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**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** |   |   |   |   |   |   |
|  |  |  |  |  |  |  |   |
| **WELL #** | **NAME** | **LOC.** | **TYPE** | **AQUIFER NAME** | **GPS** | **CAPACITY** | **AUX. POWER** |
| 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** |   |   |
|   |  |  |  |  |  |  |   |
| **NAME OF SYSTEM** | **LOCATION** | **GPS** | **PURCHASE FROM** | **SELL TO** |
| 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 |   |
| MONTEVALLO |  | 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** |   |   |   |
|  |  |  |  |  |  |  |   |
| **NAME** |   | **LOCATION** | **GPS** | **CAPACITY** | **RECHLORINATION** |
| 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** |   |   |   |   |   |   |
|   |  |  |  |  |  |  |   |
| **NAME** | **LOCATION** | **TYPE** | **HEIGHT** | **GPS** | **OVERFLOW ELEV.** | **VOLUME** | **YEAR BUILT** |
| 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 my 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 reponse measures to be enacted by Chilton Water Authority in response t 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.**

|  |  |  |
| --- | --- | --- |
|  | **Stage 1 Drought Response** |  |
| **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. |
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| 3. |
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| 4. |
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| 5. |
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| 6. |
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| **The above drought response items have been implemented for a Stage 1 Drought Level.** |
| Signed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_ |

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| --- | --- | --- |
|  | **Stage 2 Drought Response** |  |
| **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. |
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| 4. |
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| 5. |
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| 6. |
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| **The above drought response items have been implemented for a Stage 2 Drought Level.** |
| Signed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_ |

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| --- | --- | --- |
|  | **Stage 3 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 $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. |
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| 4. |
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| 5. |
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| 6. |
| **The above drought response items have been implemented for a Stage 3 Drought Level.** |
| Signed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_ |

|  |  |  |
| --- | --- | --- |
|  | **Stage 4 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 $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. |
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| 4. |
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| 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: \_\_\_\_\_\_\_\_\_\_ |