



## **Birmingham Water Works Board Drought Management Plan**

### **Preamble**

The Water Works and Sewer Board of the City of Birmingham (the “Birmingham Water Works”) has the goal of conserving water supply sources and reducing the effects of dry weather conditions and future droughts on our customers and on our delivery system. As stated in the Birmingham Water Works mission statement, “As a concerned corporate citizen, we are responsive to the needs of the entire community and strive to maintain, preserve and conserve our precious water resources in order to ensure adequate water quality and supply for future generations.”

The Birmingham Water Works is the water provider for the state’s largest metropolitan area serving customers in Jefferson County, and parts of Shelby, St. Clair, Walker and Blount Counties, and is dedicated to the long-term sustainability of the area’s water resources. Due to the unpredictable nature of climate and the associated rainfall, it is reasonable and prudent that a Drought Management Plan be available for implementation when such a need arises. The Birmingham Water Works will use a staged approach in dealing with dry weather conditions and droughts and their associated impacts on the system and customers.

The Birmingham Water Works is committed to taking appropriate steps to avert and, if necessary, mitigate the effects of a water shortage, which could first jeopardize public health, safety and welfare and secondly, cause economic hardships to industry within our service area.

Water conservation by our customers (residential, commercial, wholesale, industrial, raw water) will be the primary focus of these mitigation efforts. This staged approach will utilize several system and climatological factors as triggers or subsequent performance measures including, but not limited to, water demands or usage, reservoir levels and river flows, precipitation deficits, drought indices such as the Palmer Index and the Standardized Precipitation Index, and seasonal drought assessments. Actual values for one or more of the drought indices together with consideration of these other factors and the best judgment from any and all appropriate professional and scientific disciplines will be utilized for the determination of the operative drought stage. This Drought Management Plan is designed to remain flexible and to accommodate procedures that would provide the most useful guidance and the ability to minimize the adverse impacts of a drought.



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Prior to initiating Stage 1 of this policy, the Birmingham Water Works will have made system operational modifications or other changes necessary to minimize undue hardship on our customers that may result from implementation of this Drought Management Plan. In addition, public education will continue year round to promote the wise use and conservation of water.

### Definitions

The following definitions refer to all stages of this Drought Management Plan.

- *Even-numbered addresses means the house address, box number or rural route ends with the numbers 0,2,4,6,8 or the letters A-M, or at locations with no address at the even-numbered side of the street. Post Office Box numbers are not included.*
- *Odd-numbered addresses means the house address, box number or rural route ends with the numbers 1,3,5,7,9 or letters N-Z, or at locations with no address at the odd-numbered side of the street. Post Office Box numbers are not included.*



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## Stage 1. Drought Advisory

The Drought Advisory Stage will be implemented when dry weather conditions are predicted or likely. Public notices and press releases about the dry weather situation will be increased. The purpose of this phase will be to advise customers (including municipal governments) of the potential for dry weather conditions and request voluntary conservation measures. The public will be given notice that the Birmingham Water Works Drought Management Plan has been initiated. Voluntary conservation measures recommended by the Birmingham Water Works are listed below.

### Overview

Voluntary conservation measures include but are not limited to:

1. Reduce the watering of lawns and landscaping.
2. Water in the early morning.
3. Raise the height of your mower.
4. Use mulch to maintain moisture around plants.
5. Consider planting drought-tolerant plants.
6. Do not hose down your sidewalk or driveway.
7. Verify your home is leak free.
8. Install a water displacement device to reduce the amount of water needed for each flush.
9. Store drinking water in the refrigerator.
10. Don't let the water run while brushing your teeth, shaving or washing your face.
11. Avoid flushing the toilet unnecessarily.

### Detailed Measures

#### 1. Outdoor Watering Tips

- Reduce the watering of lawns, shrubs, trees and landscaped areas. As a general rule, established lawns do not need to be watered more often than every five to seven days. A hearty rain eliminates the need for watering for up to two weeks. Buy a rain gauge and use it to determine how much water/rain your yard has received.
- Water lawns during the early morning hours when temperatures and wind speeds are the lowest. This reduces water losses from evaporation.
- Don't allow sprinklers to water your street, driveway or sidewalk. Position them so water lands on the lawn and shrubs...not the paved areas.
- Install the most water efficient irrigation devices for each use. Drip and micro-irrigation and soaker hoses are examples of water efficient irrigation methods.



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- During dry weather, raise the height of your mower so that you are cutting your grass at the highest recommended height. A higher cut encourages grass roots to grow deeper, shades the root system and holds soil moisture better than a closely clipped lawn.
- Avoid over fertilizing your lawn. Fertilizer applications increase the need for water. Apply fertilizers, which contain slow-release, water-insoluble forms of nitrogen.
- Use mulch to retain moisture in the soil. Mulch also helps control weeds that compete with landscape plants for water.
- Consider planting drought-tolerant grasses, ground covers, shrubs and trees. Once established, they do not need to be watered as frequently and usually will survive a dry period without watering. Group plants together based on similar water needs. Talk with the County Extension Service or your local nursery.
- Do not hose down your driveway or sidewalk. Use a broom or blower to clean leaves and other debris from these areas.
- Use a shut-off nozzle on your hose so that water flows only as needed. When finished, turn it off at the faucet instead of at the nozzle to avoid leaks. Check hose connectors to ensure plastic or rubber washers are in place. Washers prevent leaks.
- Do not leave sprinklers or hoses unattended. A garden hose can pour out several hundred gallons or more of water in only a few hours.
- If you wash your own car, park on the grass and use a hose with an automatic shut-off nozzle.

### 2. **Indoor Watering Tips**

- Verify that your home is leak-free. Many homes have hidden water leaks. To check your home for leaks: Make sure no one in your home is using water and check to make sure the dial on the face of the water meter is not moving. If the flow indicator on the water meter is turning, you have a leak.
- Replace worn out flappers. There are three ways to determine if you need to replace the flapper: (1) Add a dye tablet or dark food coloring to the toilet tank and wait 15 minutes. Do not flush. If the water in your toilet bowl changes colors, replace the flapper; or (2) Shut off water to the toilet tank and flush. Once the tank is empty, touch the flapper. If a rubbery residue from the flapper comes off on your hand, replace the flapper; or (3) Once the toilet is full, turn the supply valve off and wait one hour. If the water level in the toilet tank drops, replace your flapper. Check the toilet for worn out, corroded or bent parts. Most replacement parts are inexpensive, readily available and easily installed.



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- If the toilet handle frequently sticks in the flush position letting water run constantly, replace or adjust it.
- Install a toilet dam or water displacement device such as a bag or bottle to reduce the amount of water needed for each flush. Be sure the installation does not interfere with the operating parts in the tank.
- Take shorter showers or alternatively take a shower by turning the water on to get wet; turning off to lather up; then turning back on to rinse off. Repeat when washing your hair.
- Operate automatic dishwashers and clothes washers only when they are fully loaded. Set the water level for the size of load you are using.
- When washing dishes by hand, fill one sink or basin with soapy water. Quickly rinse under a slow-moving stream from the faucet.
- Store drinking water in the refrigerator. Don't let the tap run while you are waiting for cool water to flow.
- Do not use running water to thaw meat or other frozen foods. Defrost food overnight in the refrigerator or use the defrost feature on your microwave.
- Don't let water run while shaving or washing your face. Brush your teeth first while waiting for water to get hot, then wash or shave after filling the basin.
- Avoid flushing the toilet unnecessarily. Dispose of tissues, insects and other similar wastes in the trash rather than the toilet.
- Refrain from using water for ornamental purposes including fountains, artificial waterfalls and reflecting pools.

### **Triggers**

- a. Lawn and Garden Index, ranges from  $-1.5$  to  $-2.0$
- b. Palmer Drought Severity Index, ranges from  $-1.0$  to  $-1.9$
- c. Reservoir Elevation Level, ranges from 40 to 21 percentile
- d. Stream flow, ranges from 30 to 21 percentile flows
- e. System Delivery, ranges from 68 to 74 percent capacity



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### Stage 2. Drought Watch

The Drought Watch Stage will be implemented when dry weather conditions persist or worsen and the voluntary conservation measures requested in Stage 1 have not reduced water demand or usage to sufficient levels in order to sustain the reliability of Birmingham's water resources. The Birmingham Water Works will recommend additional and more restrictive voluntary conservation measures. Recommended conservation measures are listed below.

#### Overview

Voluntary conservation measures in Stage 1 – Drought Advisory plus:

1. A press release will be sent to all media.
2. Residential and commercial customers to follow a two-day even/odd watering schedule.
3. No watering between 8 a.m. and 8 p.m. on each allowable watering day.
4. No day of the week restrictions for new lawns for the first 30 days.
5. Customers to use a sponge and bucket and a hose with a shut-off nozzle for washing personal vehicles.
6. Golf courses to water first nine holes two days per week and back nine holes two days per week. All 18 holes may be watered between 10 p.m. Saturday and 6 a.m. Sunday. Greens and tee boxes can be watered daily as needed. *Guidelines only apply to golf courses that use BWW water for irrigation purposes.*

#### Detailed Measures

The following voluntary measures recommended:

1. **Outdoor Watering for Established Lawns and Landscaping**
  - Addresses ending in an even number should water established lawns and landscaping on Mondays and Thursdays.
  - Addresses ending in an odd number should water established lawns and landscaping on Tuesdays and Fridays.
  - No watering between 8 a.m. and 8 p.m. on each allowable watering day.
  - No watering is to be conducted on Wednesdays, Saturdays and Sundays.
  - Commercial accounts receiving multiple bills with different addresses should follow the even-day watering schedule and water only on Mondays and Thursdays.
  - Unnumbered addresses should follow the odd-day watering schedule and water only on Tuesdays and Fridays.
2. **Outdoor Watering for New Lawns and Landscaping**



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- New lawns and landscaping are exempt from the day of the week restrictions for the first 30 days after installation; however, such watering shall be limited to the minimum necessary, and no watering between 8 a.m. and 8 p.m. on each allowable watering day.
- After 30 days, outdoor watering should be in accordance with the schedule for established lawns and landscaping (As discussed in Number 1).
- Documentation to verify the date of planting shall be made available upon request.

### 3. **Insecticides, Fungicides and Herbicides**

- Irrigation for the purpose of watering in insecticides, fungicides and herbicides where such watering is required by the manufacturer or by federal, state or local law shall not be restricted by days of the week; however, such watering shall be limited to the minimum necessary, and no watering is to be conducted between 8 a.m. and 8 p.m.

### 4. **Vehicle Washing**

- The washing of personal automobiles, trucks, trailers, mobile homes, campers, boats, or other type motor vehicle or equipment shall be permitted by means of a sponge and bucket and a hose with a shut-off nozzle.

### 5. **Golf Courses** – *Guidelines only apply to golf courses that use BWW water for irrigation purposes.*

- Golf courses should water the front nine holes Mondays and Thursdays.
- The back nine holes should be watered on Tuesdays and Fridays.
- All 18 holes may be watered between 10 p.m. Saturday and 6 a.m. Sunday.
- Greens and tee boxes can be watered daily as needed.

### 6. **Swimming Pools and Jacuzzis**

- Newly constructed or existing public and private swimming pools, which include outdoor hot tubs, spas and Jacuzzis, may be filled once upon completion.
- A one-time draining and subsequent refilling of swimming pools is allowed only for repairs if conditions threaten the integrity of the pool and/or its supporting infrastructure.

### 7. **Other Water Uses**

- Hosing down of porches, sidewalks, driveways and other hard surfaces, except for health and safety reasons, should be suspended unless performed by a commercial pressure washer business.
- Restaurants requested to serve water only at the request of their customers.
- Hotels and motels requested to ask customers to reuse towels and sheets when possible.

### 8. **Exemptions**



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*The following commercial outdoor water users are exempt from day of the week watering restrictions. However, all groups should restrict water use to the minimum amount necessary.*

- Sod producers.
- Ornamental growers.
- Fruit and vegetable growers.
- Retail garden centers/Commercial nurseries.
- Hydro-seeding.
- Power-washing.
- Construction sites.
- Producers of food and fiber.
- Commercial car washes.
- Watering-in of pesticides and herbicides on turf.

### **Triggers**

- a. Lawn and Garden Index, ranges less than  $-2.0$
- b. Palmer Drought Severity Index, ranges from  $-2.0$  to  $-2.9$
- c. Reservoir Elevation Level, ranges from 20 to 14 percentile
- d. Stream Flow, ranges from 20 to 11 percentile flows
- e. System Delivery, ranges from 75 to 80 percent capacity





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### Stage 3. Drought Warning

The Drought Warning Stage will be implemented when drought conditions are severely affecting the reliability of water resources and the ability of the Birmingham Water Works to adequately supply and meet future demands or usage requirements of its customers. **The Birmingham Water Works will implement surcharges for excessive water use.** The Birmingham Water Works has successfully utilized a water industry surcharge practice in the past for drought situations and will continue using this mechanism as a means for reducing excessive water use. The Birmingham Water Works will request that municipalities within its service area implement and enforce their Drought Management Ordinance. Customers will be required to use water conservation measures in order to mitigate the severe effects of the drought. The Drought Management Ordinance (detailed measures) is listed below.

#### **Overview**

Voluntary indoor conservation measures in Stage 1 – Drought Advisory and Stage 2 – Drought Watch plus:

- 1. The Birmingham Water Works Board will implement surcharges for excessive water use.**
- Municipalities will be requested to adopt and implement their Drought Management Ordinance.
- A press release will be sent to all media.
- Customers will be allowed to water established lawns and landscaping one day per week using irrigation systems for no more than a total of one hour.
- Customers without irrigation systems will be allowed to hand water using a hose with a nozzle two days per week.
- No watering between 8 a.m. and 8 p.m. on each allowable watering day.
- No watering on Wednesdays, Saturdays and Sundays.
- New lawns and landscaping exempt from day of the week watering for the first 20 days after installation.
- The washing of personal vehicles shall be suspended unless conducted at a commercial car wash.
- Unless exempted, fire hydrant use will be restricted to fire fighting or flushing sewers for health protection.
- Golf courses shall only water greens and tees. *Guidelines only apply to golf courses that use BWW water for irrigation purposes.*

#### **Detailed Measures**

##### **1. Outdoor Watering for Established Lawns and Landscaping**



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- Addresses ending in an even number shall use irrigation systems for no more than a total of one hour on Mondays. Those without irrigation systems shall hand water established lawns and landscaping using a hose with a nozzle on Mondays and Thursdays.
- Addresses ending in an odd number shall use irrigation systems for no more than a total of one hour on Fridays. Those without irrigation systems shall hand water established lawns and landscaping using a hose with a nozzle on Tuesdays and Fridays.
- The use of irrigation systems or hand watering of established lawns and landscaping shall not be conducted between 8 a.m. and 8 p.m. on each allowable watering day.
- No watering shall be conducted on Wednesdays, Saturdays and Sundays.
- Commercial accounts receiving multiple bills with different addresses shall follow the even-day watering schedule and only use irrigation systems for no more than a total of one hour on Mondays. Those without irrigation systems shall hand water established lawns and landscaping using a hose with a nozzle on Mondays and Thursdays.
- Unnumbered addresses shall follow the odd-day watering schedule and only use irrigation systems for no more than a total of one hour on Fridays. Those without irrigation systems shall hand water established lawns and landscaping using a hose with a nozzle on Tuesdays and Fridays.

### 2. Outdoor Watering for New Lawns and Landscaping

- New lawns and landscaping are exempt from the day of the week restrictions for the first 20 days after installation; however, such irrigation or hand watering shall be limited to the minimum necessary and shall not be conducted between the hours of 8 a.m. and 8 p.m.
- After 20 days, irrigation systems are allowed for no more than a total of one hour. Customers without irrigation systems shall hand water using a hose with nozzle two days per week. (As discussed in Number 1).
  - Addresses ending in an even number shall use irrigation systems for no more than a total of one hour on Mondays. Those without irrigation systems shall hand water established lawns and landscaping using a hose with a nozzle on Mondays and Thursdays.
  - Addresses ending in an odd number shall use irrigation systems for no more than a total of one hour on Fridays. Those without irrigation systems shall hand water established lawns and landscaping using a hose with a nozzle on Tuesdays and Fridays.
- Documentation to verify the date of planting shall be made available upon request.

### 3. Insecticides, Fungicides and Herbicides



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- Irrigation or hand-watering for the purpose of watering in insecticides, fungicides and herbicides where such watering is required by the manufacturer or by federal, state or local law shall be coordinated with the schedule above for established lawns and landscaping, and no watering is to be conducted between 8 a.m. and 8 p.m.

#### **4. Vehicle Washing**

- Vehicle washing by persons other than commercial car washes or those businesses listed as exempt or conditional is prohibited at all times.
- Commercial car washes and limousine services are permitted to operate under normal conditions.
- Auto dealers shall limit vehicle washing to only purchased vehicles.
- Body shops and car rental agencies shall limit vehicle washing to those vehicles that are delivered to customers.
- Corporations and government agencies with fleet vehicles shall limit vehicle washing to the minimum amount necessary but not to exceed more than once per week.

#### **5. Golf Courses - *Guidelines only apply to golf courses that use BWW water for irrigation purposes.***

- The watering of any portion of golf courses except for tees and greens shall be suspended.
- The watering of tees and greens is allowed on Mondays, Wednesdays and Fridays between the hours of 1 a.m. and 5 a.m.
- Hand syringing is permitted for no more than 5 minutes per green on other days of the week when ambient temperature is equal to or greater than 94 degrees.

#### **6. Swimming Pools and Jacuzzis**

- Newly constructed or existing public and private swimming pools, which include outdoor hot tubs, spas and Jacuzzis, may be filled once upon completion.
- A one-time draining and subsequent refilling of swimming pools is allowed only for repairs if conditions threaten the integrity of the pool and/or its supporting infrastructure.

#### **7. Fire Hydrants**

- Unless exempted, the use of fire hydrants for any purpose except for fire fighting or flushing sewers for health protection purposes shall be suspended.

#### **8. Athletic Fields**

- Athletic fields may be watered Wednesdays and Saturdays between 4 a.m. and 9 a.m. when determined that said fields are hazardous to the health and safety of children and athletes, by being too hard by virtue of a lack of water.



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### 9. Other Water Uses

- Restaurants requested to serve water only at the request of their customers.
- Hotels and motels requested to ask customers to reuse towels and sheets when possible.
- Car wash fundraisers are prohibited.

### 10. Exemptions

*The following commercial outdoor water users are exempt from day of the week watering restrictions. However, all groups shall restrict water use to the minimum amount necessary. All groups are subject to surcharges.*

- Sod producers.
- Ornamental growers.
- Fruit and vegetable growers.
- Retail garden centers/Commercial nurseries.
- Hydro-seeding.
- Power-washing.
- Construction sites.
- Producers of food and fiber.
- Commercial car washes.
- Watering-in of pesticides and herbicides on turf.

#### *Special Note:*

*The City Mayor or County Health Officer shall have the authority to permit reasonable use of water to maintain public health, safety and sanitary standards. However, reasonable use shall not take precedence over the restrictions in this section.*

### **Triggers**

- a. Palmer Drought Severity Index, ranges from -3.0 to -3.9
- b. Reservoir Elevation Level, ranges from 13 to 10 percentile
- c. Stream flow, ranges from 10 to 6 percentile flows
- d. System Delivery, ranges from 81 to 85 percent capacity



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## Stage 4. Extreme Drought Emergency

The Extreme Drought Emergency Stage will be implemented when extreme drought conditions have caused significant adverse impacts to the reliability of water resources and the ability of the Birmingham Water Works to adequately supply and meet future demands or usage requirements of its customers, and public health and safety are at risk. **The Birmingham Water Works Board will implement surcharges for excessive water use.** Birmingham Water Works will request that municipalities within its service area implement and enforce their Drought Management Ordinance, Extreme Emergency Stage. Customers will be required to use stricter water conservation measures in order to mitigate the extreme effects of the drought. The goal of this Extreme Drought Emergency will be to further reduce water use by 5 percent from the rate of use observed in Stage 3. The Drought Management Ordinance (detailed measures) for this Extreme Emergency Stage is listed below.

### **Overview**

Voluntary indoor conservation measures in Stage 1 – Drought Advisory and Stage 2 – Drought Watch plus:

- 1. The Birmingham Water Works Board will implement surcharges for excessive water use.**
2. Municipalities will be requested to adopt and implement their Drought Management Ordinance, Extreme Emergency Stage
3. A press release will be sent to all media.
4. Customers will be allowed to water by hand only using a hose with a nozzle one day per week.
5. No watering shall be conducted between 8 a.m. and 8 p.m.
6. No watering shall be conducted on Tuesdays, Wednesdays, Thursdays, Saturdays and Sundays.
7. Golf courses shall only water greens and tees. *Guidelines only apply to golf courses that use BWW water for irrigation purposes.*

### **Detailed Measures**

- 1. Outdoor Watering for Established Lawns and Landscaping**
  - Addresses ending in an even number shall only hand water established lawns and landscaping using a hose with a nozzle on Mondays.
  - Addresses ending in an odd number shall only hand water established lawns and landscaping using a hose with a nozzle on Fridays.
  - No watering shall be conducted between 8 a.m. and 8 p.m. on the allowable watering day.



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- No watering shall be conducted on Tuesdays, Wednesdays, Thursdays, Saturdays and Sundays.
- Commercial accounts receiving multiple bills with different addresses shall follow the even-day watering schedule and only hand water using a hose with a nozzle on Mondays.
- Unnumbered addresses shall follow the odd-day watering schedule and only hand water using a hose with a nozzle on Fridays.

### 2. Outdoor Watering for New Lawns and Landscaping

- New lawns and landscaping are exempt from the day of the week restrictions for the first 20 days after installation; however, such hand watering shall be limited to the minimum necessary and shall not be conducted between the hours of 8 a.m. and 8 p.m.
- After the 20th day, hand watering should be in accordance with the preceding requirements (As discussed in Number 1).
  - Addresses ending in an even number shall only hand water new lawns and landscaping using a hose with a nozzle on Mondays.
  - Addresses ending in an odd number shall only hand water using a hose with a nozzle on Fridays.
- Documentation to verify the date of planting shall be made available upon request.

### 3. Insecticides, Fungicides and Herbicides

- Hand watering for the purpose of watering in insecticides, fungicides and herbicides where such watering is required by the manufacturer or by federal, state or local law shall be coordinated with the schedule above for established lawns and landscaping, and no watering shall be conducted between 8 a.m. and 8 p.m.

### 4. Vehicle Washing

- Vehicle washing by persons other than commercial car washes or those businesses listed as exempt or conditional is prohibited at all times.
- Commercial car washes and limousine services are permitted to operate under normal conditions.
- Auto dealers shall limit vehicle washing to only purchased vehicles.
- Body shops and car rental agencies shall limit vehicle washing to those vehicles that are delivered to customers.
- Corporations and government agencies with fleet vehicles shall limit vehicle washing to the minimum amount necessary but not to exceed more than once per week.

5. **Golf Courses** - *Guidelines only apply to golf courses that use BWW water for irrigation purposes.*



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- The watering of any portion of golf courses except for tees and greens shall be suspended.
  - The watering of tees and greens is allowed on Mondays, Wednesdays and Fridays between the hours of 1 a.m. and 5 a.m.
  - Hand syringing is permitted for no more than 5 minutes per green on other days of the week when ambient temperature is equal to or greater than 94 degrees.
6. **Swimming Pools and Jacuzzis**
- Newly constructed or existing public and private swimming pools, which include outdoor hot tubs, spas and Jacuzzis, may be filled once upon completion.
  - A one-time draining and subsequent refilling of swimming pools is allowed only for repairs if conditions threaten the integrity of the pool and/or its supporting infrastructure.
7. **Fire Hydrants**
- Unless exempted, the use of fire hydrants for any purpose except for fire fighting or flushing sewers for health protection purposes shall be suspended.
8. **Athletic Fields**
- Athletic fields may be watered Wednesdays and Saturdays between 4 a.m. and 9 a.m. when determined that said fields are hazardous to the health and safety of children and athletes, by being too hard by virtue of a lack of water.
9. **Other Water Uses**
- Restaurants requested to serve water only at the request of their customers.
  - Hotels and motels requested to ask customers to reuse towels and sheets when possible.
  - Car wash fundraisers are prohibited.
10. **Exemptions**
- The following commercial outdoor water users are exempt from day of the week watering restrictions. However, all groups shall restrict water use to the minimum amount necessary. All groups are subject to surcharges.*
- Sod producers.
  - Ornamental growers.
  - Fruit and vegetable growers.
  - Retail garden centers/Commercial nurseries.
  - Hydro-seeding.
  - Power-washing.
  - Construction sites.
  - Producers of food and fiber.
  - Commercial car washes.
  - Watering-in of pesticides and herbicides on turf.



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*Special Note:*

*The City Mayor or County Health Officer shall have the authority to permit reasonable use of water to maintain public health, safety and sanitary standards. However, reasonable use shall not take precedence over the restrictions in this section.*

**Triggers**

- a. Palmer Drought Severity Index, ranges from  $-4.0$  to  $-4.9$
- b. Reservoir Elevation Level, ranges from 10 to 6 percentile
- c. Stream flow, ranges from 5 to 3 percentile flows or less
- d. System Delivery, ranges from 86 to 90 percent capacity





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### Stage 5. Exceptional Drought Emergency

The Exceptional Drought Emergency Stage will be implemented when extreme drought conditions have caused further significant adverse impacts to the reliability of water resources and the ability of the Birmingham Water Works to adequately supply and meet future demands or usage requirements of its customers, and public health and safety are at risk. **The Birmingham Water Works Board will implement surcharges for excessive water use.** The Birmingham Water Works will request that municipalities within its service area implement and enforce their Drought Management Ordinance, Exceptional Emergency Stage. Customers will be required to use stricter water conservation measures in order to mitigate the extreme effects of the drought. The goal of this Exceptional Drought Emergency will be to reduce water use by 10 percent from the rate of use observed in Stage 3. The Drought Management Ordinance (detailed measures) for this Exceptional Emergency Stage is listed below.

#### **Overview**

Voluntary indoor conservation measures in Stage 1 – Drought Advisory and Stage 2 – Drought Watch plus:

1. **The Birmingham Water Works Board will implement surcharges for excessive water use.**
2. Municipalities will be requested to adopt and implement their Drought Management Ordinance, Exceptional Emergency Stage, which bans all non-essential outdoor water usage.
3. A press release will be sent to all media.
4. Customers will be prohibited from outdoor watering, washing vehicles, cleaning outdoor surfaces, cleaning buildings, equipment and machinery and operating ornamental fountains.
5. All exemptions for commercial outdoor water users withdrawn in Stage 5.

#### **Detailed Measures**

##### **1. Water Uses Prohibited**

*The use and withdrawal of water supplied by the BWW by any person for the following purposes shall be prohibited:*

- Outdoor watering: The watering or irrigating of shrubbery, trees, lawns, grasses, ground covers, plants, vines, gardens, flowers or any other vegetation.
- Vehicle Washing: The washing of automobiles, trucks, trailers, trailer houses, railroad cars or any other type of mobile equipment.
- Cleaning Outdoor Surfaces: The washing of sidewalks, driveways, gas station aprons, porches and other outdoor surfaces.



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- Cleaning Buildings: The washing of the outside of dwellings; the washing of the outside of office buildings.
- Cleaning Equipment and Machinery: The washing and cleaning of any business or industrial equipment and machinery.
- Ornamental Fountains: The operation of any ornamental fountain or other structure making similar use of water.

### *Special Note:*

*The City Mayor or County Health Officer shall have the authority to permit reasonable use of water to maintain public health, safety and sanitary standards. However, reasonable use shall not take precedence over the restrictions in this section.*

### **Triggers**

- a. Palmer Drought Severity Index, ranges from -5.0 or less
- b. Reservoir Elevation Level, ranges from 5 percentile or less
- c. Stream flow, ranges from 2 to 0 percentile flows or less
- d. System Delivery, ranges from 90 percent capacity or above