KENTUCKY-AMERICAN WATER COMPANY

DEMAND MANAGEMENT PLAN

June 14, 2001

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INTRODUCTION

During the summer of 1988, Kentucky-American Water Company (KAWC) experienced its first significant water shortage problem since the drought of 1930. With the assistance of the Lexington-Fayette Urban County Government (LFUCG), KAWC was able to respond quickly and effectively to the increasing urgency of the situation and avoided a potential water shortage emergency. It was realized, however, that a comprehensive demand management plan should be developed; therefore, this integrated plan was prepared. This plan has been periodically reevaluated and updated with respect to system improvements and additional water shortage situations.

KAWC recognizes that a continuous conservation effort is an important component of its planning process. KAWC's planning process integrates traditional supply side planning and management with demand management concepts, including ongoing customer conservation education. It has developed a company policy that supports the belief that it is KAWC's responsibility to exercise leadership in the development of practices that improve water use efficiency. This policy is found in Appendix A.

An ongoing conservation public education program was initiated in 1987. This program includes the distribution of household leak detection kits and retrofit kits, bill inserts, public service announcements, the production of educational videotapes showing how to conserve water, the use of print and electronic media, the distribution of merchandise promoting conservation, the production of educational videotapes and programs for use with schools and civic organizations, the preparation of internet-based conservation information, and other measures.

In addition to the public education program, KAWC initiated a number of other conservation efforts. These efforts included: 1) work to change the Kentucky State Plumbing Code, effective April 1988, to require water efficient fixtures in new construction, renovations and replacement in existing structures; 2) the distribution of retrofit kits to customers; 3) implementation of a continuous leak survey which utilizes computerized leak detection equipment; and 4) the sponsorship of a Drought Impact Survey.

KAWC has also integrated water conservation concepts into the long-range planning process. The development of the 1992 Least Cost/Comprehensive Planning Study included a review of demand management alternatives by an outside consultant. The consultant recommended six new measures of potentially cost-efficient conservation. These measures were evaluated through pilot programs and implemented to varying degrees based on customer response. KAWC has made a commitment to ongoing water conservation as an integral part of demand management through a continuous effort to evaluate and implement new ideas in the conservation program.

The Water Shortage Response Program of the Demand Management Plan is similar in structure to the guidelines presented by the Division of Water "Kentucky Water Shortage Response Plan." The actions taken and the knowledge gained during drought were also considered in formulating the process. Specific criteria for each phase were established from the state guidelines provided, customer response from similar steps taken in 1988 and 1999, and historical data on river flow and rainfall. The criteria and guidelines were revised-to reflect the impact of the 1999 drought and recent improvements to the Kentucky River dams.

The critical variables that must be monitored include source water supplies, including but not limited to Kentucky River flow at Lock and Dam No. 10, available supply in Jacobson

Reservoir and Ellerslie Reservoir (formerly Reservoirs No. 4 and No. 1), and daily customer demand. The methodology for the evaluation of each variable is provided in the plan appendices. Implementation of each phase of the Water Shortage Response Program is based on specific, critical levels of each phase of the individual variables. In reality, it is likely that a water shortage would develop from a combination of these potential problems; therefore, a careful evaluation of the overall situation and the many variables must be made in the event of a shortage. Specifically, the Kentucky River traditionally has low flows during the fall of almost every year. Customer demand, however, during that time of year is usually less. This program is concerned primarily with periods of abnormal conditions of low flows during summer months of high customer demands. The impact of the Kentucky River Authority's ability to release water and the Division of Water's withdrawal parameters are being integrated into the Plan.

The Water Shortage Response Program also anticipates the unlikely event that equipment failure, natural disaster, lock or dam failure, or other circumstance may arise which is unrelated to weather that could result in an inadequacy of system capacity to meet customer demand. Criteria are established which will enable KAWC to respond quickly and efficiently to such a situation.

The Water Shortage Response Program is intended to be flexible in its application to service areas or portions of service areas that may experience an inadequacy of water supply to meet customer demand. For example, customers served by source water supplies other than the Kentucky River might not necessarily be restricted by the Water Shortage Response Program in conditions of low Kentucky River flow. Similarly, a small portion of the service area that might be affected by mechanical failure or natural disaster may require temporary restriction while the remainder of the service territory might be unaffected. The Plan may be implemented, at the

discretion of management, for the entire service territory or portions of service territory as circumstances may dictate.

The most important part of an effective Water Shortage Response Program, however, will be keeping customers informed at all times. Their awareness and understanding of the situation from the initial stages of concern and continuing through each phase of the Plan is the key to an efficient and adequate response to a water shortage problem. The media has been very cooperative and instrumental in making customer response successful, and its role is an important component of the Demand Management Plan.

KENTUCKY-AMERICAN WATER COMPANY
CONSERVATION PUBLIC EDUCATION PROGRAM

KAWC has routinely practiced in-house conservation techniques and promoted efficient water use to its customers.

An ongoing Conservation Public Education Program was initiated in 1987 which uses consumer education to compliment and reinforce the implementation of other water conservation measures. The conservation efforts in this program include:

1. Plumbing Code Restrictions
2. Retrofit Kits
3. Leak Detection Kits
4. Bill Inserts and Brochures
5. Public Service Announcements
6. Videotapes
7. Print Media Educational Messages
8. Novelties
9. Surveys
10. Billboards
11. Internet Educational Information

KAWC continues to develop, evaluate and implement the application of new practices and technologies that improve water use efficiency. KAWC has expanded its in-house leak detection program through the use of computerized leak detection equipment that has resulted in millions of gallons in savings since the program's inception. KAWC has also initiated an aggressive public education campaign promoting efficient water use. This has included

extensive use of public messages on billboards, radio, television, print media, and public transportation.

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PURSUANT TO 807 KAR 5:011,
SECTION 9 (1)
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SECRETARY OF THE COMMISSION

KENTUCKY-AMERICAN WATER COMPANY
WATER SHORTAGE RESPONSE PROGRAM

KAWC has formulated a local water shortage response program in addition to its ongoing public education and conservation efforts for its service area. This program follows the guidelines as established by the Division of Water in its publication "Kentucky Water Shortage Response Plan."

The Water Shortage Response Program is founded on distinctions between essential and nonessential water use. Guidelines for definition of essential and nonessential uses, derived from the Kentucky Water Shortage Response Plan, can be found in Appendix C. Dependent upon the relative severity of the supply situation, first nonessential and then ultimately essential water use restrictions are implemented in a progressive manner.

The program establishes five stages, after a preliminary watch, with specific criteria for assessing the need to declare each phase and the steps to implement each phase. The key elements of each phase are detailed below.

1. Advisory Phase
   - Issue Water Shortage Advisory declaration
   - Set conservation goals
   - Request voluntary conservation
   - Establish Water Shortage Management Awareness Committee
   - Customer education regarding target usage goals and water conservation
2. Partial Alert Phase
   - Issue Water Shortage Partial Alert declaration
   - Set more stringent conservation goals

- Mandatory odd/even program for outdoor watering
- Request increased voluntary conservation
- Establish Water Conservation Appeals Board(s)
- Enforce compliance of water use program
- Customer education regarding target usage goals and water conservation

3. Full Alert Phase

- Issue Water Shortage Full Alert declaration
- Set more stringent water conservation goals
- Severely restrict outdoor water use
- Request increased voluntary conservation on indoor use
- Enforce compliance of water use program
- Customer education regarding target usage goals, water conservation, and potential emergency pricing in Water Rationing Phase

4. Emergency Phase

- Issue Water Shortage Emergency declaration
- Set more stringent water conservation goals
- Restrict all water use
- Request voluntary rationing
- Enforce compliance of water use program
- Customer education regarding target usage goals, water conservation, and emergency pricing in Water Rationing Phase

5. Water Rationing Phase

- Issue Water Shortage Rationing declaration

- Begin mandatory allocation of water
- Notify the Kentucky Public Service Commission (PSC) of the declaration of Water Shortage Rationing and emergency pricing
- Enforce compliance of water use program
- Customer education regarding target usage goals, water conservation, and emergency pricing

There are specific levels of three separate controlling water demand factors that can be used to evaluate the need for each phase. These criteria provide guidelines for assessing the situation. Any combination of these factors, to a more or less stringent degree than established in this program, can signal the need for the consideration of each phase and will be determined at the discretion of KAWC. While these factors are designed to assess conditions for service areas served by Kentucky River, Jacobson Reservoir, and Ellerslie Reservoir source water supplies, similar criteria would be used to assess conditions for service areas served by other source water supplies.

These factors are:

1. Estimated daily flow of the Kentucky River at Lock and Dam No. 10 as measured by the U.S. Geological Survey.
2. Estimated remaining reservoir supply, including Jacobson Reservoir (formerly Reservoir No. 4), Ellerslie Reservoir (formerly Reservoir No. 1), and Kentucky River Pool No. 9, based on current and projected pumpage levels.
3. Customer demand for water as compared with system capacity, including pumping, treatment, transmission, storage, and distribution capacities.

Detailed explanations of the assessment of the supply and demand situation for each phase and the methodology for the evaluation of each criterion are included in the following pages. A summary of the program, including the guidelines for implementing each phase and the highlight of its response, can be found on page 11.

PRELIMINARY WATCH

It is not uncommon to have dry periods during the mid to late summer in the Kentucky River Basin. The Preliminary Watch will begin each summer no later than May 1 to monitor the potential for a water supply shortage. There are three separate criteria used for assessment during a Preliminary Watch:

1. River Flow: KAWC withdrawal demand has reached the level of 5 percent of the flow at Lock and Dam No. 10.
2. Reservoir Supply: Reservoir supply is less than 80 days but more than 60 days left for anticipated demand levels, including transfers from the Kentucky River to Jacobson Reservoir.
3. Customer Demand: (1) Pumpage has exceeded 50 MGD for five consecutive days or (2) the peak hour demand exceeds the rated plant capacity at any time during the day for three consecutive days, or (3) current or projected customer demand similarly exceeds system capacity to deliver.

The Preliminary Watch may also be initiated when the Kentucky Division of Water issues a Water Shortage Watch for the area or if the area is declared to be in a "moderate drought."

A Preliminary Watch is primarily an in-house monitoring that will occur every summer and will continue until heavy rainfall occurs in late fall. The steps to begin a Preliminary Watch will lay the groundwork to initiate the Water Shortage Response Program.

First, the river level and flow will continue to be monitored daily along with reservoir capacity and customer demand.

Additionally, an emphasis will be placed on the ongoing public education of conservation efforts. KAWC will be responsive to the media about the situation and KAWC's precautions; however, no formal public announcements will be initiated by KAWC. Preparation will be made for an intensified public education effort if the situation should worsen.

Should the situation progress to the point of a possible advisory, announcements will be made to all employees to fully advise them of the situation.

The situation will also be brought to the attention of local and state officials, as well as the local KAWC board members. Local KAWC board members will be advised prior to any additional announcements. The LFUCG Mayor, Police Chief, and Fire Chief, County Judge Executives, Kentucky Natural Resources and Environmental Protection Cabinet officials, Public Service Commission, Kentucky River Authority, and other government officials will be kept abreast of developments as may be appropriate.

WATER SHORTAGE ADVISORY PHASE

A Water Shortage Advisory will be declared when conditions indicate the potential for serious water supply shortage. There are three separate criteria in assessing the need for a Water Shortage Advisory:

1. River Flow: KAWC withdrawal demand has reached the level of 20 percent of the flow estimated at Lock and Dam No. 10 for three consecutive days.
2. Reservoir Supply: The estimated reservoir supply is less than 60 but more than 45 days of supply left for anticipated demand levels, including amounts of water transferred to Jacobson Reservoir from the Kentucky River.
3. Customer Demand: (1) Pumpage exceeds 65 MGD for three consecutive days or (2) current or projected customer demand similarly exceeds system capacity to deliver.

These criteria are guidelines for assessing the need for this phase of response; however, the evaluation of the situation must also include year-to-date rainfall, customer demand, temperature, time of year, forecasted rainfall, and system capacity. **The decision to proceed with this phase will be made only after careful consideration of all factors affecting the water supply, not necessarily when one of the levels of criteria has been initially reached.**

In evaluating the situation, consideration may also be given to the declaration of a Water Shortage Advisory even when any of these criteria to a lesser degree, or any combination of these criteria to a lesser degree, deem a more stringent course of action is necessary. This decision will be made with the input of local government and health officials, as well as state regulatory officials.

The steps for proceeding with the declaration of a Water Shortage Advisory will be:

1. The President of KAWC, or his representative, will declare a Water Shortage Advisory.

2. In compliance with Ordinance No. 221-2000 of the Lexington-Fayette Urban County Government, the President of KAWC or his representative, will request the LFUCG Mayor, by written certification, to publicly declare a Water Shortage Advisory. The County Judge Executives for each of the other counties served by KAWC will be asked to implement the same restrictions and publicly declare a Water Shortage Advisory for applicable service areas within each county.

3. Customers will be asked to voluntarily conserve outdoor and indoor water usage.

4. A Water Shortage Management Awareness Committee shall be convened. This committee will consist of, but not be limited to, the following or their designees and will meet regularly for support in implementing decisions and ensure an effective community response:

   - The Mayor of Lexington-Fayette Urban County Government
   - President of Kentucky-American Water Company
   - The LFUCG Commissioner of Public Works
   - The Fayette County Coordinator, Disaster and Emergency Services
   - The Commissioner of the LFUCG Health Department
   - The Fayette County Commonwealth Attorney
   - The Lexington Chamber of Commerce President
   - Scott County Judge Executive
   - Bourbon County Judge Executive

- Harrison County Judge Executive
- Woodford County Judge Executive
- Jessamine County Judge Executive
- Clark County Judge Executive
- The LFUCG Chief of Police
- The LFUCG Fire Chief
- Vice Mayor of LFUCG

5. The situation will be monitored daily and reevaluated on a weekly basis.

6. KAWC employees will be informed regularly to keep them up-to-date with the situation.

7. Formal news announcements will be made to advise the public of the seriousness of the situation and requests for demand reduction.

8. A conservation goal of reduction of water use shall be established between five and 15 percent. A level of desired maximum demand shall be defined between 57 and 62 MGD.

9. Requests will be made for voluntary participation in the customer odd/even watering program. This program requests that customers limit their outdoor watering (including car washing, driveway washing, filling swimming pools, use of and filling of fountains and watering of lawns, bushes and trees) to between 6:00 a.m. and 10:00 a.m. or 6:00 p.m. and 10:00 p.m. on designated days. The designated days are Tuesday, Thursday and Saturday for addresses ending in an odd number, while those ending in an even number will be limited to

Wednesday, Friday and Sunday. No water use for these purposes is requested on Monday.

10. Leak detection and repair by company forces will be considered the top maintenance priority. Response to customer calls for potential leaks shall be the top priority for the KAWC Distribution department. System flushing maintenance will be discontinued, except as necessary for water quality control of new mains.

11. Contact will be established with the U.S. Army Corps of Engineers and steps will be taken to initiate access to drought assistance if the severity of the situation should increase. This contact will help prepare the Corps should the situation worsen and the Governor be needed to ask for releases from upstream reservoirs.

12. Contact will be made to initiate an emergency supply contingency plan for withdrawals from the river if the pool should drop below the intake structure.

13. Ongoing communication concerning the status of the situation will be maintained with local KAWC board members, the Water Shortage Management Awareness Committee, the Kentucky Natural Resources and Environmental Protection Cabinet – Division of Water, the Kentucky Public Service Commission, and the Kentucky River Authority. These officials will be advised prior to any public announcements or requests for phase implementation.

Other state and local officials will also be kept abreast of the situation. Written notification of the Water Shortage Advisory declaration by KAWC shall be sent to state and local officials as deemed appropriate.

15. Bulk sales customers and large demand customers will be notified individually.

16. The customer education emphasis will include keeping customers apprised of the water supply situation, advising customers of target usage goals, and educating customers on water conservation options.

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WATER SHORTAGE PARTIAL ALERT PHASE

A Water Shortage Partial Alert will be considered when there are visible or measurable signs that supplies are significantly lower than season normal and are diminishing. This phase will be first considered while a Water Shortage Advisory is in effect, if customers have not met the established goal in reduction of demand considering the supply situation or if the situation should worsen.

There are three separate criteria in assessing the need for a Water Shortage Partial Alert:

1. River Flow: KAWC withdrawal demand has reached the level of 35 percent of the flow estimated at Lock and Dam No. 10 for three consecutive days.

2. Reservoir Storage Supply: The estimated remaining reservoir supply is less than 45 but more than 30 days at current pumpage rates.

3. Customer Demand: Customers have not met the goal for the reduction of water use as established during the Water Shortage Advisory.

These criteria are guidelines for assessing the need for this phase of response; however, the evaluation of the situation must also include year-to-date rainfall, customer demand, temperature, time of year, forecasted rainfall, and system capacity. **The decision to proceed with this phase will be made only after careful consideration of all factors affecting the water supply, not necessarily when one of the levels of criteria initially has been reached.**

In evaluating the situation, consideration may also be given to the declaration of a Water Shortage Partial Alert, even when any of these criteria to a lesser degree or any combination of these criteria to a lesser degree deem a more stringent course of action is necessary. Whenever practical, a Water Shortage Partial Alert will not be considered unless a Water Shortage Advisory has been in place for at least three days.

The steps for proceeding with the declaration of a Water Shortage Partial Alert:

1. The President of KAWC, or his representative, will declare a Water Shortage Partial Alert.

2. In compliance with Ordinance No. 221-2000 of the LFUCG, the President of KAWC or his representative will request the LFUCG Mayor, by written certification, to declare publicly a Water Shortage Partial Alert. The County Judge Executives for each of the other counties served by KAWC will be asked to implement the same restrictions and publicly declare a Water Shortage Partial Alert for applicable service areas within each county.

3. Odd/even watering program will become mandatory, with limited outdoor watering to 6:00 a.m. to 10:00 a.m. on designated days.

4. Local authorities will be responsible for enforcement. Ordinance No. 221-2000 provides for a fine up to $250 that could be imposed for violation of a declared Alert. Local law enforcement will be in charge of all enforcement within their respective jurisdictions.

5. Regular communications will be held jointly with the LFUCG to discuss restrictions and enforcement provisions. Media announcements will be coordinated with the LFUCG.

6. KAWC employees will be informed of the implications of the situation.

7. A goal of the reduction of water use shall be established at an additional 10 to 20 percent. A level of desired maximum demand shall be defined between 48 and 56 MGD.

8. The situation will be monitored daily and reevaluated as needed.

9. The Mayor will be asked to establish, by declaration, a Fayette County Water Conservation Appeals Board consisting of the following or their designees:

- The Mayor of Lexington-Fayette Urban County Government
- The President of Kentucky-American Water Company
- The Commissioner of the LFUCG Health Department
- The LFUCG Chief of Police
- The LFUCG Commissioner of Public Works
- The Vice Mayor of the LFUCG

The Appeals Board will consider appeals from any person who feels aggrieved by the regulated water restrictions and may grant exemptions when a severe economic hardship is placed on the applicant, the health or life of animals or humans are threatened; severe damage or destruction of a research site, historic setting, significant public facility, or unique flora and fauna; or the public health, safety or welfare would be impaired. Each County Judge Executive will be asked to establish a similar Appeals Board for his or her respective county in the KAWC service area.

10. KAWC will notify all sale for resale customers, request special cooperation in the conservation efforts, and investigate potential savings in addition to the mandatory outdoor watering restrictions.

11. Communication with news media will be maintained as necessary.

12. KAWC will notify all large demand customers and will convene a meeting to discuss the situation with their representatives.

13. Ongoing communication concerning the status of the situation will be maintained with local KAWC board members, the Water Shortage Management Awareness Committee, Water Conservation Appeals Boards, the Kentucky Natural Resources and Environmental Protection Cabinet – Division of Water, the Kentucky Public Service Commission, and the Kentucky River Authority. These officials will be advised prior to any public announcements or requests for phase implementation.

14. Other state and local officials will be kept abreast of the situation. Written notification of the Water Shortage Partial Alert declaration by KAWC shall be sent to state and local officials as deemed appropriate.

15. The customer education emphasis will include keeping customers apprised of the water supply situation, advising customers of target usage goals, and educating customers on water conservation options.

WATER SHORTAGE FULL ALERT PHASE

A Water Shortage Full Alert will be considered when there are measurable signs that supplies are diminishing and/or customer demand levels have not reduced to a level where they can continue to be met under the current situation.

There are three separate criteria for assessing the need for a Water Shortage Full Alert:

1. River Flow: The KAWC withdrawal demand has reached the level of 55 percent of the flow estimated at Lock and Dam No. 10 for any one day.
2. Reservoir Supply: The estimated remaining total storage supply in the reservoirs and the river pool is less than 30 days but more than 21 days at current pumpage rates.
3. Customer Demand: Customers have not met the goals for the reduction of water use as established during the Water Shortage Partial Alert.

These criteria are guidelines for assessing the need for this phase of response; however, the evaluation of the situation must also include year-to-date rainfall, customer demand, temperature, time of year, forecasted rainfall, and system capacity. **The decision to proceed with this phase will be made only after careful consideration of all factors affecting the water supply, not necessarily when one of the levels of criteria initially has been reached.**

In evaluating the situation, consideration may also be given to the declaration of a Water Shortage Full Alert even when any of these criteria to a lesser degree or any combination of these criteria to a lesser degree deem a more stringent course of action is necessary. Whenever practical, a Water Shortage Full Alert will not be considered unless a Water Shortage Partial Alert has been in effect for at least three days.

The steps for declaring a Water Shortage Full Alert are:

1. The President of KAWC, or his representative, will declare a Water Shortage Full Alert.

2. In compliance with Ordinance No. 221-2000 of the LFUCG, the President of KAWC or his representative will request the LFUCG Mayor, by written certification, to publicly declare a Water Shortage Full Alert. The County Judge Executives for each of the other counties served by KAWC will be asked to implement the same restrictions and publicly declare a Water Shortage Full Alert for applicable service areas within each county.

3. Customers will be asked to voluntarily eliminate nonessential water use and reduce essential water use.

4. Communication with news media will be maintained as necessary.

5. All nonessential water usage will be restricted, including the elimination of all lawn watering, vehicle washing other than commercial establishments, filling of private residential pools and the use of or fill of ornamental fountains.

6. KAWC employees will be informed regularly to maintain up-to-date information about the situation.

7. All flushing for the disinfection of new mains will be discontinued and will be evaluated on an individual priority basis by the Water Conservation Appeals Board.

8. A conservation goal of reduction of water use shall be established at an additional 10 to 20 percent. A level of desired maximum demand shall be defined between 42 and 47 MGD.

9. The situation will be monitored daily and reevaluated as needed.

10. KAWC will notify all large demand customers and all sale for resale customers and request special cooperation in the conservation efforts by investigating potential savings in addition to the mandatory outdoor watering restrictions.

11. A contingency plan for withdrawal at the Kentucky River intake will be finalized.

12. The Kentucky River Authority shall be asked to begin upstream releases if the level of Pool 9 drops below the crest of Dam 9 at the Kentucky River.

13. Ongoing communication concerning the status of the situation will be maintained with local board members, the Water Shortage Management Awareness Committee, the Water Conservation Appeals Board, the Kentucky Natural Resources and Environmental Protection Cabinet – Division of Water, the Kentucky Public Service Commission, and the Kentucky River Authority. These officials will be advised prior to any public announcements or requests for phase implementation.

14. Other state and local officials will be kept abreast of the situation. Written notification of the Water Shortage Full Alert declaration by KAWC shall be sent to state and local officials as deemed appropriate.

15. Exceptions to the elimination of non-essential use of water may be granted by the Water Conservation Appeals Board and may include the watering of playing fields, foundations, nursery use, flushing of private services, and other uses as the Appeals Board may deem appropriate.

16. The customer education emphasis will include keeping customers apprised of the water supply situation, advising customers of target usage goals, educating

customers on water conservation options, and advising customers of potential emergency water rationing/emergency pricing should conservation goals not be met or the situation worsen.

WATER SHORTAGE EMERGENCY PHASE

A Water Shortage Emergency will be considered when KAWC is experiencing a water shortage. There are three separate criteria for assessing the need for a Water Shortage Emergency to be declared:

1. River Flow: The KAWC withdrawal demand has reached a level of 65% of the estimated flow at Lock and Dam No. 10 for two consecutive days, or the pool elevation has dropped at the intake structure to 549.6 feet, which is a decrease of one foot from normal pool.
2. Reservoir Supply: The estimated remaining total storage supply is less than 21 but more than 14 days at current pumpage rates, including transfer of water from the Kentucky River to Jacobson Reservoir.
3. Customer Demand: Customer demand reduction has not reached the goal established during the Water Shortage Full Alert.

These criteria are guidelines for assessing the need for this phase of response; however, the evaluation of the situation must also consider year-to-date rainfall, customer demand, temperature, time of year, forecasted rainfall, and system capacity. **The decision to proceed with this phase will be made only after careful consideration of all factors affecting the water supply, not necessarily when one of the levels of criteria initially has been reached.**

In evaluating the situation, consideration may also be given to the declaration of a Water Shortage Emergency, even when any of these criteria to a lesser degree or any combination of these criteria to a lesser degree deem a more stringent course of action is necessary. Whenever practical, a Water Shortage Emergency will not be considered unless a Water Shortage Full Alert has been in effect for at least three days.

The steps for proceeding with the declaration of a Water Shortage Emergency are:

1. The President of KAWC, or his representative, will declare a Water Shortage Emergency.

2. In compliance with Ordinance No. 221-2000 of the LFUCG, the President of KAWC or his representative will request the LFUCG Mayor, by written certification, to publicly declare a Water Shortage Emergency. The County Judge Executives for each of the other counties served by KAWC will be asked to implement the same restrictions and publicly declare a Water Shortage Emergency for applicable service areas within each county.

3. Customers will be asked to voluntarily ration essential water use. All customers will be notified of their current actual usage and base usage amounts.

4. KAWC will notify the Public Service Commission that emergency pricing to significantly reduce water usage through economic rationing may be pending if the situation should worsen and Water Shortage Rationing be declared.

5. The LFUCG Mayor will be asked to restrict customers' usage to only essential water uses through declaration. These essential uses shall be defined as the following:

   - Domestic: Water necessary to sustain human life and lives of domestic pets, and to maintain minimum standards of hygiene and sanitation.
   - Health Care Facilities: Patient care and rehabilitation, including related filling and operation of water-related therapeutic and diagnostic equipment.
   - Water Hauling: Sales for domestic use where not reasonably available elsewhere.

- Public Use: Firefighting and health and public protection purposes, if specifically approved by health officials and the local governing body.
- Commercial and Industrial Use: Water used indoors during the normal course of business that is essential to maintaining business operations, including cooling tower operations.

6. A goal shall be established for the reduction of water use to an additional 10 to 25 percent. A level of desired maximum demand shall be established between 35 and 41 MGD.

7. The situation shall be monitored daily and reevaluated as needed.

8. KAWC maintenance forces would assist in a meter reading program to begin reading meters on a more frequent basis. Local contractors may be retained for assistance in leak repair, while company maintenance forces are assisting with meter reading. Other local utility companies may be contacted for assistance with meter reading.

9. Communication with news media will be maintained as necessary.

10. KAWC employees will be informed daily to remain current with the situation.

11. Ongoing communication concerning the status of the situation will be maintained with local board members, the Water Shortage Management Awareness Committee, the Water Conservation Appeals Board, the Kentucky Natural Resources and Environmental Protection Cabinet – Division of Water, the Kentucky Public Service Commission, and the Kentucky River Authority. These officials will be advised prior to any public announcements or requests for phase implementation.

12. Other state and local officials will be kept abreast of the situation. Written notification of the Water Shortage Emergency declaration by KAWC shall be sent to state and local officials as deemed appropriate.

13. Coordination with the Kentucky River Authority on releases of water from upstream pools and Division of Water withdrawal parameters will be monitored daily.

14. The customer education emphasis will include keeping customers apprised of the water supply situation, advising customers of target usage goals, educating customers on water conservation options, and notifying customers of emergency water rationing pricing that would become effective should conservation goals not be met and Water Shortage Rationing be declared.

WATER SHORTAGE RATIONING PHASE

Rationing will be considered only when supply is clearly inadequate to meet projected demands.

There are three separate criteria for assessing the need for the declaration of Water Shortage Rationing:

1. River Flow: KAWC withdrawal demand exceeds 75 percent of the estimated flow at Lock and Dam No. 10 or the pool level drops below an elevation of 548.6, which is two feet below normal pool.
2. Reservoir Supply: Estimated remaining total supply is less than 14 days.
3. Customer Demand: (1) Customer water use has not met the reduction goal established during the Water Shortage Emergency, or (2) customer demand exceeds system capacity to deliver.

These criteria are guidelines for assessing the need for this phase of response; however, the evaluation of the situation must also consider year-to-date rainfall, customer demand, temperature, time of year, forecasted rainfall, and system capacity. **The decision to proceed with this phase will be made only after careful consideration of all factors affecting the water supply, not necessarily when one of the levels of criteria initially has been reached.**

In evaluating the situation, consideration may also be given to the declaration of water shortage rationing, even when any of these criteria to a lesser degree or any combination of these criteria to a lesser degree deem a more stringent course of action is necessary. Whenever practical, a Water Shortage Rationing will not be considered unless a Water Shortage Emergency has been in effect for at least three days.

The steps for proceeding with the declaration of a Water Shortage Rationing Phase are:

1. The President of KAWC, or his representative, will declare Water Shortage Rationing.

2. In compliance with Ordinance No. 221-2000 of the LFUCG, the President of KAWC or his representative will request the LFUCG Mayor, by written certification, to publicly declare Water Shortage Rationing. The County Judge Executives for each of the other counties served by KAWC will be asked to implement the same restrictions and publicly declare Water Shortage Rationing for applicable service areas within each county.

3. The Emergency Pricing Tariff, as approved by the Public Service Commission, will be implemented. The PSC will be notified of such implementation.

4. A goal of the reduction of water use shall initially be established at an additional 10 to 25 percent. A desired maximum demand level shall be defined at less than 35 MGD. The desired maximum demand level may be decreased or increased as the situation warrants.

5. The situation shall be monitored daily and reevaluated as needed.

6. Allowable water usage of residential and nonresidential customers will be determined, based on a method approved by the Kentucky Public Service Commission, and may be revised as the situation warrants.

7. Water usage levels for hospitals and health care facilities shall be established for each individual institution to the extent that compliance will not endanger health of the patients or residents of the institution.

8. Communication with news media will be maintained as necessary.

9. KAWC employees will be informed daily to maintain current information on the situation.

10. Ongoing communication concerning the status of the situation will be maintained with local board members, the Water Shortage Management Awareness Committee, the Water Conservation Appeals Board, the Kentucky Natural Resources and Environmental Protection Cabinet – Division of Water, the Kentucky Public Service Commission, and the Kentucky River Authority. These officials will be advised prior to any public announcements or requests for phase implementation.

11. Other state and local officials will be kept abreast of the situation. Written notification of the Water Shortage Advisory declaration by KAWC shall be sent to state and local officials as deemed appropriate.

12. The customer education emphasis will include keeping customers apprised of the water supply situation, advising customers of target usage goals, advising customers of any revisions to target usage goals that may be necessary, educating customers on water conservation options, and educating customers about emergency pricing.

PUBLIC SERVICE COMMISSION
OF KENTUCKY
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PURSUANT TO 807 KAR 5:011,
SECTION 9 (1)
BY: Stephan O Bell
SECRETARY OF THE COMMISSION

RETURN TO NORMAL

The most important part of a return to normal situation is to evaluate carefully the supply situation and not lift restrictions prematurely. Public reaction to an easing of restrictions is to immediately use water for purposes that had been previously restricted. This can often cause an unusually high demand and place the shortage situation in a worse condition than before the restrictions were lifted. Consideration must be given to this reaction and caution must be used to lift each phase of the water shortage response only when KAWC is clearly out of danger of a possible immediate need to return to that level of shortage response.

During each phase, as the situation is reevaluated and conditions indicate that the seriousness of the shortage has abated, mandatory water conservation measures may be decreased. Phases will be decreased in reverse order and only when the situation is clearly out of the range of emergency that the current phase implies. Efforts on behalf of public awareness of the situation will be continued, as well as updates to all employees. Ongoing communication with all officials concerning the status of the situation will be maintained. Steps for going into each phase will be followed in reverse order as they were when the phase was initially implemented. Once the Advisory Phase is lifted, efforts and results will be documented and evaluated for future use.

OUTLINE OF KAWC
WATER SHORTAGE RESPONSE PROGRAM

INITIATION	ASSESSMENT	RESPONSE
State issues Watch or Warning or by May 1 Annually (Local Monitoring of Conditions)	▪ Withdrawal demand > 5% river flow, rainfall below normal, or ▪ Reservoir supply 60-80 days, or ▪ Customer demand > 50 MGD, or 60 MGD for peak hour, or similarly limited system capacity	Preliminary Watch ▪ Monitor supply ▪ Prepare plan
	▪ Withdrawal demand > 20% river flow for 3 days, or ▪ Reservoir supply 45-59 days, or ▪ Customer demand > 65 MGD or similarly limited system capacity	Advisory Phase ▪ Voluntary conservation ▪ Reevaluate as needed ▪ Customer demand goal: 57-62 MGD
	▪ Withdrawal demand > 35% river flow for 3 days, or ▪ Reservoir supply 30-44 days, or ▪ Customer demand reduction goal not met	Partial Alert Phase ▪ Mandatory restrictions ▪ Reevaluate as needed ▪ Customer demand goal: 48-56 MGD
	▪ Withdrawal demand > 55% river flow, or ▪ Reservoir supply 21-29 days, or ▪ Customer demand reduction goal not met	Full Alert Phase ▪ Elimination of outdoor watering ▪ Reevaluate as needed ▪ Customer demand goal: 42-47 MGD
	▪ Withdrawal demand > 65% river flow, or ▪ Total storage supply 14-20 days, or ▪ Customer demand reduction goal not met	Emergency Phase ▪ Restrict all use ▪ Reevaluate as needed ▪ Customer demand goal: 35-41 MGD
	▪ Withdrawal demand > 75% river flow, or ▪ Total storage supply < 14 days, or ▪ Customer demand reduction goal not met	Rationing Phase ▪ Ration all use/Emergency Pricing ▪ Customer demand goal: < 35 MGD or as required

APPENDIX A

CONSERVATION POLICY

PUBLIC SERVICE COMMISSION
OF KENTUCKY
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SECTION 9 (1)
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KENTUCKY-AMERICAN WATER COMPANY

CONSERVATION POLICY

Kentucky-American Water Company supports the concept that water is a valuable natural resource which should be used wisely and efficiently. Water conservation planning is an important component in the overall responsibility of the company to provide adequate and reliable water service to its customers.

Kentucky-American believes it is the company's civic and environmental responsibility to exercise leadership in promoting the development and application of practices and technologies that improve water use efficiency. The company's goal is to extend the adequacy of existing water supplies and facilities without compromising community values, life-styles and economic stability.

Kentucky-American uses the least-cost planning process to integrate water conservation concepts into its long-range planning process. The objective of least-cost planning is to provide the lowest cost to the customer while at the same time maintaining adequate health, public safety and reliability standards. These standards include adequate water for fire protection, water quality and water pressure.

The company integrates conservation practices into the operation and management of its facilities. The company also promotes water conservation through the implementation of technical assistance, demonstration projects, public information and education programs.

Kentucky-American shall support and assist local, state, federal and private sector initiatives to develop, demonstrate and apply cost effective water conservation measures.

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APPENDIX B

WATER SUPPLY EVALUATION METHODOLOGY

PUBLIC SERVICE COMMISSION
OF KENTUCKY
EFFECTIVE

JUL 15 2001

PURSUANT TO 807 KAR 5:011,
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BY: Stephan Bell
SECRETARY OF THE COMMISSION

WATER SUPPLY EVALUATION METHODOLOGY

1. River Flow: The flow in the river is monitored at Lock and Dam Nos. 4, 6, 10, 14 and the Red River gauge. No. 10 will give a daily estimated flow into Pool 9 from which Kentucky-American withdraws. Monitoring from Lock and Dam No. 14 and the Red River gauge will give an indication of anticipated flow patterns, allowing for Winchester and Richmond withdrawals. River flows will be monitored based on information provided by the United States Geological Survey in Louisville. Direct access will be provided through a computer hookup and frequent telephone contact with the U.S.G.S. should also be maintained to stay abreast of developments and verify data before critical decisions are made. Periodic trips to the Kentucky River Locks 9 and 10 should also be made to verify the indicated flow readings.

2. Reservoir Supply: The reservoir supply is based on volumetric calculations. The capacity of the reservoir will be based on the latest capacity survey, and the approximate volume of storage in the reservoir will be calculated from daily readings of the water surface elevation gauge at each reservoir. Once the situation approaches the Advisory Phase, this capacity should be reassessed daily.

   If the flow in the river drops below 100 MGD, the total storage including reservoir storage and approximate Kentucky River pool storage should be monitored daily, assuming that Kentucky-American can withdraw normal rates from the Kentucky River intake from the top 3 feet of storage in Pool 9.

If the flow in the river drops below 100 MGD, the total storage including reservoir storage and approximate Kentucky River pool storage should be monitored daily, assuming that Kentucky-American can withdraw normal rates from the Kentucky River intake from the top 3 feet of storage in Pool 9. At this point, the pool water surface elevation shall be closely monitored daily at the intake structure and verified with regular visits to Dam No. 9. Normal pool elevation occurs at 550.6 feet, below which withdrawals will be from pool storage. As the flow is reduced to the point of no flow going over Lock and Dam No. 9, the elevation drop rate of the pool shall be monitored, along with the withdrawal rate, to estimate the approximate leakage rate at Lock and Dam No. 9. The estimated total losses from leakage and other losses can be calculated by balancing the flows at Dam No. 9 and No. 10, and Kentucky- American withdrawal rates.

APPENDIX C

WATER USE CLASSIFICATION

Essential Water Uses (Class 1):

The following uses of water, listed by site or user type, are essential.

Domestic:

- water necessary to sustain human life and the lives of domestic pets, and to maintain minimum standards of hygiene and sanitation.

Health Care Facilities:

- patient care and rehabilitation

Water Hauling:

- sales for domestic use where not reasonably available elsewhere.

Public Use:

- firefighting,
- health and public protection purposes, as specifically approved by health officials and the municipal governing body.

Socially or Economically Important Uses of Water (Class 2):

The following uses of water, listed by site or user type, are socially or economically important.

Domestic:

- personal, in-house water use including kitchen, bathroom and laundry.

Water Hauling:

- nondomestic, when other sources are not reasonably available elsewhere.

Commercial and Civic Use:

- commercial car and truck washes,
- laundromat,
- restaurants, clubs and eating places,
- schools, churches, motels/hotels and similar commercial establishments.

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Outdoor Noncommercial Watering:

- minimal watering of vegetable gardens,
- minimal watering of trees where necessary for their survival.

Outdoor Commercial or Public Watering (using conservation methods and when other sources of water are not available or feasible to use):

- agricultural irrigation for the production of food and fiber or the maintenance of livestock,
- watering by arboretums and public gardens of national, state, regional or community significance where necessary to preserve specimens,
- watering by commercial nurseries where necessary to maintain stock,
- watering where necessary to establish or maintain vegetation or landscape plantings required pursuant to law or regulation,
- watering of woody plants where necessary to preserve them,
- minimal watering of golf course greens.

Recreational:

- operation of municipal swimming pools and residential pools that serve more than 25 dwelling units.

Air Conditioning:

- refilling for start-up at the beginning of the cooling season,
- makeup of water during the cooling season,
- refilling specifically approved by health officials and the municipal governing body, where the system has been drained for health protection or repair services.

Nonessential (Class 3):

Any waste of water, as defined herein, is nonessential. The following uses of water, listed by site or user type, are also nonessential.

Public Use:

- use of fire hydrants (excluding Class I and Class II uses), including use of sprinkler caps, testing fire apparatus and fire department drills,
- flushing of sewers and hydrants except as needed to ensure public health and safety as approved by health officials and the municipal governing body.

Commercial and Civic Use:

- serving water in restaurants, clubs, or eating places, except by customer request,
- failure to repair a controllable leak,
- increasing water levels in scenic and recreational ponds and lakes, except as necessary to support fish and wildlife.

Ornamental Purposes:

- fountains, reflecting pools and artificial waterfalls.

Outdoor Watering:

- use of water for dirt control or compaction,
- watering of annual or nonwoody plants, lawns, parks, golf course fairways, playing fields and other recreational areas,
- washing sidewalks, walkways, driveways, parking lots, tennis courts or other hard surface areas,
- washing down buildings or structures for purposes other than immediate fire protection,
- flushing gutters or permitting water to run or accumulate in any gutter or street.

Outdoor Commercial or Public Watering:

- expanding nursery facilities, placing new irrigated agricultural land in production, or planting of landscaping except when required by a site design review process,
- use of water for dirt control or compaction,
- watering of lawns, parks, golf course fairways, playing fields and other recreational areas,
- washing sidewalks, walkways, driveways, parking lots, tennis courts or other hard surface areas,
- washing down buildings or structures for purposes other than immediate fire protection,
- flushing gutters or permitting water to run or accumulate in any gutter or street.

Recreational uses other than those specified as Class II.

Noncommercial washing of motor and other vehicles.

Air Conditioning (see also Class II purposes):

- Refilling cooling towers after draining.

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APPENDIX D

POSITION STATEMENT:
ODD/EVEN WATERING PROGRAM

PUBLIC SERVICE COMMISSION
OF KENTUCKY
EFFECTIVE

JUL 15 2001

PURSUANT TO 807 KAR 5:011,
SECTION 9 (1)
BY: Stephan O Bell
SECRETARY OF THE COMMISSION

KENTUCKY-AMERICAN WATER COMPANY

POSITION STATEMENT

ODD/EVEN WATERING

MAY 7, 1990

Kentucky-American Water company's objective is to provide unrestricted water service to its customers during all weather conditions. Consistent with our policy of exercising progressive leadership in least cost planning as well as promoting practices and technologies that improve water use efficiency, Kentucky-American encourages the practice of odd/even watering by our customers.

This odd/even watering program encourages those customers with an address ending with an odd number to limit outdoor watering to Tuesday, Thursday and Saturday, and those customers with addresses ending with an even number to limit outdoor watering to Wednesday, Friday and Sunday. customers are encourage not to water outdoors on Mondays.

An odd/even watering program develops a pattern of water usage that can reduce spontaneous peaking demands on treatment and distribution systems and improve reliability of service to our customers while minimizing the required capital investment in facilities.

Depending upon the severity of a drought situation, an odd/even watering program may require certain time of day restrictions as well as enforcement action in conjunction with the water shortage response program in order to effectively reduce the demands on the system to targeted levels.

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PURSUANT TO 807 KAR 5:011,
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APPENDIX E

LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT
WATER SHORTAGE RESPONSE ORDINANCE

PUBLIC SERVICE COMMISSION
OF KENTUCKY
EFFECTIVE

JUL 15 2001

PURSUANT TO 807 KAR 5:011,
SECTION 9 (1)
BY: Stephan O Bell
SECRETARY OF THE COMMISSION

Sec. 11-9. Water shortage response.

(a) The purpose of this section is to provide for the declaration of official phases of water supply shortage situations and the implementation of voluntary and mandatory water conservation measures throughout Fayette County in the event a shortage is declared.

(b) Whenever an officer of Kentucky-American Water Company, the public purveyor of potable water in Fayette County, finds that a potential shortage of the supply of treated water exists or will exist, upon written certification thereof to the mayor of the urban county government, the mayor may publicly declare a "Water Shortage Advisory." In addition to the declaration, the mayor shall call upon all customers of Kentucky-American Water Company to employ voluntary water conservation and to eliminate the waste of all treated water.

(c) Whenever an officer of Kentucky-American Water Company, the public purveyor of potable water in Fayette County, finds that a condition exists where it will not be able to meet the expected needs of its customers, upon written certification thereof to the mayor of the urban county government, the mayor may publicly declare a "Water Shortage Alert." In addition to the declaration, the mayor may call upon all customers of Kentucky-American Water Company to employ voluntary water conservation, and to eliminate the waste of all treated water and to use treated water outside of buildings (such usage to include, but not limited to, car washing, driveway washing, filling of swimming pools; use and filling of fountains and watering of lawns, bushes and trees) only in accordance with the following schedule:

(1) Outside use for addresses ending in an odd number shall be limited to Tuesdays, Thursdays and Saturdays; and

(2) Outside use for addresses ending in an even number shall be limited to Wednesdays, Fridays and Sundays.

(d) Whenever an officer of Kentucky-American Water Company, the public purveyor of potable water in Fayette County, finds that Kentucky-American Water Company is unable to meet the expected needs of its customers and that such a condition will exist for some period of time in the future, and upon written certification thereof to the mayor of the urban county government, the mayor may publicly declare a "Water Shortage Emergency." In addition to the declaration, the mayor may call upon all customers of Kentucky-American Water Company to employ voluntary water conservation, and to eliminate the waste of all treated water, to eliminate the use of water outside of buildings, and to use water only as necessary to maintain minimum standards of hygiene and sanitation, and to provide for essential health and public protection purposes.

(e) Whenever the Mayor has declared a "water shortage alert" or "water shortage emergency" pursuant to subsections (c) or (d) of this section, he or the commissioner of public safety may promulgate such administrative regulations governing all water usage in Fayette County by all customers of Kentucky-American Water Company as may, in the discretion of the mayor or public safety commissioner, appear necessary to protect the health and public safety of the residents of Fayette County in a manner consistent with the terms of this section.

(f) The declaration of a water shortage advisory, water shortage alert or water shortage emergency shall continue until an officer of Kentucky-American Water Company finds that the conditions calling for the declaration no longer exist, and upon written certification thereof to the mayor of the urban county government, the mayor may

publicly declare the condition no longer existing.

(g) Any person who violates the provisions of subsection (c) of this section shall be subject to a fine not to exceed two hundred fifty dollars ($250.00). Any person who violates the provisions of subsection (d) of this section shall be subject to a fine not to exceed two hundred fifty dollars ($250.00) and up to ninety (90) days imprisonment. Each day in violation of the terms of subsections (c) or (d) of this section shall constitute a separate offense.

(Ord. No. 135-88, § 1, 6-28-88)

ORDINANCE NO. 221-2000

AN ORDINANCE AMENDING SECTION 11-9 OF THE CODE OF ORDINANCES TO CHANGE THE WATER SHORTAGE RESPONSE PLAN TO A MORE DETAILED SIX-PHASE PROCESS IN ACCORDANCE WITH THE WATER SHORTAGE RESPONSE PROGRAM OF THE DEMAND MANAGEMENT PLAN OF KENTUCKY-AMERICAN WATER COMPANY; PROVIDING THAT DECLARATIONS ISSUED BY THE MAYOR PURSUANT TO THIS SECTION SHALL APPLY TO CUSTOMERS OF ALL WATER PURVEYORS IN FAYETTE COUNTY; PROVIDING THAT THE MAYOR MAY PROMULGATE ADMINISTRATIVE REGULATIONS GOVERNING WATER USAGE BY CUSTOMERS OF ALL WATER PURVEYORS IN FAYETTE COUNTY; CREATING THE LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT WATER CONSERVATION APPEALS BOARD WITH THE POWER TO INTERPRET, ADJUST, OR ISSUE VARIANCES FROM NECESSARY LOCAL WATER USE REGULATIONS AND HEAR APPEALS FROM WATER RESTRICTIONS; AND ELIMINATING IMPRISONMENT AS A PERMISSIBLE PENALTY FOR VIOLATING THIS SECTION.

WHEREAS, Section 11-9 of the Code of Ordinances relating to water shortage situations and conservation measures is not in conformity with the Demand Management Plan of Kentucky-American Water Company; and

WHEREAS, close cooperation between Kentucky-American Water Company, the chief water purveyor in Fayette County, and the Lexington-Fayette Urban County Government is essential in managing water resources; and

WHEREAS, the Council is desirous of amending Code Section 11-9 to a six-phase process in accordance with the Water Shortage Response Program of the Demand Management Plan of Kentucky-American Water Company; and

WHEREAS, Section 11-9 of the Code of Ordinances was enacted in 1988 to deal with the water shortage situation facing Fayette County at that time; and

WHEREAS, Code Section 11-9 fails to recognize that the Spears Water District is a water purveyor in Fayette County along with Kentucky-American Water Company; and

WHEREAS, a Water Conservation Appeals Board is necessary to interpret, adjust, or issue variances from necessary local water use regulations in order to meet water use withdrawal restrictions as such are imposed on the water purveyors in Fayette County by state agencies and to give customers of water

purveyors in Fayette County the ability to appeal certain water restriction decisions; and

WHEREAS, the Council is desirous of eliminating imprisonment as a permissible penalty for violating Code Section 11-9;

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT:

Section 1 - That Section 11-9 of the Code of Ordinances of the Lexington-Fayette Urban County Government be and hereby is amended to read as follows:

Sec. 11-9. Water Shortage Response.

(1) The purpose of this section is to provide for the declaration of official phases of water supply shortage situations and the implementation of voluntary and mandatory water conservation measures throughout Fayette County in the event a shortage is declared.

(a) Phase I - Preliminary Watch. Whenever an officer of Kentucky-American Water Company, the chief public purveyor of potable water in Fayette County, finds that it is necessary to internally monitor river flows, daily pumpage, and weather forecasts, the mayor of the urban county government will be notified that the "Preliminary Watch" phase of the Water Shortage Response Program of the Demand Management Plan of Kentucky-American Water Company has been implemented.

(b) Phase II - Water Shortage Advisory. Whenever an officer of Kentucky-American Water Company, the chief public purveyor of potable water in Fayette County, finds that a potential shortage of the supply of treated water exists or will exist, and certifies such finding in writing to the mayor of the urban county government, the mayor may publicly declare a "Water Shortage Advisory." In addition to the declaration, the mayor shall call upon all customers of Kentucky-American Water Company and any other water purveyor in Fayette County to employ voluntary water conservation, including but not limited to voluntarily

other water purveyor in Fayette County to employ voluntary water conservation, and to voluntarily eliminate nonessential water use and reduce essential water use. All nonessential water usage will be restricted to the odd/even schedule set forth in Phase III above, provided that the following nonessential uses will be eliminated: lawn watering, vehicle washing other than at commercial establishments, filling of private residential pools, and the use of or filling of ornamental fountains.

(e) Phase V - Water Shortage Emergency. Whenever an officer of Kentucky-American Water Company, the chief public purveyor of potable water in Fayette County, finds that Kentucky-American Water Company is experiencing a water shortage such that it is unable to meet the expected demands of its customers, and certifies such finding in writing to the mayor of the urban county government, the mayor may publicly declare a "Water Shortage Emergency." In addition to the declaration, the Mayor may call upon all customers of Kentucky-American Water Company and any other water purveyor in Fayette County to eliminate all nonessential uses of treated water and to voluntarily ration essential water use. Essential water use is defined as follows:

i. Domestic: Essential domestic use is that usage necessary to sustain human and animal life, and such usage necessary to maintain minimum standards of hygiene and sanitation for both.

ii. Health Care Facilities: Essential usage by health care facilities is that usage necessary for patient care and rehabilitation, including related filling and operation of swimming pools.

iii. Water Hauling: Water hauling sales for domestic usage shall be permitted if potable water is not available elsewhere.

iv. Public Use: Essential public usage is such usage necessary for firefighting and health and public protection purposes, provided such health and public protection purposes have been approved by

complying with the mandatory restrictions contained in Phase III and eliminating the waste of all treated water.

(c) Phase III - Water Shortage Partial Alert. Whenever an officer of Kentucky-American Water Company, the chief public purveyor of potable water in Fayette County, finds that there are visible or measurable signs that the supply of water is significantly lower than the seasonal norm and is diminishing or customers have not met the established goal of demand reduction, and to the mayor of the urban county government, the mayor may publicly declare a "Water Shortage Partial Alert." In addition to the declaration, the mayor may call upon all customers of Kentucky-American Water Company and any other water purveyor in Fayette County to employ voluntary water conservation, and to eliminate the waste of all treated water. The use of treated water outside of buildings (such usage to include, but not limited to, car washing, driveway washing, filling of swimming pools, use and filling of fountains and watering of lawns, bushes and trees) shall be restricted in accordance with the following schedule:

i. Outside use for addresses ending in an odd number shall be limited to Tuesdays, Thursdays and Saturdays from 6:00 a.m. to 10:00 a.m. and 6:00 p.m. to 10:00 p.m.; and

ii. Outside use for addresses ending in an even number shall be limited to Wednesdays, Fridays and Sundays from 6:00 a.m. to 10:00 a.m. and 6:00 p.m. to 10:00 p.m.

(d) Phase IV - Water Shortage Full Alert. Whenever an officer of Kentucky-American Water Company, the chief public purveyor of potable water in Fayette County, finds that there are measurable signs that the water supply is diminishing and/or that customer demand levels have not been reduced to a level where they can continue to be met under the current situation, and certifies such finding in writing to the mayor of the urban county government, the mayor may publicly declare a "Water Shortage Full Alert." In addition to the declaration, the mayor may call upon all customers of Kentucky-American Water Company and any

health officials or by the mayor of the urban county government.

v. Commercial/Institutional Use: Essential use is such minimal usage necessary to avoid severe economic loss or significant unemployment.

All other water uses shall be prohibited except as declared by the Mayor.

(f) Phase VI - Water Shortage Rationing. Whenever an officer of Kentucky-American Water Company, the chief public purveyor of potable water in Fayette County, finds that the water supply is clearly inadequate to meet the projected demands of Kentucky-American Water Company's customers, and certifies such finding in writing to the mayor of the urban county government, the mayor, following consultation with the Kentucky River Authority and the Kentucky Division of Water, may publicly declare a "Water Shortage Rationing." In addition to the declaration, the mayor may call upon customers of Kentucky-American Water Company and any other water purveyor in Fayette County to initially limit their water usage as follows:

i. Water usage levels for hospitals and health care facilities shall be separately established for each individual institution to the extent that compliance will not endanger health of the patients or residents of said institution.

ii. The mayor may further amend the Water Shortage Rationing declaration to revise the declaration as need be to meet ongoing water availability conditions.

iii. It is anticipated that during Phase VI Kentucky-American Water Company and all other Fayette County purveyors of water will implement additional measures necessary to force customers to further restrict water use. These additional measures, which are independent of those taken by the mayor or the urban county government, are required by law to be approved by and/or filed with the Kentucky Public Service Commission, and include but are not necessarily limited to the

implementation of revised pricing structures specifically designed to monetarily penalize excessive water use within all customer classes, otherwise known as "drought tariffs", and the temporary reduction or interruption of service to those customers not otherwise responding to reduction targets.

(2) Whenever the mayor of the urban county government has declared a water shortage advisory, water shortage partial alert, water shortage full alert, water shortage emergency, or water shortage rationing pursuant to this section, the mayor may promulgate such administrative regulations governing all water usage in Fayette County by all customers of Kentucky-American Water Company and any other water purveyor in Fayette County as may, in the discretion of the mayor, appear necessary to protect the health and public safety of the residents of Fayette County in a manner consistent with the terms of this section.

(3) Lexington-Fayette Urban County Government Water Conservation Appeals Board.

(a) Created.
A board is hereby created which shall be known as the Lexington-Fayette Urban County Government Water Conservation Appeals Board, hereinafter referred to as the "Board".

(b) Purpose.
The Board is established to interpret, adjust, or issue variances from necessary local water use regulations in order to meet water use withdrawal restrictions as such are imposed on the water purveyors in Fayette County by state agencies, and to consider the appeal of any person or entity who may be aggrieved by the implementation of the water restrictions contained in this section.

i. In addition to any other authority expressly provided for in this section, the Board shall have the authority to interpret and adjust necessary local water use regulations pertaining to, but not limited to the following:

residential lawn watering, pool filling, and ornamental fountain use; the watering of golf courses, agriculture, and athletic fields; water usage levels for commercial purposes; and the water usage levels for hospitals and health care facilities during a Phase VI declaration.

ii. The Board may consider providing relief through issuing variances to any person or entity aggrieved by a declaration related to water conservation prior to the assessment of a fine for violation of this section as provided for in subsection (5).

iii. The Board shall not consider the appeal of a fine that has already been assessed pursuant to this section.

iv. The Board shall not consider the appeal of a drought tariff or other restrictive measure imposed on a customer by Kentucky-American Water Company or any other Fayette County water purveyor.

(c) Membership.
The Board shall consist of the following seven (7) members or their respective designees: the mayor, who shall serve as the Chairperson; the President of Kentucky-American Water Company; the Commissioner of the Health Department; the Commissioner of Public Safety; the Chief of Police; the Commissioner of Public Works; and the Vice Mayor.

(d) Meetings.
The Chairperson or a majority of the members of the Board shall have the authority to call meetings of the Board as he or she deems necessary, however, the Board must meet on at least a weekly basis during the implementation of Phases III - VI of this section.

(e) Bylaws.
The Board may adopt bylaws as are necessary to carry out its duties as set forth in this section.

(4) The declaration of a water shortage advisory, water shortage partial alert, water shortage full alert, water shortage

emergency or water shortage rationing shall continue until an officer of Kentucky-American Water Company finds that the conditions calling for the declaration no longer exist, and certifies such finding in writing to the mayor of the urban county government. At that time the mayor may publicly declare the condition no longer existing.

(5) Any person who violates the provisions of this section, or any declaration or regulation governing water usage adopted by the mayor of the urban county government under the authority of this section, shall be subject to a fine not to exceed two hundred fifty dollars ($250.00). Each day in violation of the terms of this section or any such declaration or regulation shall constitute a separate offense.

Section 2 - That this ordinance shall become effective on the date of its passage.

PASSED URBAN COUNTY COUNCIL: July 13, 2000

Pam Miller
MAYOR

ATTEST:

Liz Darnell
CLERK OF URBAN COUNTY COUNCIL

PUBLISHED: July 20, 2000-1t

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PUBLIC SERVICE COMMISSION
OF KENTUCKY
EFFECTIVE

JUL 15 2001

PURSUANT TO 807 KAR 5:011,
SECTION 9 (1)
BY: Stephan O Bell
SECRETARY OF THE COMMISSION

APPENDIX F

WATER CONSERVATION SUGGESTIONS FOR COMMERCIAL, INDUSTRIAL, AND HEALTH CARE FACILITIES

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PUBLIC SERVICE COMMISSION
OF KENTUCKY
EFFECTIVE

JUL 15 2001

PURSUANT TO 807 KAR 5:011,
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Natural Resources and
Environmental Protection Cabinet

WATER CONSERVATION FOR GOLF COURSES

Some of the following suggestions can be incorporated into normal golf course operations. Others are appropriate when water supplies are stressed from natural, technological or other human causes.

Water Control

- Fix leaks in the irrigation system as soon as they are detected.
- Only add water to lakes that are essential to the ecology or are needed to maintain trees and shrubs planted near the water line.
- Use aerial photographs of the irrigation system to determine which sprinkler heads should be shut down or altered.
- Cap any sprinkler head which waters nonpriority areas.
- Use accurate timing methods to control the frequency and duration of watering.
- Replace full-circle sprinkler heads with half-circle heads where appropriate.
- Install flow controls in sprinkler heads.
- On hilly areas, use sprinkler heads that hold water in the pipes once the flow is shut off.
- Investigate the advantages of installing drip irrigation systems for trees and shrubs.
- Read water meters daily to monitor the success of water conservation efforts.

Water Usage

- Infrequent deep watering of grass conserves more water than frequent light waterings.
- Do not overwater. This encourages weak grass to compete with other grasses.
- Follow National Weather Service forecasts. In periods where there is a high probability of rain, don't water.
- Generally, hand watering is the least effective means of conserving water. However, the sprinkler systems surrounding greens (perimeter watering) are not always efficient. If large sand traps or roughs are being watered, hand watering of the green would be advisable.
- Watering should be done at night or in the early morning, when evaporation and wind are at a minimum.
- Remove weak plants so that other plants can benefit from the water saved.
- Older, established plants may only require infrequent irrigation.
- Limit landscaping additions and alterations. In the future, design for landscapes and turfs which require less water.
- Hand wash all equipment and machinery by using budgeted amounts of water rather than hoses.
- Wash golf carts less often.
- Eliminate the washing of walks, driveways and other paved areas.

Grass and Soil Conservation Technique

- Aerification and spiking relieve soil compaction and assist water entry into soil.
- Use peat moss, redwood bark or calcine clay where possible to retain moisture at turf root levels.
- Use mulch on bald spots to retain moisture and discourage weeds.
- Wetting agents can improve water retention in some areas. Wetting agents react differently depending on soil content; care should be taken in their selection.

- Fertilize in cool weather using small doses of nutrient to build a strong plant. Fertilizing in the summer months induces growth, which requires additional watering; it should be avoided.
- Apply antitranspirants where beneficial.
- Grass length is an important fact in water usage. In the summer months, mowers should be raised. The optimum grass length depends upon many conditions, including the type of grass.
- Remove thatch which restricts water, air and nutrient movement into the turf's root zone.
- Weeds compete for water and should be controlled by use of an appropriate registered herbicide or by hand removal.

Clubhouse and Tennis Courts

- Increase employee awareness of water conservation. Brochures explaining how to conserve water in the home are available from the Division of Water.
- Conduct contests (e.g., posters, slogans, or conservation ideas) and locate conservation suggestion boxes in prominent areas.
- Install signs that encourage water conservation in employee and customer restrooms.
- As appliances or fixtures wear out, replace with water-saving models.
- Recover condensate from air conditioners, refrigerators, freezers and ice machines; use it as make-up water.
- Reduce the load on air conditioning units by shutting air conditioning off when and where it is not needed.
- Repair leaking faucets, showers, and continuously running toilets.
- Avoid excessive boiler and air conditioner blowdown. Monitor total dissolved solids levels, and blowdown only when needed.
- Reduce the water used in toilet flushing by either adjusting the vacuum flush mechanism or installing toilet tank displacement devices (dams, bottles or bags).
- Maintain insulation on hot water pipes.
- Check water supply system for leaks and turn off any unnecessary flows.
- Install flow reducers and faucet aerators on all plumbing fixtures.
- Use paper cups for drinking water instead of free flowing drinking fountains.
- Use a blower or broom to clean tennis courts and sidewalks.
- Conservation suggestions for restaurants can be obtained from the Division of Water.

Keep Informed on New Developments

- Contact the local Cooperative Extension, an educational agency of the University of Kentucky and the United States Department of Agriculture. Read the latest scientific information on agriculture, agronomy and water usage.
- Read professional journals and magazines and learn what others are doing.

This bulletin provides water conservation efforts which have been successfully implemented by industrial and commercial users.

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18 Reilly Road, Frankfort Office Park, Frankfort, Kentucky 40601

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WATER CONSERVATION FOR BEVERAGE INDUSTRIES

Some of the following suggestions can be incorporated into normal beverage industries operations. Others are appropriate when water supplies are stressed from natural, technological or other human causes.

Start a Water Conservation Program

- o Assign to an individual the responsibility for the water conservation program, giving him or her the necessary support and authority.
- o Make the plant management and other employees aware of the water conservation coordinator's function.
- o Increase employee awareness of water conservation. Brochures explaining how to conserve at home are available from the Division of Water.
  1. Explain the importance of individual action to the success of the conservation program.
  2. Conduct contests (e.g., posters, slogans or conservation ideas) and locate suggestion boxes in prominent areas.
  3. Use reminder posters and displays of water saving achievements.

Survey the Plant

A plant survey helps to establish a facility's water saving potential by identifying areas where water is wasted, or where water could be reused.

- o Identify the major water lines.
  1. Indicate the quality of water carried by each.
  2. Determine the quantity of water each uses-meters are available on loan from the DWP.
- o Identify all points where water is used, including hose connections; determine the quantity of water used at each point.
- o Determine the capacity of each water-containing unit and frequency of emptying.
- o Determine the quality of each continuous discharge that is not now being reused.
- o Determine flow rates in flood gutters and whether the flows are adequate to prevent solids accumulation.

Maximize Water Use Efficiency

- o Install high-pressure, low-volume nozzles on spray washers.
- o Use fogging nozzles to cool product.
- o Install in-line strainers on all spray headers; inspect nozzles regularly for clogging.
- o Adjust pump cooling and flushing water to the minimum required.
- o Determine whether discharges from any operation can be substituted for fresh water supplied to another operation. Discharges which can potentially be reused are:
  1. Final rinses from tank cleaning, keg washers, fermenters;
  2. Bottle and can soak and rinse water;
  3. Cooler flushwater, filter backwash
  4. Pasteurizer and sterilizer water.

Areas of possible reuse are:

1. First rinses in wash cycles;
2. Can shredder, bottle crusher;
3. Filter backflush;
4. Caustic dilution;
5. Boiler makeup;
6. Refrigeration equipment defrost; and
7. Equipment cleaning, floor and gutter wash.

Avoid Waste

- Equip all hoses with spring loaded shutoff nozzles. Be sure these nozzles are not removed.
- Instruct employees to use hoses sparingly and only when necessary.
- Adjust overflows from recirculation systems by controlling the rate at which makeup water is added.
  1. Install float-controlled valve on the makeup line.
  2. Close filling line during operation.
  3. Provide surge tanks for each system to avoid overflow.
- Turn off all flows during shutdowns (unless flows are essential for cleanup).
  1. Use solenoid valves to stop the flow of water when production stops. The valves could be activated by tying them to drive motors.
- Adjust flows in sprays and other lines to meet minimum requirements.

Evaluate Cleanup Procedures

- Sweep and shovel materials from the floor; do not use hoses for this purpose.
  1. Provide an adequate number of receptacles for collecting solids.
  2. Empty receptacles frequently to prevent odor and insect problems.
- Inventory all cleaning equipment (hoses, etc.) provided in the plant.
  1. Determine the number and types of units provided.
  2. Evaluate their frequency of operation.
  3. Use more water-efficient equipment where possible.
- Inventory all cleaning chemicals used in the facility to determine:
  1. If they are being used correctly.
  2. Their water-use efficiency.

Future Considerations

- Review the information developed during the survey.
  1. Identify the major water-using operations.
  2. Review the water reuse practices currently employed.
- Develop plans to improve reuse.
  1. Evaluate the feasibility of installing cooling towers.
  2. Study the potential for screening and disinfecting reclaimed water to increase the number of times it can be reused.
- Use conveying systems that use water efficiently.
  1. Handle waste materials in a dry mode when possible.
- Replace high-volume hoses with high-pressure, low-volume cleaning systems.
- As equipment wears out, replace with water-saving models.

Exterior Areas

- Wash autos, buses and trucks less often.
- Discontinue using water to clean sidewalks, driveways, loading docks, and parking lots. Considering using mobile sweepers.
- Avoid landscape fertilizing and pruning that stimulates excessive growth. Remove plants that are not healthy so that other plants can benefit from the water saved.
- In many cases older, established plants require only infrequent irrigation. Look for indications of water need such as wilt, change of color, or dry solids.
- Limit landscaping additions and alterations. In the future, design for landscaping that require less water.
- Install soil moisture overrides or timers on sprinkler systems. Time waterings, when possible, to occur in the morning when wind and evaporation are lowest. Irrigation equipment should apply water uniformly.
- Investigate the advantages of installing drip irrigation systems.
- Mulch around plants to reduce evaporation and discourage weeds.
- Remove thatch and aerate turf to encourage the movement of water to the root zone.
- Begin a flexible watering schedule, watering only when needed and not on windy or rainy days.
- Avoid runoff, and make sure sprinklers cover just the lawn or garden, not sidewalkds, driveways or gutters.

This bulletin provides water conservation efforts which have been successfully implemented by industrial and commercial users. Conservation efforts must comply with Federal, State and local government regulations.

For Additional Information Contact the Kentucky Division of Water at (502) 564-3410, 18 Reilly Road, Frankfort Office Park, Frankfort, Kentucky 40601

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WATER CONSERVATION FOR RESTAURANTS

Some of the following suggestions can be incorporated into normal restaurant operations. Others are appropriate when water supplies are stressed from natural, technological or other human causes.

General Suggestions

- Increase employee awareness of water conservation. Brochures explaining how to conserve water at home are available from the Division of Water.
- Conduct contests (e.g., posters, slogans or conservation ideas) and locate suggestion boxes in prominent areas.
- Install signs that encourage water conservation in employee and customer restrooms.
- As applicances or fixtures wear out, replace with water-saving models.
- Reduce the load on air conditioning units by shutting air conditioning off when and where it is not needed.
- When cleaning with water is necessary, use budgeted amounts.
- Provide table signs urging water conservation.
- Read water meter daily to monitor the success of water conservation efforts.

Kitchen Area

- Turn off the continuous flow used to clean the drain trays of the coffee/milk/soda beverage island; clean the trays only as needed.
- Turn dishwashers off when dishes are not being processed. Wash full loads only. Replace spray heads to reduce water flow.
- Recycle rinse water from the dishwasher or recirculate it to the garbage disposer.
- Rinse utensils and dishes in ponded water.
- Thaw foods in ponded water rather than running water.
- Wash vegetables in ponded water, do not let water run in prep sink.
- Minimize use of ice machines and adjust them to dispense less ice.
- Use water from the steam table in place of fresh water to wash down the cook's area.

Bar

- Do not use running water to melt ice in the sink strainers.

Building Maintenance

- Minimize the water used in cooling equipment, such as air compressors, in accordance with the manufacturer's recommendations.
- Maintain insulation on hot water pipes.
- Check water supply system for leaks, and turn off any unnecessary flows.
- Repair dripping faucets, showers, and continuously running toilets.
- Avoid excessive boiler and air conditioner blowdown. Monitor total dissolved solids levels, and blowdown only when needed.
- Reduce the water used in toilet flushing by either adjusting the vacuum flush mechanism or installing toilet tank displacement devices (dams, bottles or bags).
- Switch from wet or "steam" carpet cleaning methods to dry powder methods.
- Instruct clean-up crews to use less water for mopping.
- Change window cleaning schedule from periodic to an on-call, as required, basis.
- Install flow reducers and faucet aerators in all plumbing fixtures.

Exterior Areas

- Wash autos, buses, and trucks less often.
- Avoid plant fertilizing and pruning that stimulates growth. Remove plants which are not healthy so that other plants can benefit from the water saved.
- In many cases, older, established plants require only infrequent irrigation. Look for indications of water need such as wilt, change of color, or dry soils.
- Limit landscaping additions and alterations. In the future, design for landscapes which require less water.
- Install soil moisture overrides or timers on sprinkler systems. Time waterings, when possible, to occur in the morning when wind and evaporation are lowest. Irrigation equipment should apply water uniformly.
- Investigate the advantages of installing drip irrigation systems.
- Mulch around plants to reduce evaporation and discourage weeds.
- Remove thatch and aerate turf to encourage the movement of water to the root zone.
- Begin a flexible watering schedule, watering only when needed and not on windy or rainy days.
- Avoid runoff, and make sure sprinklers cover just the lawn or garden, not sidewalks, driveways, or gutters.

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WATER CONSERVATION FOR HOTELS

Some of the following suggestions can be incorporated into normal restaurant operations. Others are appropriate when water supplies are stressed from natural, technological or other human causes.

General Suggestions

- Increase employee and visitor awareness of water conservation. Brochures explaining how to conserve water at home are available from the Division of Water.
- Read water meter daily to monitor the success of water conservation efforts.
- Conduct contests for employees (e.g., posters, slogans or conservation ideas); locate suggestion boxes in prominent areas.
- Install signs that encourage water conservation in employee and customer restrooms-leaflets suitable for display or distribution are available from the Division of Water.
- As appliances or fixtures wear out, replace with water saving models.
- When cleaning with water is necessary, use budgeted amounts.

Building Maintenance

- Minimize the water used in cooling equipment, such as air compressors, in accordance with the manufacturer's recommendations.
- Reduce the load on air conditioning units by shutting air conditioning off when and where it is not needed.
- Maintain insulation on hot water pipes.
- Check water supply system for leaks, and turn off any unnecessary flows.
- Repair dripping faucets, showers, and continuously running toilets.
- Avoid excessive boiler and air conditioner blowdown. Monitor total dissolved solids levels, and blowdown only when needed.
- Reduce the water used in toilet flushing by either adjusting the vacuum flush mechanism or installing toilet tank displacement devices (dams, bottles or bags).
- Instruct clean-up crews to use less water for mopping.
- Switch from wet or "steam" carpet cleaning methods to dry power methods.
- Change window cleaning schedule from periodic to an on-call, as required basis.
- Install flow reducers and faucet aerators in all plumbing fixtures.

Kitchen Area

- Turn off the continuous flow used to clean the drain trays of the coffee/milk/soda beverage island; clean the trays only as needed.
- Turn dishwasher off when dishes are not being processed. Wash full loads only. Replace spray heads to reduce water flows.
- Recycle rinse water from the dishwasher or recirculate it to the garbage disposer.
- Presoak utensils and dishes in ponded water instead of using a running water rinse.
- Thaw food in ponded water rather than running water.
- Wash vegetables in ponded water, do not let water run in prep sink.
- Minimize use of ice machines and adjust them to dispense less ice.
- Use water from the steam table in place of fresh water to wash down the cook's area.

Bar

- Do not use running water to melt ice in the sink strainers.

Pool

- Lower pool water level to reduce amount of water splashed out.
- Reduce amount of water used to backflush pool filters.
- Use a pool cover to reduce evaporation when pool is not being used.

Laundry

- Water conservation ideas for laundries can be obtained from the Division of Water.

Exterior Areas

- Wash autos, buses and trucks less often.
- Avoid plant fertilizing and pruning which would stimulate excessive growth.
- Remove unhealthy plants so that remaining plants can benefit from the water saved.
- In many cases, older, established plants require only infrequent irrigation. Look for indications of water need such as wilt, change of color, or dry soils.
- Limit landscaping additions and alterations. In the future, design landscapes which require less water.
- Install soil moisture overrides or timers on sprinkler systems. Time waterings, when possible, to occur at night or in the morning when wind and evaporation are lowest. Irrigation equipment should apply water uniformly.
- Investigate the advantages of installing drip irrigation systems.
- Mulch around plants to reduce evaporation and discourage weeds.
- Remove thatch and aerate turf to encourage the movement of water to the root zone.
- Begin a flexible watering schedule, watering only when needed and not on windy or rainy days.
- Avoid runoff, and make sure sprinklers cover just the lawn or garden, not sidewalks, driveways or gutters.

This bulletin provides water conservation efforts which have been successfully implemented by industrial and commercial users.

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WATER CONSERVATION FOR COMMERCIAL BUILDINGS

Some of the following suggestions can be incorporated into normal restaurant operations. Others are appropriate when water supplies are stressed from natural, technological or other human causes.

General Suggestions

- Increase employees' and/or occupants' awareness of water conservation - Brochures explaining how to conserve are available from the Division of Water.
- Conduct contests (e.g., posters, slogans or conservation ideas) and locate suggestion boxes in prominent areas.
- Install signs that encourage water conservation in restrooms.
- Use paper cups for drinking water instead of free flowing drinking fountains.
- As appliances or fixtures wear out, replace with water-saving models.
- Recover condensate from air conditioners, refrigerators, freezers, and ice machines; use it as make-up water.
- Reduce the load on air conditioning units by shutting air conditioning off when and where it is not needed.
- Install flow reducers and faucet aerators on all sinks.
- Read water meter daily to monitor the success of water conservation efforts.

Building Maintenance

- Shut off the water supply to equipment and rooms which are unused. Discontinue water circulation pumping in unoccupied areas.
- Shut off sprayed coil units except where humidity in critical areas cannot be maintained by other means or where the units are used to reduce chiller operation.
- Minimize the water used in cooling equipment such as air compressors in accordance with the manufacturer's recommendations.
- Maintain insulation on hot water pipes.
- Check water supply system for leaks, and turn off any unnecessary flows.
- Repair leaking faucets, showers and toilets.
- Avoid excessive boiler and air conditioner blowdown. Monitor total dissolved solids levels and blowdown only when needed.
- Reduce the water used in toilet flushing by either adjusting the vacuum flush mechanisms or installing toilet tank displacement devices (dams, bottles or bags).
- Switch from wet or "steam" carpet cleaning methods to dry powder methods.
- Instruct clean-up crews to use less water for mopping.
- Change window cleaning schedule from periodic to an on-call, as required, basis.

Cafeteria and Food Service

- Provide table signs in cafeteria urging water conservation.
- Turn off the continuous flow used to clean the drain trays of the coffee/milk/soda beverage island, and instruct personnel to thoroughly clean only as needed.
- Turn dishwashers off when dishes are not being processed and wash full loads only.
- Recycle the rinse water from the dishwasher.
- Thaw foods in ponded water rather than running water.

- o Wash vegetables in ponded water, do not let water run in prep sink.
- o Minimize use of ice machines and adjust them to dispense less ice.

Exterior Areas

- o Wash autos, buses and trucks less often.
- o Discontinue cleaning sidewalks, driveways, loading docks and parking lots with water.
- o Avoid plant fertilizing and pruning that stimulates growth. Remove plants which are not healthy so that other plants can benefit from the water saved.
- o In many cases, older, established plants require only infrequent irrigation. Look for indications of water need such as wilt, change of color, or dry soils.
- o Limit landscaping additions and alterations. In the future, design for landscapes that require less water.
- o Install soil moisture overrides or timers on sprinker systems. Time waterings, when possible, to occur in the morning when wind and evaporation are lowest. Irrigation equipment should apply water uniformly.
- o Investigate the advantages of installing drip irrigation systems.
- o Mulch around plants to reduce evaporation and discourage weeds.
- o Remove thatch and aerate turf in early spring to encourage the movement of water to the root zone. After March, thatch removal may encourage evaporation from the soil.
- o Begin flexible watering schedule watering only when needed, and not on windy or rainy days.
- o Avoid runoff, and make sure sprinklers cover just the lawn or garden, not sidewalks, driveways, or gutters.

This bulletin provides water conservation efforts that have been successfully implemented by industrial and commercial users.

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WATER CONSERVATION FOR FOOD PROCESSING INDUSTRIES

Some of the following suggestions can be incorporated into normal food processing operations. Others are appropriate when water supplies are stressed from natural, technological or other human causes.

Start a Water Conservation Program

- Assign to an individual the responsibility for the water conservation program, giving him or her the necessary support and authority.
- Make the plant manager and other employees aware of the water conservation coordinator's function.
- Increase employee awareness of water conservation-brochures explaining how to conserve at home are avialable from the Division of Water.
  1. Explain the importance of individual action to the success of the conservation program.
  2. Conduct contests (e.g., posters, slogans or conservation ideas) and locate suggestion boxes in prominent areas.
  3. Use reminder posters and displays of water saving achievements.
- Read water meter daily to monitor the success of water conservation efforts.

Survey the Plant

A plant survey helps to establish a facility's water savings potential by identifying areas where water is wasted, or where water could be reused.

- Identify the major water lines.
  1. Indicate the quality of water carried by each.
  2. Determine the quantity of water each uses.
- Identify all points where water is used, including hose connections; determine the quantity of water used at each point.
- Determine the capacity of each water-containing unit (washers, flumes, etc.) and frequency of emptying.
- Determine the quality of each continuous discharge that is not now being reused.
- Determine flow rates in flood gutters and whether the flows are adequate to prevent solids accumulation.

Avoid Waste

- Equip all hoses with spring loaded shutoff nozzles. Be sure these nozzles are not removed.
- Instruct employees to use hoses sparingly and only when necessary.
- Adjust overflows from recirculation systems (washers, flumes, etc.) by controlling the rate of makeup water.
  1. Install float-controlled valve on the makeup line.
  2. Close filling line during operation.
  3. Provide surge tanks for each system to avoid overflow.
- Turn off all flows during shutdowns (unless flows are essential for cleanup).
  1. Use solenoid valves to stop the flow of water when production stops. The valves could be activated by tying them to drive motors.
- Adjust flows in sprays and other lines to meet minimum requirements.

Maximize Water Efficiency

- Install high-pressure, low-volume nozzles on spray washers.
- Use fogging nozzles to cool product.
- Install in-line strainers on all spray headers; inspect nozzles regularly for clogging.
- Establish optimum depth of product on conveyors to maximize wash water efficiency.
- Determine whether discharges from any operation can be substituted for fresh water being supplied to an earlier operation.
  1. Divide the spray wash units into two or more sections and establish a countertlow reuse system.
  2. Use reclaimed water for flushing floor gutters.

Evaluate Cleanup Procedures

- Sweep and shovel solid materials from the floor; do not use hoses for this purpose.
  1. Provide an adequate number of receptacles for collecting solids.
  2. Empty the receptacles frequently to prevent odor and insect problems.
- Inventory all cleaning equipment (hoses, etc.) provided in the plant.
  1. Determine the number of types of units provided.
  2. Evaluate their frequency of operation.
  3. Use more water-efficient equipment where possible.
- Inventory all cleaning chemicals used in the facility to determine:
  1. If they are being used correctly.
  2. Their water-use efficiency.
- Control belt sprays with a timer to allow for the intermittent application of chlorinated water.

Future Considerations

- Review the information developed during the survey.
  1. Identify the major water-using operations.
  2. Review the water reuse practices currently employed.
- Develop plans to improve reuse.
  1. Evaluate the feasilibility of installing cooling towers.
  2. Study the potential for screening and disinfecting reclaimed water to increase the number of times it can be reused.
- Use conveying systems that use water efficiently.
  1. Handle waste materials in a dry mode when possible.
  2. Use conveyor belts for product transport. Preference should be given to "rabbit-ear" or V-shaped roller supports since these are much easier to clean.
  3. Use pneumatic conveying systems where practicable.
  4. Use flumes with parabolic cross sections rather than flat-bottom troughs.
- Consider replacing water-intensive units with alternatives:
  1. Rubber-disc units for raw product cleaning and peeling.
  2. Steam for water blanchers.
  3. Evaporative coolers for hydrocooling systems.
- Replace high-volume hoses with high-pressure, low-volume cleaning systems.

Exterior Areas

- Wash autos, buses and trucks less often.
- Discontinue using water to clean sidewalks, driveways; loading docks, and parking lots. Consider using mobile sweepers.
- Avoid landscape fertilizing and pruning that stimulates excessive growth. Remove plants which are not healthy so that other plants can benefit from the water saved.
- In many cases older, established plants require only infrequent irrigation. Look for indications of water need such as wilt, change of color, or dry soils.
- Limit landscaping additions or alterations. In the future, design for landscapes that require less water.
- Install soil moisture overrides or timers on sprinker systems. Time waterings, when possible, to occur in the morning when wind and evaporation are lowest. Irrigation equipment should apply water uniformly.
- Investigate the advantages of installing drip irrigation systems.
- Mulch around plants to reduce evaporation and discourage weeds.
- Remove thatch and aerate turf to encourage the movement of water to the root zone.
- Begin a flexible watering schedule, watering only when needed and not on windy or rainy days.
- Avoid runoff, and make sure sprinklers cover just the lawn or garden, not sidewalks, driveways or gutters.

This bulletin provides was conservation efforts which have been successfully implemented by industrial and commercial users. Conservation efforts must be consistent with federal, state and local regulations. Water conservation must not have a detrimental effect on any product or endanger public health.

For Additional Information Contact the Kentucky Division of Water at (502) 564-3410,
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WATER CONSERVATION FOR HEALTH CARE FACILITIES

Some of the following suggestions can be incorporated into normal facility operations. Others are appropriate when water supplies are stressed from natural, technological or other human causes.

General Suggestions

- Increase employee awareness of water conservation. Brochures explaining how to conserve water are available from the Division of Water.
- Conduct contests (e.g., posters, slogans or conservation ideas) and locate suggestion boxes in prominent areas.
- Install signs that encourage water conservation in patient and non-patient restrooms.
- Read water meters daily to monitor the success of water conservation efforts.
- Use paper cups for drinking water instead of free flowing drinking fountains.
- Water required for film processing and single-pass cooling in the x-ray department should be turned off when not in use and recycled if possible.
- Recycle water where feasible, consistent with State Department of Health requirements.
- Use full loads of sanitizers, sterilizers, dishwashers, and washing machines consistent with infection control requirements.
- As appliances or fixtures wear out, replace with water-saving models.
- Recover condensate from air conditions, refrigerators, freezers and ice machines; use it as make-up water.
- Reduce the load on air conditioning units by shutting air conditioning off when and where it is not needed.

Building Maintenance

- Shut off the water supply to equipment, and rooms and spaces which are unused. Discontinue water circulation pumping in unoccupied areas.
- Insure return of steam condensate to the feed water tank for reuse.
- Shut off sprayed coil units except where humidity in critical areas cannot be maintained by other means or where the units are used to reduce chiller operation.

Health Care Facilities

- Minimize the water use of cooling equipment such as air compressors in accordance with the manufacturer's recommendations.
- Maintain insulation on hot water pipes.
- Check water supply system for leaks, and turn off any unnecessary flows.
- Install flow reducers and faucet aerators in all plumbing fixtures.
- Repair leaking faucets, showers and toilets.
- Avoid excessive boiler and air conditioner blowdown. Monitor total dissolved solids levels, and blowdown only when needed.
- Reduce the water used in toilet flushing by either adjusting the vacuum flush mechanism or installing toilet tank displacement devices (dams, bottles, or bags).
- Overhaul faulty steam traps on sterlizers.

afeteria and Food Service

- o Provide table signs in cafeteria urging water conservation.
- o Turn off the continuous flow used to wash the drain trays of the coffee/milk/soda beverage island, and instruct personnel to thoroughly clean only as needed.
- o Turn dishwashers off when dishes are not being processed and wash full loads only.
- o Recycle the rinse water from the dishwasher.
- o Thaw foods in ponded water rather than running water.
- o Wash vegetables in ponded water, do not let water run in prep sink.
- o Minimize use of ice machines and adjust them to dispense less ice.

Exterior Areas

- o Wash autos, buses, trucks and ambulances less often.
- o Discontinue cleaning sidewalks, driveways, loading docks and parking lots with water.
- o Avoid plant fertilizing and pruning that stimulates growth. Remove plants which are not healthy so that other plants can benefit from the water saved.
- o In many cases, older, established plants require only infrequent irrigation. Look for indications of water need such as wilt, change of color, or dry soils.
- o Limit landscaping additions and alterations. In the future, design for landscapes that require less water.
- o Install soil moisture overrides or timers on sprinkler systems. Time waterings when possible to occur in the morning when wind and evaporation are lowest. Irrigation equipment should apply water uniformly.
- o Investigate the advantages of installing drip irrigation systems.
- o Mulch around plants to reduce evaporation and discourage weeds.
- o Remove thatch and aerate turf to encourage the movement of water to the root area.
- o Begin flexible watering schedule, watering only when needed and not on windy or rainy days.
- o Avoid runoff, and make sure sprinklers cover just the lawn or garden, not sidewalks, driveways, or gutters.

This bulletin provides water conservation efforts which have been successfully implemented by industrial and commercial users.

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WATER CONSERVATION FOR LAUNDRIES AND LINEN SUPPLIERS

Some of the following suggestions can be incorporated into normal laundries operations. Others are appropriate when water supplies are stressed from natural, technological or other human causes.

General Suggestions

- Increase employee and customer awareness of water conservation. Brochures explaining how to conserve water at home are available from the Division of Water.
- Conduct contests (e.g., posters, slogans or conservation ideas) and locate suggestion boxes in prominent areas.
- Use reminder posters and displays of water saving achievements.
- Install signs that encourage water conservation in employee and customer restrooms.
- As appliances and fixtures wear out, replace with water-saving models.
- Reprogram machines to eliminate a rinse or suds cycle.
- Read water meter daily to monitor the success of water conservation efforts.

Maintenance

- Maintain insulation on hot water pipes.
- Check water system for leaks, and turn off any unnecessary flows.
- Repair dripping faucets, leaking valves, and continously running toilets.
- Avoid excessive boiler blowdown. Monitor total dissolved solids levels, and blowdown only when needed.
- Avoid excessive filter or softener backflush. Backflush only when needed.
- Install flow reducers and faucet aerators in all plumbing fixtures.
- Reduce the water used in toilet flushing by either adjusting the vacuum flush mechanism or installing toilet tank displacement devides (dams, bottles or bags).

Operational Suggestions

- Wash full loads only.
- Reduce water levels to minimum required per load.
- Evaluate wash formula and machine cycles for water use efficiency.

Exterior Areas

- Wash autos, buses and trucks less often.
- Discontinue using water to clean sidewalks, driveways, loading docks, and parking lots.

This bulletin provides water conservation efforts which have been successfully implemented by industrial and commercial users.

For Additional Information Contact the Kentucky Division of Water at (502) 564-3410, 18 Reilly Road, Frankfort Office Park, Frankfort, Kentucky 40601

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PUBLIC SERVICE COMMISSION
OF KENTUCKY
EFFECTIVE

JUL 15 2001

PURSUANT TO 807 KAR 5:011,
SECTION 9 (1)
BY: Stephan Bell
SECRETARY OF THE COMMISSION

APPENDIX G

PERMIT TO WITHDRAW PUBLIC WATER #0200

PUBLIC SERVICE COMMISSION
OF KENTUCKY
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JUL 15 2001

PURSUANT TO 807 KAR 5:011,
SECTION 9 (1)
BY: Stephan Bell
SECRETARY OF THE COMMISSION

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JUL 15 2001

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BY: Stephan O Bell
SECRETARY OF THE COMMISSION

JAMES E. BICKFORD
SECRETARY

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

September 17, 1999

Linda C. Bridwell
Kentucky-American Water Company
2300 Richmond Road
Lexington, KY 40502

Re: Water Withdrawal Permit #0200

Dear Ms. Bridwell,

Thank you for your application to revise the Kentucky-American Water Company water withdrawal permit. This letter accompanies permit #0200, which has been revised to reflect a new water withdrawal schedule and the requested increase in withdrawal rates.

Please note that there are limitations to this permit. In order to protect both natural flow conditions and previously permitted downstream users, withdrawals must be limited during low flow months. Under the terms of this permit, Kentucky-American is required to reduce withdrawals when the flow at Lock 10 falls below 140 cubic feet per second for four consecutive days. The United States Geological Survey monitors the flow at Lock 10 through gaging station #03284000. Flow data from this gage can be obtained at **http://130.11.24.1/rt-cgi/gen_tbl_pg**, the address for USGS Kentucky Current Streamflow Conditions.

In addition, please be aware that pumpage to the Kentucky River Station water treatment plant shall not exceed its rated capacity of 40 MGD.

KRS 151.160 requires all permit holders to record all water withdrawn and to submit this information to the Division of Water in a manner prescribed by this Department. At this time, we send special reporting forms to permit holders in June and December of each year. According to the application, you are the person who has the responsibility of completing these forms. Therefore, you should continue to record withdrawals on these forms and return them to this office. Withdrawal amounts reported must be accurately measured by meter or other device as approved by the Cabinet. Additionally, as stated on the permit, you are required to report gage and water withdrawal data to the Division of Water when flows at Lock 10 are below 140 cfs.

If average monthly withdrawal amounts begin to exceed permitted amounts, or if there is any change in the location of the withdrawal site, you must contact this office immediately and request a revision to this permit.

The issuance of this permit does not release you from the obligation of obtaining any other permits that may be required by this Division or other regulatory agencies.

If you have any questions, please contact Bill Caldwell at (502) 564-3410.

Sincerely,

A. Leon Smothers

A. Leon Smothers, Manager
Water Resources Branch
Division of Water

ALS:BC:bc
c: Frankfort Regional Office
Kentucky River Authority
Enclosure

PUBLIC SERVICE COMMISSION
OF KENTUCKY
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NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
FRANKFORT, KENTUCKY 40601

PERMIT TO WITHDRAW PUBLIC WATER

Permit Number: # 0200

Issued to: **Kentucky-American Water Company**
2300 Richmond Road
Lexington, Kentucky 40502

The Natural Resources and Environmental Protection Cabinet authorizes the above named party to withdraw Public Water of the Commonwealth of Kentucky. This permit has been issued under provisions of KRS Chapter 151.125, 151.140 and 151.150 and regulations promulgated with respect to the withdrawal of public waters. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet, or other state, federal or local agencies. Withdrawals are restricted to the stated quantities, times and locations specified below. This permit represents a limited right of use and does not vest ownership nor absolute right to withdrawal or use of Public Water, nor does it guarantee that requested amounts will be available for use at all times. In times of drought or emergency, the Cabinet may temporarily alter the conditions of the permit. Any violation of the Water Resources Act of 1966 as amended is subject to penalties as set forth in KRS 151.990 and other applicable provisions of law.

The location of the authorized water withdrawal is as follows:

A surface water intake located at river mile 167.3 (pool 9) of the Kentucky River; latitude 37°54'07" North, longitude 84°22'39" West, Fayette County.

Water withdrawals are limited to the following rates from the specified location:

Jan.	60.0 MGD	**April**	60.0 MGD	**July**	63.0 MGD	**Oct.**	63.0 MGD
Feb.	60.0 MGD	**May**	63.0 MGD	**Aug.**	63.0 MGD	**Nov.**	60.0 MGD
March	60.0 MGD	**June**	63.0 MGD	**Sept.**	63.0 MGD	**Dec.**	60.0 MGD

Conditions to this permit are as follows:

1. Withdrawal rates must be accurately measured by meter or other device approved by the Cabinet.

2. This permit is subject to revision if data collected pursuant to permit condition No. 6 indicate that withdrawals negatively impact the quantity and quality of water below the intake.

For additional conditions see attached sheets

Issued: July 19, 1966

Latest Revision: September 17, 1999

A. Leon Smothers
Manager, Water Resources Branch
Division of Water

PUBLIC SERVICE COMMISSION
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SECTION 9 (1)
BY: Stephan Bell
SECRETARY OF THE COMMISSION

3. When flows measured at Lock 10 are 140 cfs or less for four (4) consecutive days, Kentucky-American's withdrawals shall conform to the following schedule:

Lock 10 Flow	Allowable Withdrawals Under This Permit
> 140.00 cfs	Full Permitted Amount*
139.99 - 120.00 cfs	58.0 MGD
119.99 - 90.00 cfs	54.0 MGD
89.99 - 60.00 cfs	50.0 MGD
59.99 - 30.00 cfs	48.0 MGD
29.99 - 0.00 cfs	45.0 MGD
Drought Phase 2	45.0 MGD
Drought Phase 3	42.0 MGD
Drought Phase 4	40.0 MGD
Drought Phase 5	35.0 MGD
Drought Phase 6	30.0 MGD

3.1 The full permitted amount is 60.0 MGD for the months November through April and 63.0 MGD for the months May through October.

3.2 Drought phase 2 shall exist between the time that Trigger 2 is met but before Trigger 3 is declared. Drought phase 3 shall exist between the time that Trigger 3 is met but before Trigger 4 is declared, and so on.

The revised Flow Schedule shall remain in effect under the condition that the valves and the valve operating plan are maintained by the Kentucky River Authority or some other entity approved by the Division of Water. If maintenance of the valves and valve operating plan is discontinued for any reason, the flow schedule will revert to that incorporated in permit # 0200 as issued on December 14, 1992.

4. Pursuant to Lexington-Fayette County Urban County Government Ordinance 135-88 Section 11-9 (e), Kentucky-American shall prepare administrative regulations governing water usage and submit these to the Division of Water for approval by November 15, 1999.

5. Kentucky-American shall obtain continuous gaging information for flows at the United States Geological Survey gage at Lock 10. Gage and water withdrawal data shall be reported to the Division of Water daily, Monday through Friday, when flows are below 140 cfs. The Division may specify reasonable reporting intervals, no more frequently than hourly, as flows decrease. Compliance with the permit will be based on a running four day average of withdrawals and not the monthly average withdrawal.

6. Whenever streamflow drops below 120 cfs for four consecutive days at Lock 10, Kentucky-American shall collect dissolved oxygen, temperature, pH and specific conductance samples at the locations noted below. Sampling shall continue each week thereafter until flows return to rates greater than 120 cfs, except it shall be continued as long as the valve operating plan is in effect. Measurements at locations (a), (b), and (c) shall be made three times per week on Monday, Wednesday, and Friday mornings. Measurements at location (d) shall be made one time per week except during the months of June , July, and August and whenever the ambient air temperature is at or above 90° F. Data must be collected at four locations across the river at each site, with measurements taken at the surface, mid-depth, and bottom. These values must be reported at each point.

(a) About 0.25 miles above the current Kentucky-American intake
(b) Just above lock 9
(c) In the vicinity of river mile 156 in the upper end of pool 8
(d) In the lower third of pool 8

7. The pumpage to the Water Treatment Plant shall not exceed the plant's rated capacity.

8. Kentucky-American shall draft a revised Demand Management Plan to conform to the limits of this permit.

9. Kentucky-American shall no[illegible]he Natural Resources and Environm[illegible] Protection Cabinet and the Kentucky River Authority as each Management Phase is declared in the Demand Management Plan adopted above, beginning with the Advisory Phase.

10. Kentucky-American Water Company and the Division of Water recognize that all permitted water withdrawers are equals without seniority, priority, or privilege given to any permit holder along the Kentucky River.

11. Kentucky-American Water Company recognizes its role as the largest water purveyor in demonstrating leadership in protecting the Kentucky River as source of supply of the Central Kentucky Region.

JAMES E. BICKFORD
SECRETARY

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

April 27, 2001

Ms. Linda C. Bridwell
Director of Engineering
Kentucky-American Water Company
2300 Richmond Road
Lexington, KY 40502

Re: Temporary modification to water withdrawal permit #0200

Dear Ms. Bridwell:

As you know the Kentucky Division of Water has recently done hydrologic modeling to simulate the impact of severe drought on water availability in the Kentucky River. This letter serves as notification of temporary changes to your allowable withdrawals that are based on the results of these efforts should a severe drought recur in 2001. This amends permit #0200 until December 31, 2001 with temporary changes to your flow reduction schedule as shown in the table below:

Adjustments to Allowable Withdrawals under the Valve Operating Plan for 2001.*

Drought Phase	Kentucky River Conditions	Allowable Withdrawals*** (MGD)
Normal Operation	Flow above 7Q10**	Full Permitted Amount***
Phase 1	Flow at 7Q10 or below	58
Phase 2	Water Level in Pools at or below crest	55
Phase 3	Water Level in Pools 1 foot below crest	50
Phase 4	Water Level in Pools 2 feet below crest	45
Phase 5	Water Level in Pools 3 feet below crest	40
Phase 6	Water Level in Pools 4 feet below crest	35

* Allowble withdrawals are based on an assumed recurrence of the drought of 1953.
** The 7Q10 at Lock 10 is 120 cubic feet per second.
*** The full permitted amount as stated for each month on the face of permit # 0200

These modifications have assumed baseline drought conditions equal in severity to the drought of 1953. Please be aware that the Division of Water may need to adjust or suspend these modifications if conditions in the basin deteriorate below those of 1953.

If you have any questions, please contact Bill Caldwell at (502) 564-3410.

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Sincerely,

A. Leon Smothers

A. Leon Smothers, Manager
Water Resources Branch
Division of Water

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SECTION 9 (1)
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SECRETARY OF THE COMMISSION

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c: Frankfort Regional Office
Kentucky River Authority
Bluegrass Area Development District

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APPENDIX H

EMERGENCY PRICING TARIFF

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The Emergency Pricing Tariff is currently in development.