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WATER SHORTAGE RESPONSE PLAN
EAST KNOX COUNTY WATER DISTRICT

FEB 16 1996

PUBLIC SERVICE COMMISSION

Section 1. **Purpose.** The purpose of this plan is to provide for the declaration of official phases of water supply shortages and the implementation of voluntary and mandatory water conservation measures throughout the EAST KNOX COUNTY WATER DISTRICT in the event a shortage is declared.

Section 2. **Definitions.** These terms are applicable only for this plan unless specifically noted.

(a) "Customer" shall mean any person or entity using water for any purpose from the EAST KNOX COUNTY WATER DISTRICT water distribution system and for which either a regular charge is made or, in the case of bulk sales, a cash charge is made at the site of delivery.

(b) "Raw Water Supplies" shall mean all water potentially available to persons in the EAST KNOX COUNTY WATER DISTRICT.

(c) "Treated Water" shall mean water that has been introduced by the EAST KNOX COUNTY WATER DISTRICT into its water distribution system, including water offered for sale. Use of treated water are classified as follows:

(CLASS 1) Essential Water Uses :

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, maintain minimum standards of hygiene and sanitation.

Health Care Facilities:

Patient care and rehabilitation, including related filling and operation of swimming pools.

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Water Hauling:

Sale of domestic use where not reasonably available elsewhere.

Public Use:

Firefighting, Health and public protection purposes, if specifically approved by health officials.

(Class 2) Socially or Economically Important Uses:

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: Non-Domestic, when other sources are not reasonably available elsewhere.

Commercial and Civic Use:

Commercial car and truck washes,

Laundromats

Restaurants, clubs and eating places.

Schools, churches, motels/hotels and similar commercial establishments.

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Outdoor Non-Commercial Watering:

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Minimal watering of vegetable gardens,

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Minimal watering of trees where necessary to preserve them.

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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,

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Watering by commercial nurseries at a minimum level necessary to maintain stock,

Watering at a minimum rate necessary to establish or maintain revegetation 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 startup at the beginning of the cooling season,

Makeup of water during the cooling season,

Refilling specifically approved by health officials where the system has been drained for health protection or repair services.

(Class 3) Non-Essential Uses:

Any waste or water, as defined herein, is not-essential. The following uses of water, listed by site or user type, are non-essential.

Public Use:

Use of fire hydrants (excluding Class 1 and Class 2 used), including uses 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.

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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 for the minimum amount required to support fish and wildlife.

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Ornamental Purposes:

Fountains, reflecting pools and artificial waterfalls.

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Outdoor Non-Commercial Watering:

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Use of water for dirt control or compaction,

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Watering of annual or non-woody plants, lawns, parks, golf course fairways, playing fields and other recreational areas,

Washing sidewalks, walkways, driveways, parking lots, tennis courts and 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 courses fairways, playing fields and other recreational areas,

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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 in Class 2 .

Non-commercial washing of motor and other vehicles.

Air Conditioning (see also Class 2 purposes) :

Refilling cooling towers after draining.

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- (D) "Base Entitlement" shall mean, the monthly usage for a customer during the same month of the preceding calendar year, or the average per customer usage for each class of service during the same month of the preceding year.
- (e) "Curtailed entitlement" shall mean the monthly usage for a customer after any curtailment percentage has been applied.
- (f) "Curtailment" shall mean the reduction in entitlement by some percentage to meet anticipated water shortages.
- (g) **Water Shortage Response Phases:**
- "Advisory" shall mean that conditions exist which indicate the potential for serious raw or treated water supply shortages.
- "Alert" shall mean the raw or treated water supplies are consistently below seasonal averages, and if they continue to decline, may not be adequate to meet normal needs.
- "Emergency" shall mean that raw or treated water supplies are below the level necessary to meet normal needs and that serious shortages exist in the area.
- (h) "Rationing" shall mean that procedures must be established to provide for the equitable distribution of critically-limited raw or treated water supplies, in order to balance demand and limited available supplies, and to assure that sufficient water is available to preserve public health and safety.

Section 3. Applicability. The provisions of this plan shall apply to all retail and wholesale customers of the EAST KNOX COUNTY WATER DISTRICT. When implemented, this plan becomes EAST KNOX COUNTY WATER DISTRICT'S water shortage response regulation.

Section 4. Entitlements. Entitlements shall be established for each customer by adjusting the base entitlement to reflect any known change in usage pattern.

Section 5. Determination of Water Shortage. As EKCWD buys some of its water from, the City of Barbourville, the City should have input into this Water Shortage Plan. Water supply and usage shall be monitored on a continuous basis. Unrestricted demand shall be projected from past records and adjusted for changes such as new developments and weather conditions on a regular basis. (NOTE: A sample calculation page is attached as Appendix A to assist in determining overall water levels. It is important that accurate water measurements be used.) Water shortages generally occur for two reasons, a reduction in available supplies or a system failure. Each of these has a distinct influence on the nature and duration of the conservation program implemented. Official declaration of a water shortage stage and implementation of the measures necessary to curtail water shall be approved by the RECEIVER.

Section 6. Term of Water Shortage Declaration.

Any Water Shortage declaration shall remain in effect until water supplies of service conditions have returned to normal. A final determination as to termination of a water shortage declaration shall be made by the RECEIVER.

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Section 7. Water Shortage Stage, Criteria, Conservation and Curtailment Measures

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A. Advisory Stage:

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(1) Criteria: A water advisory shall be declared when the amount of treated water or raw water available for treatment is projected to be up to TEN percent below demand, or there are periods of low water pressure in one or more areas of the distribution system due to system failure or inadequacies. Or if the State Division of Water issues a Water Shortage Watch which includes the Cumberland River from which the EKCWD draws water.

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(2) Conservation and Curtailment Measures:

- (a) Declare a Water Shortage Advisory.
- (b) Provide proper notice to all customers and to all local news media.
- (c) Eliminate all water leaks.
- (d) Request voluntary conservation of all non-essential (Class 3) water use.
- (e) Request wholesale customers also issue request for voluntary conservation by their customers of all not-essential (Class 3) water use.

B. Alert Stage:

(1) Criteria: A water alert shall be declared when the amount of treated water available is projected to be up to TEN (10) percent below demand, or raw water supplies are consistently below seasonal averages and if they continue to decline, may not be adequate to meet normal needs. To include notices from the City of Barbourville.

(2) Conservation and Curtailments Measures.

- (a) Declare Water Shortage Alert.
- (b) Provide proper notice to all customers and to all local news media.
- (c) Eliminate all water leaks.
- (d) Prohibit all not-essential (class 3) water uses.
- (e) Curtail entitlements to all customers by the same percentage as the projected shortage.
- (f) Begin billing all customers water usage in excess of curtailed entitlement at the normal rate of \$10.75 / 1000 gallons plus an excess usage charge of \$12.00 per 1,000 gallons.

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C. Emergency Stage:

1. Criteria: A water Emergency shall be declared when the amount of treated water available is projected to be up to five (5.0) percent below demand, or there are periods of no water in one or more areas of the distribution system due to low water supply or raw water supplies below the level necessary to meet normal needs. Or conditions as imposed by the City of Barbourville.

2. Conservation and Curtailment Measures:

- (a) Declare Water Shortage Emergency.
- (b) Provide proper notice to all customers and to all local new media.
- (c) Eliminate all water leaks.
- (d) Prohibit all (class 3)used of water.
- (e) Prohibit all (class 2) used of water except domestic uses for kitchens, bathrooms and laundries.
- (f) Curtail all commercial and industrial entitlements (except health care facilities by one hundred (100) percent.
- (g) Curtail residential entitlements by the same percentage as the projected shortage.
- (h) Curtail entitlements to all wholesale customers by the same percentage as the projected shortage.
- (I) Begin billing all customer water usage in excess of curtailed entitlement at the normal rate plus an excess usage charge of \$17.00 per 1,000 gallons.

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D. Rationing Stage:

1. Criteria: Treated water available is greater than three (3.0) percent below demand or raw water supplies are below the level necessary to meet essential needs, and in the opinion of, and /or notice from the City of Barbourville, the RECEIVER of the EKCWD shall start mandatory rationing as required to insure adequate water is available to maintain public health and safety.

2. Conservation and Curtailment Measures:

- (a) Declare Water Shortage Rationing.
- (b) Provide proper notice to all customers and to all local news media.
- (c) Eliminate all water leaks.
- (d) Prohibit all (Class 3) and (Class 2) uses of water.
- (e) Curtail all commercial and industrial entitlement (except health care facilities) by one-hundred (100) percent.
- (f) Curtail all residential and wholesale entitlements by the same percentage as the projected shortage.
- (g) Implement service interruptions to portions of system in accordance with approved published schedule. The schedule shall be provided to all local media.
- (h) Begin billing customer water usage in excess of curtailment entitlement at the normal rate plus an excess usage charge of \$ 24.00 per 1,000 gallons.

Section 8. Enforcement of Water Restriction.

Any person who violates the provisions of this plan, who fails to carry out the duties and responsibilities imposed by this plan, or who impedes or interferes with any action undertaken or ordered pursuant to this plan shall be subject to following:

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(a) If the utility official charged with implementation and enforcement of this plan learns of any violation of any water use restriction imposed, a written notice of the violation shall be affixed to the property where the violation occurred and mailed to the customer of record. Said notice shall describe the violation and order that it be corrected, cured, or abated immediately or within forty-eight (48) hours.

(b) The notice will inform the customer of his or her right to appeal by requesting a hearing before the utility's designee. If a hearing is requested by the customer, he or she shall be given full opportunity to be heard before termination. The governing body shall make finding of fact and decide whether service should continue or terminated.

(c) Any customer whose water service is terminated for violating provisions of this water curtailment plan shall be subject to the approved reconnection fee prior to reconnection of service.

(d) The excess usage charge billing provisions of this plan shall not be put in effect if a county or city ordinance containing penalty provisions is in effect to assist enforcement of this plan.

Section 9. Request for Exception.

(a) Exception to water use restrictions: If compliance with any curtailment measure authorized herein would cause a customer to bear extraordinary hardship, that individual or entity may apply to the EKCWD RECEIVER for an exception. For these purposes, "extraordinary hardship" shall be defined as a condition which may threaten health and safety, or cause property or economic losses, each of which must be shown to be substantially more severe than the sacrifices borne by other users. If extraordinary hardship is found to exist, then an exception shall be granted and a written waiver issued to the customer. If an appeal is made, water service shall be continued until a decision is announced. Any person aggrieved by the decision may file a complaint with the Public Service Commission.

(b) Exception to curtailment surcharge: Exceptions to excess use charges shall not be considered or granted.

Section 10. Severability. If any provision of this plan is declared invalid by the courts, the remainder of the plan and its applicability to other persons and circumstances shall not be affected by that declaration.

Section 11. Effective Date. This plan shall take effect immediately upon approval by the Public Service Commission.

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APPENDIX A

EAST KNOX COUNTY WATER DISTRICT

Projected Demand Worksheet for _____
(month) (year)

Calculations will be done at the beginning of each month.

Average use in _____ for the past 5 years: _____ gpd
(last month)

Average use in _____ for 2 years ago: _____ gpd
(last month)

Average use in _____ for 1 year ago: _____ gpd
(last month)

Average use in _____ for current year : _____ gpd
(last month)

Average use in _____ for the past 5 years: _____ gpd
(last month)

Average use in _____ for 2 years ago: _____ gpd
(last month)

Average use in _____ for 1 year ago: _____ gpd
(last month)

Usage Notes:

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Weather Notes:

Average projected use for _____:

Without conservation measures	_____	gpd
With advisory conservation measures (reduction)	_____	gpd
With alert conservation measures (more than reduction)	_____	gpd
With emergency conservation measures (more than reduction)	_____	gpd
With rationing conservation measures (more than reduction)	_____	gpd

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