LFUCG Resolution 679-99
Status as of March 26, 2001

Recommendation 2.
2000-2002 Time Frame

a. KRA complete acquisition of lock and dams 6, 7, 8, 9, and 11.
   Mr. Steve Reeder, Executive Director, indicated that the KRA would own 12, 13 and 14 by the end of 1999. As of March 1, 2001, the KRA still only owns dam 10.
b. KRA should complete geo-tech study of Dam 10
   Complete in 2000.
c. KRA should start and complete engineering design on Dam 10
   KRA negotiated contract with FMSM to start design in 2001, and had money allocated from their budget to do the work. The Corps determined a different schedule in its letter to KRA, and FMSM has been put on hold. Design will likely not be done until feasibility study is complete, probably 2.5 – 3.5 years out from now.
d. KRA should start and complete environmental assessment of Dam 10
   Assumed to be done in conjunction of design, or immediately following. New Corps schedule puts this 2.5 – 3.5 years out.
e. KRA should complete a general assessment of locks and dams 5-14 to determine which dam should follow Dam 10 in rehabilitation effort.
   KRA voted in July 2000 to pursue Dam 9 next, then stabilization of Dam 8 following that. An assessment to make that determination has not been undertaken
f. Study modifications to East Kentucky Power intakes
   The KRA has not initiated this. Not aware of efforts by EKP for detailed assessment.
g. Begin design plans for water treatment plant capacity upgrades coincident with committed construction funding for Dam 10
   This will take 18-24 months. It has not been undertaken, waiting start of Dam 10 assessment. It will not be feasible to design and construct additional treatment facilities on the KY River until the enhancements to the raw water in the Kentucky River are more concrete.
h. KAWC should investigate a regional solution to long-term water supply, including information to be provided by June 1, 2000
   Regional consortium has continued working on regional issues at a deliberate pace. Again, regional facilities can't be located for optimal efficiency until more is known about the KY River improvements.
i. Develop a mutually agreeable water conservation and demand management plan
   KAWC already has a conservation and demand management plan in place. See summary below.

Recommendation 3.
2002 – 2004 Timeframe

a. KRA should start and complete construction work on Dam 10
   No longer feasible based on the Corps schedule. At best, construction could start in 2004 and finish in 2005, but would probably begin at least one year later.

b. Start and complete geotechnical study on Dam 9
Still feasible
c. Start and complete engineering design on Dam 9
Will be difficult unless geotechnical study is done in 2001 and the Corps is not involved. If Corps involvement is anticipated (due to either Federal funding or that they still own the dam) it will not be feasible.
d. Start and complete environmental assessment on Dam 9
Not likely to occur based on current information.
e. Implement conservation practices
Conservation has already been undertaken in Lexington. See summary below.
f. Consider demand management options, if necessary, to meet supply demands
This will only be necessary in drought situations, or extreme peak day demands. KAWC approached DOW and was successful with a temporary re-rating of the KRS.

Recommendation 4.

KAWC should start design to increase water treatment capacity for 15 mgd when KRA can document existing or imminent increased water supply as a result of Kentucky River improvements and/or management. An additional 5 mgd treatment capacity should be available by 2012 if needed.

Refer to Recommendation 2, item g.

Demand Management and Conservation Plan

Demand Management Plan

This plan was developed in 1989 to formalize the actions after the 1988 drought. It refers strictly to temporary measures during emergency events to reduce customer demand. The plan has been updated regularly. The plan steps through six phases of increasing restrictions based on low raw water supplies or peak customer demands. Each phase is initiated by request of the President of Kentucky-American Water Company to the LFUCG Mayor, who declares restrictions as dictated in Ordinance 221-2000. The appropriate regulatory agencies are notified and Area County Judge-Executives are asked to require KAWC customers in their respective counties to follow the steps.

The plan starts with a Preliminary Watch, which requires no restrictions of customer demand.

The second phase is an Advisory, which asks customers to follow odd/even watering voluntarily for outdoor water use.

The third phase is a Partial Alert, which requires mandatory odd/even watering for outdoor water use.

The fourth phase is a Full Alert, which eliminates all outdoor water use. The Fayette County Water Conservation Appeals Board may make exceptions.

The fifth phase is an Emergency, which reduces essential water use.

The sixth phase is Rationing, which minimizes even essential water use.

The plan has been very effective when implemented (twice since 1989). Implementation of routine restrictions in other areas without a pending drought has demonstrated less customer response when critical times do occur.

Conservation Program

Kentucky-American's Conservation Program has been considered one of the most aggressive in the Commonwealth of Kentucky. Conservation programs typically refer to permanent reductions in water demand due to more efficient water use. KAWC has initiated numerous pilot programs in an attempt to determine the most effective ways to encourage consistent efficient water use. These have included retrofitting customer fixtures, aggressive leak detection programs, and industrial audits. KAWC has also undertaken extensive public education campaigns.

Without a doubt, the public education campaigns have been the most successful, particularly in regard to outdoor water use. This is reflected in more consistent demands even during extreme weather events. This has included public service announcements, television programs, mailers, rain gauges, and other promotional material. The information is reinforced in school programs and community presentations.

The retrofit programs were met with little success. Few customers expressed interest, even with KAWC installation of devices. More successful were the giveaway kits. Rebates for new appliances have not been deemed cost effective.

The aggressive leak detection efforts have also been extremely successful. KAWC has been able to reduce water losses by 30% over the last decade. This has been a result of better

technology and consistent work in this area. KAWC has assisted large customers in leak detection within their properties, and provides equipment to sound residential properties.

The industrial audits were not formally undertaken after conversations with the largest customers indicated that the industries had already achieved very efficient water use. This was demonstrated in 1999 with very little increase in water use despite extreme weather conditions.