reservoirs. The allowable contract diversion amount will be reduced as necessary to address the emergency condition by first reducing from temporary or short-term contract/s and, if these contract/s are not enough to address the emergency, by then applying proportionate reductions on the contract amounts of long-term water contract holders.

2) SRA may reduce water delivery to its customers as the situation dictates. This is further discussed in **WATER ALLOCATION** (Section 4.9).

3) When emergency water shortage conditions (related to drought) exist, SRA will inform its customers by mail, telephone, email, or SRA's website about the emergency water supply situation. The news media also will be informed. Situation reports will be issued to SRA's customers and the news media as frequently as the emergency condition dictates. SRA may call emergency meetings with its customers to discuss major operational changes if it finds such action necessary during the progress of a severe drought.

4) SRA will prohibit all non-essential outdoor water use and activate applicable drought measures to minimize indoor uses until the drought condition changes to a Stage 3 (Severe) condition or better.

5) SRA will notify the TCEQ Executive Director within five business days of implementing any mandatory provisions of the DCP.

4.7.6 Emergency Water Shortage Conditions (not related to drought)

4.7.6.1 Requirements for initiation

SRA will recognize that *emergency water shortage conditions (not related to drought)* exist in the appropriate part(s) of its system when:

- There is a major contamination or a required drawdown of Lake Tawakoni or Lake Fork Reservoir for emergency repairs of major infrastructure, or
- there is a failure or breakdown of a major component of the pumps or delivery system that significantly impacts the supply of water to SRA's customers.

4.7.6.2 Requirements for termination

Termination of the emergency water shortage condition (not related to drought) and corresponding measures will take place when conditions that initiated the emergency water shortage condition no longer exist and the system delivery capacity is returned to normal. SRA will inform its customers and the media of the termination of the emergency water shortage conditions in the same manner as in its initiation.

4.7.6.3 Goal

Reduce delivery as appropriate to address the emergency condition.

4.7.6.4 Measures

1) When emergency water shortage conditions exist, SRA will inform its customers by mail, telephone, email, or SRA's website about the emergency water supply situation. The news media also will be informed. Situation reports will be issued to SRA's customers and the news media as frequently as the emergency condition dictates. SRA may call emergency meetings with its customers to discuss major operational changes if it finds such action necessary during the progress of a severe drought.

2) SRA may request its customers to prohibit all non-essential water use including outdoor water use (except for livestock watering) and to activate applicable water shortage measures to minimize indoor uses until the emergency water shortage condition is resolved.

3) SRA may reduce water delivery to its customers as the situation dictates. This is further discussed in **WATER ALLOCATION** (Section 4.9).

4) SRA will notify the TCEQ Executive Director within five business days of implementing any mandatory provisions of the DCP.

4.8 Criteria and Actions Required for Drought Response Stages for Toledo Bend and Gulf Coast Divisions

The General Manager will monitor water supply conditions monthly and when conditions warrant, initiate or terminate each stage of the DCP and will implement the following described actions. Customer notification of the initiation or termination of drought response stages will be made by mail, telephone, email, and/or SRA's website. The news media will also be informed.

As outlined in more detail in the report sections below for the Toledo Bend Division, Table 9 summarizes the drought triggers for successively more severe drought stages and corresponding water use reduction targets under these drought response stages.

Table 9 Summary of Drought Triggers and Diversion Reduction Goals for the Toledo Bend Division[13]

Drought Stage	Drought Trigger: Water Surface Elevation (ft)*	Drought Response: Water Use Reduction Target
1- Mild	165.1	Voluntary
2- Moderate	162.2	10%
3- Severe	156	20%

** The drought stages take effect when the water surface elevation in Toledo Bend falls to and remains at or below the trigger levels for fourteen consecutive days.*

4.8.1 Stage 1 – Mild Water Shortage Conditions

4.8.1.1 Requirement for initiation

SRA will recognize that *mild water shortage conditions* exist in the appropriate part(s) of its system when:

- The water surface elevation in Toledo Bend falls to and remains at or below 165.1 feet for fourteen consecutive days, or
- The flow measured by the U.S. Geological Survey (USGS) gage on the Sabine River near Ruliff, Texas,[14] falls to and remains at or below the mild conditions flow in Table 10 for fourteen consecutive days. The trigger flow at the Ruliff gage depends on the amount of water SRA is contracted to deliver.

4.8.1.2 Requirements for termination

Termination of the mild water shortage condition and corresponding measures will take place when conditions that initiated the mild water shortage condition no longer exist. Conditions are no longer considered to exist when the Toledo Bend elevation remains above the drought trigger for fourteen consecutive days or the USGS gage near Ruliff remains above the mild conditions flow in Table 10 for fourteen consecutive days. SRA will inform its customers and the news media of the termination of the mild water shortage conditions in the same manner as in its initiation.

4.8.1.3 Goal

Inform SRA's customers and the public of the situation and encourage voluntary water use reductions.

4.8.1.4 Measures

1) When mild water shortage conditions exist, SRA will inform its customers of the drought condition by mail, telephone, email, or SRA's website. SRA will continue to advise its

[13] Toledo Bend Reservoir is a federally licensed hydropower project (Federal Energy Regulatory Commission (FERC) Project # 2305). The Drought Contingency Plan required under the FERC license was approved by FERC on September 7, 2017 (Order Modifying and Approving Drought Contingency Plan, 160 FERC ¶ 62,216).

[14] USGS 08030500 Sabine Rv nr Ruliff, TX, https://waterdata.usgs.gov/tx/nwis/dv?referred_module=sw&site_no=08030500, referenced 2/1/2024.

customers of the Toledo Bend Reservoir elevation and river level at the USGS gage near Ruliff every business day on the SRA website.[15]

2) Customers will be asked to activate an appropriate system for answering inquiries from the citizens. Each customer entity in turn will follow its individual measures for mild water shortage conditions. At the same time, representatives of SRA and its customers will initiate discussion of the drought condition and its impact on the water supply situation with the news media.

4.8.2 Stage 2 – Moderate Water Shortage Conditions

4.8.2.1 Requirement for initiation

SRA will recognize that *moderate water shortage conditions* exist in the appropriate part(s) of its system when:

- The water surface elevation in Toledo Bend falls to and remains at or below 162.2 feet for fourteen consecutive days, or
- the flow measured by the USGS gage on the Sabine River near Ruliff, Texas, falls to and remains at or below the moderate conditions flow in Table 10 for fourteen consecutive days. The trigger flow at the Ruliff gage depends on the amount of water SRA is contracted to deliver.

4.8.2.2 Requirements for termination

Termination of the moderate water shortage condition and corresponding measures will take place when conditions that initiated the moderate water shortage condition no longer exist. Conditions are considered to no longer exist when the water surface elevation of Toledo Bend remains above the drought trigger for fourteen consecutive days or the flow measured by the USGS gage near Ruliff remains above the moderate conditions flow in Table 10 for fourteen consecutive days. SRA will inform its customers and the media of the termination of the moderate water shortage conditions in the same manner as in its initiation.

4.8.2.3 Goal

Achieve a 10 percent reduction in total water use through implementing reductions in non-essential outdoor water use.

4.8.2.4 Measures

1) When moderate water shortage conditions exist, SRA will inform its customers by mail, telephone, email, or SRA's website that the drought has reached the moderate trigger level. This information will be given at weekly intervals as long as the moderate drought condition continues. SRA will continue to advise its customers of the Toledo Bend Reservoir elevation and river level at the USGS gage near Ruliff every business day on the SRA website.

2) During the moderate water shortage conditions, SRA may curtail water delivered to its customers, if necessary. The General Manager shall establish the methodology for determining curtailment of the water delivery. See **WATER ALLOCATION** (Section 4.9).

[15] http://www.sratx.org/basin-conditions/, referenced 2/1/2019.

3) Using the news media or direct contact, SRA may request its customers to prohibit non-essential outdoor uses such as lawn irrigation, vehicle washing, filling of swimming pools, or routine maintenance of facilities.

4) SRA will notify the TCEQ Executive Director within five business days of implementing any mandatory provisions of the DCP.

4.8.3 Stage 3 – Severe Water Shortage Conditions

4.8.3.1 Requirements for initiation

SRA will recognize that *severe water shortage conditions* exist in the appropriate part(s) of its system when:

- The water surface elevation in Toledo Bend falls to and remains at or below 156 feet for fourteen consecutive days, or
- the flow measured by the USGS gage on the Sabine River near Ruliff, Texas, falls to the severe conditions flow in Table 10 for fourteen consecutive days. The trigger flow at the Ruliff gage depends on the amount of water SRA is contracted to deliver.

4.8.3.2 Requirements for termination

Termination of the severe water shortage condition and corresponding measures will take place when conditions that initiated the severe water shortage condition no longer exist. Conditions are no longer considered to exist when the Toledo Bend elevation remains above the drought trigger for fourteen consecutive days or the USGS gage near Ruliff remains above the severe conditions flow in Table 10 for fourteen consecutive days. SRA will inform its customers and the news media of the termination of the severe water shortage conditions in the same manner as in its initiation.

Table 10 Gulf Coast Division Drought Trigger Conditions

Contracted Diversion	Contracted Diversion	Minimum Ruliff Flows for Diversion	Trigger Flow at Ruliff Gage		
			Mild Conditions	Moderate Conditions	Severe Conditions
(ac-ft/yr)	(cfs)	(cfs)	(cfs)		
50,000	69	173	260	216	173
60,000	83	208	312	260	208
70,000	97	243	365	304	243
80,000	111	278	417	348	278
90,000	124	310	465	388	310
100,000	138	345	518	431	345
110,000	152	380	570	475	380
120,000	166	415	623	519	415
130,000	180	450	675	563	450
140,000	193	483	725	604	483
147,100	203	508	762	635	508

NOTE The minimum flow required at Ruliff to allow the contracted diversion was calculated by multiplying the contracted diversion (in cfs) by 2.5. The following assumptions were used in determining the multiplication factor:

i) Only half the flow downstream of the gage flows on the Texas side.

ii) At least 20% of the flow on the Texas side flows past the John W. Simmons canal intake structure.
iii) The mild drought trigger flow is 1.5 times the minimum; the moderate drought trigger flow is 1.25 times the minimum; the severe drought trigger flow is the minimum flow required to allow the contracted diversion.

4.8.3.3 Goal

Achieve a 20 percent reduction in total water use.

4.8.3.4 Measures

1) When severe water shortage conditions exist, SRA will inform its customers by mail, telephone, email, or SRA's website about the serious water supply situation. The news media also will be informed. Situation reports will be issued to SRA's customers and the news media weekly. SRA may call emergency meetings with its customers to discuss major operational changes if it finds such action necessary during the progress of a severe drought. . RA will continue to advise its customers of the Toledo Bend Reservoir elevation and river level at the USGS gage near Ruliff every business day on the SRA website.

2) SRA may request its customers prohibit all outdoor water use (except for livestock watering) and to activate applicable drought measures to reduce indoor uses until the drought condition changes to a moderate condition or better.

3) SRA may reduce water delivery to its customers as the situation dictates. This is further discussed in **WATER ALLOCATION** (Section 4.9).

4) SRA will notify the TCEQ Executive Director within five business days of implementing any mandatory provisions of the DCP.

4.8.4 Emergency Water Shortage Conditions (not related to drought)

4.8.4.1 Requirements for initiation

SRA will recognize that *emergency water shortage conditions* exist in the appropriate part(s) of its system when:

- There is a major contamination or a major required drawdown of Toledo Bend for emergency repairs of major infrastructure, or
- the failure of a major component of the pumps or canals in the John W. Simmons Gulf Coast Canal System and Earl Williams Pump Sation that significantly impacts the supply of water to its customers.

4.8.4.2 Requirements for termination

Termination of the emergency water shortage condition and corresponding measures will take place when conditions that initiated the emergency water shortage condition no longer exist. Conditions are considered to no longer exist when Toledo Bend repairs are made, and the reservoir is returning to normal water surface elevation levels, or the repair of any failed equipment is completed, and Canal System delivery capacity is returned to normal. SRA will inform its customers and the media of the termination of the emergency water shortage conditions in the same manner as in its initiation.

4.8.4.3 Goal

Reduce delivery as appropriate to address the emergency condition.

4.8.4.4 Measures

1) When emergency water shortage conditions exist, SRA will inform its customers by mail, telephone, email, or SRA's website about the water supply situation. The news media also will be informed. Situation reports will be issued to SRA's customers and the news media weekly. SRA may call emergency meetings with its customers to discuss major operational changes if it finds such action necessary during the progress of a severe drought. SRA will continue to advise its customers of the Toledo Bend Reservoir elevation and river level at the USGS gage near Ruliff every business day on the SRA website.

2) SRA will request its customers prohibit all outdoor water use (except for livestock watering) and to activate applicable measures to minimize indoor uses until the emergency water shortage condition is terminated.

3) SRA may reduce water delivery to its customers as the situation dictates. This is further discussed in **WATER ALLOCATION** (Section 4.9).

4) SRA will notify the TCEQ Executive Director within five business days of implementing any mandatory provisions of the DCP.

5) Specific to the John W. Simmons Gulf Coast Canal System and Earl Williams Pump Station, a supply restriction resulting from pump or canal failure will tend to be of short duration; but in the event of an emergency condition, SRA will notify its customers of the water supply situation and make such operational changes it finds necessary while the emergency condition exists. Customers will be notified when the situation has been rectified and the system is fully operational.

4.9 Water Allocation

If the trigger criteria specified in the DCP have been met, the General Manager is authorized to initiate all appropriate measures including reductions in the allocation of diversions to achieve the goals of the required drought stage in accordance with Texas Water Code Section 11.039 and with the water allocation policies and procedures defined herein. When water allocation is in effect, water diversions by or deliveries to each wholesale customer shall be limited to the monthly allocation established for each customer during the designated drought condition unless explicitly modified by the General Manager through a variance request by the customer as outlined in Section 4.11 below.

Every SRA wholesale water supply contract, including contract extensions, includes a provision that water will be distributed in accordance with the Texas Water Code §11.039 in case of a water shortage resulting from drought.

4.10 Enforcement

During any period when allocation of available water supplies is in effect, wholesale customers shall pay the following surcharges on excess water diversions and/or deliveries:

- ***Five*** times the normal water charge per acre-foot for water diversions and/or deliveries more than the monthly allocation up through 5 percent above the monthly allocation.

- ***Ten*** times the normal water charge per acre-foot for water diversions and/or deliveries more than the monthly allocation from 5 percent through 10 percent above the monthly allocation.

- ***Twenty-Five*** times the normal water charge per acre-foot for water diversions and/or deliveries more than the monthly allocation from 10 percent through 15 percent above the monthly allocation.

- ***Fifty*** times the normal water charge per acre-foot for water diversions and/or deliveries more than 15 percent above the monthly allocation.

The above surcharges shall be cumulative. Upper Basin customers (Lake Tawakoni and Lake Fork) will also be subject to the surcharges if they divert more than their maximum usage over the last five calendar years during any drought stages unless approved by the General Manger.

4.11 Variances

The General Manager, or designee, may, in writing, grant a temporary variance to water allocation policies provided by this DCP if it is determined that failure to grant such variance would cause conditions adversely affecting an entity's public health, welfare, safety, or economy.

An entity requesting an exemption from the provisions of this DCP shall file a petition for variance with the General Manager within 5 days after notice that water allocation has been invoked. All petitions for variances shall be reviewed by the General Manager, and shall include the following:

(a) Name and address of the petitioner(s).

(b) Detailed statement with supporting data and information as to how the allocation of water under the policies and procedures established in the DCP adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this DCP.

(c) Description of the relief requested.

(d) Period of time for which the variance is sought.

(e) Alternative measures the petitioner is taking or proposes to take to meet the intent of this DCP and the compliance date.

(f) Other pertinent information.

Variances granted by the General Manager shall be subject to the following conditions, unless waived or modified by the General Manager or designee:

(a) Variances granted shall include a timetable for compliance.

(b) Variances granted shall expire when the DCP is no longer in effect, unless the petitioner has failed to meet specified requirements.

No variance shall be retroactive or otherwise justify any violation of this DCP occurring prior to the issuance of the variance.

4.12 Severability

It is hereby declared to be the intention of the SRA Board of Directors that the sections, paragraphs, sentences, clauses, and phrases of this DCP are severable and, if any phrase, clause, sentence, paragraph, or section of this DCP shall be declared unconstitutional by the valid judgment or decree of any

court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this DCP, since the same would not have been enacted by the Board without the incorporation into this DCP of any such unconstitutional phrase, clause, sentence, paragraph, or section.

4.13 Drought Contingency Plan Update Schedule

In accordance with TAC Rule §288.30 (6), SRA will continue to review and update this DCP every five years hereafter to coincide with the planning cycle of the State's Regional Water Planning Groups.

Appendices

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Appendix A – SRA Board Resolution Adopting Conservation and Drought Contingency Plan

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[Insert Adoption Resolution by SRA Board of Directors here]

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Appendix B – DCP Public Involvement Notifications

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The Sabine River Authority will provide the opportunity for its wholesale water customers and the public to suggest input into this revision of the Water Conservation and Drought Contingency Plan (WCDCP) by means of the Sabine Basin Steering Committee meetings which will be conducted in April 2024 as part of the Texas Clean Rivers Program. The Sabine Basin Steering Committee is comprised of members from entities and interested parties throughout the Sabine Basin. These meetings were held on consecutive business days in the upper, middle, and lower Basin.

- Wednesday, April 16 at Quitman, Texas
- Thursday, April 17 at Orange, Texas

An overview of the WCDCP will be presented at each of these meetings and the attendees will be asked to submit comments by April 24th, 2024.