



Drought Contingency Plan

As of 12/20/16

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CHILTON WATER AUTHORITY

**P.O. BOX 1029
THORSBY, AL 35171
205-646-3300**

December 19, 2016

Chilton Water Authority serves approximately 30,000 customers across Chilton County with over 10,000 taps. Our water source is WELLS. We draw from 4 different aquifers.

Well sites, distribution pump stations, tank sites and connections with other systems are listed as follows:

WELL SITES

<u>WELL #</u>	<u>NAME</u>	<u>LOC.</u>	<u>TYPE</u>	<u>AQUIFER NAME</u>	<u>GPS</u>	<u>CAPACIT Y</u>	<u>AUX. POWER</u>
1	OSBORN	1060 CO RD 17	GW	COKER FORMATION	32.762461, - 86.858157	350	N
2	CHAMBERS	2440 CO RD 17	GW	COKER FORMATION	32.747883, - 86.847396	350	N
3	ROEBUCK	12991 CO RD 16	GW	COKER FORMATION	32.739410, - 86.830830	350	N
4	MILLER	356 CO RD 333	GW	COKER FORMATION	32.745071, - 86.828883	150	N
5	KEWISH	10157 CO RD 42	GW	JEMISON CHERT	32.961215, - 86.723529	1200	Y
6	GULF STATES	620 CO RD 113	GW	ORDOVICIAN KNOX GROUP	32.030873, - 86.842747	1400	Y
7	ADAMS	13350 CO RD 16	GW	COKER FORMATION	32.737479, - 86.836603	350	N
8	SELLERS	1120 CO RD 751	GW	COKER FORMATION	32.731452, - 86.859847	350	N
9	PAYNE	1516 CO RD 113	GW	NEWALALIME STONE	32.038646, - 86.830822	700	N

CONNECTIONS WITH OTHER WATER SYSTEMS

<u>NAME OF SYSTEM</u>	<u>LOCATION</u>	<u>GPS</u>	<u>PURCHASE FROM</u>	<u>SELL TO</u>
AUTATGA CO.	2302 CO. RD. 49	32.705971, - 86.611612	N	Y
BILLINGSLEY	2638 CO. RD. 79	32.705865, - 86.653609	N	Y
JEMISON	41 CO. RD. 5	32.945532, - 86.753547	N	Y
JEMISON	40 CO. RD. 5	32.945688, - 86.753761	N	Y
MAPLESVILLE	10261 HWY 22	32.789988, - 86.867123	N	Y
MAPLESVILLE	4888 HWY 82	32.785479, - 86.900819	N	Y
MAPLESVILLE	1620 CO. RD. 10	32.784878, - 86.889355	N	Y
PLANTERSVILLE	3855 CO. RD. 26	32.664642, - 86.923084	N	Y
MARBURY	1685 CO. RD. 503	32.733409, - 86.501049	N	Y
THORSBY	1337 CO. RD. 37	32.891746, - 86711393	N	Y
THORSBY	11035 CO. RD. 50	32.932080, - 86693046	N	Y
MONTEVALL O	7340 HWY 155	33.069041, - 86.818352	N	Y
WILTON	258 CO. RD. 109	33.029943, - 86.859193	N	Y
WILTON	8802 CO. RD. 73	33.015452, - 86.867568	N	Y
CLANTON	4000 HWY 31	32.877230, - 86.658686	N	Y
CLANTON	2753 CO. RD. 51	32.885907, - 86.605848	N	Y
CLANTON	1201 HINKLE RD	32.823220, - 86.652911	N	Y

DISTRIBUTION PUMPING STATIONS

<u>NAME</u>	<u>LOCATION</u>	<u>GPS</u>	<u>CAPACITY</u>	<u>RECHLORINATION</u>
PUMPING STATION #1	12348 CO. RD. 16	32.745051, - 86.820383	1400	Y
PUMPING STATION #2	130 CO RD 30	32.788359, - 86.766004	700	N
KEWISH	10157 CO RD 42	32.961532, - 86.723019	1200	Y
GULF STATES	620 CO. RD. 113	33.030568, - 86.842645	1400	Y
HIGHWAY 82 HYDRO STATION	12485 US. HWY 82	32.707450, - 86.817356	125	N
JEMISON BOOSTER STATION	5 HONEYCUTT RD	32.945504, - 86.753451	125	N
RUSSELL BOOSTER STATION	420 CO. RD 130	33.009440, - 86.801090	400	N
PUMPING STATION #3	11111 CO RD 29	32.899507, - 86.675739	500	N

TANK SITES

<u>NAME</u>	<u>LOCATIO N</u>	<u>TYPE</u>	<u>HEIGH T</u>	<u>GPS</u>	<u>OVERFLOW ELEV.</u>	<u>VOLUME</u>	<u>YEAR BUILT</u>
STANTON	721 CO. RD. 321	G	56	32.816879, - 86.932887	680	150000	1981
McCRAW	7124 CO. RD. 15	G	55.6	32.779230, - 86.782080	680	300000	1979
HIGGINS	7783 CO. RD. 15	G	49.8	32.785053, - 86.772432	678	1000000	1990
HEADLEY	4415 CO.RD. 76	E	124	32.811228, - 86.701361	880	200000	1979
ZION RIDGE	7183 CO. RD. 53	E	126	32.786658, - 86.641790	880	500000	1993
COOPERS	3345 CO. RD. 480	G	88	32.799603, - 86.530228	710	500000	1997
ELLISON	12100 CO. RD. 42	G	55.6	32.974047, - 86.695265	880	500000	1979
UNION GROVE	13775 CO RD 42	G	88	32.985812, - 86.671278	884	500000	1987
RUSSELL	420 CO. RD. 130	E	145	33.009440, - 86.801090	871.3	300000	1991
CLEAR WELL #1	12348 CO. RD. 16	G	17	32.754175, - 86.820248	511.5	200000	1980
CLEAR WELL #2	12348 CO. RD. 16	G	16	32.745484, - 86.820398	496.5	500000	2001

Drought Contingency Plan

Chilton Water Authority recognizes that there is a public obligation to responsibly manage the available water resources of our community and customers.

Chilton Water Authority feels the actions proposed in the following plan are a measure of sound resource management.

Some of the ways that Chilton Water Authority will manage drought events to its impacted customer base include the following:

- Monitor Impact of Drought: During a drought event, CWA will monitor rainfall and the declarations by the State of Alabama for our Region #4 as to the stages of the situation. Well levels are always monitored on a daily basis.
- Monitor Demand Reductions: CWA request customers to conserve usage to decrease demands.
- Public Relations: CWA uses various media such as door hangers, written notices on billing, bill inserts and word-of-mouth to get the word out about a drought event.
- Modify/Adjust Demands of Large Volume Users: CWA will work closely with large volume users during drought events to help them conserve water.

Components of the Plan

1. During a drought event, the first response is to implement mandated water restrictions. As drought levels change, additional initiatives within this plan may be imposed as deemed necessary.
2. CWA may set excess tier rates specifically targeted to high volume users in an effort to assist in enforcing the water use restrictions.
3. During drought events, CWA personnel will increase awareness of non-conservative water users while operating within their current service routes in order to identify customers that exceed the guidelines set forth in the plan. When a non-conservative water user is observed, the CWA representative will attempt to make direct contact in order to discuss and educate the customer on the need to follow the guidelines. This visitation will be documented. Consecutive notices to the same customer may result in written warnings that may eventually lead to a penalty.
4. Customers who are found to have service leaks will be encouraged to make repairs as soon as possible, especially during a drought event. Should a service line remain broken for an extended period of time, service could become interrupted until the repair is made. The other option would be to impose the “excess” rate tier for that customer classification and no adjustment would be available for the leak amount billed.
5. Encourage and assist local multi-family and high volume users in the development of their own drought response plan.

PURPOSE:

The purpose of this Emergency Water Conservation Plan is as follows:

- To provide contingency plans to manage drought and emergency conditions
- To continue to deliver a cost effective, adequate, safe and reliable supply of high quality water to our customers
- To identify successful public information strategies which will motivate the community to reduce normal consumption to drought allowances
- To identify critical points of change which would result in an acute or long term water outage and establish preemptive stages to address the outage
- To recommend a programmed response for each stage which would most effectively reduce water consumptions to the available supply with the least impact to the Chilton Water customers.

WATER CONSERVATION PLAN:

The plan as outlined in this document consists of a menu of response measures to be enacted by Chilton Water Authority in response to shortages either acute or chronic.

A water shortage may exist in a localized area of Chilton County any time the system demand is in excess of 85% of the available capacity and widespread water outages can occur whenever system demand is in excess of 100% of available capacity. Serious shortages could also be caused by system failures and power interruptions.

WATER CONSERVATION RESPONSE OPTIONS:

- Public Education and information for Voluntary Reduction - This will be implemented typically through bill notes, inserts, website notices and media announcements. These means of contact are aimed at reaching the greatest amount of people in the largest water use category which are residential customers.
- Outdoor Water Use Restrictions and Bans – Residential outdoor water use is a significant portion of daily consumption, which increases during summer months. In the early stage of a drought or emergency, outdoor water use restrictions will be voluntary. However, starting with the second stage, some reduction in the water consumption is mandatory.
- Nonresidential Water Use Planning – because the highest percentage of water consumption is due to residential customer, implementation of water use restrictions for industrial and commercial customers is usually insignificant until the final stage of the drought or emergency occurs.

WATER CONSERVATION RESPONSE:

- **STAGE 1:** When pumping reaches 3.5 million gallon for 3 consecutive days or well levels reach 5% below normal pumping levels
- **STAGE 2:** When pumping on any one day reaches 3.8 million gallons, well levels reach 10% and/or tank levels have consecutive alarms
- **STAGE 3:** When pumping any one day reaches 4.1 million gallons or the pressure cannot be maintained above 25 psi
- **Stage 4:** When pumping on any one day reaches 4.4 million gallons or the pressure cannot be maintained above 20 psi
- **Stage 5:** When required pressure cannot be maintained

WATER CONSERVATION RESPONSE

Specific conservation management responses are listed according to the need. Based on the ability of CWA to judge conditions and availability, after a drought declaration the General Manager is authorized to implement any or all of the following:

Stage 1: Conservation – voluntary. Customers are requested to voluntarily limit the amount of water usage to what is absolutely necessary for health, business and outdoor use. This includes:

- A voluntary landscape irrigation ban for a minimum of one week period
- Fund-raiser car washes are prohibited

Stage 2: Water Alert – Mandatory Compliance. Beginning at a time deemed by after public notification, the following restrictions shall apply to all customers:

- Only designated water use days for residential irrigation
- Odd number addresses on Monday, Wednesday, Friday
- Even number addresses on Tuesday, Thursday, Saturday
- No irrigation between the hours of 5:00 am – 9:00am or 5:00 pm -9:00pm
- No watering on Sunday
- This restriction does not apply to hand held watering containers

Stage 3: Water Warning – Mandatory Compliance. Upon implementation and notification, the following restrictions shall be imposed:

- Residential Irrigation only designated days (2)
- Odd number addresses on Monday, Wednesday
- Even number addresses on Tuesday, Thursday
- No irrigation 5:00am – 9:00am and 5:00 pm – 9:00 pm
- No irrigation Friday, Saturday, Sunday
- Washing of private vehicles on Monday – Thursday
- Swimming pools filled odd addresses Monday, Wednesday, even addresses Tuesday, Thursday
- NO washing of paved or concreted areas
- Fire hydrant use follows current rules and regulations
- Implementation of surcharge for consumptions greater than 6,000 gallons

Stage 4: Water Emergency -Mandatory Compliance. Upon implementation and notification, the following restrictions shall be imposed:

- No residential irrigation
- No washing of private vehicles except commercial car wash
- No filling of swimming pools
- Fire hydrant use follows current rules and regulations
- Surcharges for consumptions greater than 6,000 gallons

Stage 5: Extreme Water Emergency – Mandatory Compliance. Upon implementation and notification, the following restrictions shall be imposed:

- No irrigation
- No outdoor watering of any kind
- No filling of swimming pools
- No hydrant use except for actual fire suppression
- Surcharges for consumptions greater than 6,000 gallons
- Scheduled water suspension to all areas on a rotating designated time and date

VIOLATIONS

For violations of these Water Conservation Stages, water services may be disconnected or restricted.

If a customer is irrigating during a time or on a day that is restricted and the customer is not at home to be notified, the employee will turn service off in the meter box.

Violations of the Conservation Plan by customers shall receive the following:

- First offense: Written warning and violator to correct violation within 30 minutes of warning.
- Second offense in the same calendar year: Disconnection of Service with a \$100 fee to reinstate.
- Third offense in the same calendar year: Disconnection of Service with a \$500 fee to reinstate.
- Forth offense in the same calendar year: Disconnection of Service until the plan stage that is in effect at the time of the violation has expired and a fee of \$1000 to reinstate the service.

It is understood that situations may arise causing emergency conditions independent of CWA. This plan can be implemented as needed under those circumstances by the General Manager or his representatives.

DROUGHT EMERGENCY PLAN

STAGE 1:

Pump Levels reach 3.5 million gallons per day for 3 consecutive days and/or Well pumping levels reach 5% below normal pumping levels for 5 consecutive days. Voluntary conservation.

STAGE 2:

Pump levels reach 3.8 million gallons on any one day and/or well static levels reach 10% below normal pumping levels. Mandatory conservation.

STAGE 3:

IF stage 2 levels have not improved and pressure has dropped below 25 psi, additional restrictions and surcharges added. Mandatory conservation.

STAGE 4:

Levels and pressure cannot be maintained above 20 psi and continue to drop, greater restrictions. Mandatory conservation.

STAGE 5:

Levels are critical. Scheduled suspended service until situation improves.

	<u>Stage 1 Drought Response</u>	
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Outdoor Water Use Schedule During Stage 1 Drought Periods:

- No scheduling of water implemented during a Stage 1 drought

Chilton Water Authority Optional Conservation Efforts:

- Send notice on bill to ask customers to voluntarily conserve consumption.

Monitoring Results:

1.

2.

3.

4.

5.

6.

The above drought response items have been implemented for a Stage 1 Drought Level.

Signed: _____ Date: _____

	<u>Stage 2 Drought Response</u>	
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Public Notifications:

- Contact with Media to announce conservation measures and scheduling procedures.

Outdoor Water Use Schedule During Level 2 Drought Periods:

- Limit outdoor watering to 12:00 midnight and 6:00 am

Chilton Water Authority Optional Conservation Efforts:

- Monitor Daily Supply and Demand by checking drawdown levels and pumping capacity.

Monitoring Results:

1.

2.

3.

4.

5.

6.

The above drought response items have been implemented for a Stage 2 Drought Level.

Signed: _____

Date: _____

	<u>Stage 3 Drought Response</u>	
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Public Notifications:

- Contact with Media to announce conservation measures and scheduling procedures as well as a notice on overage fees.

Implementation of Surcharges:

- Implementation of surcharge for consumptions over 6,000 gal.
- All usage over 6,000 gal. will incur a charge of \$10 per thousand gallons used.

Outdoor Water Use and Scheduling During Stage 3 Drought Periods:

- Limit outdoor watering to the hours of 12:00 midnight and 6:00 am.

Chilton Water Authority Optional Conservation Efforts:

- Monitor Daily Supply and Demand by checking drawdown levels and pumping capacity.

Monitoring Results:

1.

2.

3.

4.

5.

6.

The above drought response items have been implemented for a Stage 3 Drought Level.

Signed: _____

Date: _____

<h2><u>Stage 4 Drought Response</u></h2>
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- Public Notifications:**
- Contact with Media to announce conservation measures and scheduling procedures as well as a notice on overage fees.
- Implementation of Surcharges:**
- Implementation of surcharge for consumptions over 6,000 gal.
 - All usage over 6,000 gal. will incur a charge of \$15 per thousand gallons used.
- Outdoor Water Use and Scheduling During Stage 4 Drought Periods:**
- Absolutely **NO** outdoor watering and turn off irrigation meters. Suspend all wholesale meters that are not 100% dependent on CWA for water.
- Chilton Water Authority Optional Conservation Efforts:**
- Monitor Daily Supply and Demand by checking drawdown levels and pumping capacity.

Monitoring Results:

1.
2.
3.
4.
5.
6.

The above drought response items have been implemented for a Stage 4 Drought Level.

Signed: _____ Date: _____

Stage 5 Drought Response

Public Notifications:

- Contact with Media to announce conservation measures and scheduling procedures as well as a notice on overage fees.

Implementation of Surcharges:

- Implementation of surcharge for consumptions over 6,000 gal.
- All usage over 6,000 gal. will incur a charge of \$20 per thousand gallons used.

Outdoor Water Use and Scheduling During Stage 5 Drought Periods:

- Coverage area divided into sections, and service will be suspended for short periods of time on a routine schedule.
- Absolutely **NO** outdoor watering and turn off irrigation meters. Suspend all wholesale meters that are not 100% dependent on CWA for water.

Chilton Water Authority Optional Conservation Efforts:

- Monitor Daily Supply and Demand by checking drawdown levels and pumping capacity.

Monitoring Results:

1.
2.
3.
4.
5.
6.

The above drought response items have been implemented for a Stage 5 Drought Level.

Signed: _____ Date: _____

