

CHAMBERS-LIBERTY COUNTIES NAVIGATION DISTRICT
WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN

BACKGROUND AND INTRODUCTION

The Chambers-Liberty Counties Navigation District (“CLCND”) operates a canal system that provides irrigation water to rice farmers in Chambers County, Texas, as well as raw water to the surface water treatment plants that are operated by the City of Anahuac, Texas, and the Trinity Bay Conservation District (“TBCD”), also located in Chambers County, Texas. CLCND is primarily a wholesale public water supplier. The CLCND canal system office is located at 211 Miller Street in Anahuac, Texas. The mailing address of CLCND is P.O. Box 518, Anahuac, Texas 77514. The office telephone number is (409) 267-3541.

CLCND prepared and adopted a Water Conservation and Drought Contingency Plan in 1999 and revised such Plan in 2004, 2005, 2009, 2014, and 2019. This document represents a revision to the adopted 2019 Plan and was prepared in compliance with applicable sections of the Texas Water Code, including Section 11.1271 and administrative rules found in Chapter 288, Title 30 of the Texas Administrative Code (“30 TAC”) in effect at the time of adoption.

Attached is a Water Conservation and Implementation Report. CLCND will prepare and submit annual reports to the Texas Commission on Environmental Quality and the Texas Water Development Board, as required.

WATER CONSERVATION PLAN

The following Water Conservation Plan describes the authority under which CLCND implements and enforces the plan, the water rights owned by CLCND, its service area profile, its structural facilities, management practices, and water conservation goals.

IMPLEMENTATION AND ENFORCEMENT (30 TAC § 288.5(1)(H))

The Appendix contains a copy of the resolution of the CLCND Board (the “Board”) adopting this Water Conservation Plan. The resolution authorizes the Board to implement and enforce the Water Conservation Plan as required by 30 TAC § 288.5(1)(H). Such authority for implementation and enforcement of the plan is pursuant to Article 16, Section 59 of the Texas Constitution and the Texas Water Code. CLCND will prepare a water conservation report annually as required by 30 TAC § 288.30(10). This report will be used to review the effectiveness of CLCND’s water conservation program, and results will be reported to the Board.

WATER RIGHTS

CLCND currently holds water rights of 112,947 acre-feet per year from the Trinity River, Lake Anahuac on Turtle Bayou and Trinity Bay pursuant to Certificate of Adjudication

No. 08-4279. This authorizes, in part, the use of 2,147 acre-feet per year for municipal purposes, 30,000 acre-feet per year for industrial purposes, and 800 acre-feet per year for mining purposes.

In 2004, CLCND was issued an amendment to its Certificate of Adjudication, Certificate of Adjudication No. 4279B, authorizing agricultural, industrial, and municipal purposes of use for 80,000 acre-feet of water per year and authorizing an exempt Inter-Basin transfer of such water to the Trinity – San Jacinto Coastal Basin. CLCND also has received an Amendment to Certificate of Adjudication No. 4279 to add a diversion point at the existing Coastal Water Authority Pump Station to divert up to 80,000 acre-feet per year for use in the western portion of Chambers County.

SERVICE AREA PROFILE (30 TAC § 288.5(1)(A))

The current CLCND service area is located wholly within Chambers County, Texas and contains 128,559 acres. In the future, this service area may extend into Liberty County. Predominantly, the canal system services customers that use the water for agricultural irrigation. The major crop is rice, although water is also used for crawfish production and for wildlife enhancement. CLCND is contracted to Texas Water Trade for 2,000 acre-feet per year for ten years and with the Nature Conservancy for a grand total of 5,000 acre-feet for four years to supply water for wildlife and migratory waterfowl. The number of canal system customers in any given year may range from 25 to 50.

Municipal and industrial customers comprise the fastest-growing water user group in CLCND’s service area. Currently, CLCND is contracted to supply raw water to the City of Anahuac and the Trinity Bay Conservation District (“TBCD”). The following tables (Table 1 and 2) summarize the population and water demand projections in acre-feet for Chambers County, respectively.

Table 1. Population Projections, Chambers County, 2020-2070. Source: Texas Water Development Board, 2021.

	2020	2030	2040	2050	2060	2070	
ANAHUAC	2390	2422	2456	2492	2531	2572	
BAYTOWN	4857	5746	6664	7653	8711	9822	
CC MUD 1	3194	3832	4489	5197	5954	6748	
COUNTY-OTHER	13729	16483	19333	22398	25675	29118	
MONT BELVIEU	6194	7920	9704	11627	13682	15841	
TRINITY BAY CONSERVATION DISTRICT	11795	14140	16564	19174	21966	24898	
TOTAL	42162	50543	59210	68541	78519	88999	

Table 2. Water Demand Projections, Chambers County, 2020-2070. Source: Texas Water Development Board, 2021.

	2020	2030	2040	2050	2060	2070
IRRIGATION	128320	128320	128320	128320	128320	128320
LIVESTOCK	497	497	497	497	497	497
MANUFACTURING	20182	23519	23519	23519	23519	23519
MINING	5,621	5,621	5,621	5,621	5,621	6,521
MUNICIPAL	7520	8974	10510	12210	14083	16063
STEAM ELECTRIC	8706	8706	8706	8706	8706	8706

These tables indicate that the population in Chambers County is expected to increase by 18% in this decade, and by approximately 111% in the planning horizon. Simultaneously, municipal use is expected to increase by 58% in this decade, and by approximately 114% within the planning horizon. Industrial use of water is also projected to increase. The following tables (Table 3 and 4) summarize the population and water demand projections in acre-feet for Liberty County, respectively.

Table 3. Population Projections, Liberty County, 2020-2070. Source: Texas Water Development Board, 2021.

	2020	2030	2040	2050	2060	2070
CLEVELAND	7,730	7,851	7,966	8,081	8,191	8,297
COUNTY-OTHER, LIBERTY	38,297	41,651	44,757	47,811	50,578	53,049
DAISETTA	1,103	1,242	1,375	1,508	1,635	1,757
DAYTON	10,759	13,971	17,028	20,094	23,028	25,832
DEVERS	773	871	965	1,058	1,147	1,232
HARDIN WSC	4,976	6,231	7,426	8,624	9,772	10,868
LAKE LIVINGSTON WSC	1,330	1,495	1,659	1,833	2,017	2,209
LIBERTY	9,270	10,008	10,711	11,416	12,090	12,734
LIBERTY COUNTY FWSD 1 HULL	706	794	879	965	1,046	1,124
MERCY WSC	219	241	258	278	294	308
SOUTH CLEVELAND WSC	2,524	2,844	3,148	3,453	3,745	4,024
T & W WATER SERVICE	1,428	1,803	2,219	2,708	3,305	4,015
TARKINGTON SUD	3,988	4,685	5,348	6,013	6,650	7,258
WEST HARDIN WSC	312	345	376	409	439	468

* Does not include those portions of the population that are split into other Regions or Water User Groups.

Table 4. Water Demand Projections, Liberty County, 2020-2070. Source: Texas Water Development Board, 2021.

	2020	2030	2040	2050	2060	2070
IRRIGATION	43200	43200	43200	43200	43200	43200
LIVESTOCK	992	992	992	992	992	992
MANUFACTURING	245	289	289	289	289	289
MINING	437	457	446	468	496	539
MUNICIPAL	12478	13749	15001	16383	17840	19274
STEAM ELECTRIC	-	-	-	-	-	-

These tables indicate that the population in Liberty County is expected to increase by approximately 6% in this decade, and by approximately 59% in the planning horizon. Municipal and industrial uses combined are expected to decrease by 34% in this decade and increase by approximately 54% within the planning horizon. Meeting this challenge as a member of the Region H Water Planning Group will be an important task for CLCND.

STRUCTURAL FACILITIES

The CLCND structural facilities consists of two main pump plants and one re-lift pump station. The Lake Plant, located on the northwest corner of Lake Anahuac, has two pumps, each with a rated capacity of 60,000 gallons per minute (“GPM”). These pumps divert water from the Trinity River through Big Hog Bayou and discharge into Lake Anahuac. The Main Anahuac Plant is located at 101 Miller Street in Anahuac, Texas. It is equipped with four pumps, two each rated at 80,000 GPM and two each rated at 40,000 GPM, that can divert water from the Trinity River or directly from Lake Anahuac and lift the water about 15 feet into the main canal. The re-lift pump station is located approximately six miles east of the Main Anahuac Plant and lifts the water an additional 10 feet from the main canal. It is equipped with one pump rated at 40,000 GPM and discharges into a lateral to flow by gravity to the service area north of the main canal.

CLCND owns Lake Anahuac, which provides a storage capacity of approximately 35,000 acre-feet, comprised of 5,000 surface acres. The lake is fed by the Turtle Bayou watershed as well as by water diverted from the Trinity River by the Lake Plant.

Water pumped into the main canal system at Anahuac gravity flows through approximately 75 miles of main canal and 125 miles of laterals. The service area comprises 128,559 acres of land entirely within Chambers County, Texas. Along the earthen canals and laterals are numerous road crossings, flumes, head gates, pipes, and culverts. Water delivered by the canal system is predominantly used for rice irrigation purposes. The canal system also provides water for crawfish farming, wildlife habitat for migratory fowl, mining operations, industry activities in connection with oil and gas production, and surface water treatment plants in the City of Anahuac and TBCD.

The canal system now owned by CLCND has been delivering water for irrigation use since the early 1900s. The Lone Star Canal Co. was purchased by CLCND in 1947 and this system has been delivering water for irrigation, mining, and industrial activities since that time and for municipal purposes since 1978. Historically, CLCND has delivered varying amounts of water to its customers, from a low of 47,948 acre-feet of water in 1986 to a high of 136,875 acre-feet of water in 1978.

MANAGEMENT PRACTICES

CLCND utilizes canal system regulations, a standard contract, and a water service application form to govern the supply of water to irrigation customers. The regulations include provisions for the method of supplying water to customers, use and distribution

of the water, and the procedures for applying for purchasing water. The irrigation contract is similar to that of other canal systems. CLCND's standard contract and policies require water conservation and effectuate procedures designed to reasonably assure a high degree of water conservation for this type of business and water use.

A farmer must submit a completed Application for Water Service, a standard Irrigation Contract, and a UCC-1 lien form prior to obtaining irrigation water. Copies of the current regulations, contract, and application forms are attached hereto.

Rates for irrigation water are set by the CLCND Board of Navigation and Canal Commissioners prior to the beginning of each irrigation season. The price a particular farmer pays is based upon the acreage being irrigated and the location of the crop within the canal system service area. Farmers located in the service area north of the main canal system that receive water from the re-lift lateral pay an additional surcharge, per acre of land irrigated, for the re-lift service.

Individual contracts are negotiated with customers for industrial, mining, and municipal uses. Contracts are based upon a customer's individual need for water and are subject to revision at five-year intervals.

Water is pumped through the canal system in order to meet the needs of many farmers in a timely manner and to minimize the power costs of the canal system. Rice production requires irrigation water at the time of planting and at different intervals as the rice crop grows. At each stage of production, irrigation water must be sufficient in terms of flow and volume to assure a successful rice crop. Water is delivered to rice fields within 24 hours of a request for water by the farmer. Water supplied to the municipal customers is pumped through the same canals and laterals that supply irrigation water to farmers.

Rice farmers predominantly use the flood irrigation method in accordance with widely-accepted irrigation practices. In many cases, the fields have been water-leveled to provide fewer levees and better utilization of the water. The more recent practice of laser leveling is becoming popular as it enables farmers to use water at a shallower water depth, thus requiring less water for the crop. The farmers drain their fields at particular times during the course of the growing season. This water is drained through adjacent drainage ditches which eventually flow into the Trinity/Galveston Bay estuary complex.

Rice fields are typically watered from the canal system or from a lateral by gravity flow. CLCND controls the flow of water to a field by means of a check or pipe gate adjacent to the field. CLCND canal riders open and close the checks based upon specific requests by the customer for particular amounts of water. These requests frequently occur during the course of the growing season.

For farmers within the CLCND, the rice irrigation season extends from mid-March through mid-October. The season for waterfowl enhancement runs from approximately September 15 until approximately November 15. The canal system provides water through this period and performs scheduled and major, non-emergency, repairs during the

winter months. Water supplied to the municipal customers during the winter season is pumped on demand based on the requirements of the customer. Prior to the initiation of the irrigation season, the canal system obtains information from rice farmers regarding the location and size of their rice crops for the season. Only a portion of the land serviceable by the canal system is irrigated each year due to crop rotation, other farming practices, economics, and federal government programs related to rice farming. The information from farmers determines which canals and laterals are to be prepared for water delivery for the year.

Historically, irrigated acreage on the canal system has ranged from 3,500 acres to more than 36,000 acres per year. All of this acreage has been used in the production of rice. In upcoming years, CLCND expects rice crops irrigated with canal system water to range from 3,500 to 12,000 acres per year, depending on market forces, farm economics and federal farm programs.

WATER CONSERVATION GOALS

CLCND is motivated to use its best efforts to achieve as much water conservation as possible because conserving water directly translates into lower electrical power costs, which is one of the largest cost components of operating the canal system. In addition, conservation is an important strategy considered in the Region H Regional Water Plan. The following sections describe CLCND's goals for conservation, and the programs that will be employed to meet these goals.

Goal No. 1: CLCND aims to reduce system delivery losses by at least 5%.

The primary means of achieving this goal is through improvements to the canal system, which is CLCND's delivery mechanism to all customers. Careful monitoring and measurement practices can assist in determining problem areas. A detailed description of each program that assists in reducing system delivery processes follows. Each of the programs is ongoing.

Program 1A: Leak Detection, Repair and Water Loss Control (30 TAC § 288.5(1)(F) and (2)(B)).

CLCND will improve the canal system through: 1) the continued maintenance of the levee system, 2) the repair and replacement of leaking gates and pipes, 3) the control of vegetation in the canals and laterals, and 4) the employment of reasonable efforts to find additional ways to conserve water and lower its power costs. CLCND will continue to control the loss of water from the canal system and minimize the undesired loss of water from rice fields. Prior to the beginning of each irrigation season, the particular canals, laterals, flumes, check gates and field gates that are to be utilized for delivery of water to rice crops will be visually inspected and repaired as necessary to prevent undue water loss and to assure proper operation. Throughout the season, CLCND and its customer farmers will inspect the canals and laterals on a daily basis to assure that no holes have been created in the levees by erosion, washout, or burrowing animals. Timely repairs will be made where an unsatisfactory condition exists or a leak is found.

In addition, CLCND provides check gates in the levee of the canals and laterals that irrigate the customer farmer's fields. This assures control of the water and prevents waste from over-watering and leaks. Pollution is prevented by restricting any discharges into the canal system and not allowing irrigation water to drain from the field back into the canal.

Program 1B: Measurement Practice and Devices (30 TAC § 288.5(1)(C)).

CLCND currently measures water diverted from the Trinity River and Lake Anahuac by multiplying the known capacities of its pumps by the hours of operation of each pump. Diversions from the Trinity River through the Big Hog Bayou intake are measured by pumpage at the Lake Plant. Diversions from Lake Anahuac are measured at the Main Anahuac Plant intake using pump capacity and run time. All water that flows through the canal system must pass through the Main Anahuac Plant. Diversions from the Trinity River are reported to the Trinity River Authority on a weekly basis and to the TCEQ on an annual basis. CLCND intends to continue utilizing this accepted method of measuring its diversions of water from the Trinity River. CLCND has installed a meter on the main canal to better determine the volume pumped with the pumps in the Main Anahuac Plant. Additional meters are being installed throughout the canal system to determine the volumes being delivered to various areas of the system. This includes individual field meters that have been installed on the fields that produce crawfish. Meters will be inspected every six months.

Program 1C: Monitoring and Records Management Program (30 TAC § 288.5(1)(D)).

Rice irrigation practices among CLCND customer farmers of the canal system are fairly uniform and follow widely-recognized rice crop irrigation practices, making monitoring relatively easy. In most cases, the amount of irrigation water utilized by customer farmers may be calculated by multiplying the number of rice crop acres by 3.0 to 3.5 feet of water per acre. Regarding municipal water use, water delivered to customers is metered from the canal and invoiced to the customer on a monthly basis. In both situations, frequent monitoring and evaluation of records can lead to timely improvements and reduce water loss, if discrepancies are determined. CLCND policies are communicated to its customers on an annual basis regarding water conservation expectations and follow up if needed based on customer identification of potential leaks and/or water loss.

Goal No. 2: CLCND encourages water conservation by its customers.

As a wholesale provider of raw water to irrigation, municipal, and industrial customers, CLCND's direct conservation efforts are made in the programs supporting Goal No. 1 above. Once contracted water changes ownership and leaves CLCND's system, it is still important that conservation efforts take place. CLCND has a strong interest in providing efficient and reliable water service, and efficient use by its customers greatly assists CLCND in managing its water supplies and delivery infrastructure. To this end, CLCND stipulates that its customers take certain water conservation actions, such as adherence to CLCND's Water Conservation Plan, and encourages the voluntary implementation of

water conservation measures by its customers.

Program 2A: Contractual Requirements (30 TAC § 288.5(1)(F)).

Each of the wholesale municipal customers purchasing water from the CLCND canal system should have water conservation plans in force. Having such plans will be a requirement for all future wholesale contracts with CLCND. The following paragraph will be included in all new and amended wholesale contracts:

Water Conservation and Drought Contingency Measures - Pursuant to 30 Tex. Admin. Code Chapter 288, [Purchaser] agrees to develop and implement water conservation and drought contingency measures consistent with [the District's] water conservation plan (the "Conservation Plan"), and that the water delivered to [Purchaser] pursuant to this Agreement will be used in accordance with such Conservation Plan. [The District], in accordance with applicable law, may from time to time modify the Conservation Plan.

In an effort to encourage water conservation by irrigation customers, CLCND includes standard provisions in its contracts that require customers to prevent waste of water and follow the Water Conservation Plan in their farming operations. These requirements include the following: proper construction and maintenance of levees; timely plugging of holes created by burrowing animals; proper taking of water during flooding operations; prevention of excess water running over levees; and conserving rainwater when it falls on the field.

Program 2B: Sharing of Knowledge about Conservation (30 TAC § 288.5(2)(D)).

Customers are encouraged to utilize the best conservation/management practices that are available in their water use. Reference materials on Best Management Practices ("BMPs") are available through county extension agent offices, the Texas Water Development Board, and numerous other sources. Many of these materials are specifically directed to rice production, and CLCND shares these materials with its rice producing customers. CLCND also maintains a page of website links on its website to help direct customers to this information.

In addition, CLCND is committed to understanding the needs of its customers and will continue to routinely receive input from the customers, based on their specific local knowledge and experience. All meetings of the CLCND Board are open to the public and provide an opportunity for anyone to provide comments.

Program 2C: Exploration of Incentive Programs for BMP Implementation (30 TAC § 288.5(2)(D)).

Many irrigation customers may lack access to capital for investment in use-specific BMPs. CLCND will investigate the feasibility of incentive programs for water conservation BMPs to determine the potential benefits of facilitating the implementation, the possibility of leveraging resources with other local, regional, and state entities, and the most suitable types of BMPs for inclusion in such a program. This Program is

selected pursuant to 30 TAC § 288.5(2)(D).

Goal No. 3: CLCND will take an active, strong role in the Regional Water Planning Process. (30 TAC § 288.5(1)(I)).

Since work began in preparation for the first round of regional water planning, it has become clear that water supply issues are inextricably a regional issue, particularly in Region H. Region H covers most of the greater Houston metropolitan area. Growing and competing demands for the use of water will require coordination and cooperation to provide safe, dependable water to this region. As much of the CLCND service area becomes more urbanized, CLCND's role as primarily an irrigation water provider will begin to shift to meet demands for municipal and industrial use. Logically, CLCND will become an important component of the regional water picture, and conservation is featured prominently in the Regional Water Planning Group's work to-date. CLCND will continue to attend the Regional Water Planning Group meetings. Enclosed is a copy of a letter transmitting this plan to Region H for reference as required by 30 TAC § 288.5(1)(I).

Goal No. 4: CLCND will seek to reduce irrigation use by 5,000 acre-feet per year in 2025, 2030, and 2035. (30 TAC § 288.5(1)(B)).

The Region H strategy for Chambers County calls for 93,562 acre-feet in irrigation conservation for the planning horizon (*2021 Region H Regional Water Plan, Table 5-5*). As CLCND's customers comprise approximately 40% of irrigation water usage in Chambers County, an appropriate goal for CLCND is to take measures that will bring about a reduction of one acre-foot per acre per year (1 acre-feet/acre/year) over 5,000 acres of irrigated land.

The programs for implementation of this goal are the same programs utilized in achieving other goals of this Water Conservation Plan, but also include the implementation of laser-leveling technology to better distribute water supply used.

Program 4A: Leak Detection, Repair and Water Loss Control (30 TAC § 288.5(1)(E)).

CLCND will improve the canal system through: 1) the continued maintenance of the levee system, 2) the repair and replacement of leaking gates and pipes, 3) the control of vegetation in the canals and laterals, and 4) the employment of reasonable efforts to find additional ways to conserve water and lower its power costs. CLCND will continue to control the loss of water from the canal system and minimize the undesired loss of water from rice fields. Prior to the beginning of each irrigation season, the particular canals, laterals, flumes, check gates and field gates that are to be utilized for delivery of water to rice crops will be visually inspected and repaired as necessary to prevent undue water loss and to assure proper operation. Throughout the season, CLCND and its customer farmers will inspect the canals and laterals on a daily basis to assure that no holes have been created in the levees by erosion, washout, or burrowing animals. This metering and leak detection program for CLCND's water storage, delivery, and distribution system will ensure that timely repairs are made where an unsatisfactory condition exists, or a

leak is found.

In addition, CLCND provides check gates in the levee of the canals and laterals that irrigate the customer farmer's fields. This practice assures control of the water and prevents waste from over-watering and leaks. Pollution is prevented by restricting any discharges into the canal system and not allowing irrigation water to drain from the field back into the canal.

Program 4B: Exploration of Incentive Programs for BMP Implementation (30 TAC § 288.5(2)(D)).

Many irrigation customers may lack access to capital for investment in use-specific BMPs. CLCND will investigate the feasibility of incentive programs for water conservation BMPs to determine the potential benefits of facilitating the implementation, the possibility of leveraging resources with other local, regional, and state entities, and the most suitable types of BMPs for inclusion in such a program. This Program is selected pursuant to 30 TAC § 288.5(2)(D).

Program 4C: Laser Land-leveling (30 TAC § 288.5(2)(D)).

In rice farming, it is critical to maintain a minimum water depth of 4 to 6 inches during most of the growing season to provide an optimal growing condition. Not only does this reduce the need for subsequent management practices for stand establishment, weed control, and field drainage for harvest, but small imperfections in the field surface can result in the need to divert more water into the field to maintain this minimum depth uniformly in the field. Precision leveling allows the farmer to achieve and maintain this depth uniformly throughout a field while using less water. Laser land leveling also decreases the number of levees required and increases productive land area and machinery efficiency. CLCND encourages its irrigation customers to utilize this technology. As part of Program 4B above, CLCND may consider different means of assisting customers to access this technology.

Goal No. 5: CLCND seeks a reduction in the gallons per capita per day (“gpcd”) consumption of its municipal customers to 230 gpcd for the current cycle, as may be amended in conjunction with our municipal customers. (30 TAC § 288.5(1)(B)).

The Region H Strategy for municipal demand conservation is 5% to 7%. Current use by Anahuac and TBCD, CLCND's customer cities, is currently approximately 250 gpcd. As CLCND is a wholesale supplier to these customer cities, CLCND cannot directly affect or implement a municipal water conservation program. At the same time, CLCND's contract provisions, as described in Program 2A above, require that conservation measures be perpetuated at the retail level of use.

DROUGHT CONTINGENCY PLAN

Section 11.039 of the Texas Water Code governs the supply of water by CLCND in times of drought and other water shortages. This section requires that, in times of water shortage, available water be distributed and divided among all customers pro rata, according to the amount that each customer may be entitled, or the amount that each customer may be entitled less the amount of water the customer would have saved if the customer had operated its water system in compliance with an applicable water conservation plan.

PROVISION FOR WHOLESALE CONTRACTS (30 TAC § 288.22(a)(8)).

The CLCND Irrigation Contract specifically addresses water shortage situations. Recognizing the requirements of Texas Water Code Section 11.039, the contract specifies the canal system procedure for supplying water in a shortage situation will be in accordance with Texas Water Code Section 11.039. These procedures have been in place for many years.

USER INVOLVEMENT (30 TAC § 288.22(a)(1)).

Prior to adoption of this plan, all customer farmers will be provided with a copy of the plan to allow comments to be made to the CLCND Board of Navigation and Canal Commissioners. A public hearing will be conducted prior to the meeting in which the plan will be formally adopted. A copy of this plan will be posted on the CLCND website.

COORDINATION WITH REGIONAL WATER PLANNING GROUP (“RWPG”) “H” (30 TAC § 288.22(a)(2)).

CLCND is located within the Region H RWPG. Upon adoption of the plan by the Board of Navigation and Canal Commissioners, the plan will be submitted to the Region H RWPG. CLCND will continue to attend the RWPG meetings for the duration of the current Regional Water Planning Cycle.

TRIGGERING CRITERIA (30 TAC § 288.22(a)(3) and (4)), NOTIFICATION (30 TAC § 288.22(a)(5) AND TARGET USE REDUCTIONS (30 TAC § 288.22(a)(6) TAC 288.22 (a) (7)).

The CLCND canal system pumps water from two main sources: Lake Anahuac and the Trinity River. The full operating level of Lake Anahuac is 4.0 feet above mean sea level (“MSL”) elevation, which provides a storage capacity of approximately 29,500 acre-feet. As a drought situation begins to emerge, CLCND will monitor the level of Lake Anahuac and implement a progressive series of measures to protect the water supply.

A *Drought Watch Condition* will be announced when water levels fall to 3.5' MSL at Lake Anahuac, or CLCND determines that its storage in Lake Anahuac is less than or equivalent to three times the maximum monthly demand of the preceding three-year period. At this time, the customer farmers and municipal use customers would be

notified and encouraged to implement conservation practices. Farmers will be encouraged to implement conservation practices to bring consumption down by 14 acre-feet per day. Municipal use customers will be encouraged to bring per capita consumption down by 10 gallons per day. Notification will take place through the local media and on the CLCND's website. The watch condition will be lifted when storage in Lake Anahuac rises to greater than or equivalent to three times the maximum monthly demand of the preceding three-year period, for a sustained period of three weeks.

A *Drought Warning Condition* will be announced when water levels fall to 1.7' MSL at Lake Anahuac or CLCND determines that its storage in Lake Anahuac is less than or equivalent to two times the maximum monthly demand of the preceding three-year period. Diversions from the Trinity River through the Big Hog Bayou intake to Lake Anahuac will begin at this point. During this condition, customers will be asked to continue conservation practices and begin contingency planning for water restrictions. Notification will take place through the local media, and on the CLCND's website. The warning condition will be lifted to *Drought Watch Condition* when storage in Lake Anahuac rises to greater than or equivalent to two times the maximum monthly demand of the preceding three-year period, for a sustained period of three weeks.

A *Drought Emergency Condition* will be announced when water levels fall to 0.5' MSL at Lake Anahuac or CLCND determines that its storage in Lake Anahuac is less than or equivalent to the maximum monthly demand of the preceding three-year period.

At this point, the customer farmers and municipal use customers will be notified that allocations of water will be made on equitable and efficient pro rata basis, as provided by Section 11.039 of the Texas Water Code. Notification will take place through the local media, and on the CLCND's website.

During a drought emergency condition, alternate water supplies for municipal customers would need to be brought in by truck, as CLCND is the primary source for these communities, and no other developed water supplies exist in the area. CLCND is addressing this issue as part of its Emergency Action Plan and will continue its dialogue with its municipal customers and the RWPG.

Water allocation procedures will terminate when the water elevation in Lake Anahuac rises to 1.7 MSL elevation.

METHOD FOR DETERMINING ALLOCATIONS (30 TAC § 288.22(a)(8)).

Allocations for rice production will be prorated based on the crop acreage of each customer farmer. The available irrigation water in the canal will be equally distributed for all acreage and each farmer's allocation will be determined by the number of acres stipulated in the Irrigation Contract. The available water in the canal will be monitored on a daily basis and determined by the volume of water that is available and pumped during that daily period. The available irrigation water will be determined to be 90% of the total daily pumpage, allowing 10% for loss and municipal. Allocations to individual customer farmers will be controlled with the gated pipe structures that feed the individual fields

and monitored on a daily basis.

Allocations to municipal customers will be based on the number of connections and the volume of water necessary to ensure an uninterrupted supply of water for essential uses relating to public health and safety.

USE ACCOUNTING

The gated pipes feeding individual fields will be monitored daily by district canal riders to ensure that the proper opening is maintained. Usage by the municipal customers will be determined by the daily pumpage reports of the individual water treatment plants.

TRANSFERS OF WATER

A water allocation to an individual customer can be transferred within the CLCND's service area from one customer to another. The transfer request must be made in writing to describe the area for which the transfer is applicable. A water allocation may not be transferred outside the CLCND's service area.

VARIANCE (30 TAC § 288.22(a)(9)).

The CLCND Board, or its designated representative, may grant temporary variances for existing water uses otherwise prohibited under this drought contingency plan to a customer if one or more of the following conditions are met, as determined in a written finding of fact:

1. Failure to grant such a variance would cause an emergency condition adversely affecting health, sanitation, or fire safety for the public or the person requesting the variance.
2. Compliance with this plan cannot be accomplished due to technical or other limitations.
3. Alternative methods to reduce levels of water use have been implemented, but despite these efforts, the level of reduction necessary cannot be met without temporary relief from the provisions of the Drought Contingency Plan.

Variances shall be granted or denied at the discretion of the Board. All petitions for variances should be in writing and should include the following information:

1. Name and address of the petitioner(s).
2. Purpose of water use.
3. Specific provisions from which relief is requested.
4. Detailed statement of the adverse effect of the provision from which relief is requested.
5. Description of the relief requested.
6. Period of time for which the variance is sought.
7. Alternative measures that will be taken (or have been taken) to reduce water use.
8. Other pertinent information.

ENFORCEMENT (30 TAC § 288.22(a)(10)).

Any person who willfully opens, closes, changes, or interferes with any headgate or uses water in violation of this Drought Contingency Plan shall be in violation of Section

11.083 of the Texas Water Code, which provides for punishment by fine up to the statutorily permitted amount (currently \$500 at the time of this update) or by confinement in the county jail for not more than thirty (30) days, or both, for each violation, and these penalties provided by the laws of the State and may be enforced by complaints filed in the appropriate court jurisdiction in Chambers, County, all in accordance with Section 11.083 and in addition, the District may pursue a civil remedy in the way of damages and/or injunction against the violation of any of the foregoing Drought Contingency Plan.

Mandatory water use restrictions may be imposed during times of severe drought. Warnings and penalties will be used to enforce these mandatory water use restrictions, as follows:

1. On the first violation, a customer will be given a written warning that they have violated the mandatory water use restriction.
2. After a second violation, CLCND may install a flow restrictor in the line or other device to limit the amount of water delivered to a customer.
3. CLCND may charge up to twice the ordinary rate for any water used in violation of mandatory water use restrictions.
4. CLCND may enforce mandatory water use restrictions by discontinuation of service to irrigation customers.
5. CLCND may enforce mandatory water use restrictions by leveling a surcharge on the municipal water rates.

SEVERABILITY

It is hereby declared the intention of the Board that the sections, paragraphs, sentences, clauses, and phrases of this Plan are severable and if any phrase, clause, sentence, paragraph, or section of this Plan shall be declared unconstitutional by the valid judgement or decree of any court of competent jurisdiction, such unconstitutionality shall not effect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Plan, since the same would not have been enacted by the Board without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.

AUTHORITY

The foregoing Water Conservation and Drought Contingency Plans are adopted pursuant to Article 16, Section 59 of the Texas Constitution and the Texas Water Code.