Appendix E: Drought Response Plans and Recommendations

1. A Summary of the Drought Contingency Plans (DCPs)

2. Model DCPs and Water Conservation Plans (WCPs)
## Appendix E.1 A Summary of Drought Contingency Plans (DCPs)

### Basis of Drought Triggers:

<table>
<thead>
<tr>
<th>Stage</th>
<th>TRIGGERS:</th>
<th>ACTIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>a) US waters of the Amistad and Falcon reservoirs is equal to or less than 40% storage capacity, b) any of the WTP are operating at or above 65% total daily capacity for 3 consecutive days, c) water system pumps are operating at or above 65% total daily capacity for 3 consecutive days</td>
<td>Customers are required to follow a certain schedule in order to: irrigate landscapes, wash vehicles, add water to pools, and irrigate golf courses/parks/greenbelt. The following are prohibited: operating ornamental fountains unless required to support aquatic life or if recirculation is used, use of water from hydrants or flush valves unless required to maintain public health, safety, and welfare, washing down hard-surfaces areas or structures, use of water for dust control, permitting water to run into any gutter or street, failure to repair controllable leaks within a reasonable period of time, any waste of water.</td>
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<tr>
<td>Stage 2</td>
<td>a) US waters of the Amistad and Falcon reservoirs is equal to or less than 30% storage capacity, b) any of the WTPs are operating at or above 75% total daily capacity for 3 consecutive days, c) water system pumps are operating at or above 75% total daily capacity for 3 consecutive days</td>
<td>Customers are required to follow a certain schedule in order to: irrigate landscapes in a hand-help watering manner, wash vehicles, and add water to pools. The following are prohibited: irrigating landscapes with a sprinkler, irrigating gold courses/parks/greenbelt, operating ornamental fountains unless required to support aquatic life or if recirculation is used, use of water from hydrants or flush valves unless required to maintain public health, safety, and welfare, washing down hard-surfaced areas or structures, use of water for dust control, permitting water to run into any gutter or street, failure to repair controllable leaks within a reasonable period of time, any waste of water.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>a) US waters of the Amistad and Falcon reservoirs is equal to or less than 25% storage capacity, b) any of the WTPs are operating at or above 85% total daily capacity for 3 consecutive days, c) water system pumps are operating at or above 75% total daily capacity for 3 consecutive days</td>
<td>Customers are required to follow a stricter schedule in order to irrigate landscapes in a hand-help watering manner. The following are prohibited: washing vehicles, adding water to pools, irrigating landscapes with a sprinkler, irrigating gold courses/parks/greenbelt, operating ornamental fountains unless required to support aquatic life or if recirculation is used, use of water from hydrants or flush valves unless required to maintain public health, safety, and welfare, washing down hard-surfaced areas or structures, use of water for dust control, permitting water to run into any gutter or street, failure to repair controllable leaks within a reasonable period of time, any waste of water. No applications for any new or expanded water service connections will be approved.</td>
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</tbody>
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Agua Special Utility District, 4/25/2019

Reservoir level, water demand/WTP and pump capacity, emergency situation
Appendix E.1 A Summary of Drought Contingency Plans (DCPs)

Stage 4
a) US waters of the Amistad and Falcon reservoirs is equal to or less than 20% storage capacity, b) any of the WTPs are operating at or above 90% total daily capacity for 24 consecutive hours, c) water system pumps are operating at or above 90% total daily capacity for 24 consecutive hours, d) an immediate reduction in water use is required to protect the public health and safety and/or integrity of the water system.

The following are prohibited: irrigation of landscaped area, all outdoor use of water, washing vehicles, adding water to pools, irrigating gold courses/parks/greenbelt, operating ornamental fountains unless required to support aquatic life or if recirculation is used, use of water from hydrants or flush valves unless required to maintain public health, safety, and welfare, washing down hard-surfaced areas or structures, use of water for dust control, permitting water to run into any gutter or street, failure to repair controllable leaks within a reasonable period of time, any waste of water. No applications for any new or expanded water service connections will be approved.

City of Alamo, 3/28/2014

<table>
<thead>
<tr>
<th>BASIS OF DROUGHT</th>
<th>TRIGGERS:</th>
<th>ACTIONS:</th>
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</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>Initiated automatically May 1 through Sept. 30 each year</td>
<td>a) customers requested to voluntarily limit landscape irrigation to certain days and times. b) all operations of the city of Alamo will adhere to restrictions in Stage 2. c) customers requested to practice water conservation and minimize or discontinue water use for non-essential purposes.</td>
</tr>
<tr>
<td>Stage 2</td>
<td>Daily water use equals or exceeds 85% of treatment capacity for 7 consecutive days</td>
<td>a) City to reduce flushing of water mains. b) required schedule and/or means restricted for the following: landscape irrigation, washing motor vehicles, filling pools, irrigation of golf courses unless using alternate water source. c) the following are prohibited: operation of fountains or ponds except to support aquatic life or with recirculation system; use of hydrants except for fire fighting, construction with special permit, and other necessary activities; serving water in restaurants except when requested; all non-essential uses and failure to repair controllable leaks.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>Daily water use equals or exceeds 95% of treatment capacity for 7 consecutive days and/or reservoir levels continually recede on a daily basis and remain below 74% of capacity for 48 consecutive hours, and/or water pressure below 20 psi occurs in distribution system.</td>
<td>City to reduce or discontinue flushing of water mains and irrigation of public landscaped areas, as well as use alternative supply sources. All requirements from Stage 2 except: schedule and means further restricted for landscape irrigation, watering of golf courses prohibited unless using alternate water source, use of hydrants for construction with special permit to be discontinued.</td>
</tr>
</tbody>
</table>
### Appendix E.1 A Summary of Drought Contingency Plans (DCPs)

| Stage 4 | Daily water use equals or exceeds 120% of treatment capacity for 3 consecutive days and/or the reservoir levels continually recede on a daily basis and remain below 50% capacity for 24 consecutive hours, and/or water pressure below 20 psi occurs in distribution system and the City Manager determines such conditions are a hazard to public health and safety. | City to reduce or discontinue flushing of water mains and irrigation of public landscaped areas, as well as use alternative supply sources. All requirements from Stage 2 and 3 except: schedule and means further restricted for landscape irrigation and washing of motor vehicles; use of water for swimming pools prohibited; no applications for new, additional, or expanded water connections, meters, lines, etc. shall be approved. |
| Stage 5 | 1. Major water lines break, or pump or system failures occur, which cause unprecedented loss of capability to provide water service; or 2. Natural or man-made contamination of the water supply source(s). | City to discontinue flushing of water mains, fire hydrants, and irrigation of public landscaped areas. All requirements from Stages 2, 3, and 4 except: irrigation of landscaped areas and use of water to wash motor vehicles is absolutely prohibited. Stage 6 - Water allocation according to water allocation plan. |
| **BASIS OF DROUGHT TRIGGERS:** | Time of year, reservoir level, system break/failure or contamination, water demand/WTP capacity, projected water demand |

#### TRIGGERS:
- Automatically initiated on May 1 of each year and for any of the following: a) TCEQ Rio Grande Watermaster advises that a water shortage is possible due to low levels in Amistad and Falcon reservoirs, b) level of US’ water in Amistad and Falcon reservoirs reaches 51%, c) line break, pump, or system failure may result in unprecedented loss of capability to provide service, or d) peak demand on the distribution system and/or treatment plants is nearing capacity limits

#### ACTIONS:
- Customers shall be requested to voluntarily conserve water and adhere to the prescribed restrictions on certain water uses.
| Stage 2 | a) Level of US' water in Amistad and Falcon reservoirs reaches 25%, b) analyses of water supply and demand indicate that the annual water allotment may be exhausted, c) line break or pump, or system failure will result in unprecedented loss of capability to provide service, d) peak demands on the distribution system and/or treatment plants are nearing capacity levels, or e) contamination of the water supply and/or transmission system may result in unprecedented loss of capability to provide service. | Customers shall only be allowed to irrigate and wash vehicles following a certain schedule, golf courses shall follow restrictions in their approved water management plans, restaurants may only serve water to customers upon request, and the following are prohibited unless necessary for public health and safety: washing hard-surfaced areas, washing buildings or structures, using water for dust control, flushing gutters, and failing to repair controllable leaks within a reasonable period of time. |
| Stage 3 | a) Level of US' water in Amistad and Falcon reservoirs reaches 15%, b) analyses of water supply and demand the annual water allotment will be exhausted, c) major line break, or pump or system failure may result in unprecedented loss of capability to provide service, d) peak demand on the distribution system and/or treatment plants has exceeded capacity levels for three days, e) contamination of the water supply and/or transmission system will result in unprecedented loss of capability to provide service, or f) the inability to maintain or replenish adequate volumes of water in storage to provide for public health and safety. | All requirements of Stage 2 shall remain in effect and in addition the schedule irrigation and vehicle washing will be further restricted, the use of water from hydrants is only allowed when necessary to maintain public health, safety, and/or welfare, and the following are prohibited: refilling outdoor pools (with some exceptions), operation of outdoor fountains or ponds without recirculation systems unless required to maintain aquatic life, hydrant and sewer flushing except for emergencies, and use of water from or pumping water into resacas. |
| Stage 4 | a) Major line breaks, or pump or system failures occur which cause unprecedented loss of capability to provide water service, or b) contamination of water supply and/or transmission system. | All requirements of Stage 3 shall remain in effect and in addition the following are prohibited: all landscaping watering, use of water for construction purposes under special permit, adding water to swimming pools, adding water to any outdoor or indoor fountain or pond, except to maintain aquatic life. |

**BASIS OF DROUGHT**

| Stage 1 | Total daily water demand equals or exceeds 82.2 percent of the system's safe operating capacity for 3 consecutive days. | a) customers requested to voluntarily limit landscape irrigation to certain days and times. b) all operations of the city of Alamo will adhere to restrictions in Stage 2. c) customers requested to practice water conservation and minimize or discontinue non-essential water use. |
| Stage 2 | Total daily water demand equals or exceeds 86.6 percent of the system’s safe operating capacity for 3 consecutive days. | City shall reduce flushing of water mains. a) schedule and/or means of the following are restricted: landscape irrigation, washing of motor vehicles, use of water for pools, golf course irrigation. b) The following are prohibited: use of water for fountains or ponds, except to support aquatic life; use of hydrants, except for fire fighting, construction with special permit, and necessary activities; serving water in restaurants unless requested; all non-essential uses. |
| Stage 3 | Total daily water demand equals or exceeds 91.1 percent of the system’s safe operating capacity for 3 consecutive days. | City shall discontinue flushing of water mains and inspect water distribution system, tanks, and treatment plants to locate leaks and make repairs. All requirements of Stage 2 in effect except: Further restrictions on schedule and means of landscape irrigation, watering of golf courses prohibited unless using alternate water source, use of hydrants for construction with special permit discontinued. |
| Stage 4 | Total daily water demand equals or exceeds 95.5 percent of the system’s safe operating capacity for 3 consecutive days. | City shall actively pursue the detection, repair, and correction of leaks by means of watering, analysis of water system and billing data, use of leak detection equipment, or use of control devices. All requirements of Stage 3 in effect except: further restrictions on schedule and means of landscape irrigation and washing motor vehicles; water for pools prohibited; water for fountains prohibited except for aquatic life; and no applications for new, additional, or expanded water service connections, lines, etc. shall be allowed. |
| Stage 5 | a) Major water line breaks or pump or system failures occur, causing unprecedented loss of capability to provide water service, or b) Natural of man-made contamination of water supply source(s), or c) unavailability of water supply, unavailability of alternate sources of water, or drought of record conditions which cause unprecedented loss of capability to provide water service. | All requirements of stage 4 remain in effect except: landscape irrigation and use of water to wash motor vehicles is absolutely prohibited. |
| BASIS OF DROUGHT | Water demand, distribution system pressure, system break/failure or contamination CONTAMINATION TRIGGERS: | ACTIONS: Customers shall be requested to voluntarily conserve water and adhere to the prescribed restrictions on certain water uses. |
| Stage 1 | a) Daily Water demand exceeds 85% of the rated plant capacity for three consecutive days, or b) distribution pressure remains below 45 psi for more than six consecutive days | Customers shall be requested to voluntarily conserve water and adhere to the prescribed restrictions on certain water uses. |
## Basis of Drought Triggers:

### Stage 1
- Falcon and Amistad Reservoirs reach 40% of capacity as determined by the TCEQ

### Stage 2
- a) Cameron County Irrigation District No. 2 or other IDs provide notice to ERHWSC that they will disallow farm irrigation water use within 60-90 days,
- b) distribution system pressures fall below 35 psi requirements for two consecutive days,
- c) ERHWSC consumer demand exceeds 85% of ERHWSC plan capacity for 15 days out of any consecutive 30 day period,
- d) Falcon and Amistad Reservoirs reach 15% of capacity as determined by TCEQ.

### Stage 3
- a) Major water line breaks, or pump or system failures occur, which cause loss of capability to provide water service,
- b) natural or man-made contamination of the water supply source(s),
- c) rapidly occurring low-pressure conditions (less than 20 psi) due to any reason.

## Actions:

### Stage 1
- Customers shall be requested to voluntarily conserve water and adhere to the prescribed restrictions on certain water uses.

### Stage 2
- Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses, such as irrigation, washing vehicles, and ornamental fountains and ponds.

### Stage 3
- All requirements of Stage 2 shall remain in effect, except the following are prohibited: all irrigation of landscape, using water to wash any vehicle, and adding water to any type of pool.
Appendix E.1 A Summary of Drought Contingency Plans (DCPs)

| Stage 1 | When three or more of the following criteria are met: 1) City reservoir levels = 43' MFR & 40' DTW and falling, 2) Rio Grande River flows = 13.0 cm/s, 3) PDSI = moderate drought (-2.0 to -2.9), 4) Water demand = 70% of WTP Capacity (26.2 MGD) | Customers are requested to voluntarily conserve water by limiting the irrigation of landscaped areas and minimize water use for non-essential purposes. All operations of Harlingen Waterworks System shall adhere to water restrictions prescribed for Stage 2. |
| Stage 2 | When three or more of the following criteria are met: 1) City reservoir levels = 42' MFR & 39' DTW and falling, 2) Rio Grande River flows = 12.0 cm/s, 3) PDSI = severe drought (-3.0 to -3.9), 4) Water demand = 80% of WTP Capacity (26.2 MGD) | Irrigation of landscape not by use of a hand-held hose, bucket, or drip irrigation shall be on a schedule based on location. Automobile washing not at a commercial facility will be limited to the irrigation schedule and will only be permitted with a hand-held bucket or hose with shut off nozzle. Use of water from fire hydrants will only be allowed for fire fighting or activities to maintain public health, safety, and welfare without a special permit. Golf course irrigation will only be allowed between 11pm and 6am. |
| Stage 3 | When three or more of the following criteria are met: 1) City reservoir levels = 41' MFR & 38' DTW and falling, 2) Rio Grande River flows = 11.0 cm/s, 3) PDSI = extreme drought (-4.0 or less), 4) Water demand = 90% of WTP Capacity (26.2 MGD) | The schedule for landscape irrigation is limited further. Use of water to fill pools is only allowed on watering days. Operation of ornamental fountains will only be allowed if they are necessary to sustain aquatic life or equipped with recirculation system. Only greens and tees on golf courses may be watered. Restaurants may only serve water to their customers when it is requested. The following are prohibited: wash down of sidewalks, walkways, driveways, parking lots, tennis courts, or other hard surfaces; wash down of buildings or structures; use of water for dust control; flushing gutters or permitting water to accumulate in a gutter or street; failure to repair a controllable leak within a reasonable period of time |
| Stage 4 | All four of the criteria of Stage 3 are met; a major pipeline breaks or pump system failure occurs which causes unprecedented loss of capacity to provide water service; or contamination of the water supply | The following are prohibited: all outdoor use of water (including irrigation) except for the direct need to protect the health, safety, and welfare of the public; washing automobiles; filling pools; operation of ornamental fountains unless necessary to sustain aquatic life. The General Manager is authorized to deny any new or expanded water connections, pipeline extensions, etc. |

BASIS OF DROUGHT:
Storage in Amistad-Falcon Reservoir system, water use compared with system capacity, utility's amount of water in storage, treatment or delivery failures, high demand periods like holidays.

TRIGGERS:
Voluntary conservation is the first stage. It is always in effect unless a higher stage is required and enacted.

ACTION:
Voluntary Water Use Restrictions:
1. Recommend that all landscape areas be irrigated on a twice per week or less schedule and that such irrigation occur from midnight through 7 am or other schedules as determined from the General manager;
2. Recommend water customers to discontinue water use for non-essential purposes such as washing any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard surface areas.

Laguna Madre Water District, 3/3/2019
Appendix E.1 A Summary of Drought Contingency Plans (DCPs)

**Stage 2**

1. When the level of U.S. water stored in Amistad and Falcon Reservoirs reaches 51% or 1,660,000 AF (or below). When the level of water is above this amount, this phase is terminated.
2. Average daily water use is approaching 90% of system capacity.
3. Net storage in District’s raw water reservoirs are at 75% and is continually decreasing on a daily basis such that a more serious problem may develop.
4. The availability of raw water is low.
5. The availability of water rights based on quarterly capacity: 1st - 20%, 2nd-40%, 3rd-70%.
6. The capacity to transport and/or treat raw water has been affected.
7. The distribution capacity to customers is approaching a maximum.
8. The reservoir III level at WTP #2 is at 7 feet and dropping.

**Stage 3**

1. During peak demand days such as Texas Week, Easter, Memorial Day, and Labor Day.
2. When the level of US water stored in Amistad and Falcon Reservoirs reaches 25% or 834,600 AF (or below). When the level of water is above this amount, this phase may be terminated.
3. Net storage in District’s raw water reservoirs is at 50% and is continually decreasing on a daily basis such that a more serious problem may develop.
4. The availability of raw water is low.
5. The availability of water rights based on quarterly capacity: 1st-22%, 2nd-46%, 3rd-81%.

1. Landscape irrigation will be permitted from 7 pm through 7 am and on designated water days.
2. Use of water to wash any motor vehicle, trucks, trailers, boats, airplanes, and other mobile equipment will be prohibited except of the landscape water days described above.
3. Water use for non-essential purposes is prohibited.

1. During Spring Break (Texas Week) landscape irrigation will be restricted from 9am the Friday before the actual date of Spring Break through Monday at 9am. Peak demands on other Holidays falling on a Tuesday, Wednesday, or Thursday will have restrictions beginning at 9am a day before the holiday and ending a day after at 9am. Holidays falling on Friday thru Monday will have restrictions beginning on Friday 9am and end on Monday at 9am.
2. Landscape irrigation will be permitted on designated water days. Landscape irrigation with a hand-held garden hose, soaker hose, hand-held bucket or water can, no more than 5 gallons capacity or drip irrigation. Landscape irrigation time will be 7pm to 7am. Commercial nurseries and other similar establishments will have these water restrictions: hand-held buckets or water cans from 7pm - 7am, drip or sprinkler irrigation systems from 7pm-7am.
3. Water use for non-essential purposes is prohibited.
4. Permitting or maintaining defective plumbing in a home or business is prohibited.
5. Operation of any outdoor ornamental fountain or pond for aesthetic or scenic purposes is prohibited, except where necessary to support aquatic life or where such fountain or ponds are equipped with a water recirculation system.
6. Landscape irrigation variances are available but customers need to apply by mail, Facsimile, or email their name, address where the new landscape is to be installed, and the date of installation.
Appendix E.1 A Summary of Drought Contingency Plans (DCPs)

**Stage 4**
1. When the level of US water stored in Amistad and Falcon Reservoirs reaches 15% or 504,600 AF (or below). 2. When a condition related to unexpected circumstances, such as a major problem on the water system due to natural disaster or unanticipated restriction on the raw water delivery system that immediately diminishes the LMWD’s ability to deliver a normal water level. 3. Net storage in district’s raw water reservoirs is at 25% and is continually decreasing on a daily basis such that a more serious problem may develop. 4. Water demand is exceeding the system’s capacity on a regular basis. 5. Rio Grande River level is so low that the River Pumps cannot pump the daily raw water demand. 6. All raw water is being pumped from District’s Storage Reservoirs and all replenishment of raw Water Reservoirs has stopped. 7. The availability of water rights based on quarterly capacity: 1st-24%, 2nd-50%, 3rd-89%. 8. Contamination of the water supply and/or transmission and distribution system due to hurricanes, freezes and/or other natural disasters or man-made cause may result in extraordinary loss of capability to provide service. 9. The alternative water source for the LMWD is to purchase “water” from another system or from a retail entity.

**BASIS OF DROUGHT**
- Water demand/WTP capacity, reservoir level

**TRIGGERS:**
- a) WTP flow is less than 85% capacity for 5 consecutive days, b) Amistad reservoir level reaches 51% capacity

**ACTIONS:**
- Customer are asked to voluntarily reduce their water usage and the following are prohibited: allowing irrigation water to run off into a gutter, ditch, drain, street and failure to repair a controllable leak.

City of Laredo, 8/7/2019
<table>
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<th>Trigger 2</th>
<th>Actions</th>
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</thead>
<tbody>
<tr>
<td>Stage 2</td>
<td>a) WTP flow is at 85% capacity for 3 consecutive days, b) Amistad reservoir level reaches 25% capacity</td>
<td>All requirements for stage 1 remain in effect and the following are only allowed during certain scheduled times: irrigation with sprinkler systems, washing of vehicles, adding water to pools, irrigating parks/plazas/squares. The following are prohibited: operating any ornamental fountain or similar structure without a recycling system and washing paved areas, except to alleviate immediate fire hazards.</td>
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<tr>
<td>Stage 3</td>
<td>a) WTP flow is at 90% capacity for 1 day, b) Amistad reservoir level reaches 20% capacity</td>
<td>All requirements for stage 2 remain in effect, except the schedules to use water for certain activities are even stricter and irrigating athletic fields is also held to a certain schedule. No bulk water sales will be made by the City when the water will be transported outside of the City except for domestic/residential/livestock use. Fire hydrant water sales shall cease.</td>
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<tr>
<td>Stage 4</td>
<td>a) WTP flow is at 95% capacity for 1 day, b) Amistad reservoir level is less than 20% capacity</td>
<td>All requirements for stage 3 remain in effect and no applications for new or expanded water service connections will be approved with permission from the Utilities Director, water delivered to non-essential industrial and commercial customers will be reduced, and a maximum monthly water use allocation may be established for residential customers. The following are prohibited: irrigation, washing vehicles, adding water to pools.</td>
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**BASIS OF DROUGHT**

- **Reservoir Levels, WTP Capacity**

**TRIGGERS:** Falcon and Amistad conservation level between 51% and 26% or flow capacity at 90% for 5 consecutive days. Cumulative reduction goal is 5%.

**ACTIONS:** Customers are requested to voluntarily limit the amount of water used to that amount absolutely necessary for health, business, and irrigation. The following uses are prohibited: Allowing irrigation water to run off into a gutter, ditch, or drain; and failure to repair a controllable leak.

City of Lyford, 7/24/2000
Appendix E.1 A Summary of Drought Contingency Plans (DCPs)

**Stage 2**
Falcon and Amistad conservation level between 25% and 20% or flow capacity at 95% for 5 consecutive days. Cumulative reduction goal is 10%.

All elements of Stage 1 remain in effect except that:
1. Irrigation utilizing hose-end sprinkler systems for lawns, gardens, landscaped areas, trees, shrubs, and other plants is prohibited except during designated hours of 6am to 8am and 8pm to 11pm. Customers with an address east of Hwy 77 are only allowed to water between designated hours on M, W, F. Customers with an address west of Hwy 77 are only allowed to water between designated hours on T, Thr, Sat. Exception: commercial nurseries, sod farmers, and similar establishments are exempt but requested to curtail all nonessential water use.
2. The washing of mobile vehicles and equipment is prohibited except on designated hours between 6am and 8am and 8pm to 11pm on same days designated above. Exception: washing can be done on premises of a commercial carwash or service station and for cleaning of garbage trucks and vehicles to transport food and perishables.
3. The refilling or adding to residential swimming and/or wading pools is prohibited except on designated hours between 8pm to 8am on designated days above.
4. The operation of any ornamental fountain or other structure making similar use of water is prohibited except for those with a recycling system.
5. The use of water for irrigation of parks, plazas, and squares is prohibited except between 8pm to 8am. The irrigation of golf course fairway areas is absolutely prohibited.
6. Essential and utility Use: Fire fighting-no restrictions; medical use by care facilities -no restrictions; Utility-reduction of average system pressure to 60 psi recommended, leak detection and system repairs recommended, stabilizing and equalizing system pressure recommended.

**Stage 3**
Falcon and Amistad conservation level between 20% and 15% or flow capacity at 95% for 5 consecutive days. Cumulative reduction goal is 15%.

All elements of Stage 2 shall remain in effect except that:
1. Irrigation utilizing hose-end sprinklers or automatic sprinkler systems for lawns, gardens, landscaped areas, trees, shrubs, and other plants is prohibited except during designated hours of 6am to 8am and 8pm to 11pm. Customers east of Hwy 77 on M and F, and west of HWY 77 T and Sat. Irrigation by hand-held hoses or drip irrigation systems are exempt.
2. Irrigation using hose-end sprinklers or automatic sprinkler systems for athletic fields is prohibited except during designated house between 8pm to 8am.
3. The watering of golf fairway areas is prohibited unless done with treated wastewater, reused water, or well water.
4. A water use surcharge of $10 shall be levied against all customers that use over 8,000 gallons per month.
### Stage 4

Falcon and Amistad conservation level between 15% and 10% or flow capacity at 100% for 3 consecutive days. Cumulative reduction goal is 25%.

All elements of Stage 3 remain in effect except that:

1. Irrigation utilizing hose-end sprinklers or automatic sprinkler systems for lawns, gardens, landscaped areas, trees, shrubs, and other plants is prohibited except during designated hours of 6am to 8am and 8pm to 11pm. Customers east of Hwy 77 on Wednesdays, and west of HWY 77 only on Saturdays. Irrigation by hand-held hoses or drip irrigation systems are exempt.

2. Washing of mobile vehicles not occurring on the premises of commercial carwashes and service stations, and not in the immediate interest of public health shall be prohibited except between the hours of 6am-8am and 8pm to 11pm and only on the owner’s premises. Customers East of HWY 77 are allowed to on Wednesdays, customers west of HWY 77 are allowed to on Saturdays.

3. Commercial car washes and service stations in the immediate interest of public health, safety and welfare shall be limited to five (5%) percent of their monthly average usage based on the last twelve billing periods for each of such customer. After such usage, the Mayor or his designee shall enforce this subsection by terminating water service.

4. Commercial nurseries, sod farmers, and similar establishments shall water only on designated days between 10pm and 5am and shall use only hand-held hoses, drip irrigation systems or hand-held buckets.

5. The filling, refilling or adding of water, except to maintain the structural integrity of a pool, to swimming and/or wading pools is prohibited.

6. The operation of any ornamental fountain with or without recirculating features is prohibited.

7. Irrigation for athletic fields is prohibited except between the hour of 8pm to 8am with same designated days as other customers.

8. A water surcharge of $15 shall be levied against all customers that use over 8,000 gallons per month.
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<tr>
<th>Stage</th>
<th>Conditions</th>
<th>Actions</th>
</tr>
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<tbody>
<tr>
<td>Stage 1</td>
<td>In effect at all times</td>
<td>Customers asked to voluntarily limit water use to an amount absolutely necessary for health, business, and irrigation.</td>
</tr>
<tr>
<td>Stage 2</td>
<td>1. Demand reaches or exceeds 85% of capacity for 3 consecutive days 2. Amistad-Falcon reservoirs reach 40% capacity 3. Including but not limited to: system outage, equipment failure, or supply contamination</td>
<td>The means and/or schedule of the following is restricted: Irrigation, but drip method or hand-held buckets permitted at any time; washing motor vehicles, except commercial carwashes or service stations; washing or sprinkling foundations; adding water to swimming pools; operation of fountains or ponds, except with a recycling system; irrigation for golf courses, except those using wastewater effluent; hydrants restricted to fire fighting and necessary activities. The following are absolutely prohibited: allowing irrigation water to run off into gutter, ditch, or rain; failure to repair controllable leaks; washing paved surfaces.</td>
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<tr>
<td>Stage 3</td>
<td>1. Demand reaches or exceeds 90% of capacity for 3 consecutive days 2. Amistad-Falcon reservoirs reach 25% capacity 3. Including but not limited to: system outage, equipment failure, or supply contamination</td>
<td>All stage 2 restrictions except: further restrictions on means and schedule for irrigation, except by drip or hand-held buckets; watering of golf fairways is prohibited unless with wastewater effluent, reused water, or well water; customers to pay a water surcharge.</td>
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**Appendix E.1 A Summary of Drought Contingency Plans (DCPs)**

Falcon and Amistad conservation level at 10% or less or flow capacity at 100% for 3 consecutive days. Cumulative reduction goal is 35%.

All elements of Stage 4 shall remain in effect in Stage 5 except that: 1. No applications for new, additional, further expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or other water service facilities of any kind shall be allowed, approved or installed except as approved by the City Council. 2. All allocations of water use to non-essential Industrial and Commercial customers shall be reduced to amounts as established by the Mayor, his designee or the Water Advisory Council. 3. The maximum monthly water use allocation for residential customers may be established with revised rate schedules and penalties by the City Council upon recommendation by the Mayor, his designee or the Water Advisory Council. 4. Irrigation by hose-end sprinklers or automatic sprinkler systems is prohibited. Irrigation by hand-held hoses or drip irrigation systems is allowed between 6am to 8am and 8pm to 11pm for customers east of HWY 77 on Wednesdays and customers west of HWY 77 on Saturdays. 5. The washing of mobile vehicles not occurring on the premises of commercial car washes and service stations and not in the immediate interest of the public health, safety, and welfare is prohibited. 6. Irrigation for athletic fields is prohibited. 6. A water use surcharge of $20 shall be levied against all customers that use over 8,000 gallons per month.
## Appendix E.1 A Summary of Drought Contingency Plans (DCPs)

### Stage 4
- 1. Demand reaches or exceeds 95% of capacity for 3 consecutive days.
- 2. Amistad-Falcon reservoirs reach 20% capacity.
- 3. Including but not limited to: system outage, equipment failure, or supply contamination.

**Actions:**
- All stage 2 and 3 restrictions except: further restrictions on means and schedule for irrigation; washing of motor vehicles not occurring on commercial carwashes and not in the immediate interest of public health and safety is prohibited; carwashes in the interest of public health and safety limited to 50% of monthly average; commercial nurseries, sod farmers, etc. limited to means and schedule restrictions; adding water to pools, except to maintain structural integrity, is prohibited; operation of fountains prohibited; customers to pay a water surcharge.

### Stage 5
- 1. Demand reaches or exceeds 100% of capacity.
- 2. Amistad-Falcon reservoirs reach 15% capacity.
- 3. Including but not limited to: system outage, equipment failure, or supply contamination.

**Actions:**
- All stage 2, 3, and 4 restrictions except: no applications for new, additional, or expanded water connections, lines, etc. are allowed except as approved by PUB; water allocations to non-essential customers reduced as established by the PUB; max monthly water allocation for residential customers established with revised rate schedules and penalties by the PUB; irrigation permitted only by handheld hoses, handheld faucet filled buckets; drip irrigation on set schedule; customers to pay a water surcharge.

### Basis of Drought

<table>
<thead>
<tr>
<th>Trigger</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seasonal, water demands, low rainfall, system failure or water line breaks</td>
<td>Military Highway WSC will reduce or discontinue flushing of water mains and activate use of alternative supply source(s). Customers are asked to voluntarily limit irrigation of landscaped areas to certain days and times. All operations of Military Highway WSC shall voluntarily adhere to Stage 2 water restrictions. Customers are asked to voluntarily practice water conservation and to minimize or discontinue water use for non-essential purposes.</td>
</tr>
<tr>
<td>1. Consumption of 80% of daily max supply for 3 consecutive days.</td>
<td>Military Highway WSC will discontinue flushing of water mains and irrigation of landscaped areas. The means and/or schedule for the following is restricted: irrigation of landscaped areas; washing of motor vehicles, boats, cars, etc.; use of water to fill swimming pool; irrigation of golf courses; operation of fountains or ponds except when necessary to support aquatic life; use of water for hydrants limited to fire fighting or activities to maintain public health, safety and welfare, and construction with special permit; and restaurants are prohibited from serving water except when requested. The following are non-essential and prohibited: wash down sidewalks, driveways, parking lots; use of water to wash down buildings or structures; use of water for dust control; flushing gutters; and failure to repair a controllable leak(s).</td>
</tr>
<tr>
<td>2. Water level in any water storage tanks cannot be replenished for 3 consecutive days.</td>
<td>Military Highway WSC will discontinue flushing of water mains and irrigation of landscaped areas. All requirements for Stage 2 restrictions remain in effect except: the means and schedule for irrigation of landscaped areas is further restricted, watering of golf courses is prohibited, and the use of water for construction purposes from fire hydrants under special permit is to be discontinued.</td>
</tr>
</tbody>
</table>

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Military Highway Water Supply Corporation 5/5/2014
Appendix E.1 A Summary of Drought Contingency Plans (DCPs)

Stage 4

a) Failure of major system component or an event which reduces the minimum residual pressure in the system below 20 psi for 24 hours or longer.  
b) Consumption of 95% or more of max supply for 3 consecutive days.  
c) Consumption of 100% of max supply at water storage levels in system drop during one 24-hour period.  
d) Natural or man-made contamination of water supply source(s).  
e) Declaration of a state of disaster due to drought conditions in a county or counties served by the Corporation.  
f) Reduction of wholesale water supply due to drought conditions.  
g) Other unforeseen events which could cause imminent health or safety risks to public.

Military Highway WSC will discontinue flushing of water mains and irrigation of landscaped areas. All requirements for Stage 2 and 3 remain in effect except: the means and schedule for irrigation of landscaped areas is further restricted; use of water to wash motor vehicles, boats, airplanes, etc. is prohibited and schedules for commercial car washes are restricted; adding water to swimming pools is prohibited; operation of fountains or ponds is prohibited except where necessary to support aquatic life; and no applications for new, additional, or expanded water service connections, meters, mains, etc. of any kind shall be allowed or approved.

Stage 5

a) Major water line breaks, or pump or system failures occur, which case unprecedented loss of capability to provide water service.  
b) Natural or man-made contamination of the water supply source(s).  

Military Highway WSC will use an alternative supply source(s). All requirements of State 2, 3, and 4 restrictions remain in effect except: irrigation of landscaped areas is prohibited, of water to wash any motor vehicle, boat, plane, etc. is prohibited. In the event water shortage conditions threaten public health, safety, and welfare, the GM is authorized to ration water according to a set water allocation plan.

BASIS OF DROUGHT TRIGGERS:

<table>
<thead>
<tr>
<th>STAGE</th>
<th>TRIGGERS</th>
<th>ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>Always in effect unless a more stringent plan is required</td>
<td>Requests customers to voluntarily conserve water using beset management practices to meet 10 percent reduction in daily water demand. Requested voluntary restrictions include irrigation planning and City operations to operate with water use restrictions from Stage 2.</td>
</tr>
<tr>
<td>Stage 2</td>
<td>a) Total daily water demand meets or exceeds 21.0 MG for five consecutive days or 22.0 MG on a single day, and b) reservoir levels do not refill above 65% in a 24-hour period</td>
<td>Customers are required to limit irrigation of landscaped areas with hose-end springlers or automatic systems to 3 days; the washing of any vehicle is designated for morning or evenings on irrigation days or may be performed at any time at a commercial car wash. Filling or refilling pools of any type is prohibited outside of designated watering days; operation of ornamental fountains or ponds is prohibited when not necessary to support aquatic life. Restaurants are prohibited from serving water to patrons except upon request. Non-essential uses of water are prohibited. Irrigation schedules further restricted to two days per week.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>a) Total daily water demand meets or exceeds 22.0 MG for five consecutive days or 23.0 MG on a single day, and b) reservoir levels do not refill above 55% in a 24-hour period</td>
<td></td>
</tr>
</tbody>
</table>

City of Mission, 9/25/2019
Appendix E.1 A Summary of Drought Contingency Plans (DCPs)

<table>
<thead>
<tr>
<th>Stage 4</th>
<th>Basis of Drought</th>
<th>Triggers:</th>
<th>Actions:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reservoir level, system failure</td>
<td>Level in Amistad and Falcon Reservoirs reaches 49% of capacity</td>
<td>All customers are asked to check their plumbing fixtures and facilities to ensure that they are working properly and no water is being wasted. Industrial, wholesale, and certain other customers are asked required to develop and submit a Water Rationing Plan within 60 days. All WSC owned facilities will be placed on mandatory conservation practices. All customers will be asked to comply with a voluntary watering schedule based on their location.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level in Amistad and Falcon Reservoirs reaches 40% of capacity</td>
<td>The voluntary lawn watering provisions from Stage 2 will become mandatory. Allowing water to run off yards, plants, or vegetation into gutters or streets will be prohibited. Non commercial washing of vehicles must be done with a handheld hose or bucket between 6am and 9am or 7pm and 9pm. Commercial washing of any vehicle will only be allowed on commercial washing facilities. Industrial and wholesale customers are required to implement their Water Rationing Plans. The following are prohibited: exterior washing of structures; use of water to wash down sidewalks, driveways, or hard surfaces; continued use of defective plumbing; use of fire hydrants for purposes other than fire fighting; use of water for dust control.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level in Amistad and Falcon Reservoirs reaches 23% of capacity</td>
<td>All nonessential water use not necessary to maintain public health, safety and welfare is prohibited. A pro rata curtailment of deliveries of wholesale water will occur. No application for new or expanded water connections, pipeline extensions, etc. will be allowed except as approved by the Review Committee. The maximum amount of water usage for customers and surcharges may be revised.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level in Amistad and Falcon Reservoirs reaches 13% of capacity or in response to 1. supply source contamination, 2. water production or distribution system limitation, 3. system outage due to failure or damage of major water system components</td>
<td>All nonessential water use not necessary to maintain public health, safety and welfare is prohibited. A pro rata curtailment of deliveries of wholesale water will occur. No application for new or expanded water connections, pipeline extensions, etc. will be allowed except as approved by the Review Committee. The maximum amount of water usage for customers and surcharges may be revised.</td>
</tr>
</tbody>
</table>

North Alamo Water Supply Corporation, 9/17/2019

<table>
<thead>
<tr>
<th>Stage 5</th>
<th>Basis of Drought</th>
<th>Triggers:</th>
<th>Actions:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Major water line breaks or pump system failures, contamination of water supply sources, or as determined by the City Manager or their designee</td>
<td>Major water line breaks or pump system failures, contamination of water supply sources, or as determined by the City Manager or their designee</td>
<td>Irrigation of landscaped areas prohibited. All vehicle washing prohibited.</td>
</tr>
</tbody>
</table>

North Cameron Regional Water Supply Corporation 9/11/2014

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Basis of Drought</th>
<th>Triggers:</th>
<th>Actions:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>North Cameron Regional Water Plant (NCRWP) ground storage tank falls below 50% capacity</td>
<td>North Cameron Regional Water Plant (NCRWP) ground storage tank falls below 50% capacity.</td>
<td>Request wholesale water customers initiate voluntary measure to reduce water use.</td>
</tr>
</tbody>
</table>
## Appendix E.1 A Summary of Drought Contingency Plans (DCPs)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Basis of Drought Trigger</th>
<th>Actions</th>
</tr>
</thead>
</table>
| **Stage 2** | NCRWP ground storage tank capacity falls to 25% capacity. | a) Discuss water supply/demand conditions with customers and request they initiate measures to reduce water use  
b) Implement pro rata curtailment of water diversions and/or deliveries to add 50,000 gallons per day to storage tank |
| **Stage 3** | NCRWP ground storage tank capacity falls to 10% capacity. | a) Increase water blend ratios if possible, not exceeding 1000 ppm TDS  
b) Discuss water supply/demand conditions with customers and request they initiate measures to reduce water use and utilize alternative water supplies  
c) Implement pro rata curtailment of water diversions and/or deliveries to add 75,000 gallons per day to storage tank |
| **Stage 4** | NCRWP has no production capacity. | a) Notify customers of the need to switch to alternate water supplies  
b) If appropriate, notify member, county, and/or state emergency response officials  
c) Undertake necessary actions, including repairs and/or clean-up as needed.  
d) Prepare post-event assessment report on incident and critique of emergency response procedures |

### BASIS OF DROUGHT TRIGGERS:

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Reservoir level</th>
<th>TRIGGERS: Level of US waters in Amistad and Falcon Reservoirs reaches 51% of capacity</th>
</tr>
</thead>
</table>
| **Stage 2** | Reservoir level | ACTIONS: Request customers to voluntarily reduce water usage  
Customers are required to limit irrigation of landscaped areas with hose-end sprinklers or automatic systems to twice per week at certain times, and the washing of any vehicle is prohibited outside of certain times on watering days, and must be performed at commercial car washing locations or be performed by hand-held bucket or hand-held hose. Additionally, filling or refilling pools is prohibited outside of certain times on watering days; operation of ornamental fountains or ponds is prohibited when not necessary to support aquatic life; irrigation of golf courses limited; and non-essential uses of water are prohibited. |
| **Stage 3** | Reservoir level | Irrigation schedules further restricted; watering of golf course tees prohibited unless watered by source other than Olmito WSC. |
| **Stage 4** | Reservoir level | Irrigation schedules further restricted; washing of motor vehicles or other vehicles limited to commercial locations with more restricted hours than previous stages; new connections will not be made, and the approval for new additions is postponed. |

Olmito WSC, 3/7/2019
<table>
<thead>
<tr>
<th>Stage</th>
<th>TRIGGERS</th>
<th>ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 5</td>
<td>Major water line breaks or pump or system failures occur, causing unprecedented loss of capability to provide water service, or as determined by the following: a) Olmito WSC Board of Directors b) County Emergency Management Coordinator(s) c) County Judge &amp; Commissioners d) Texas Commission on Environmental Quality</td>
<td>Irrigation of landscaped areas prohibited. All vehicle washing prohibited.</td>
</tr>
<tr>
<td>Stage 1</td>
<td>Total daily water demand equals or exceeds 15.0 MGD for 5 consecutive days</td>
<td>The public is asked to voluntarily follow certain schedules for landscape irrigation and vehicle washing and to stop using ornamental water features.</td>
</tr>
<tr>
<td>Stage 2</td>
<td>Total daily water demand equals or exceeds 18.0 MGD for 3 consecutive days</td>
<td>The public is required to follow a certain schedule for landscape irrigation and vehicle washing. The following is prohibited: use of ornamental water features without recirculation, washing down paved areas, failure to repair a leak in a timely manner</td>
</tr>
<tr>
<td>Stage 3</td>
<td>Treated water reservoir levels do not refill above 75% overnight</td>
<td>The requirements for stage 2 are still in effect, except that the schedule to irrigate landscape and wash vehicles is stricter.</td>
</tr>
<tr>
<td>Stage 4</td>
<td>a) Water supply available from Hidalgo Irrigation District No. 2 is equal to or less than 5,000 acre-feet b) Notification is received from Hidalgo Irrigation District No. 2 pursuant to requirements in water purchase contract with district requesting initiation of Stage 4 Drought Contingency Plan</td>
<td>Further restrictions on irrigation scheduling; irrigation on golf courses more strictly regulated. Vehicle washing limited to certain times and only at commercial locations; filling of pools or other water bodies prohibited.</td>
</tr>
<tr>
<td>Stage 5</td>
<td>a) Major water line breaks or pump or system failures occur, causing unprecedented loss of capability to provide water service b) Natural of man-made contamination of water supply source(s)</td>
<td>Irrigation of landscaped areas prohibited. All vehicle washing prohibited.</td>
</tr>
</tbody>
</table>

**BASIS OF DROUGHT**

**City of Pharr, 4/22/2019**

Demand, treated water reservoir levels, raw water supplies, line break or system failure

**BASIS OF DROUGHT**

**Raymondville, 8/28/2014**

Demand levels, service disruption or failure
<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stage 1</strong></td>
<td>1. Water demand reaches 90% of firm production capacity; or 2. A disruption due to equipment or distribution system failure that would limit the capacity of the water system below 85% of capacity during high demand periods.</td>
</tr>
</tbody>
</table>

Goal: Achieve a voluntary 35% reduction in daily water use per capita. Voluntary water use restrictions include:  
(a) Water customers are requested to voluntarily limit the irrigation of landscaped areas to Sundays and Thursdays for customers with a street address ending in an even number (0, 2, 4, 6 or 8), and Saturdays and Wednesdays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9), and to irrigate landscapes only between the hours of midnight and 10:00 a.m. and 8:00 p.m. to midnight on designated watering days.  
(b) All operations of the City shall adhere to water use restrictions prescribed for Stage 2 of the Plan.  
(c) Water customers are requested to practice water conservation and to minimize or discontinue water use for non-essential purposes.  

**Stage 2** | 1. Water demand reaches 95% of firm production capacity; or 2. A disruption due to equipment or distribution system failure that would limit the capacity of the water system below 75% of capacity during high demand periods. |

Goal: Achieve a voluntary 40% reduction in daily water use per capita. Restrictions include:  
(a) Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be limited to Sundays and Thursdays for customers with a street address ending in an even number, and Saturdays and Wednesdays for water customers with a street address ending in an odd number, and irrigation of landscaped areas is further limited to the hours of 12:00 midnight until 10:00 a.m. and between 8:00 p.m. and 12:00 midnight on designated watering days. However, irrigation of landscaped areas is permitted at anytime if it is by means of a hand-held hose, a faucet filled bucket or watering can of five (5) gallons or less, or drip irrigation system.  
(b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is prohibited except on designated watering days between the hours of 12:00 midnight and 10:00 a.m. and between 8:00 p.m. and 12:00 midnight. Such washing, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rises. Vehicle washing may be done at any time on the immediate premises of a commercial car wash or commercial service station. Further, such washing may be exempted from these regulations if the health, safety, and welfare of the public are contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.  
(c) Use of water to fill, refill, or add to any indoor or outdoor swimming pools, wading pools, or Jacuzzi-type pools is prohibited except on designated watering days between the hours of 12:00 midnight and 10:00 a.m. and between 8 p.m. and 12:00 midnight. |
Appendix E.1 A Summary of Drought Contingency Plans (DCPs)

Stage 3

1. Water demand reaches 100% of firm production capacity; or
2. A disruption due to equipment or distribution system failure that would limit the capacity of the water system below 70% of capacity during high demand periods.

Goal: achieve 50% reduction in daily water use per capita. Restrictions include all requirements from Stage 2 except: (a) Irrigation of landscaped areas shall be limited to designate watering days between the hours of 12:00 midnight and 10:00 a.m. and between 8 p.m. and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets, drip irrigation, or permanently installed automatic sprinkler system only. The use of hose-end sprinklers is prohibited at all times. (b) The watering of golf course tees is prohibited unless the golf course utilizes a water source other than that provided by the City. (c) The use of water for construction purposes from designated fire hydrants under special permit is to be discontinued.

Stage 4

In the event of an extended period of the severe condition or any natural catastrophic situations that interrupt or have the potential to interrupt the City's potable water supply, the City is authorized to take all reasonable measures as deemed necessary to provide for the public's safety.

Goal: achieve a 60% reduction in daily water use per capita. Restrictions include all requirements of Stage 2 and 3 except:
(a) Irrigation of landscaped areas shall be limited to designated watering days between the hours of 6:00 a.m. and 10:00 a.m. and between 8:00 p.m. and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets, or drip irrigation only. The use of hose-end sprinklers or permanently installed automatic sprinkler systems are prohibited at all times.
(b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle not occurring on the premises of a commercial car wash and commercial service stations and not in the immediate interest of public health, safety, and welfare is prohibited. Further, such vehicle washing at commercial car washes and commercial service stations shall occur only between the hours of 6:00 a.m. and 10:00 a.m. and between 6:00 p.m. and 10 p.m.
(c) The filling, refilling, or adding of water to swimming pools, wading pools, and Jacuzzi-type pools is prohibited.
(d) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.
(e) No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved, and time limits for approval of such applications are hereby suspended for such time as this drought response stage or a higher-numbered stage shall be in effect.
<table>
<thead>
<tr>
<th>Stage 5</th>
<th>Customers shall be required to comply with the requirements and restrictions for Stage 5 of this Plan when Board President, or his/her designee, determines that a water supply emergency exists based on: 1. Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service; or, 2. Natural or man-made contamination of the water supply source(s).</th>
<th>Goal: achieve a 60% reduction in daily use per capita. Restrictions include all requirements from Stages 2, 3, and 4 except: (a) Irrigation of landscaped areas is absolutely prohibited. (b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is absolutely prohibited.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BASIS OF DROUGHT</strong></td>
<td><strong>TRIGGERS:</strong></td>
<td><strong>ACTIONS:</strong></td>
</tr>
<tr>
<td><strong>Stage 1</strong></td>
<td>Amistad-Falcon Reservoirs reach 50% conservation levels or City's system demand is at 7.48 MGD.</td>
<td>Customers requested to voluntarily limited water use to the amount absolutely necessary for health, business, and irrigation.</td>
</tr>
<tr>
<td><strong>Stage 2</strong></td>
<td>Amistad-Falcon Reservoirs reach 40% conservation levels or City's system demand is at 7.7 MGD.</td>
<td>Schedule restrictions apply to the following: irrigation of outdoors vegetation; washing motor vehicles; washing or sprinkling foundations; water for swimming pools; water for fountains or structures prohibited except with recycling system; water for hydrants limited to firefighting and necessary activities. The following are prohibited: allowing irrigation water to run off; failure to repair controllable leaks; washing paved surfaces. No bulk water sales if transported by truck.</td>
</tr>
<tr>
<td><strong>Stage 3</strong></td>
<td>Amistad-Falcon Reservoirs reach 25% conservation levels or City's system demand is at 7.92 MGD.</td>
<td>Restrictions from Stage 2 except: it shall be unlawful to irrigate outdoor vegetation other than on schedule, except drip or hand-held bucket permitted; water surcharge for residential, irrigation-metered, and commercial and industrial metered customers.</td>
</tr>
<tr>
<td><strong>Stage 4</strong></td>
<td>Amistad-Falcon Reservoirs reach 20% conservation levels or City's system demand is at 8.14 MGD.</td>
<td>Restrictions from Stage 3 except: commercial carwashes and service station limited to 50% of monthly average; schedule restrictions for irrigation, nurseries, washing of vehicles, sod farms and only with hand-held hoses, buckets, or drip irrigation; filling pools prohibited except to maintain structural integrity; operation of fountains prohibited; increased surcharge for customers.</td>
</tr>
<tr>
<td><strong>Stage 5</strong></td>
<td>Amistad-Falcon Reservoirs reach 15% conservation levels, City's system demand is at 8.36 MGD, or in response to emergency conditions.</td>
<td>Restrictions from Stage 4 except: no applications for new, additional, or expanded water connections, meters, lines, etc. are allowed except as approved by the PUB; All non-essential customer amounts reduced as established by the PUB; Max monthly allocation for residential customers established with revised rate schedules and penalties on recommendation by the PUB; Washing of vehicles not necessary for public safety and health prohibited; increased surcharge for customers.</td>
</tr>
<tr>
<td>BASIS OF DROUGHT</td>
<td>TRIGGERS:</td>
<td>ACTIONS:</td>
</tr>
<tr>
<td>------------------</td>
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</tr>
<tr>
<td>Stage 1</td>
<td>a) Average daily water use reaches 90% of WTP capacity for 5 consecutive days, b) Falcon and Amistad conservation level is between 26% and 51%</td>
<td>Users are requested to voluntarily limit water usage and the following are prohibited: allowing irrigation water to run off into a gutter/ditch/drain and failure to repair a controllable leak</td>
</tr>
<tr>
<td>Stage 2</td>
<td>a) Average daily water use reaches 95% WTP capacity for 5 consecutive days, b) Falcon and Amistad conservation level is between 20% and 25%</td>
<td>All requirements for stage 1 remain in effect and users are required to follow a certain schedule for irrigation of landscapes/parks/plazas/squares/athletic fields, and vehicle washing. The following is prohibited: use of ornamental water features without recirculation, washing down paved areas unless it’s a fire hazard, irrigating golf course fairway. No bulk water sales will be allowed when water will be transported by a truck or vehicle outside of City limits.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>a) Average daily water use reaches 100% WTP capacity for 5 consecutive days, b) Falcon and Amistad conservation level is between 15% and 20%</td>
<td>All requirements of stage 2 remain in effect except the schedule for irrigation is stricter.</td>
</tr>
<tr>
<td>Stage 4</td>
<td>a) Average daily water use reaches 100% WTP capacity for 5 consecutive days, b) Falcon and Amistad conservation level is between 10% and 15%</td>
<td>All requirements of stage 3 remain in effect except the schedules for irrigation and vehicle washing are even stricter. The following are prohibited: adding water to a pool unless required to maintain structural integrity and operation of any ornamental fountain or similar structure.</td>
</tr>
<tr>
<td>Stage 5</td>
<td>a) Average daily water use reaches 100% WTP capacity for 5 consecutive days, b) Falcon and Amistad conservation level is less than 10%, c) the imminent or immediate failure of a major component of the system causes an immediate health or safety hazard, water levels in the distribution system storage tanks drop to levels such that service pumps cannot pump daily water demand</td>
<td>All requirements of stage 4 remain in effect and any application for new or expanded water service connection will not be allowed unless approved by City Council, allocations of water to non-essential industrial and commercial customers will be reduced, and maximum monthly water use allocations for residential customers may be established. The following are prohibited: irrigation by sprinkler systems, irrigation of athletic fields, and vehicle washing not at commercial locations except as required for public health, safety, or welfare.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BASIS OF DROUGHT</th>
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<tbody>
<tr>
<td>Stage 1</td>
<td>Falcon and Amistad US storage level is 51% of capacity, or upon request from Cameron County Irrigation District #2 as applied to customers within the city with lawn watering contracts.</td>
<td>Users are requested to voluntarily limit water usage and the following are prohibited: allowing irrigation water to run off into a gutter/ditch/drain and failure to repair a controllable leak</td>
</tr>
</tbody>
</table>
### Appendix E.1 A Summary of Drought Contingency Plans (DCPs)

<table>
<thead>
<tr>
<th>Stage</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Stage 2</td>
<td>Falcon and Amistad US storage level is 25% of capacity, or upon request from Cameron County Irrigation District #2 as applied to customers within the city with lawn watering contracts. Or the City Manager may implement Stage 2 at his discretion if the water treatment plant reaches 95% of capacity. City Manager notifies, by public announcement and publication, customers of the water system of mandatory conservation and limitation of use. All municipal operations are placed on mandatory conservation. Lawn watering is not allowed between 10:00 am and 6:00 pm. Grass, trees, shrubbery, annual, biennial or perennial vines, gardens, and other similar vegetation may be watered with a hand-held hose equipped with a positive shut-off nozzle or a hand-held bucket or water can no larger than 5 gallons in capacity. Drip irrigation and sprinkler systems are allowed. Car, trailer, and boat washing are limited to 5-gallon buckets or hand-held hose between 6:00 pm and 9:00 pm. Wasting of water as a result of defective plumbing is prohibited. Hydrants may only be used for fire-fighting. Ornamental fountains or artificial waterfalls where water is not reused or recirculated are prohibited. Washing sidewalks, driveways, parking lots, tennis courts, and buildings is prohibited. Water may only be used for dust control for health hazards. Swimming pools and jacuzzis are not permitted to use water except where required to maintain structural integrity. The city may not use water to place new agricultural land into service. Rate surcharges are put into place.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>Falcon and Amistad US storage level is 10% of capacity, or upon request from Cameron County Irrigation District #2 as applied to customers within the city with lawn watering contracts. Or the City Manager may implement Stage 2 at his discretion if the water treatment plant reaches 95% of capacity. All requirements of stage 2 remain in effect, plus water allowed to run off of yards, plants or vegetation into gutters is prohibited. Rates are increased for high-volume users.</td>
</tr>
<tr>
<td>Stage 4</td>
<td>Falcon and Amistad US storage level is 15% of capacity, or upon request from Cameron County Irrigation District #2 as applied to customers within the city with lawn watering contracts. Or the City Manager may implement Stage 2 at his discretion if the water treatment plant reaches 95% of capacity. All nonessential water use not necessary to maintain public health, safety and welfare is prohibited. Plant watering, car washing, and fountains as described above are prohibited. No new or expanded water service connections, services or facilities may be approved. Residential use may be capped and surcharges associated by the City Commission. The City Manager may take any other actions necessary.</td>
</tr>
</tbody>
</table>

### BASIS OF DROUGHT TRIGGERS:

| Stage 1 | Irrigation allocations by Watermaster halted, water demands, Users are requested to voluntarily limit the amount of water used to that amount absolutely necessary for health, business, and irrigation. |

**San Juan 8/19/2011**
Appendix E.1 A Summary of Drought Contingency Plans (DCPs)

| Stage 2 | Agricultural use of irrigation water is discontinued and/or when the demand on the City's system is at 3.7 MGD for a three consecutive day period. Public is required to limit landscape irrigation with hose-end sprinklers automatic irrigation systems to certain days based on location and only between 8am and 8pm (excludes hand-held hose or drip irrigation). Car washing is limited to the same days as irrigation. Public must discontinue use of ornamental water features unless provisions are made for recirculation of water. |
| Stage 3 | Service or deliver water storage in Falcon and Amistad Reservoirs is reduced by 50% by the Watermaster and/or demand on the City’s system is at 4.1 MGD for a three consecutive day period. Public is required to limit landscape irrigation with hose-end sprinklers automatic irrigation systems to certain days based on location and only between 8am and 8pm. Car washing is only allowed at residences on irrigation days and with hoses with flow control devices. Public must discontinue use of ornamental water features unless provisions are made for recirculation of water. |
| Stage 4 | Municipal allocations are reduced to 75% of full amounts by the Watermaster and/or demand on the City’s system is at 4.5 MGD for three consecutive days. All elements of Stage 3 remain in effect except that: 1. irrigation of vegetation is only allowed between 12am to 10 am and 8pm to 12 am, 2. automobiles may only be washed at non-commercial facilities on irrigation days and on the owner of the vehicle’s property, 3. commercial nurseries, sod farmers, and similar shall only water between 10pm and 5am and shall use only hand-held hoses, drip irrigation, or buckets, 4. residential/domestic meter customers shall pay an additional 75% surcharge for any water used over 10,000 gallons per month. |
| Stage 5 | Municipal allocations are reduced to 80% of full amounts by the Watermaster and/or demand on the City’s system is at 4.8 MGD for three consecutive days. All elements of Stage 4 remain in effect except that: 1. no applications for new or increased water connections, pipeline extensions, etc. shall be allowed, except as approved by the City Commission on recommendation by the Public Utilities Director, 2. maximum monthly water use allocation for residential customers may be established with revised rate schedules and penalties, 3. irrigation is only permitted by hand-held hose, bucket, or drip irrigation between 6am to 8am once every 10 days. |

**BASIS OF DROUGHT TRIGGERS:**

| Stage 1 | a) Falcon lake level drops below 270 ft., b) daily demand exceeds 60% of supply capacity for 3 consecutive days. Wholesale water users will be requested to voluntarily reduce water use. |
| Stage 2 | a) Falcon lake level drops below 265 ft., b) daily demand exceeds 65% of supply capacity for 3 consecutive days. Wholesale water customers will be requested to initiate mandatory measures to reduce non-essential water use and preparations for implementing pro rata curtailment of water deliveries will be made. |
| Stage 3 | a) Falcon lake level drops below 360 ft., b) daily demand exceeds 70% of supply capacity for 3 consecutive days. Wholesale water customers will be requested to initiate additional mandatory measures to reduce non-essential water use and pro rata curtailment of water deliveries will be implemented. |
| Stage 4 | Major water line breaks or pump system failure occurs, which cause unprecedented loss of capability to provide water service. Inform wholesale water customers of the problem and take necessary actions to resolve it. |

**San Ygnacio Municipal Utility District, 4/1/2014**

**Union Water Supply Corporation 7/26/2011**
### Appendix E.1 A Summary of Drought Contingency Plans (DCPs)

<table>
<thead>
<tr>
<th>BASIS OF DROUGHT</th>
<th>TRIGGERS:</th>
<th>ACTIONS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>Always in effect between April 1st and September 30th of every year.</td>
<td>Customers are asked to voluntarily limit water use by the following measures:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. only irrigate between 6pm and 10am,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. irrigate on certain days, based on address,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. prevent significant run off from lawn irrigation,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. wash vehicles only on same days as lawn watering,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. minimize use of potable water for washing sidewalks, drives, and dust control</td>
</tr>
<tr>
<td>Stage 2</td>
<td>Implemented when: 1. drought conditions are officially declared for the County, 2. water levels in Falcon Reservoir drop below 80% of conservation levels, 3. daily water consumption exceeds 90% of daily supply capacity for ten consecutive days</td>
<td>Customers will be required to implement the following measures:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. only irrigate between 6pm and 10am,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. irrigate on certain days, based on address,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. prevent significant run off from lawn irrigation,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. wash vehicles only on same days as lawn watering,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. do not use of potable water for washing sidewalks, drives, and dust control</td>
</tr>
<tr>
<td>Stage 3</td>
<td>Implemented when: 1. extreme drought conditions are officially declared for the County, 2. water levels in Falcon Reservoir drop below 70% of conservation levels, 3. raw water supply drop to 10% below projected needs, 4. daily water consumption exceeds 100% of daily supply capacity for ten consecutive days</td>
<td>Customers will be required to implement the following measures:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. irrigation of landscaped areas only allowed on certain days based on location and between 8pm and 10am, except for irrigation with a hand-held hose, bucket, or drip system,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. vehicle washing not at a commercial facility is only allowed on watering days between 8pm and 10am and with a bucket or hand-held hose with shut off nozzle,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. filling pools is only allowed on water days between 8pm and 10am,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. operation of ornamental fountains is prohibited unless they are required to support aquatic life or are equipped with recirculation system,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. use of water from hydrants or flush valves are only permitted to maintain public health, safety, or welfare,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. water golf course and parks is only allowed on water days between 8pm and 10am and with a hand-held hose,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7. the following are prohibited: wash down of sidewalks, walkways, driveways, etc.; wash down of building and structures; use of water for dust control; flushing gutters or permitting water to accumulate in gutters or streets; failure to repair a controllable leak within a reasonable amount of time; any waste of water.</td>
</tr>
</tbody>
</table>
### Stage 4

| Implemented when: 1. emergency drought conditions are officially declared for the County, 2. water levels in Falcon Reservoir drop below 60% of conservation levels, 3. raw water supply drop to 30% below projected needs, 4. daily water consumption exceeds 105% of daily supply capacity for ten consecutive days | Customers will be required to implement the following measures: 1. irrigation of lawns and landscaped areas is prohibited, 2. vehicle washing is only permitted at a commercial facility, 3. filling pools is prohibited, 4. operation of ornamental fountains is prohibited unless required to sustain aquatic life or if it is equipped with a recirculation system, 5. use of water from hydrants or flush valves is only permitted to maintain public health, safety, and welfare, 6. use of water to irrigate golf course and parks is prohibited, 6. the following are prohibited: wash down of sidewalks, walkways, driveways, etc.; wash down of building and structures; use of water for dust control; flushing gutters or permitting water to accumulate in gutters or streets; failure to repair a controllable leak within a reasonable amount of time; any waste of water. |

### Valley MUD No. 2, 6/18/2013

| BASIS OF DROUGHT | ACTIONS: 1) Water customers are requested to voluntarily limit the irrigation of landscaped areas to no more than 3 days a week. Do not water between the hours of 10:00 a.m. and 7:00 p.m. 2) Water customers are requested to practice water conservation and to minimize or discontinue water use for non-essential purposes. |

| Storage in Amistad-Falcon Reservoir system, water use compared with system capacity, irrigation allocations, treatment or delivery failures | TRIGGERS: 1) When the level of United States water stored in Rio-Grande River Basin Reservoirs reaches 60% of capacity, or Valley MUD #2 allocation of irrigation water has reached 5400 acre-ft. 2) When equipment failure or treatment problems causes the capacity of Valley MUD #2’s treatment and pumping facilities to fall to within 90% of the daily consumption of potable water. |

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Appendix E.1, Page 26
Stage 2

1) When the level of United States water stored in Rio-Grande River Basin Reservoirs reaches 50% of capacity, or Valley MUD #2 allocation of water has reached 3350 acre-ft. 2) When equipment failure or treatment problems causes the capacity of Valley MUD #2’s treatment and pumping facilities to fall to within 70% of the daily consumption of potable water.

1) Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be limited to Sundays and Thursdays for customers with a street address ending in an even number, and Saturdays and Wednesdays for water customers with a street address ending in an odd number. Irrigation of landscaped areas is further restricted and prohibited between the hours of 10:00 a.m. and 7:00 p.m. on designated watering days. However, irrigation of landscaped areas is permitted at any time if it is by means of a hand-held hose, a faucet filled bucket or watering can of five (5) gallons or less, or drip irrigation system.

2) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is prohibited except on designated watering days. Such washing shall be done with a bucket and a hand-held hose equipped with a positive shutoff nozzle for quick rinses. Vehicle washing may be done at any time on the immediate premises of a commercial car wash or commercial service station. Further, such washing may be exempted from these regulations if the health, safety, and welfare of the public are contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.

3) Operation of any ponds or ornamental fountain for aesthetic or scenic purposes is prohibited.

4) Use of water from hydrants shall be limited to firefighting, related activities, or other activities necessary to maintain public health, safety, and welfare. Use of water from designated fire hydrants for construction purposes may be allowed under special permit from the Valley MUD #2.

5) Irrigation of golf course greens, tees, and fairways is permitted between the hours 7:00 p.m. and 10:00 a.m.
Appendix E.1 A Summary of Drought Contingency Plans (DCPs)

Stage 3

1) When the level of United States water stored in Rio-Grande River Basin Reservoirs reaches 30%, or Valley MUD #2 allocation of water has reached 1900 acre-ft.
2) When equipment failure or treatment problems causes the capacity of Valley MUD #2’s treatment and pumping facilities to fall to within 50% of the daily consumption of potable water.

1) Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be limited to Thursdays for customers with a street address ending in an even number, and Wednesdays for water customers with a street address ending in an odd number. Irrigation of landscaped areas is further restricted and prohibited between the hours of 10:00 a.m. and 7:00 p.m. on designated watering days. Irrigation of landscaped areas is permitted at any time if it is by means of a hand-held hose, a faucet filled bucket or watering can of five (5) gallons or less, or drip irrigation system.
2) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is prohibited except on designated watering days. Such washing shall be done with a bucket and a hand-held hose equipped with a positive shutoff nozzle for quick rinses. Vehicle washing may be done at any time on the immediate premises of a commercial car wash or commercial service station. Further, such washing may be exempted from these regulations if the health, safety, and welfare of the public are contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.
3) Operation of any ponds or ornamental fountain for aesthetic or scenic purposes is prohibited. Fountains that are equipped with a recirculation system are not exempt at this stage.
4) Use of water from hydrants shall be limited to firefighting, related activities, or other activities necessary to maintain public health, safety, and welfare. The use of water for construction purposes from designated fire hydrants under special permit is to be discontinued.
5) Irrigation of golf course greens, tees, is permitted between the hours 7:00 p.m. and 10:00 a.m.
### Stage 4

1) when the level of United States water stored in Rio-Grande River Basin Reservoirs reaches 20%, or Valley MUD #2 allocation of water has reached 800 acre-ft.  
2) When equipment failure or treatment problems causes the capacity of Valley MUD #2’s treatment and pumping facilities to fall to within 25% of the daily consumption of potable water.  
3) When water levels in the Rio Grande are low enough to restrict pumping.

1) All irrigation of landscapes is prohibited except for minimal hand watering of drought stressed trees and shrubs.  
2) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is prohibited. Washing may be exempted from these regulations if the health, safety, and welfare of the public are contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.  
3) Operation of any ponds or ornamental fountain for aesthetic or scenic purposes is prohibited. Fountains that are equipped with a recirculation system are not exempt at this stage.  
4) Use of water from hydrants shall be limited to firefighting, related activities, or other activities necessary to maintain public health, safety, and welfare. The use of water for construction purposes from designated fire hydrants under special permit is to be discontinued.  
5) Hand watering of golf course greens and tees is permitted between the hours 7:00 p.m. and 10:00 a.m. Treated effluent must be used for this hand watering. The watering of golf course fairways is prohibited.

6) The following uses of water are defined as non-essential and are prohibited: a) Wash down of any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas; b) use of water to wash down buildings or structures for purposes other than immediate fire protection; c) use of water for dust control; d) flushing gutters or permitting water to run or accumulate in any gutter or street; and e) failure to repair a controllable leak(s) within 3 working days after having been given notice directing the repair of such leak(s).

### BASIS OF DROUGHT

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reservoir level, projected water demand, system break/failure</td>
<td>Reservoir level, projected water demand, system break/failure</td>
</tr>
</tbody>
</table>

### TRIGGERS:

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Level of US waters in Amistad and Falcon reservoirs reaches 51%, b) water demand projections for the year suggest available water rights may be used at 95%</td>
<td>a) Level of US water in Amistad and Falcon reservoirs reaches 25%, b) a condition causes system-wide problems so the normal level of water service may be diminished for a period of time, c) water demand projections for the year suggest available water rights may be used at 98%</td>
</tr>
</tbody>
</table>

### ACTIONS:

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request customers to voluntarily reduce water usage</td>
<td>The means and/or schedule for the following will be restricted: watering of grass and vegetation, washing of vehicles, adding water to pools, and irrigating golf courses. The following are prohibited: allowing water to run off into gutters or streets, washing of buildings, trailers, railroad cars, maintaining defective home plumbing, use of hydrants except for fire fighting, ornamental fountain without recirculation, use of water to wash down hard surfaced area, and use of water for dust control.</td>
</tr>
</tbody>
</table>
### Appendix E.1 A Summary of Drought Contingency Plans (DCPs)

<table>
<thead>
<tr>
<th>Stage 3</th>
<th>a) Level of US water in Amistad and Falcon reservoirs reaches 15%, b) a condition related to extraordinary circumstances severely and immediately diminish the ability to deliver a normal level of water, c) water demand projections for the year suggest available water rights may be used at 100%</th>
<th>The following are prohibited: new service connections to the water system if another water source is already used, serving restaurant customers water when they do not ask for it, use of water for scenic and recreational ponds or lakes, use of water for pools, use of water to put new agricultural land into production, use of water for new planting or landscaping, and acceptance of applications for new or extended water service connections without approval by City. Industrial and commercial users must implement an individual curtailment plan and residential customers will receive a maximum monthly usage amount.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASIS OF DROUGHT</td>
<td>TRIGGERS: Time of year, reservoir level, system break/failure or contamination, water demand/WTP capacity</td>
<td>ACTIONS:</td>
</tr>
<tr>
<td>Stage 1</td>
<td>Automatically initiated on April 1 of each year</td>
<td>Customers are requested to voluntarily limit the use of water for nonessential purposes</td>
</tr>
<tr>
<td>Stage 2</td>
<td>a) Level of Falcon reservoir drops below 270 feet, or b) recorded drinking water treatment as a percentage of total drinking water capacity exceeds 70%</td>
<td>Customers are requested to voluntarily reduce their water use and to follow an irrigation schedule and county and nonessential governmental water use will be reduced.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>a) Level of Falcon reservoir drops below 260 feet, or b) recorded drinking water treatment as percentage of total treatment capacity exceeds 80%</td>
<td>Customers will be limited to certain schedules and methods for irrigation, vehicle washing, and adding water to pools and the following are prohibited: operation of fountains or ponds without recirculation except when necessary to maintain aquatic life, using water from hydrants or flush valves except when maintaining public health, safety, and welfare, washing down hard-surfaced areas, use of water to wash down buildings or structures, use of water for dust control, flushing gutters, failure to repair controllable leaks within a reasonable period of time, any waste of water.</td>
</tr>
<tr>
<td>Stage 4</td>
<td>a) Level of Falcon reservoir drops below 250 feet, or b) recorded drinking water treatment as percentage of total treatment capacity exceeds 90%</td>
<td>In addition to Stage 3 restrictions, emergency interconnects or alternative supply arrangements shall be investigated, and implemented, if available.</td>
</tr>
<tr>
<td>Stage 5</td>
<td>System outage or supply contamination</td>
<td>The TCEQ Regional Office will be immediately notified</td>
</tr>
</tbody>
</table>

Zapata County Waterworks, 7/1/2014
Texas Commission on Environmental Quality
Water Availability Division
MC-160, P.O. Box 13087 Austin, Texas 78711-3087
Telephone (512) 239-4691, FAX (512) 239-2214

Drought Contingency Plan
for a Retail Public Water Supplier

This form is provided as a model of a drought contingency plan for a retail public water supplier. If you need assistance in completing this form or in developing your plan, please contact the Conservation Staff of the Resource Protection Team in the Water Availability Division at (512) 239-4691.

Drought Contingency Plans must be formally adopted by the governing body of the water provider and documentation of adoption must be submitted with the plan. For municipal water systems, adoption would be by the city council as an ordinance. For other types of publicly-owned water systems (example: utility districts), plan adoption would be by resolution of the entity's board of directors adopting the plan as administrative rules. For private investor-owned utilities, the drought contingency plan is to be incorporated into the utility's rate tariff. Each water supplier shall provide documentation of the formal adoption of their drought contingency plan.

Name: ____________________________
Address: ____________________________
Telephone Number: ( ) Fax: ( )
Water Right No.(s): ____________________________
Regional Water Planning Group: ____________________________
Form Completed by: ____________________________
Title: ____________________________
Person responsible for implementation: ____________________________ Phone: ( )
Signature: ____________________________ Date: / / 

Section I: Declaration of Policy, Purpose, and Intent

In order to conserve the available water supply and protect the integrity of water supply facilities, with particular 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 shortage or other water supply emergency conditions, the ________________ (name of your water supplier) hereby adopts the following regulations and restrictions on the delivery and consumption of water.

Water uses regulated or prohibited under this Drought Contingency Plan (the Plan) are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply condition are deemed to constitute a waste of water which subjects the offender(s) to penalties as defined in Section X of this Plan.
Section II: Public Involvement
Opportunity for the public to provide input into the preparation of the Plan was provided by the ____________________________ (name of your water supplier) by means of ____________________________ (describe methods used to inform the public about the preparation of the plan and provide opportunities for input; for example, scheduling and providing public notice of a public meeting to accept input on the Plan).

Section III: Public Education
The ____________________________ (name of your water supplier) will periodically provide the public with information about the Plan, including information about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. This information will be provided by means of ____________________________ (describe methods to be used to provide information to the public about the Plan; for example, public events, press releases or utility bill inserts).

Section IV: Coordination with Regional Water Planning Groups
The service area of the ____________________________ (name of your water supplier) is located within the ____________________________ (name of regional water planning area or areas) and ____________________________ (name of your water supplier) has provided a copy of this Plan to the ____________________________ (name of your regional water planning group or groups).

Section V: Authorization
The ____________________________ (designated official; for example, the mayor, city manager, utility director, general manager, etc.), or his/her designee is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The ____________________________ (designated official) or his/her designee shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

Section VI: Application
The provisions of this Plan shall apply to all persons, customers, and property utilizing water provided by the ____________________________ (name of your water supplier). The terms “person” and “customer” as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities.

Section VII: Definitions
For the purposes of this Plan, the following definitions shall apply:

Aesthetic water use: water use for ornamental or decorative purposes such as fountains, reflecting pools, and water gardens.

Commercial and institutional water use: water use which is integral to the operations of commercial and non-profit establishments and governmental entities such as retail establishments, hotels and motels, restaurants, and office buildings.

Conservation: 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 supply is conserved and made available for future or alternative uses.

Customer: any person, company, or organization using water supplied by ____________________________ (name of your water supplier).
**Domestic water use:** water use for personal needs or for household or sanitary purposes such as drinking, bathing, heating, cooking, sanitation, or for cleaning a residence, business, industry, or institution.

**Even number address:** street addresses, box numbers, or rural postal route numbers ending in 0, 2, 4, 6, or 8 and locations without addresses.

**Industrial water use:** the use of water in processes designed to convert materials of lower value into forms having greater usability and value.

**Landscape irrigation use:** water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks, and rights-of-way and medians.

**Non-essential water use:** water uses that are not essential nor required for the protection of public, health, safety, and welfare, including:

- (a) irrigation of landscape areas, including parks, athletic fields, and golf courses, except otherwise provided under this Plan;
- (b) use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle;
- (c) use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
- (d) use of water to wash down buildings or structures for purposes other than immediate fire protection;
- (e) flushing gutters or permitting water to run or accumulate in any gutter or street;
- (f) use of water to fill, refill, or add to any indoor or outdoor swimming pools or Jacuzzi-type pools;
- (g) use of water in a fountain or pond for aesthetic or scenic purposes except where necessary to support aquatic life;
- (h) failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s); and
- (i) use of water from hydrants for construction purposes or any other purposes other than fire fighting.

**Odd numbered address:** street addresses, box numbers, or rural postal route numbers ending in 1, 3, 5, 7, or 9.

**Section VIII: Criteria for Initiation and Termination of Drought Response Stages**

The ____________________ (designated official) or his/her designee shall monitor water supply and/or demand conditions on a ____________________ (example: daily, weekly, monthly) basis and shall determine when conditions warrant initiation or termination of each stage of the Plan, that is, when the specified “triggers” are reached.

The triggering criteria described below are based on:

(Provide a brief description of the rationale for the triggering criteria; for example, triggering criteria / trigger levels based on a statistical analysis of the vulnerability of the water source under drought of record conditions, or based on known system capacity limits).

**Utilization of alternative water sources and/or alternative delivery mechanisms:**

Alternative water source(s) for ____________________ (name of utility) is/are:
______________________________________________________________________________________.
(Examples: Other well(s), Inter-connection with other system, Temporary use of a non-municipal water supply, Purchased water, Use of reclaimed water for non-potable purposes, etc.).

Stage 1 Triggers – MILD Water Shortage Conditions

Requirements for initiation
Customers shall be requested to voluntarily conserve water and adhere to the prescribed restrictions on certain water uses, defined in Section VII Definitions, when

(Describe triggering criteria / trigger levels; see examples below).

Following are examples of the types of triggering criteria that might be used in one or more successive stages of a drought contingency plan. The public water supplier may devise other triggering criteria and an appropriate number of stages tailored to its system. One or a combination of the criteria selected by the public water supplier must be defined for each drought response stage, but usually not all will apply.

Example 1: Annually, beginning on May 1 through September 30.
Example 2: When the water supply available to the ____________________________ (name of your water supplier) is equal to or less than ___________ (acre-feet, percentage of storage, etc.).
Example 3: When, pursuant to requirements specified in the ____________________________ (name of your water supplier) wholesale water purchase contract with ____________________________ (name of your wholesale water supplier), notification is received requesting initiation of Stage 1 of the Drought Contingency Plan.
Example 4: When flows in the ____________________________ (name of stream or river) are equal to or less than __________ cubic feet per second.
Example 5: When the static water level in the ____________________________ (name of your water supplier) well(s) is equal to or less than __________ feet above/below mean sea level.
Example 6: When the specific capacity of the ____________________________ (name of your water supplier) well(s) is equal to or less than ________ percent of the well’s original specific capacity.
Example 7: When total daily water demand equals or exceeds __________ million gallons for __________ consecutive days of __________ million gallons on a single day (example: based on the safe operating capacity of water supply facilities).
Example 8: Continually falling treated water reservoir levels which do not refill above _________ percent overnight (example: based on an evaluation of minimum treated water storage required to avoid system outage).

Requirements for termination
Stage 1 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of __________ (example: 3) consecutive days.

Stage 2 Triggers – MODERATE Water Shortage Conditions
Requirements for initiation
Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses provided in Section IX of this Plan when _______________ (describe triggering criteria; see examples in Stage 1).

Requirements for termination
Stage 2 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of __________ (example: 3) consecutive days. Upon termination of Stage 2, Stage 1, or the applicable drought response stage based on the triggering criteria, becomes operative.

Stage 3 Triggers – SEVERE Water Shortage Conditions

Requirements for initiation
Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses for Stage 3 of this Plan when _______________ (describe triggering criteria; see examples in Stage 1).

Requirements for termination
Stage 3 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of __________ (example: 3) consecutive days. Upon termination of Stage 3, Stage 2, or the applicable drought response stage based on the triggering criteria, becomes operative.

Stage 4 Triggers – CRITICAL Water Shortage Conditions

Requirements for initiation
Customers shall be required to comply with the requirements and restrictions on certain non-essential water uses for Stage 4 of this Plan when _______________ (describe triggering criteria; see examples in Stage 1).

Requirements for termination
Stage 4 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of __________ (example: 3) consecutive days. Upon termination of Stage 4, Stage 3, or the applicable drought response stage based on the triggering criteria, becomes operative.

Stage 5 Triggers – EMERGENCY Water Shortage Conditions

Requirements for initiation
Customers shall be required to comply with the requirements and restrictions for Stage 5 of this Plan when _______________ (designated official), or his/her designee, determines that a water supply emergency exists based on:

1. Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service; or

2. Natural or man-made contamination of the water supply source(s).

Requirements for termination
Stage 5 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of __________ (example: 3) consecutive days.

Stage 6 Triggers – WATER ALLOCATION
Requirements for initiation
Customers shall be required to comply with the water allocation plan prescribed in Section IX of this Plan and comply with the requirements and restrictions for Stage 5 of this Plan when ____________ (describe triggering criteria, see examples in Stage 1).

Requirements for termination - Water allocation may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of _________ (example: 3) consecutive days.

Note: The inclusion of WATER ALLOCATION as part of a drought contingency plan may not be required in all cases. For example, for a given water supplier, an analysis of water supply availability under drought of record conditions may indicate that there is essentially no risk of water supply shortage. Hence, a drought contingency plan for such a water supplier might only address facility capacity limitations and emergency conditions (example: supply source contamination and system capacity limitations).

Section IX: Drought Response Stages
The ______________ (designated official), or his/her designee, shall monitor water supply and/or demand conditions on a daily basis and, in accordance with the triggering criteria set forth in Section VIII of this Plan, shall determine that a mild, moderate, severe, critical, emergency or water shortage condition exists and shall implement the following notification procedures:

Notification
Notification of the Public:
The ______________ (designated official) or his/ her designee shall notify the public by means of:

Examples:
publication in a newspaper of general circulation,
direct mail to each customer,
public service announcements,
signs posted in public places
take-home fliers at schools.

Additional Notification:
The ______________ (designated official) or his/ her designee shall notify directly, or cause to be notified directly, the following individuals and entities:

Examples:
Mayor / Chairman and members of the City Council / Utility Board
Fire Chief(s)
City and/or County Emergency Management Coordinator(s)
County Judge & Commissioner(s)
State Disaster District / Department of Public Safety
TCEQ (required when mandatory restrictions are imposed)
Major water users
Critical water users, i.e. hospitals
Parks / street superintendents & public facilities managers

Note: The plan should specify direct notice only as appropriate to respective drought stages.

Stage 1 Response – MILD Water Shortage Conditions
Target: Achieve a voluntary ________ percent reduction in ________________
(example: total water use, daily water demand, etc.).

Best Management Practices for Supply Management:

Describe additional measures, if any, to be implemented directly by (name of your water supplier) to manage limited water supplies and/or reduce water demand. Examples include: system water loss control, activation and use of an alternative supply source(s); use of reclaimed water for non-potable purposes.

Voluntary Water Use Restrictions for Reducing Demand:

(a) Water customers are requested to voluntarily limit the irrigation of landscaped areas to Sundays and Thursdays for customers with a street address ending in an even number (0, 2, 4, 6 or 8), and Saturdays and Wednesdays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9), and to irrigate landscapes only between the hours of midnight and 10:00 a.m. and 8:00 p.m. to midnight on designated watering days.

(b) All operations of the ______________________ (name of your water supplier) shall adhere to water use restrictions prescribed for Stage 1 of the Plan.

(c) Water customers are requested to practice water conservation and to minimize or discontinue water use for non-essential purposes.

Stage 2 Response – MODERATE Water Shortage Conditions

Target: Achieve a ________ percent reduction in ______________________ (example: total water use, daily water demand, etc.).

Best Management Practices for Supply Management:

Describe additional measures, if any, to be implemented directly by ____________________________ (name of your water supplier) to manage limited water supplies and/or reduce water demand. Examples include: system water loss control, reduced or discontinued irrigation of public landscaped areas; use of an alternative supply source(s); use of reclaimed water for non-potable purposes.

Water Use Restrictions for Demand Reduction:

Under threat of penalty for violation, the following water use restrictions shall apply to all persons:

(a) Irrigation of landscaped areas with hose-end sprinklers or automatic irrigation systems shall be limited to Sundays and Thursdays for customers with a street address ending in an even number (0, 2, 4, 6 or 8), and Saturdays and Wednesdays for water customers with a street address ending in an odd number (1, 3, 5, 7 or 9), and irrigation of landscaped areas is further limited to the hours of 12:00 midnight until 10:00 a.m. and between 8:00 p.m. and 12:00 midnight on designated watering days. However, irrigation of landscaped areas is permitted at anytime if it is by means of a hand-held hose, a faucet filled bucket or watering can of five (5) gallons or less, or drip irrigation system.

(b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is prohibited except on designated watering days between the hours of 12:00 midnight and 10:00 a.m. and between 8:00 p.m. and 12:00 midnight. Such
washing, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rises. Vehicle washing may be done at any time on the immediate premises of a commercial car wash or commercial service station. Further, such washing may be exempted from these regulations if the health, safety, and welfare of the public is contingent upon frequent vehicle cleansing, such as garbage trucks and vehicles used to transport food and perishables.

(c) Use of water to fill, refill, or add to any indoor or outdoor swimming pools, wading pools, or Jacuzzi-type pools is prohibited except on designated watering days between the hours of 12:00 midnight and 10:00 a.m. and between 8 p.m. and 12:00 midnight.

(d) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.

(e) Use of water from hydrants shall be limited to fire fighting, related activities, or other activities necessary to maintain public health, safety, and welfare, except that use of water from designated fire hydrants for construction purposes may be allowed under special permit from the __________________________ (name of your water supplier).

(f) Use of water for the irrigation of golf course greens, tees, and fairways is prohibited except on designated watering days between the hours 12:00 midnight and 10:00 a.m. and between 8 p.m. and 12:00 midnight. However, if the golf course utilizes a water source other than that provided by the __________________________ (name of your water supplier), the facility shall not be subject to these regulations.

(g) All restaurants are prohibited from serving water to patrons except upon request of the patron.

(h) The following uses of water are defined as non-essential and are prohibited:

1. wash down of any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas;
2. use of water to wash down buildings or structures for purposes other than immediate fire protection;
3. use of water for dust control;
4. flushing gutters or permitting water to run or accumulate in any gutter or street; and
5. failure to repair a controllable leak(s) within a reasonable period after having been given notice directing the repair of such leak(s).

Stage 3 Response – SEVERE Water Shortage Conditions

Target: Achieve a _______ percent reduction in ______________________ (example: total water use, daily water demand, etc).

Best Management Practices for Supply Management:

Describe additional measures, if any, to be implemented directly by __________________________ (name of your water supplier) to manage limited water supplies and/or reduce water demand. Examples include: system water loss control,
reduced or discontinued irrigation of public landscaped areas; use of an alternative supply source(s); use of reclaimed water for non-potable purposes.

Water Use Restrictions for Demand Reduction:
All requirements of Stage 2 shall remain in effect during Stage 3 except:

(a) Irrigation of landscaped areas shall be limited to designated watering days between the hours of 12:00 midnight and 10:00 a.m. and between 8 p.m. and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets, drip irrigation, or permanently installed automatic sprinkler system only. The use of hose-end sprinklers is prohibited at all times.

(b) The watering of golf course tees is prohibited unless the golf course utilizes a water source other than that provided by the ________________ (name of your water supplier).

(c) The use of water for construction purposes from designated fire hydrants under special permit is to be discontinued.

Stage 4 Response – CRITICAL Water Shortage Conditions

Target: Achieve a ________ percent reduction in ___________________ (example: total water use, daily water demand, etc.).

Best Management Practices for Supply Management:

Describe additional measures, if any, to be implemented directly by ___________________ (name of your water supplier) to manage limited water supplies and/or reduce water demand. Examples include: system water loss control, reduced or discontinued irrigation of public landscaped areas; use of an alternative supply source(s); use of reclaimed water for non-potable purposes.

Water Use Restrictions for Reducing Demand:
All requirements of Stage 2 and 3 shall remain in effect during Stage 4 except:

(a) Irrigation of landscaped areas shall be limited to designated watering days between the hours of 6:00 a.m. and 10:00 a.m. and between 8:00 p.m. and 12:00 midnight and shall be by means of hand-held hoses, hand-held buckets, or drip irrigation only. The use of hose-end sprinklers or permanently installed automatic sprinkler systems are prohibited at all times.

(b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle not occurring on the premises of a commercial car wash and commercial service stations and not in the immediate interest of public health, safety, and welfare is prohibited. Further, such vehicle washing at commercial car washes and commercial service stations shall occur only between the hours of 6:00 a.m. and 10:00 a.m. and between 6:00 p.m. and 10 p.m.

(c) The filling, refilling, or adding of water to swimming pools, wading pools, and Jacuzzi-type pools is prohibited.

(d) Operation of any ornamental fountain or pond for aesthetic or scenic purposes is prohibited except where necessary to support aquatic life or where such fountains or ponds are equipped with a recirculation system.
(e) No application for new, additional, expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or water service facilities of any kind shall be approved, and time limits for approval of such applications are hereby suspended for such time as this drought response stage or a higher-numbered stage shall be in effect.

Stage 5 Response – EMERGENCY Water Shortage Conditions

Target: Achieve a ________ percent reduction in ______________________ (example: total water use, daily water demand, etc).

Best Management Practices for Supply Management:

Describe additional measures, if any, to be implemented directly by ____________________________ (name of your water supplier) to manage limited water supplies and/or reduce water demand. Examples include: system water loss control, reduced or discontinued irrigation of public landscaped areas; use of an alternative supply source(s); use of reclaimed water for non-potable purposes.

Water Use Restrictions for Reducing Demand:
All requirements of Stage 2, 3, and 4 shall remain in effect during Stage 5 except:

(a) Irrigation of landscaped areas is absolutely prohibited.

(b) Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other vehicle is absolutely prohibited.

Stage 6 Response – WATER ALLOCATION

In the event that water shortage conditions threaten public health, safety, and welfare, the ____________________________ (designated official) is hereby authorized to allocate water according to the following water allocation plan:

Single-Family Residential Customers

The allocation to residential water customers residing in a single-family dwelling shall be as follows:

<table>
<thead>
<tr>
<th>Persons per Household</th>
<th>Gallons per Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 or 2</td>
<td>6,000</td>
</tr>
<tr>
<td>3 or 4</td>
<td>7,000</td>
</tr>
<tr>
<td>5 or 6</td>
<td>8,000</td>
</tr>
<tr>
<td>7 or 8</td>
<td>9,000</td>
</tr>
<tr>
<td>9 or 10</td>
<td>10,000</td>
</tr>
<tr>
<td>11 or more</td>
<td>12,000</td>
</tr>
</tbody>
</table>

“Household” means the residential premises served by the customer's meter. “Persons per household” include only those persons currently physically residing at the premises and expected to reside there for the entire billing period. It shall be assumed that a particular customer’s household is comprised of two (2) persons unless the customer notifies the ____________________________ (name of your water supplier) of a greater number of persons per household on a form prescribed by the ____________________________
(designated official). The ____________________________ (designated official) shall give his/her best effort to see that such forms are mailed, otherwise provided, or made available to every residential customer. If, however, a customer does not receive such a form, it shall be the customer's responsibility to go to the ____________________________ (name of your water supplier) offices to complete and sign the form claiming more than two (2) persons per household. New customers may claim more persons per household at the time of applying for water service on the form prescribed by the ____________________________ (designated official). When the number of persons per household increases so as to place the customer in a different allocation category, the customer may notify the ____________________________ (name of your water supplier) on such form and the change will be implemented in the next practicable billing period. If the number of persons in a household is reduced, the customer shall notify the ____________________________ (name of your water supplier) in writing within two (2) days. In prescribing the method for claiming more than two (2) persons per household, the ____________________________ (designated official) shall adopt methods to insure the accuracy of the claim. Any person who knowingly, recklessly, or with criminal negligence falsely reports the number of persons in a household or fails to timely notify the ____________________________ (name of your water supplier) of a reduction in the number of person in a household shall be fined not less than $__________.

Residential water customers shall pay the following surcharges:

$__________ for the first 1,000 gallons over allocation.
$__________ for the second 1,000 gallons over allocation.
$__________ for the third 1,000 gallons over allocation.
$__________ for each additional 1,000 gallons over allocation.

Surcharges shall be cumulative.

**Master-Metered Multi-Family Residential Customers**

The allocation to a customer billed from a master meter which jointly measures water to multiple permanent residential dwelling units (example: apartments, mobile homes) shall be allocated 6,000 gallons per month for each dwelling unit. It shall be assumed that such a customer's meter serves two dwelling units unless the customer notifies the ____________________________ (name of your water supplier) of a greater number on a form prescribed by the ____________________________ (designated official). The ____________________________ (designated official) shall give his/her best effort to see that such forms are mailed, otherwise provided, or made available to every such customer. If, however, a customer does not receive such a form, it shall be the customer's responsibility to go to the ____________________________ (name of your water supplier) offices to complete and sign the form claiming more than two (2) dwellings. A dwelling unit may be claimed under this provision whether it is occupied or not. New customers may claim more dwelling units at the time of applying for water service on the form prescribed by the ____________________________ (designated official). If the number of dwelling units served by a master meter is reduced, the customer shall notify the ____________________________ (name of your water supplier) in writing within two (2) days. In prescribing the method for claiming more than two (2) dwelling units, the ____________________________ (designated official) shall adopt methods to insure the accuracy of the claim. Any person who knowingly, recklessly, or with criminal negligence falsely reports the number of dwelling units served by a master meter or fails to timely notify the ____________________________ (name of your water supplier) of a reduction in the number of person in a household shall be fined not less than $__________. Customers billed from a master meter under this provision shall pay the following monthly surcharges:
$_________ for 1,000 gallons over allocation up through 1,000 gallons for each dwelling unit.
$_________, thereafter, for each additional 1,000 gallons over allocation up through a second 1,000 gallons for each dwelling unit.
$_________, thereafter, for each additional 1,000 gallons over allocation up through a third 1,000 gallons for each dwelling unit.
$_________, thereafter for each additional 1,000 gallons over allocation.

Surcharges shall be cumulative.

**Commercial Customers**

A monthly water allocation shall be established by the __________________________  
*(designated official)*, or his/her designee, for each nonresidential commercial customer other than an industrial customer who uses water for processing purposes. The nonresidential customer's allocation shall be approximately __________ (example: 75%) percent of the customer's usage for corresponding month's billing period for the previous 12 months. If the customer’s billing history is shorter than 12 months, the monthly average for the period for which there is a record shall be used for any monthly period for which no history exists. Provided, however, a customer, __________ percent of whose monthly usage is less than __________ gallons, shall be allocated __________ gallons. The __________________________  
*(designated official)* shall give his/her best effort to see that notice of each non-residential customer's allocation is mailed to such customer. If, however, a customer does not receive such notice, it shall be the customer's responsibility to contact the __________________________  
*(name of your water supplier)* to determine the allocation. Upon request of the customer or at the initiative of the __________________________  
*(designated official)*, the allocation may be reduced or increased if, (1) the designated period does not accurately reflect the customer’s normal water usage, (2) one nonresidential customer agrees to transfer part of its allocation to another nonresidential customer, or (3) other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the __________________________  
*(designated official or alternatively, a special water allocation review committee)*. Nonresidential commercial customers shall pay the following surcharges:

Customers whose allocation is __________ gallons through __________ gallons per month:

$_________ per thousand gallons for the first 1,000 gallons over allocation.
$_________ per thousand gallons for the second 1,000 gallons over allocation.
$_________ per thousand gallons for the third 1,000 gallons over allocation.
$_________ per thousand gallons for each additional 1,000 gallons over allocation.

Customers whose allocation is __________ gallons per month or more:

__________ times the block rate for each 1,000 gallons in excess of the allocation up through 5 percent above allocation.
__________ times the block rate for each 1,000 gallons from 5 percent through 10 percent above allocation.
__________ times the block rate for each 1,000 gallons from 10 percent through 15 percent above allocation.
__________ times the block rate for each 1,000 gallons more than 15 percent above allocation.

The surcharges shall be cumulative. As used herein, “block rate” means the charge to the customer per 1,000 gallons at the regular water rate schedule at the level of the
customer’s allocation.

**Industrial Customers**

A monthly water allocation shall be established by the ______________________ (designated official), or his/her designee, for each industrial customer, which uses water for processing purposes. The industrial customer's allocation shall be approximately ________ (example: 90%) percent of the customer’s water usage baseline. Ninety (90) days after the initial imposition of the allocation for industrial customers, the industrial customer’s allocation shall be further reduced to ________ (example: 85%) percent of the customer’s water usage baseline. The industrial customer’s water use baseline will be computed on the average water use for the ________ month period ending prior to the date of implementation of Stage 2 of the Plan. If the industrial water customer's billing history is shorter than ________ months, the monthly average for the period for which there is a record shall be used for any monthly period for which no billing history exists. The ______________________ (designated official) shall give his/her best effort to see that notice of each industrial customer’s allocation is mailed to such customer. If, however, a customer does not receive such notice, it shall be the customer’s responsibility to contact the ______________________ (name of your water supplier) to determine the allocation, and the allocation shall be fully effective notwithstanding the lack of receipt of written notice. Upon request of the customer or at the initiative of the ______________________ (designated official), the allocation may be reduced or increased, (1) if the designated period does not accurately reflect the customer’s normal water use because the customer had shutdown a major processing unit for repair or overhaul during the period, (2) the customer has added or is in the process of adding significant additional processing capacity, (3) the customer has shutdown or significantly reduced the production of a major processing unit, (4) the customer has previously implemented significant permanent water conservation measures such that the ability to further reduce water use is limited, (5) the customer agrees to transfer part of its allocation to another industrial customer, or (6) if other objective evidence demonstrates that the designated allocation is inaccurate under present conditions. A customer may appeal an allocation established hereunder to the ______________________ (designated official or alternatively, a special water allocation review committee). Industrial customers shall pay the following surcharges:

Customers whose allocation is ________ gallons through ________ gallons per month:

- $________ per thousand gallons for the first 1,000 gallons over allocation.
- $________ per thousand gallons for the second 1,000 gallons over allocation.
- $________ per thousand gallons for the third 1,000 gallons over allocation.
- $________ per thousand gallons for each additional 1,000 gallons over allocation.

Customers whose allocation is ________ gallons per month or more:

- ________ times the block rate for each 1,000 gallons in excess of the allocation up through 5 percent above allocation.
- ________ times the block rate for each 1,000 gallons from 5 percent through 10 percent above allocation.
- ________ times the block rate for each 1,000 gallons from 10 percent through 15 percent above allocation.
- ________ times the block rate for each 1,000 gallons more than 15 percent above allocation.
The surcharges shall be cumulative. As used herein, “block rate” means the charge to the customer per 1,000 gallons at the regular water rate schedule at the level of the customer’s allocation.

Section X: Enforcement

(a) No person shall knowingly or intentionally allow the use of water from the __________________________ (name of your water supplier) for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this Plan, or in an amount in excess of that permitted by the drought response stage in effect at the time pursuant to action taken by __________________________ (designated official), or his/her designee, in accordance with provisions of this Plan.

(b) Any person who violates this Plan is guilty of a misdemeanor and, upon conviction shall be punished by a fine of not less than $_________ dollars ($_________) and not more than $_________ dollars ($_________). Each day that one or more of the provisions in this Plan is violated shall constitute a separate offense. If a person is convicted of three or more distinct violations of this Plan, the __________________________ (designated official) shall, upon due notice to the customer, be authorized to discontinue water service to the premises where such violations occur. Services discontinued under such circumstances shall be restored only upon payment of a re-connection charge, hereby established at $_________, and any other costs incurred by the __________________________ (name of your water supplier) in discontinuing service. In addition, suitable assurance must be given to the __________________________ (designated official) that the same action shall not be repeated while the Plan is in effect. Compliance with this plan may also be sought through injunctive relief in the district court.

(c) Any person, including a person classified as a water customer of the __________________________ (name of your water supplier), in apparent control of the property where a violation occurs or originates shall be presumed to be the violator, and proof that the violation occurred on the person’s property shall constitute a rebuttable presumption that the person in apparent control of the property committed the violation, but any such person shall have the right to show that he/she did not commit the violation. Parents shall be presumed to be responsible for violations of their minor children and proof that a violation, committed by a child, occurred on property within the parents’ control shall constitute a rebuttable presumption that the parent committed the violation, but any such parent may be excused if he/she proves that he/she had previously directed the child not to use the water as it was used in violation of this Plan and that the parent could not have reasonably known of the violation.

(d) Any employee of the __________________________ (name of your water supplier), police officer, or other __________________________ employee designated by the __________________________ (designated official), may issue a citation to a person he/she reasonably believes to be in violation of this Ordinance. The citation shall be prepared in duplicate and shall contain the name and address of the alleged violator, if known, the offense charged, and shall direct him/her to appear in the __________________________ (example: municipal court) on the date shown on the citation for which the date shall not be less than 3 days nor more than 5 days from the date the citation was issued. The alleged violator shall be served a copy of the citation. Service of the citation shall be complete upon delivery of the citation to the alleged violator, to an agent or employee of a violator, or to a person over 14 years of age who is a member of the violator’s immediate family or is a resident of the violator’s residence. The alleged violator shall appear in __________________________ (example: municipal court) to enter a plea of guilty or not guilty for the violation of this Plan. If the alleged violator fails to appear in __________________________ (example: municipal court), a warrant for his/her arrest may be issued. A summons to appear may be issued.
in lieu of an arrest warrant. These cases shall be expedited and given preferential setting in ________________ (example: municipal court) before all other cases.

**Section XI: Variances**

The ________________ (designated official), or his/her designee, may, in writing, grant temporary variance for existing water uses otherwise prohibited under this Plan if it is determined that failure to grant such variance would cause an emergency condition adversely affecting the health, sanitation, or fire protection for the public or the person requesting such variance and if one or more of the following conditions are met:

(a) Compliance with this Plan cannot be technically accomplished during the duration of the water supply shortage or other condition for which the Plan is in effect.
(b) Alternative methods can be implemented which will achieve the same level of reduction in water use.

Persons requesting an exemption from the provisions of this Ordinance shall file a petition for variance with the ________________ (name of your water supplier) within 5 days after the Plan or a particular drought response stage has been invoked. All petitions for variances shall be reviewed by the ________________ (designated official), or his/her designee, and shall include the following:

(a) Name and address of the petitioner(s).
(b) Purpose of water use.
(c) Specific provision(s) of the Plan from which the petitioner is requesting relief.
(d) Detailed statement as to how the specific provision of the Plan adversely affects the petitioner or what damage or harm will occur to the petitioner or others if petitioner complies with this Ordinance.
(e) Description of the relief requested.
(f) Period of time for which the variance is sought.
(g) Alternative water use restrictions or other measures the petitioner is taking or proposes to take to meet the intent of this Plan and the compliance date.
(h) Other pertinent information.
Drought Contingency Plan
for a Wholesale Public Water Supplier

This form is provided as a model of a drought contingency plan for a wholesale public water supplier. If you need assistance in completing this form or in developing your plan, please contact the Conservation Staff of the Resource Protection Team in the Water Availability Division at (512) 239-4691.

Drought Contingency Plans must be formally adopted by the governing body of the water provider and documentation of adoption must be submitted with the plan. For example, adoption by a city council as an ordinance or by resolution of the entity’s board of directors adopting the plan as administrative rules.

Name: ________________________________
Address: ________________________________
Telephone Number: ( ) Fax: ( )
Water Right No.(s): ________________________________
Regional Water Planning Group: ________________________________
Form Completed by: ________________________________
Title: ________________________________
Person responsible for implementation: ________________________________ Phone: ( )
Signature: ________________________________ Date: / / 

Section I: Declaration of Policy, Purpose, and Intent

In order to conserve the available water supply and/or to protect the integrity of water supply facilities, with particular 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 shortage or other water supply emergency conditions, the ________________ (name of your water supplier) adopts the following Drought Contingency Plan (the Plan).

Section II: Public Involvement

Opportunity for the public and wholesale water customers to provide input into the preparation of the Plan was provided by ________________ (name of your water supplier) by means of ____________________________________________________________________________________________ (describe methods used to inform the public and wholesale customers about the preparation of the plan and opportunities for input; for example, scheduling and proving public notice of a public meeting to accept input on the Plan).
Section III: Wholesale Water Customer Education

The __________________________ (name of your water supplier) will periodically provide wholesale water customers with information about the Plan, including information about the conditions under which each stage of the Plan is to be initiated or terminated and the drought response measures to be implemented in each stage. This information will be provided by means of ___________________________________________________________ (example: describe methods to be used to provide customers with information about the Plan; for example, providing a copy of the Plan or periodically including information about the Plan with invoices for water sales).

Section IV: Coordination with Regional Water Planning Groups

The water service area of the __________________________ (name of your water supplier) is located within the __________________________ (name of regional water planning area or areas) and the __________________________ (name of your water supplier) has provided a copy of the Plan to the __________________________ (name of your regional water planning group or groups).

Section V: Authorization

The __________________________ (designated official; for example, the general manager or executive director), or his/her designee, is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The __________________________ or his/her designee, shall have the authority to initiate or terminate drought or other water supply emergency response measures as described in this Plan.

Section VI: Application

The provisions of this Plan shall apply to all customers utilizing water provided by the __________________________ (name of your water supplier). The terms “person” and “customer” as used in the Plan include individuals, corporations, partnerships, associations, and all other legal entities.

Section VII: Criteria for Initiation and Termination of Drought Response Stages

The __________________________ (designated official), or his/her designee, shall monitor water supply and/or demand conditions on a (example: weekly, monthly) basis and shall determine when conditions warrant initiation or termination of each stage of the Plan. Customer notification of the initiation or termination of drought response stages will be made by mail or telephone. The news media will also be informed.

The triggering criteria described below are based on:

________________________________________________________________________________________

(provide a brief description of the rationale for the triggering criteria; for example, triggering criteria are based on a statistical analysis of the vulnerability of the water source under drought of record conditions).

Utilization of alternative water sources and/or alternative delivery mechanisms:

Alternative water source(s) for __________________________ (name of utility) is/are:

________________________________________________________________________________________

(Examples: Other well(s), Inter-connection with other system, Temporary use of a non-municipal water supply, Purchased water, Use of reclaimed water for non-potable purposes, etc.).

Stage 1 Triggers -- MILD Water Shortage Conditions
Requirements for initiation - The ________________________________ (name of your water supplier) will recognize that a mild water shortage condition exists when ________________________________
(describe triggering criteria, see examples below).

Below are examples of the types of triggering criteria that might be used in a wholesale water supplier’s drought contingency plan. The wholesale water supplier may devise other triggering criteria and an appropriate number of stages tailored to its system; however, the plan must contain a minimum of three drought stages. One or a combination of such criteria may be defined for each drought response stage:

Example 1: Water in storage in the ________________________________ (name of reservoir) is equal to or less than ________________ (acre-feet and/or percentage of storage capacity).

Example 2: When the combined storage in the ________________________________ (name of reservoirs) is equal to or less than ________________ (acre-feet and/or percentage of storage capacity).

Example 3: Flows as measured by the U.S. Geological Survey gage on the ________________________________ (name of river) near ________________________________, Texas reaches ________________ cubic feet per second (cfs).

Example 4: When total daily water demand equals or exceeds ________________ million gallons for ________________ consecutive days or ________________ million gallons on a single day.

Example 5: When total daily water demand equals or exceeds ________________ percent of the safe operating capacity of ________________ million gallons per day for ________________ consecutive days or ________________ percent on a single day.

Requirements for termination - Stage 1 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of ________________ (example: 30) consecutive days. The ________________________________ (name of water supplier) will notify its wholesale customers and the media of the termination of Stage 1.

Stage 2 Triggers -- MODERATE Water Shortage Conditions

Requirements for initiation - The ________________________________ (name of your water supplier) will recognize that a moderate water shortage condition exists when ________________________________ (describe triggering criteria).

Requirements for termination - Stage 2 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of ________________ (example: 30) consecutive days. Upon termination of Stage 2, Stage 1, or the applicable drought response stage based on the triggering criteria, becomes operative. The ________________________________ (name of your water supplier) will notify its wholesale customers and the media of the termination of Stage 2.

Stage 3 Triggers -- SEVERE Water Shortage Conditions

Requirements for initiation - The ________________________________ (name of your water supplier) will recognize that a severe water shortage condition exists when ________________________________ (describe triggering criteria; see examples in Stage 1).

Requirements for termination - Stage 3 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of ________________ (example: 30) consecutive days. Upon termination of Stage 3, Stage 2, or the applicable drought response stage based on the triggering criteria,
becomes operative. The __________________________ (name of your water supplier) will notify its wholesale customers and the media of the termination of Stage 3.

Stage 4 Triggers -- CRITICAL Water Shortage Conditions

Requirements for initiation - The __________________________ (name of your water supplier) will recognize that an emergency water shortage condition exists when __________________________ (describe triggering criteria; see examples below).

   Example 1.  Major water line breaks, or pump or system failures occur, which cause unprecedented loss of capability to provide water service; or

   Example 2.  Natural or man-made contamination of the water supply source(s).

Requirements for termination - Stage 4 of the Plan may be rescinded when all of the conditions listed as triggering events have ceased to exist for a period of ____________ (example: 30) consecutive days. The __________________________ (name of your water supplier) will notify its wholesale customers and the media of the termination of Stage 4.

Section VIII:  Drought Response Stages

The __________________________ (designated official), or his/her designee, shall monitor water supply and/or demand conditions and, in accordance with the triggering criteria set forth in Section VII, shall determine that mild, moderate, severe, or critical water shortage conditions exist or that an emergency condition exists and shall implement the following actions:

Stage 1 Response -- MILD Water Shortage Conditions

   Target: Achieve a voluntary ____________ percent reduction in __________________________ (example: total water use, daily water demand, etc.).

   Best Management Practices for Supply Management:

   Describe additional measures, if any, to be implemented directly by __________________________ (designated official), or his/her designee(s), to manage limited water supplies and/or reduce water demand. Examples include modifying reservoir operations procedures, interconnection with another water system, and use of reclaimed water for nonpotable purposes.

   Water Use Restrictions for Reducing Demand:

   (a) The __________________________ (designated official), or his/her designee(s), will contact wholesale water customers to discuss water supply and/or demand conditions and will request that wholesale water customers initiate voluntary measures to reduce water use (example: implement Stage 1 or appropriate stage of the customer’s drought contingency plan).

   (b) The __________________________ (designated official), or his/her designee(s), will provide a weekly report to news media with information regarding current water supply and/or demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

Stage 2 Response -- MODERATE Water Shortage Conditions

   Target: Achieve a ______________ percent reduction in __________________________ (example: total water use, daily water demand, etc.).
Best Management Practices for Supply Management:

Describe additional measures, if any, to be implemented directly by ____________________________ (designated official), or his/her designee(s), to manage limited water supplies and/or reduce water demand. Examples include modifying reservoir operations procedures, interconnection with another water system, and use of reclaimed water for non-potable purposes.

Water Use Restrictions for Reducing Demand:

(a) The ____________________________ (designated official), or his/her designee(s), will request wholesale water customers to initiate mandatory measures to reduce non-essential water use (example: implement Stage 2 or appropriate stage of the customer’s drought contingency plan).

(b) The ____________________________ (designated official), or his/her designee(s), will initiate weekly contact with wholesale water customers to discuss water supply and/or demand conditions and the possibility of pro rata curtailment of water diversions and/or deliveries.

(c) The ____________________________ (designated official), or his/her designee(s), will further prepare for the implementation of pro rata curtailment of water diversions and/or deliveries by preparing a monthly water usage allocation baseline for each wholesale customer.

(d) The ____________________________ (designated official), or his/her designee(s), will provide a weekly report to news media with information regarding current water supply and/or demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

Stage 3 Response – SEVERE Water Shortage Conditions

Target: Achieve a ___________ percent reduction in ____________________________ (example: total water use, daily water demand, etc).

Best Management Practices for Supply Management:

Describe additional measures, if any, to be implemented directly by ____________________________ (designated official), or his/her designee(s), to manage limited water supplies and/or reduce water demand. Examples include modifying reservoir operations procedures, interconnection with another water system, and use of reclaimed water for non-potable purposes.

Water Use Restrictions for Reducing Demand:

(a) The ____________________________ (designated official), or his/her designee(s), will contact wholesale water customers to discuss water supply and/or demand conditions and will request that wholesale water customers initiate additional mandatory measures to reduce non-essential water use (example: implement Stage 3 or appropriate stage of the customer's drought contingency plan).

(b) The ____________________________ (designated official), or his/her designee(s), will initiate pro rata curtailment of water diversions and/or deliveries for each wholesale customer.

(c) The ____________________________ (designated official), or his/her designee(s), will provide a weekly report to news media with information regarding current water supply and/or demand conditions, projected water supply and demand conditions if drought conditions persist, and consumer information on water conservation measures and practices.

Stage 4 Response – EMERGENCY Water Shortage Conditions
Whenever emergency water shortage conditions exist as defined in Section VII of the Plan, the _________________ (designated official) shall:

1. Assess the severity of the problem and identify the actions needed and time required to solve the problem.

2. Inform the utility director or other responsible official of each wholesale water customer by telephone or in person and suggest actions, as appropriate, to alleviate problems (example: notification of the public to reduce water use until service is restored).

3. If appropriate, notify city, county, and/or state emergency response officials for assistance.

4. Undertake necessary actions, including repairs and/or clean-up as needed.

5. Prepare a post-event assessment report on the incident and critique of emergency response procedures and actions.

Section IX: Pro Rata Curtailment

In the event that the triggering criteria specified in Section VII of the Plan for Stage 3 – Severe Water Shortage Conditions have been met, the _________________ (designated official) is hereby authorized to initiate allocation of water supplies on a pro rata basis in accordance with Texas Water Code, §11.039.

Section X: Contract Provisions

The _________________ (name of your water supplier) will include a provision in every wholesale water contract entered into or renewed after adoption of the plan, including contract extensions, that in case of a shortage of water resulting from drought, the water to be distributed shall be divided in accordance with Texas Water Code, §11.039.

Section XI: Enforcement

Example of surcharge:
During any period when either mandatory water use restrictions or pro rata allocation of available water supplies are in effect, wholesale customers shall pay the following surcharges on excess water diversions and/or deliveries:

_______ times the normal water charge per acre-foot for water diversions and/or deliveries in excess of the monthly allocation from ____________ percent through ____________ percent above the monthly allocation.

Examples of fines and/or discontinuation of service:
Mandatory water use restrictions or pro rata allocation of available water supplies may be imposed during drought stages and emergency water management actions. These water use restrictions will be enforced by warnings and penalties as follows:

• On the first violation, customers will be notified by written notice that they have violated the mandatory water use restriction.
• If the first violation has not been corrected after ten (10) days from the written notice, _________________ (name of your water supplier) may assess a fine up to $_____________ per violation.
• _________________ (name of your water supplier) may install a flow restricting device in
the line to limit the amount of water which will pass through the meter in a 24-hour period. The
utility may charge the customer for the actual cost of installing and removing the flow restricting
device, not to exceed fifty dollars ($50.00);

- __________________________ (name of your water supplier) maintains the right, at any violation or
  action level, to disconnect irrigation systems and/or suspend water services to a customer for
  public safety issues with reconnection fees and possible citations.
- Subsequent violations of the plan shall result in increased fines or upon the occurrence of
  __________ violations, after notice, the discontinuation of services. Services discontinued
  under this provision shall be restored only upon payment of a reconnection fee and any other
  costs incurred by the utility in discontinuing service.

Section XII: Variances

The __________________________ (designated official), or his/her designee, may, in writing, grant a
temporary variance to the pro rata water allocation policies provided by this Plan if it is determined that
failure to grant such variance would cause an emergency condition adversely affecting the public health,
welfare, or safety and if one or more of the following conditions are met:

(a) Compliance with this Plan cannot be technically accomplished during the duration of the water
supply shortage or other condition for which the Plan is in effect.
(b) Alternative methods can be implemented which will achieve the same level of reduction in water
use.

Persons requesting an exemption from the provisions of this Plan shall file a petition for variance with
the __________________________ (designated official) within 5 days after pro rata allocation has been
invoked. All petitions for variances shall be reviewed by the __________________________ (governing body),
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 pro rata allocation of
water under the policies and procedures established in the Plan adversely affects the petitioner
or what damage or harm will occur to the petitioner or others if petitioner complies with this
Ordinance.
(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 Plan
and the compliance date.
(f) Other pertinent information.

Variances granted by the __________________________ (governing body) shall be subject to the following
conditions, unless waived or modified by the __________________________ (governing body) or its designee:

(a) Variances granted shall include a timetable for compliance.
(b) Variances granted shall expire when the Plan 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 Plan occurring prior to the
issuance of the variance.

Section XIII: Severability

It is hereby declared to be the intention of the __________________________ (governing body of your water
supplier) 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 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 Plan, since the same would not have been enacted by the ______________________ (governing body of your water supplier) without the incorporation into this Plan of any such unconstitutional phrase, clause, sentence, paragraph, or section.
Model Drought Contingency Plan
for an Irrigation District

This form is provided as a model of a drought contingency plan for an irrigation district. If you need assistance in completing this form or in developing your plan, please contact the Conservation Staff of the Resource Protection Team in the Water Availability Division at (512) 239-4691.

Drought Contingency Plans must be formally adopted by the governing body of the irrigation district and documentation of adoption must be submitted with the plan. An example resolution can be found at the end of this form.

Irrigation District: ____________________________________________________________

Address: ___________________________________________________________________

Telephone Number: ___________________ Fax: ___________________

Water Right No.(s): __________________________________________________________

Regional Water Planning Group: _______________________________________________

Form Completed by: __________________________________________________________

Title: ______________________________________________________________________

Person responsible for implementation: ____________________________________________

Phone: ___________________ Phone: (___) Fax: (___) __________ Date:  /  /

Section I: Declaration of Policy, Purpose, and Intent

The Board of Directors of the __________________________ (name of irrigation district) deems it to be in the interest of the District to adopt Rules and Regulations governing the equitable and efficient allocation of limited water supplies during times of shortage. These Rules and Regulations constitute the District’s drought contingency plan required under Section 11.1272, Texas Water Code, Vernon’s Texas Codes Annotated, and associated administrative rules of the Texas Commission on Environmental Quality (Title 30, Texas Administrative Code, Chapter 288).

Section II: User Involvement

Opportunity for users of water from the __________________________ (name of irrigation district) was provided by means of _________________________________ (describe methods used to inform water users about the preparation of the plan and opportunities for input; for example, scheduling and providing notice of a public meeting to accept user input on the plan).

Section III: User Education

TCEQ-20192 (Rev. 12/2018)
The __________________________ (name of irrigation district) will periodically provide water users with information about the Plan, including information about the conditions under which water allocation is to be initiated or terminated and the district’s policies and procedures for water allocation. This information will be provided by means of __________________________ (example: describe methods to be used to provide water users with information about the Plan; for example, by providing copies of the Plan and by posting water allocation rules and regulations on the district’s public bulletin board).

Section IV: Authorization

The __________________________ (example: general manager) is hereby authorized and directed to implement the applicable provision of the Plan upon determination by the Board that such implementation is necessary to ensure the equitable and efficient allocation of limited water supplies during times of shortage.

Section V: Application

The provisions of the Plan shall apply to all persons utilizing water provided by the __________________________ (name of irrigation district). The term “person” as used in the Plan includes individuals, corporations, partnerships, associations, and all other legal entities.

Section VI: Initiation of Water Allocation

The __________________________ (designated official) shall monitor water supply conditions on a __________________________ (example: weekly, monthly) basis and shall make recommendations to the Board regarding irrigation of water allocation. Upon approval of the Board, water allocation will become effective when __________________________ (describe the criteria and the basis for the criteria):

Below are examples of the types of triggering criteria that might be used; singly or in combination, in an irrigation district’s drought contingency plan:

Example 1: Water in storage in the __________________________ (name of reservoir) is equal to or less than __________ (acre-feet and/or percentage of storage capacity).

Example 2: Combined storage in the __________________________ (name or reservoirs) reservoir system is equal to or less than __________ (acre-feet and/or percentage of storage capacity).

Example 3: Flows as measured by the U.S. Geological Survey gage on the __________________________ (name of reservoir) near __________________________, Texas reaches __________ cubic feet per second (cfs).

Example 4: The storage balance in the district’s irrigation water rights account reaches __________ acre-feet.

Example 5: The storage balance in the district’s irrigation water rights account reaches an amount equivalent to __________ (number) irrigations for each flat rate acre in which all flat rate assessments are paid and current.

Example 6: The __________________________ (name of entity supplying water to the irrigation district) notifies the district that water deliveries will be limited to __________ acre-feet per year (i.e. a level below that required for unrestricted irrigation).
Section VII: Termination of Water Allocation

The district’s water allocation policies will remain in effect until the conditions defined in Section IV of the Plan no longer exist and the Board deems that the need to allocate water no longer exists.

Section VIII: Notice

Notice of the initiation of water allocation will be given by notice posted on the District’s public bulletin board and by mail to each _________________ (example: landowner, holders of active irrigation accounts, etc.).

Section IX: Water Allocation

(a) In identifying specific, quantified targets for water allocation to be achieved during periods of water shortages and drought, each irrigation user shall be allocated ___________ irrigations or ___________ acre-feet of water each flat rate acre on which all taxes, fees, and charges have been paid. The water allotment in each irrigation account will be expressed in acre-feet of water.

Include explanation of water allocation procedure. For example, in the Lower Rio Grande Valley, an “irrigation” is typically considered to be equivalent to eight (8) inches of water per irrigation acre; consisting of six (6) inches of water per acre applied plus two (2) inches of water lost in transporting the water from the river to the land. Thus, three irrigations would be equal to 24 inches of water per acre or an allocation of 2.0 acre-feet of water measured at the diversion from the river.

(b) As additional water supplies become available to the District in an amount reasonably sufficient for allocation to the District’s irrigation users, the additional water made available to the District will be equally distributed, on a pro rata basis, to those irrigation users having ________________.

Example 1: An account balance of less than ___________ irrigations for each flat rate acre (i.e. ___________ acre-feet).

Example 2: An account balance of less than ___________ acre-feet of water for each flat rate acre.

Example 3: An account balance of less than ___________ acre-feet of water.

(c) The amount of water charged against a user’s water allocation will be ___________ (example: eight inches) per irrigation, or one allocation unit, unless water deliveries to the land are metered. Metered water deliveries will be charges based on actual measured use. In order to maintain parity in charging use against a water allocation between non-metered and metered deliveries, a loss factor of ___________ percent of the water delivered in a metered situation will be added to the measured use and will be charged against the user’s water allocation. Any metered use, with the loss factor applied, that is less than eight (8) inches per acre shall be credited back to the allocation unit and will be available to the user. It shall be a violation of the Rules and Regulations for a water user to use water in excess of the amount of water contained in the user’s irrigation account.
(d) Acreage in an irrigation account that has not been irrigated for any reason within the last two (2) consecutive years will be considered inactive and will not be allocated water. Any landowner whose land has not been irrigated within the last two (2) consecutive years, may, upon application to the District expressing intent to irrigate the land, receive future allocations. However, irrigation water allocated shall be applied only upon the acreage to which it was allocated and such water allotment cannot be transferred until there have been two consecutive years of use.

Section X: Transfers of Allotments

(a) A water allocation in an active irrigation account may be transferred within the boundaries of the District from one irrigation account to another. The transfer of water can only be made by the landowner's agent who is authorized in writing to act on behalf of the landowner in the transfer of all or part of the water allocation from the described land of the landowner covered by the irrigation account.

(b) A water allocation may not be transferred to land owned by a landowner outside the District boundaries.

or

A water allocation may be transferred to land outside the District’s boundaries by paying the current water charge as if the water was actually delivered by the District to the land covered by an irrigation account. The amount of water allowed to be transferred shall be stated in terms of acre-feet and deducted from the landowner’s current allocation balance in the irrigation account. Transfers of water outside the District shall not affect the allocation of water under Section VII of these Rules and Regulations.

(c) Water from outside the District may not be transferred by a landowner for use within the District.

or

Water from outside the District may be transferred by a landowner for use within the District. The District will divert and deliver the water on the same basis as District water is delivered, except that a ____________ percent conveyance loss will be charged against the amount of water transferred for use in the District as the water is delivered.

Section XI: Penalties

Any person who willfully opens, closes, changes or interferes with any headgate or uses water in violation of these Rules and Regulations, shall be considered in violation of Section 11.0083, Texas Water Code, Vernon's Texas Codes Annotated, which provides for punishment by fine of not less than $10.00 nor more than $200.00 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 ________________ 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 Rules and Regulations.

Section XII: Severability

It is hereby declared to be the intention of the Board of Directors of the ________________ (name of irrigation district) that the sections, paragraphs, sentences, clauses, and phrases of this Plan 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 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.

**Section XIII: Authority**

The foregoing rules and regulations are adopted pursuant to and in accordance with Sections 11.039, 11.083, 11.1272; Section 49.004; and Section 58.127-130 of the Texas Water Code, *Vernon's Texas Codes Annotated*.

**Section XIV: Effective Date of Plan**

The effective date of this Rule shall be five (5) days following the date of Publication hereof and ignorance of the Rules and Regulations is not a defense for a prosecution for enforcement of the violation of the Rules and Regulations.
EXAMPLE RESOLUTION FOR ADOPTION OF A DROUGHT CONTINGENCY PLAN

RESOLUTION NO. ________

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE _________________ (name of water supplier) ADOPTING A DROUGHT CONTINGENCY PLAN.

WHEREAS, the Board recognizes that the amount of water available to the ____________ (name of water supplier) and its water utility customers is limited and subject to depletion during periods of extended drought;

WHEREAS, the Board recognizes that natural limitations due to drought conditions and other acts of God cannot guarantee an uninterrupted water supply for all purposes;

WHEREAS, Section 11.1272 of the Texas Water Code and applicable rules of the Texas Commission on Environmental Quality require all public water supply systems in Texas to prepare a drought contingency plan; and

WHEREAS, as authorized under law, and in the best interests of the customers of the ____________ (name of water supply system), the Board deems it expedient and necessary to establish certain rules and policies for the orderly and efficient management of limited water supplies during drought and other water supply emergencies;

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE _________________ (name of water supplier):

SECTION 1. That the Drought Contingency Plan attached hereto as Exhibit A and made part hereof for all purposes be, and the same is hereby, adopted as the official policy of the _________________ (name of water supplier).

SECTION 2. That the ____________ (example: general manager) is hereby directed to implement, administer, and enforce the Drought Contingency Plan.

SECTION 3. That this resolution shall take effect immediately upon its passage.

DULY PASSED BY THE BOARD OF DIRECTORS OF THE _________________, ON THIS __ day of ____________, 20_.

ATTESTED TO:

President, Board of Directors

Secretary, Board of Directors
Texas Commission on Environmental Quality

PROFILE & WATER CONSERVATION PLAN
REQUIREMENTS FOR WHOLESALE PUBLIC WATER SUPPLIERS

This form is provided to assist wholesale public water suppliers in water conservation plan development. Information from this form should be included within a wholesale public water supplier water conservation plan. If you need assistance in completing this form or in developing your plan, please contact the conservation staff of the Resource Protection Team in the Water Supply Division at (512) 239-4691.

Name of Entity: ____________________________

Address & Zip: ______________________________

Telephone Number: ( ) Fax: ( )

Form Completed by: __________________________

Title: __________________________

Signature: __________________________ Date: __________________________

Name and Phone Number of Person/Department responsible for implementing a water conservation program: __________________________

PROFIL_E

I. WHOLESALE SERVICE AREA POPULATION AND CUSTOMER DATA

A. Population and Service Area Data

1. Service area size in square miles: __________________________
   (attach a copy of service-area map)

2. Current population of service area: __________________________

3. Current population served for:
   a. water __________________________
   b. wastewater __________________________

4. Population served for previous five years:

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
</tbody>
</table>
5. Projected population for service area in the following decades:

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
</tr>
<tr>
<td>2030</td>
<td></td>
</tr>
<tr>
<td>2040</td>
<td></td>
</tr>
<tr>
<td>2050</td>
<td></td>
</tr>
</tbody>
</table>

6. List source or method for the calculation of current and projected population:

______________________________________________________________
______________________________________________________________
______________________________________________________________
______________________________________________________________

B. Customers Data

List (or attach) the names of all wholesale customers, amount of annual contract, and amount of the annual use for each for the previous year:

<table>
<thead>
<tr>
<th>Wholesale Customer</th>
<th>Contracted Amount (AF)</th>
<th>Previous Year Amount of Water Delivered (AF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

II. WATER USE DATA FOR SERVICE AREA

A. Water Delivery

Indicated if the water provided under wholesale contracts is treated or raw water and the annual amount for each for previous year:

<table>
<thead>
<tr>
<th>Treated</th>
<th>Raw</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total amount delivered or sold for previous year (acre-feet)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B. Water Accounting Data
1. Total amount of water diverted at point of diversion(s) for previous five years (in acre-feet) for all water uses:

<table>
<thead>
<tr>
<th>Year</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
<th>TOTAL</th>
</tr>
</thead>
</table>

2. Wholesale population served and total amount of water diverted for municipal use for previous five years:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population Served</th>
<th>Total Annual Water Diverted for Municipal Use (acre feet)</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

II. WATER USE DATA FOR SERVICE AREA

A. Water Delivery

Indicated if the water provided under wholesale contracts is treated or raw water and the annual amount for each for previous year:

Total amount delivered or sold for previous year (acre-feet)

<table>
<thead>
<tr>
<th>Treated</th>
<th>Raw</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B. Water Accounting Data

1. Total amount of water diverted at point of diversion(s) for previous five years (in acre-feet) for all water uses:

<table>
<thead>
<tr>
<th>Year</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>TOTAL</th>
</tr>
</thead>
</table>

### II. WATER CONSUMPTION DATA

#### 2. Wholesale population served and total amount of water diverted for municipal use for previous five years:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population Served</th>
<th>Total Annual Water Diverted for Municipal Use (acre feet)</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

#### C. Projected Water Demands

If applicable, project and attach water supply demands for the next ten years using information such as population trends, historical water use, and economic growth in the service area over the next ten years and any additional water supply requirement from such growth.

### III. WATER SUPPLY SYSTEM DATA

#### A. Water Supply Sources

List all current water supply sources and the amounts authorized with each:

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount Authorized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Water:</td>
<td>________________ acre-feet</td>
</tr>
<tr>
<td>Groundwater:</td>
<td>________________ acre-feet</td>
</tr>
<tr>
<td>Other:</td>
<td>________________ acre-feet</td>
</tr>
</tbody>
</table>
B. Treatment and Distribution System (if provide treated water)

1. Design daily capacity of system: _______________ MGD
2. Storage Capacity: Elevated ________ MGD, Ground _______ MGD
3. Please describe the water system and attach. Include the number of treatment plants, wells, and storage tanks. If possible, attach a sketch of the system layout.

IV. WASTEWATER SYSTEM DATA

A. Wastewater System Data (if applicable)

1. Design capacity of wastewater treatment plant(s): ___________ MGD

2. Briefly describe the wastewater system(s) of the area serviced by the wholesale public water supplier. Describe how treated wastewater is disposed of. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and, if wastewater is discharged, the receiving stream. If possible, attach a sketch or map which locates the plant(s) and discharge points or disposal sites.

B. Wastewater Data for Service Area (if applicable)

1. Percent of water service area served by wastewater system: ______%

2. Monthly volume treated for previous three years (in 1,000 gallons):

<table>
<thead>
<tr>
<th>Year</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
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<th>TOTAL</th>
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<td>Year</td>
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</tbody>
</table>
In addition to the description of the wholesaler's service area (profile from above), a water conservation plan for a wholesale public water supplier must include, at a minimum, additional information as required by Title 30, Texas Administrative Code, §288.5. Note: If the water conservation plan does not provide information for each requirement, an explanation must be included as to why the requirement is not applicable.

Specific, Quantified 5 & 10-Year Targets

The water conservation plan must include specific, quantified five-year and ten-year targets for water savings including, where appropriate, target goals for municipal use in gallons per capita per day for the wholesaler's service area, maximum acceptable unaccounted-for water, and the basis for the development of these goals. Note that the goals established by wholesale water suppliers under this subparagraph are not enforceable.

Metering Devices

The water conservation plan must include a description as to which practice(s) and/or device(s) will be utilized to measure and account for the amount of water diverted from the source(s) of supply.

Record Management Program

The water conservation plan must include a monitoring and record management program for determining water deliveries, sales, and losses.

Metering/Leak-Detection and Repair Program

The water conservation plan must include a program of metering and leak detection and repair for the wholesaler's water storage, delivery, and distribution system.

Reservoir Systems Operations Plan

The water conservation plan must include a reservoir systems operations plan, if applicable, providing for the coordinated operation of reservoirs owned by the applicant within a common watershed or river basin. The reservoir systems operations plans shall include optimization of water supplies as one of the significant goals of the plan.

Contract Requirements for Successive Customer Conservation
The water conservation plan must include a requirement in every water supply contract entered into or renewed after official adoption of the water conservation plan, and including any contract extension, that each successive wholesale customer develop and implement a water conservation plan or water conservation measures using the applicable elements of this chapter. If the customer intends to resell the water, then the contract between the initial supplier and customer must provide 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 the provisions of Title 30 TAC Chapter 288.

Enforcement Procedure & Official Adoption

The water conservation plan must include a means for implementation and enforcement, which shall be evidenced by a copy of the ordinance, rule, resolution, or tariff, indicating official adoption of the water conservation plan by the water supplier; and a description of the authority by which the water supplier will implement and enforce the conservation plan.

Coordination with the Regional Water Planning Group(s)

The water conservation plan must include documentation of coordination with the regional water planning groups for the service area of the wholesale water supplier in order to ensure consistency with the appropriate approved regional water plans.

Example statement to be included within the water conservation plan:

*The service area of the _____________ (name of water supplier) is located within the ___________ (name of regional water planning area or areas) and ___________ (name of water supplier) has provided a copy of this water conservation plan to the ___________ (name of regional water planning group or groups).*

Plan Review and Update

Beginning May 1, 2005, the wholesale water supplier shall review and update its water conservation plan, as appropriate based on an assessment of previous five-year and ten-year targets and any other new or updated information. A wholesale water supplier shall review and update the next revision of its water conservation plan not later than May 1, 2009, and every five years after that date to coincide with the regional water planning group. The revised plan must also include an implementation report.

*Best Management Practices Guide*
On November 2004, the Texas Water Development Board’s (TWDB) Report 362 was completed by the Water Conservation Implementation Task Force. Report 362 is the Water Conservation Best Management Practices (BMP) Guide. The BMP Guide is a voluntary list of management practices that water users may implement in addition to the required components of Title 30, Texas Administrative Code, Chapter 288. The BMP Guide is available on the TWDB’s website at the link below or by calling (512) 463-7847.


If you have any questions on how to fill out this form or about the Wholesale Public Water Suppliers program, please contact us at 512/239-4691.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512-239-3282.
Appendix A

Definitions of Commonly Used Terms

Conservation ■ 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.

Industrial use ■ The use of water in processes designed to convert materials of a lower order of value into forms having greater usability and commercial value, commercial fish production, and the development of power by means other than hydroelectric, but does not include agricultural use.

Irrigation ■ The agricultural use of water for the irrigation of crops, trees, and pasturceland, including, but not limited to, golf courses and parks which do not receive water through a municipal distribution system.

Municipal per capita water use ■ The sum total of water diverted into a water supply system for residential, commercial, and public and institutional uses divided by actual population served.

Municipal use ■ The use of potable water within or outside a municipality and its environs whether supplied by a person, privately owned utility, political subdivision, or other entity as well as the use of sewage effluent for certain purposes, including the use of treated water for domestic purposes, fighting fires, sprinkling streets, flushing sewers and drains, watering parks and parkways, and recreational purposes, including public and private swimming pools, the use of potable water in industrial and commercial enterprises supplied by a municipal distribution system without special construction to meet its demands, and for the watering of lawns and family gardens.

Municipal use in gallons per capita per day ■ The total average daily amount of water diverted or pumped for treatment for potable use by a public water supply system. The calculation is made by dividing the water diverted or pumped for treatment for potable use by population served. Indirect reuse volumes shall be credited against total diversion volumes for the purpose of calculating gallons per capita per day for targets and goals.

Public water supplier ■ An individual or entity that supplies water to the public for human consumption.

Regional water planning group ■ A group established by the Texas Water Development Board to prepare a regional water plan under Texas Water Code, 16.053.

Retail public water supplier ■ An individual or entity that for compensation supplies water to the public for human consumption. The term does not include an individual or entity that
supplies water to itself or its employees or tenants when that water is not resold to or used by others.

**Reuse** The authorized use for one or more beneficial purposes of use of water that remains unconsumed after the water is used for the original purpose of use and before that water is either disposed of or discharged or otherwise allowed to flow into a watercourse, lake, or other body of state-owned water.

**Water conservation plan** A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water. A water conservation plan may be a separate document identified as such or may be contained within another water management document(s).

**Water loss** - The difference between water diverted or treated and water delivered (sold). Water loss can result from:

1. inaccurate or incomplete record keeping;
2. meter error;
3. unmetered uses such as firefighting, line flushing, and water for public buildings and water treatment plants;
4. leaks; and
5. water theft and unauthorized use.

**Wholesale public water supplier** An individual or entity that for compensation supplies water to another for resale to the public for human consumption. The term does not include an individual or entity that supplies water to itself or its employees or tenants as an incident of that employee service or tenancy when that water is not resold to or used by others, or an individual or entity that conveys water to another individual or entity, but does not own the right to the water which is conveyed, whether or not for a delivery fee.
Name of Entity:

Address & Zip:

Telephone Number: (          )  Fax: (          )

Form Completed By:

Title:

Signature  Date:

Name and Phone Number of Person/Department responsible for implementing a water conservation program:

---

I. POPULATION AND CUSTOMER DATA

A. Population and Service Area Data

1. Service area size in square miles: ____________________________
   (attach a copy of service-area map)

2. Current population of service area: ____________________________

3. Current population served for:
   a. water ____________________________
   b. wastewater ____________________________

4. Population served for previous five years:

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
</tbody>
</table>
5. Projected population for service area in the following decades:

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
</tr>
<tr>
<td>2030</td>
<td></td>
</tr>
<tr>
<td>2040</td>
<td></td>
</tr>
<tr>
<td>2050</td>
<td></td>
</tr>
</tbody>
</table>

6. List source or method for the calculation of current and projected population:

______________________________________________________________
______________________________________________________________
______________________________________________________________
______________________________________________________________

7. List source/method for the calculation of current and projected population:

______________________________________________________________
______________________________________________________________
______________________________________________________________
______________________________________________________________

B. Active Connections

1. Current number of active connections. Check whether multi-family service is counted as Residential _____ or Commercial _____

<table>
<thead>
<tr>
<th>Treated water users:</th>
<th>Metered</th>
<th>Not-metered</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>_______</td>
<td>_______</td>
<td>_____</td>
</tr>
<tr>
<td>Commercial</td>
<td>_______</td>
<td>_______</td>
<td>_____</td>
</tr>
<tr>
<td>Industrial</td>
<td>_______</td>
<td>_______</td>
<td>_____</td>
</tr>
<tr>
<td>Other</td>
<td>_______</td>
<td>_______</td>
<td>_____</td>
</tr>
</tbody>
</table>

2. List the net number of new connections per year for most recent three years:

<table>
<thead>
<tr>
<th>Year</th>
<th>Residential</th>
<th>Commercial</th>
<th>Industrial</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
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<td>_______</td>
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<td>_______</td>
<td>_______</td>
<td>______</td>
</tr>
</tbody>
</table>
C. **High Volume Customers**

List annual water use for the five highest volume customers
*(indicate if treated or raw water delivery)*

<table>
<thead>
<tr>
<th>Customer</th>
<th>Use (1,000 gal./yr.)</th>
<th>Treated/Raw Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td></td>
<td></td>
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<tr>
<td>(2)</td>
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<td>(4)</td>
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<td>(5)</td>
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</tr>
</tbody>
</table>

II. **WATER USE DATA FOR SERVICE AREA**

A. **Water Accounting Data**

1. Amount of water use for previous five years (in 1,000 gal.):
   Please indicate: _____ Diverted Water _____ Treated Water

<table>
<thead>
<tr>
<th>Year</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
<th>Total</th>
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</tbody>
</table>

Indicate how the above figures were determined (e.g., from a master meter located at the point of a diversion from the source or located at a point where raw water enters the treatment plant, or from water sales).

______________________________________________________________________________

______________________________________________________________________________
2. Amount of water (in 1,000 gallons) delivered (sold) as recorded by the following account types for the past five years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Residential</th>
<th>Commercial</th>
<th>Industrial</th>
<th>Wholesale</th>
<th>Other</th>
<th>Total Sold</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

3. List previous five years records for water loss (the difference between water diverted (or treated) and water delivered (or sold))

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount (gal.)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

4. Municipal water use for previous five years:

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Total Water Diverted or Pumped for Treatment (1,000 gal.)</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

B. Projected Water Demands

If applicable, attach projected water supply demands for the next ten years using information such as population trends, historical water use, and economic growth in the service area over the next ten years and any additional water supply requirement from such growth.

III. WATER SUPPLY SYSTEM DATA

A. Water Supply Sources
List all current water supply sources and the amounts authorized with each:

<table>
<thead>
<tr>
<th>Source</th>
<th>Authorized Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Water:</td>
<td>_________________ acre-feet</td>
</tr>
<tr>
<td>Groundwater:</td>
<td>_________________ acre-feet</td>
</tr>
<tr>
<td>Contracts:</td>
<td>_________________ acre-feet</td>
</tr>
<tr>
<td>Other:</td>
<td>_________________ acre-feet</td>
</tr>
</tbody>
</table>
B. **Treatment and Distribution System**

1. Design daily capacity of system: ____________ MGD
2. Storage Capacity: Elevated _______ MGD, Ground _______ MGD
3. If surface water, do you recycle filter backwash to the head of the plant?
   Yes ______ No ______. If yes, approximately _______ MGD.
4. Please attach a description of the water system. Include the number of treatment plants, wells, and storage tanks. If possible, include a sketch of the system layout.

IV. **WASTEWATER SYSTEM DATA**

A. **Wastewater System Data**

1. Design capacity of wastewater treatment plant(s): ____________ MGD
2. Is treated effluent used for irrigation on-site _____, off-site _____, plant washdown _____, or chlorination/dechlorination _____?
   If yes, approximately _______ gallons per month.
3. Briefly describe the wastewater system(s) of the area serviced by the water utility. Describe how treated wastewater is disposed of. Where applicable, identify treatment plant(s) with the TCEQ name and number, the operator, owner, and, if wastewater is discharged, the receiving stream. If possible, attach a sketch or map which locates the plant(s) and discharge points or disposal sites.

B. **Wastewater Data for Service Area**

1. Percent of water service area served by wastewater system: ______%
2. Monthly volume treated for previous three years (in 1,000 gallons):
<table>
<thead>
<tr>
<th>Year</th>
<th>January</th>
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In addition to the utility profile, a water conservation plan for municipal use by a public water supplier must include, at minimum, additional information as required by Title 30, Texas Administrative Code, §288.2. Note: If the water conservation plan does not provide information for each requirement, an explanation must be included as to why the requirement is not applicable.

Specific, Quantified 5 & 10-Year Targets

The water conservation plan must include specific, quantified five-year and ten-year targets for water savings to include goals for water loss programs and goals for municipal use in gallons per capita per day (see Appendix A). Note that the goals established by a public water supplier under this subparagraph are not enforceable.

Metering Devices

The water conservation plan must include a statement about the water supplier’s metering device(s), within an accuracy of plus or minus 5.0% in order to measure and account for the amount of water diverted from the source of supply.

Universal Metering

The water conservation plan must include and a program for universal metering of both customer and public uses of water, for meter testing and repair, and for periodic meter replacement.

Unaccounted-For Water Use

The water conservation plan must include measures to determine and control unaccounted-for uses of water (for example, periodic visual inspections along distribution lines; annual or monthly audit of the water system to determine illegal connections; abandoned services; etc.).

Continuing Public Education & Information

The water conservation plan must include a description of the program of continuing public education and information regarding water conservation by the water supplier.

Non-Promotional Water Rate Structure

The water supplier must have a water rate structure which is not "promotional," i.e., a rate structure which is cost-based and which does not encourage the excessive use of water. This rate structure must be listed in the water conservation plan.
Reservoir Systems Operations Plan

The water conservation plan must include a reservoir systems operations plan, if applicable, providing for the coordinated operation of reservoirs owned by the applicant within a common watershed or river basin in order to optimize available water supplies.

Enforcement Procedure & Plan Adoption

The water conservation plan must include a means of implementation and enforcement which shall be evidenced by 1) a copy of the ordinance, resolution, or tariff indicating official adoption of the water conservation plan by the water supplier; and 2) a description of the authority by which the water supplier will implement and enforce the conservation plan.

Coordination with the Regional Water Planning Group(s)

The water conservation plan must include documentation of coordination with the regional water planning group(s) for the service area of the public water supplier in order to ensure consistency with the appropriate approved regional water plans.

Example statement to be included within the water conservation plan:

*The service area of the _____________ (name of water supplier) is located within the ____________ (name of regional water planning area or areas) and ___________ (name of water supplier) has provided a copy of this water conservation plan to the _____________ (name of regional water planning group or groups).*

Additional Requirements:

required of suppliers serving population of 5,000 or more or a projected population of 5,000 or more within ten years)

1. **Program for Leak Detection, Repair, and Water Loss Accounting**

   The plan must include a description of the program of leak detection, repair, and water loss accounting for the water transmission, delivery, and distribution system in order to control unaccounted-for uses of water.

2. **Record Management System**

   The plan must include a record management system to record water pumped, water deliveries, water sales, and water losses which allows for the desegregation of water sales and uses into the following user classes (residential; commercial; public and institutional; and industrial.

Plan Review and Update

Beginning May 1, 2005, a public water supplier for municipal use shall review and update its water conservation plan, as appropriate, based on an assessment of previous five-year and ten-year targets and any other new or updated information. The public water supplier for
municipal use shall review and update the next revision of its water conservation plan not later than May 1, 2009, and every five years after that date to coincide with the regional water planning group. The revised plan must also include an implementation report.

**Best Management Practices Guide**

*On November 2004, the Texas Water Development Board’s (TWDB) Report 362 was completed by the Water Conservation Implementation Task Force. Report 362 is the Water Conservation Best Management Practices (BMP) Guide. The BMP Guide is a voluntary list of management practices that water users may implement in addition to the required components of Title 30, Texas Administrative Code, Chapter 288. The BMP Guide is available on the TWDB’s website at the link below or by calling (512) 463-7847.*

Appendix A

Definitions of Commonly Used Terms

Conservation ■ 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.

Industrial use ■ The use of water in processes designed to convert materials of a lower order of value into forms having greater usability and commercial value, commercial fish production, and the development of power by means other than hydroelectric, but does not include agricultural use.

Irrigation ■ The agricultural use of water for the irrigation of crops, trees, and pastureland, including, but not limited to, golf courses and parks which do not receive water through a municipal distribution system.

Municipal per capita water use ■ The sum total of water diverted into a water supply system for residential, commercial, and public and institutional uses divided by actual population served.

Municipal use ■ The use of potable water within or outside a municipality and its environs whether supplied by a person, privately owned utility, political subdivision, or other entity as well as the use of sewage effluent for certain purposes, including the use of treated water for domestic purposes, fighting fires, sprinkling streets, flushing sewers and drains, watering parks and parkways, and recreational purposes, including public and private swimming pools, the use of potable water in industrial and commercial enterprises supplied by a municipal distribution system without special construction to meet its demands, and for the watering of lawns and family gardens.

Municipal use in gallons per capita per day ■ The total average daily amount of water diverted or pumped for treatment for potable use by a public water supply system. The calculation is made by dividing the water diverted or pumped for treatment for potable use by population served. Indirect reuse volumes shall be credited against total diversion volumes for the purpose of calculating gallons per capita per day for targets and goals.

Pollution ■ The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property, or to the public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

Public water supplier ■ An individual or entity that supplies water to the public for human consumption.

Regional water planning group ■ A group established by the Texas Water Development Board to prepare a regional water plan under Texas Water Code, ■16.053.
Retail public water supplier ■ An individual or entity that for compensation supplies water to the public for human consumption. The term does not include an individual or entity that supplies water to itself or its employees or tenants when that water is not resold to or used by others.

Reuse ■ The authorized use for one or more beneficial purposes of use of water that remains unconsumed after the water is used for the original purpose of use and before that water is either disposed of or discharged or otherwise allowed to flow into a watercourse, lake, or other body of state-owned water.

Water conservation plan ■ A strategy or combination of strategies for reducing the volume of water withdrawn from a water supply source, for reducing the loss or waste of water, for maintaining or improving the efficiency in the use of water, for increasing the recycling and reuse of water, and for preventing the pollution of water. A water conservation plan may be a separate document identified as such or may be contained within another water management document(s).

Water loss ■ The difference between water diverted or treated and water delivered (sold). Water loss can result from:

1. inaccurate or incomplete record keeping;
2. meter error;
3. unmetered uses such as firefighting, line flushing, and water for public buildings and water treatment plants;
4. leaks; and
5. water theft and unauthorized use.

Wholesale public water supplier ■ An individual or entity that for compensation supplies water to another for resale to the public for human consumption. The term does not include an individual or entity that supplies water to itself or its employees or tenants as an incident of that employee service or tenancy when that water is not resold to or used by others, or an individual or entity that conveys water to another individual or entity, but does not own the right to the water which is conveyed, whether or not for a delivery fee.

If you have any questions on how to fill out this form or about the ____________________________ program, please contact us at 512/239-_______.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512-239-3282.
Texas Commission on Environmental Quality

INDUSTRIAL/MINING WATER CONSERVATION PLAN

This form is provided to assist entities in conservation plan development for industrial/mining water use. If you need assistance in completing this form or in developing your plan, please contact the conservation staff of the Resource Protection Team in the Water Supply Division at (512) 239-4691.

Name: ____________________________________________
Address: ____________________________________________
Telephone Number: (____) Fax: (____)
Form Completed by: ____________________________________________
Title: ____________________________________________
Signature: ____________________________________________ Date: ____________________

NOTE: If the plan does not provide information for each requirement, include an explanation of why the requirement is not applicable.

I. BACKGROUND DATA

A. Water use

1. Annual diversion appropriated or requested (in acre-feet): ________________

2. Maximum diversion rate (cfs): _________________________________

B. Water sources ____________________________________________

   1. Please indicate the maximum or average annual amounts of water currently used and anticipated to be used (in acre-feet) for industrial/mining purposes:

<table>
<thead>
<tr>
<th>Source</th>
<th>Current Use</th>
<th>Anticipated Use</th>
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<tbody>
<tr>
<td>(List water right numbers)</td>
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<tr>
<td>Surface water</td>
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<td>Groundwater</td>
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<tr>
<td>Purchased</td>
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<td>TOTAL</td>
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</table>
2. How was the surface water data provided above (B1) obtained?
   Master meter ____; Customer meter ____;
   If both, % raw ____%, % treated ____.
   Supplier(s): __________________________________________________

3. Was purchased water raw ____ or treated ____?
   If both, % raw ____%, % treated ____.
   Supplier(s): __________________________________________________

4. How was the groundwater data provided above (B1) obtained?
   Master meter ____; Customer meter ____; Estimated ____; Other ____
   If other, identify source: _________________________________________

5. What is the rate and cost of purchased water?  Rate ____
   Cost ____

C. Industrial/Mining Information

1. Major product or service produced by applicant:
   __________________________________________________
   __________________________________________________

2. Major Standard Industrial Classification Code (SIC):
   ____ ____ ____ ____
   North American Industry Classification System (NAICS):
   ____ ____ ____ ____ ____

3. Total number of employees at facility: _______
II. WATER USE AND CONSERVATION PRACTICES

A. Water Use in Industrial or Mining Process:

<table>
<thead>
<tr>
<th>Production Use</th>
<th>% Groundwater</th>
<th>% Surface Water</th>
<th>% Saline Water</th>
<th>% Treated Water</th>
<th>Water Use (In Acre-Feet)</th>
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<tr>
<td>Cooling, condensing, &amp; refrigeration</td>
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<td>Processing, washing, transport</td>
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<td>Boiler feed</td>
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<td>Incorporated into product</td>
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<td>Other</td>
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<tr>
<th>Facility Use</th>
<th>% Groundwater</th>
<th>% Surface Water</th>
<th>% Saline Water</th>
<th>% Treated Water</th>
<th>Water Use (In Acre-Feet)</th>
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<tr>
<td>Cooling tower(s)</td>
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<td>Pond(s)</td>
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<td>Sanitary &amp; drinking water</td>
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<td>Irrigation &amp; dust control</td>
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1. Was fresh water recirculated at this facility? □ Yes □ No
2. Was electric power generated at this facility (for in-plant use or for sale)? □ Yes □ No
3. Description of the above use(s) of water (e.g., if water is being used for cooling, indicate the cooling system: tower, pond, etc.):

________________________________________________________________________

________________________________________________________________________
4. Describe or illustrate how surface water is diverted and delivered to the point(s) of use, the location of the diversion(s) and points of use, and how diversions are measured:

5. Monthly water demand for previous year (in acre-feet):

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<tr>
<th>Diversion</th>
<th>Percent of Return Flow</th>
<th>Monthly Demand</th>
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<td>TOTAL</td>
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</table>

6. Projected monthly water demand for next year (in acre-feet):

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<tr>
<th>Diversion</th>
<th>Return Flow</th>
<th>Percent of Monthly Demand</th>
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</thead>
<tbody>
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<td>TOTAL</td>
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B. Specific and Quantified Conservation Goal

Water conservation goals for the industrial and mining sector are generally established either for (1) the amount of water recycled, (2) the amount of water reused, or (3) the amount of water not lost or consumed, and therefore is available for return flow.

1. Water conservation goal (water use efficiency measure):

   Type of goal to be used:
   ___ Percent of water reused
   ___ Percent of water not consumed, and therefore returned as flow
   ___ Other (specify)

2. Provide the specific and quantified five-year and ten-year targets for water savings and the basis for development of such goals for this water use/facility:

   ______________________________________________________________
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3. Describe the methods and/or device within an accuracy of plus or minus 5% used to measure and account for the amount of water diverted from the source of supply:

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4. Leak-detection, repair, and water-loss accounting measures used:

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5. Equipment and/or process modifications used to improve water use efficiency:
6. Other conservation techniques used:

__________________________________________________________________
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III. WASTEWATER USE CHARACTERISTICS

A. Check the type(s) of wastewater disposal system(s) used at this facility:

■ On-site wastewater plant
■ Septic tank(s)
■ Injection well(s)
■ City or regional wastewater system
■ Other (Please identify) __________________________________________

B. What quantity of fresh water was consumed, and therefore not returned to a wastewater treatment system (public or private), or to a water course (including loss to product, evaporation, injection, etc.)?

__________________________________________________________________
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IV. ADDITIONAL COMMENTS/INFORMATION

Please provide any additional information that may indicate the present and future water needs at this facility, and any water problems.

__________________________________________________________________
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Best Management Practices Guide

On November 2004, the Texas Water Development Board’s (TWDB) Report 362 was completed by the Water Conservation Implementation Task Force. Report 362 is the Water Conservation Best Management Practices (BMP) Guide. The BMP Guide is a voluntary list of management practices that water users may implement in addition to the required components of Title 30, Texas Administrative Code, Chapter 288. The BMP Guide is available on the TWDB’s website at the link below or by calling (512) 463-7847.


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