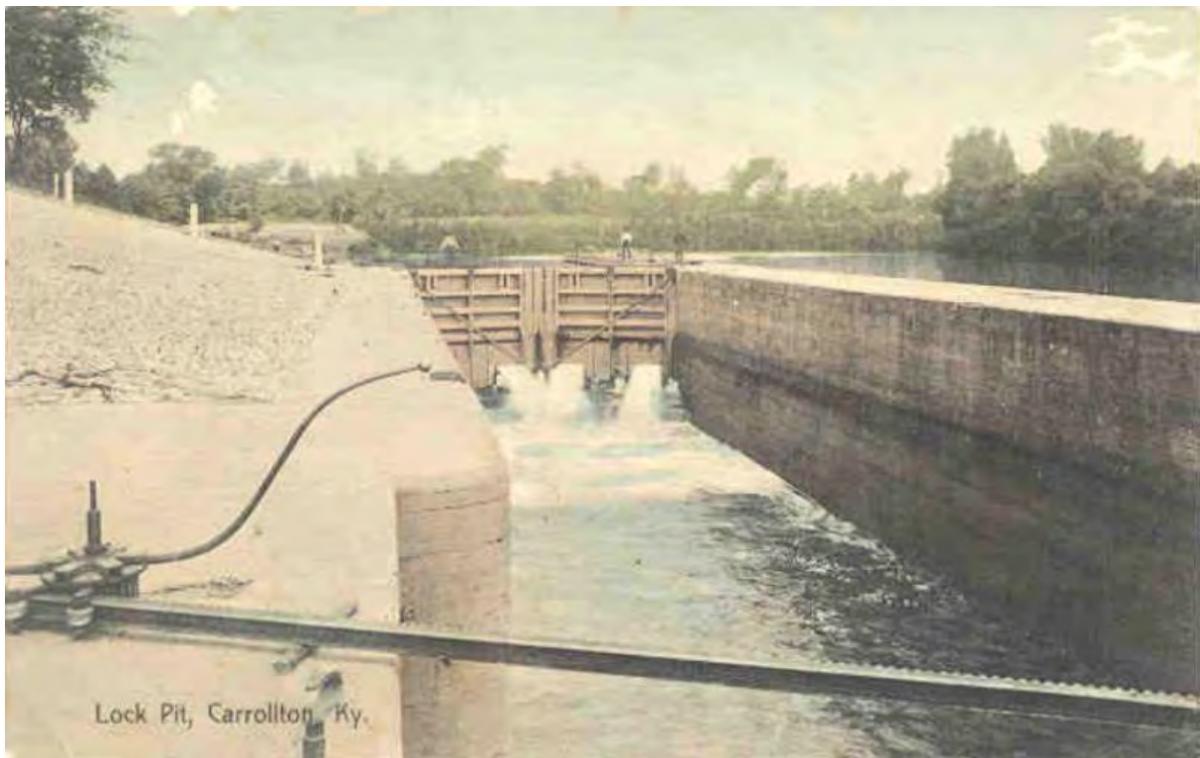


**DRAFT Kentucky River Locks & Dam 1,2,3,4 Disposition Study
And Integrated Environmental Assessment
27 March 2017**



1910 Postcard –Kentucky Lock and Dam 1, Carrollton, Kentucky

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APPEDICIES

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1. Purpose of Study, Authority and Guidance

a. Purpose

The purpose of this Disposition Study is to evaluate the existing navigation facilities located on the Kentucky River including Locks and Dams 1, 2, 3 and 4 (KY 1-4) to verify if a federal interest continues to exist for the authorized purpose of commercial navigation. If a Federal Interest no longer exists for commercial navigation the study purpose will include determination if a Federal Interest exists to dispose of all associated properties and improvements.

b. Authority

Section 216 of the Flood Control Act of 1970 (Review of Completed Projects):

Sec. 216. The Secretary of the Army, acting through the Chief of Engineers, is authorized to review the operation of projects the construction of which has been completed and which were constructed by the Corps of Engineers in the interest of navigation, flood control, water supply, and related purposes, when found advisable due the significantly changed physical or economic conditions, and to report thereon to Congress with recommendations on the advisability of modifying the structures or their operation, and for improving the quality of the environment in the overall public interest.

Section 216 authorizes the Secretary of the Army to review operations of completed projects, when found advisable due to changed physical, economic, or environmental conditions. Disposition studies determine whether a project operated and maintained by the Corps of Engineers should be deauthorized and the associated real property and government-owned improvements disposed. The study's focus is on whether federal interest exists to retain the project for its authorized purpose(s), based on an evaluation and comparison of the benefits, costs, and impacts of continued operation, maintenance, repair, replacement, and rehabilitation, or the lack thereof. These studies are conducted using only federal funds and there is no non-federal sponsor.

c. Guidance

This study is being conducted under planning guidance from a memorandum titled "Interim Guidance on the Conduct of Disposition Studies" dated August, 22, 2016, as well as the draft Real Estate Policy Guidance Letter No. 33 – Interim Guidance on Disposition Studies dated September 28, 2016.

2. Project Authorization and History

The Kentucky River locks and dams 1-5 were constructed by the Commonwealth of Kentucky from 1836 to 1842 and are the oldest of the locks and dams on the Kentucky River system. These locks and dams facilitated robust commercial navigation traffic from 1842 until 1872. Following the Civil War, declines in navigation traffic sharply decreased as both transportation

modes and revenues shifted to railroads. Local and national political interest in the restoration and expansion of the navigation system returned in the late 1870s with a renewed focus on capitalizing on raw materials in the Appalachian and Bluegrass Regions of the Commonwealth. In 1878 federal funds were appropriated to the Corps of Engineers to complete a survey of the Kentucky River system, which supported the repair of locks and dams 1-5 and construction of additional locks and dams to provide slackwater to Beattyville, Kentucky.

The Rivers and Harbors Act of 1879 transferred jurisdiction of the existing locks and dams 1-5 to the federal government, as well as authorized the Corps of Engineers to construct nine additional locks and dams to Beattyville, Kentucky (249 miles upstream from the confluence with the Ohio River). Subsequent federal appropriations in the 1880's provided funds to repair locks and dams 4 and 5. Construction of locks and dams 6, 7 and 8 were completed between 1896 -1900. The remaining locks and dams on the Kentucky River navigation system were completed between 1903 and 1917 by the Corps of Engineers.

As natural resources were depleted in the upper reaches of the system in the 1920's, coupled with the Great Depression in the 1930's, commercial navigation on the Kentucky River began a steady decline through the mid-20th century. Except for a small spike in coal movements associated with the 1973 oil embargo, commercial traffic waned to the point that in the mid 1970's it was determined that federal interest in continued operation of locks and dams 5-14 no longer existed. The then-current and forecasted performance of the system, as well as a recommendation to deauthorize the federal navigation mission was documented in a Chief of Engineers Report that was transmitted to Congress on July 2, 1984. In response, Congress deauthorized commercial navigation of locks and dams 5-14 through Section 301 of the Water Resources Development Act (WRDA) of 1986 (Public Law 99-662). The same year, the Commonwealth established the Kentucky River Authority (KRA) to manage the system.

In a separate action by Congress, the Energy & Water Development Appropriations Act of 1994 (Public Law 103-126) directed conveyance of locks and dams 5-14 to KRA and during the period of 1996 - 2006, the locks and dams were transferred by Quitclaim Deed to the KRA.

At the time, KY 1-4 were not included in the WRDA 1986 deauthorization because of a single commercial user (Liter's Quarry). By 2002 the quarry had ceased transporting stone via the Kentucky River and KY 1-4 were leased to the KRA, who became responsible for managing the entire Kentucky River navigation system. The federal government still retains ownership of KY 1-4; however, the locks and dams are currently operated by KRA under a 25 year lease agreement with the Corps, which was signed in 2002.

3. Problems, Opportunities, Objectives and Constraints

a. Problems

- Commercial navigation on KY 1-4 is non-existent. In 2015 there was no commercial navigation at any of the structures. According to KRA and IWR data there has not been any recorded commercial navigation traffic recorded at the locks since 1985. Currently, KY 1-4 are only operated for navigation during the summer and fall (Friday – Sunday) and major holidays.
- Continued real estate management costs would place a burden on the currently constrained Louisville District Operation & Management (O&M) budget.
- The existing system of locks and dams segments the Kentucky River into a series of pools as opposed to a free-flowing river which inhibits transport of aquatic species as well as natural riverine processes such as sediment transport, floodplain connectivity and dynamics, changes to riparian habitat, and sand and gravel bar formation. This limits transportation of native fish and mussel species from the Ohio River into the Kentucky River, and vice versa. There are potentially 13 federal and numerous state listed threatened or endangered species in the study area.
- The existing system of locks and dams presents a partial barrier for aquatic invasive species such as species of Asian carp. Removal of one or more of the locks and dams could allow for further spread of invasive aquatic species.
- Use of the pools formed by the dams has expanded beyond the original authorized purpose of navigation. As an example, multiple communities now depend on the pools formed by these facilities for water supply.

b. Opportunities

- Transfer of facilities would reduce the overall real estate management burden on the federal government and, if properly maintained by the new owner, reduce potential for future failures or outages.
- Removal or breach of the dams could reduce the overall real estate management burden on the federal government and could restore a higher functioning riverine ecosystem.
- Restoring run of river flows to one or more river segments could result in improved aquatic habitat, restoration of natural riverine process, improved water quality, increased riparian habitat, and restored habitat connectivity for species of concern and support the ecosystem restoration mission.

- The opportunity exists to enhance recreation in the project area by either ensuring an enhanced level of service at existing locks and dams or removing locks and dams to provide a larger stretch of river for unimpeded boating.
- The KRA currently owns and maintains locks and dams 5-14. There is opportunity for one entity to own and maintain all lock and dam facilities on the Kentucky River.
- To the extent feasible, provide current and future stakeholders the opportunity to pursue and achieve benefits outside of currently authorized federal purpose (i.e. water supply, recreation and hydropower).
- To the extent feasible, continue to provide recreation opportunities at KY 1-4 and a water supply source in Kentucky River navigation pools 3 and 4 over the next 50 years.

c. Planning Goals / Objectives

The goal of this disposition study is to determine whether a water resources development project operated and maintained by the Corps of Engineers should be deauthorized, and if the associated real property and Government-owned improvements should undergo disposal. To achieve this goal, the following planning objectives were established for this study.

- Determine if any federal investments, including O&M, can result in net federal benefits over the next 50 years under the project's currently authorized purpose. (*Federal Investment*)
- Improve safety conditions and reduce risk of failure at KY 1-4 over the next 50 years. (*Safety*)
- If necessary, identify actions necessary to dispose of the projects and their associated costs that provide the most streamlined path to conveyance. (*Disposal*)

d. Constraints

- Do not violate any applicable federal or state laws.
- Ensure that water quality is not degraded when compared to existing conditions.
- Do not increase flood risk within the study area.
- Any recommendation cannot violate the terms of the existing lease between the Corps of Engineers and the KRA. The lease does not expire until February 28, 2027.
- Navigation data through KY 1-4 has not been collected or monitored by USACE since 1985.

4. Study Area

The study area begins at the confluence of the Kentucky River with the Ohio River in Carrollton, KY (545.9 miles below Pittsburgh) and extends upstream (south) approximately 82 miles to Lock and Dam 5 near Lawrenceburg, KY. The study area includes the physical structures for KY 1-4, as well as the navigation pools that they form. Lock and Dam 1 is located approximately 2 miles southeast of the City of Carrollton and Lock and Dam 4 is located within the City of Frankfort. Locks and dams 2 and 3 are located in more rural areas (See Figures 1, 2 and 3).

Figure 1 Kentucky River Pool Elevations

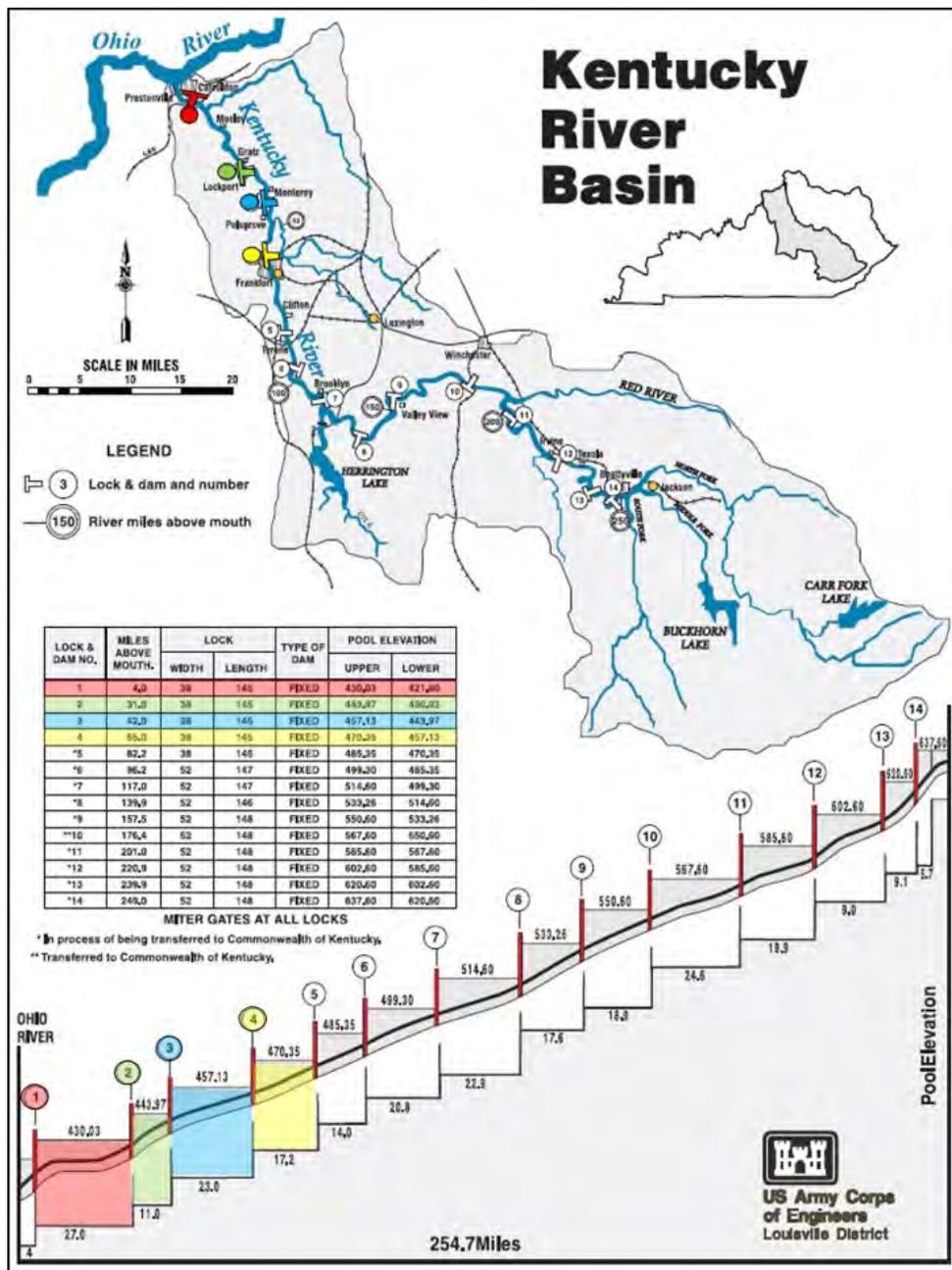


Figure 2 Kentucky River Navigation System - Location Map

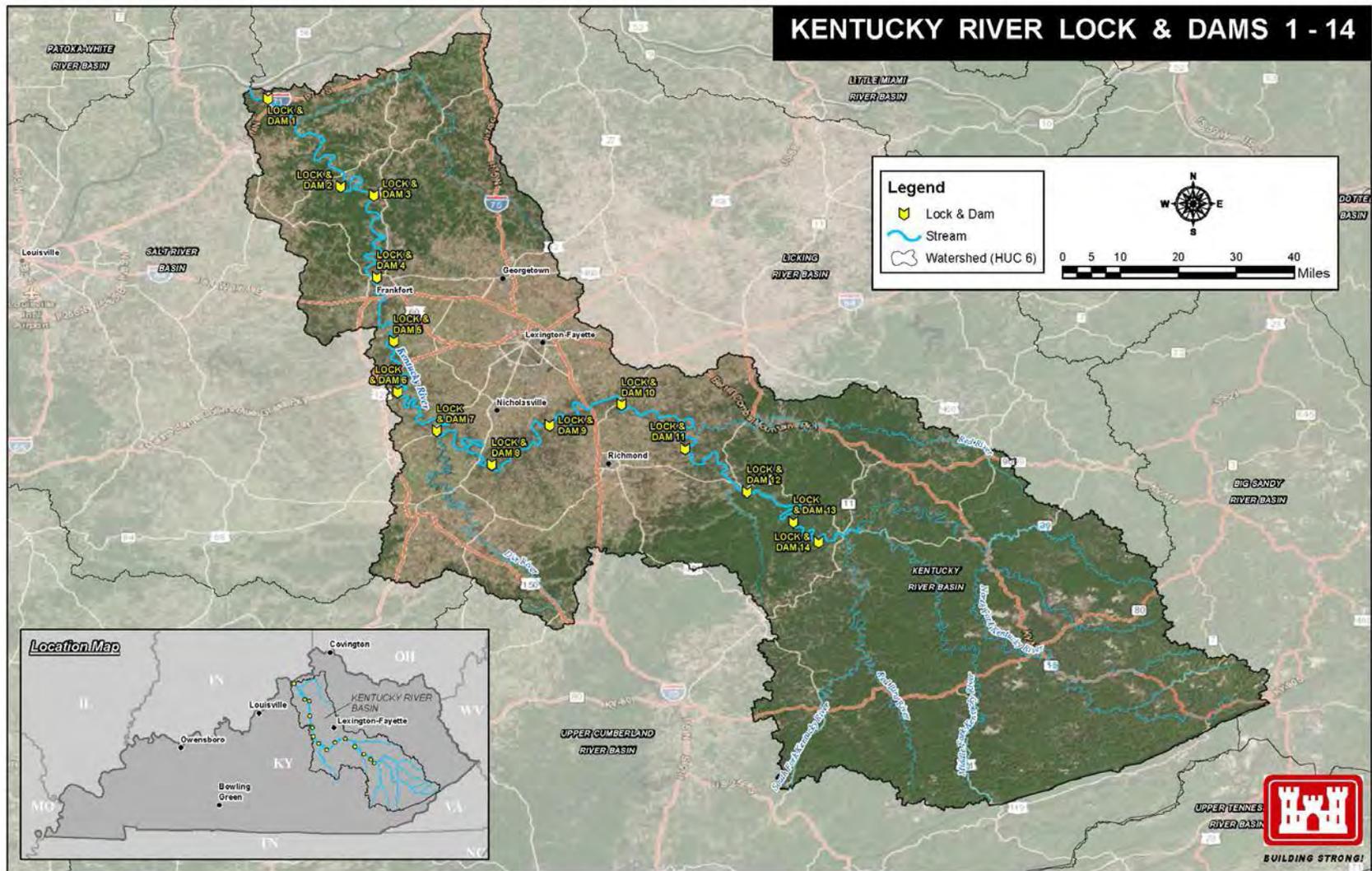
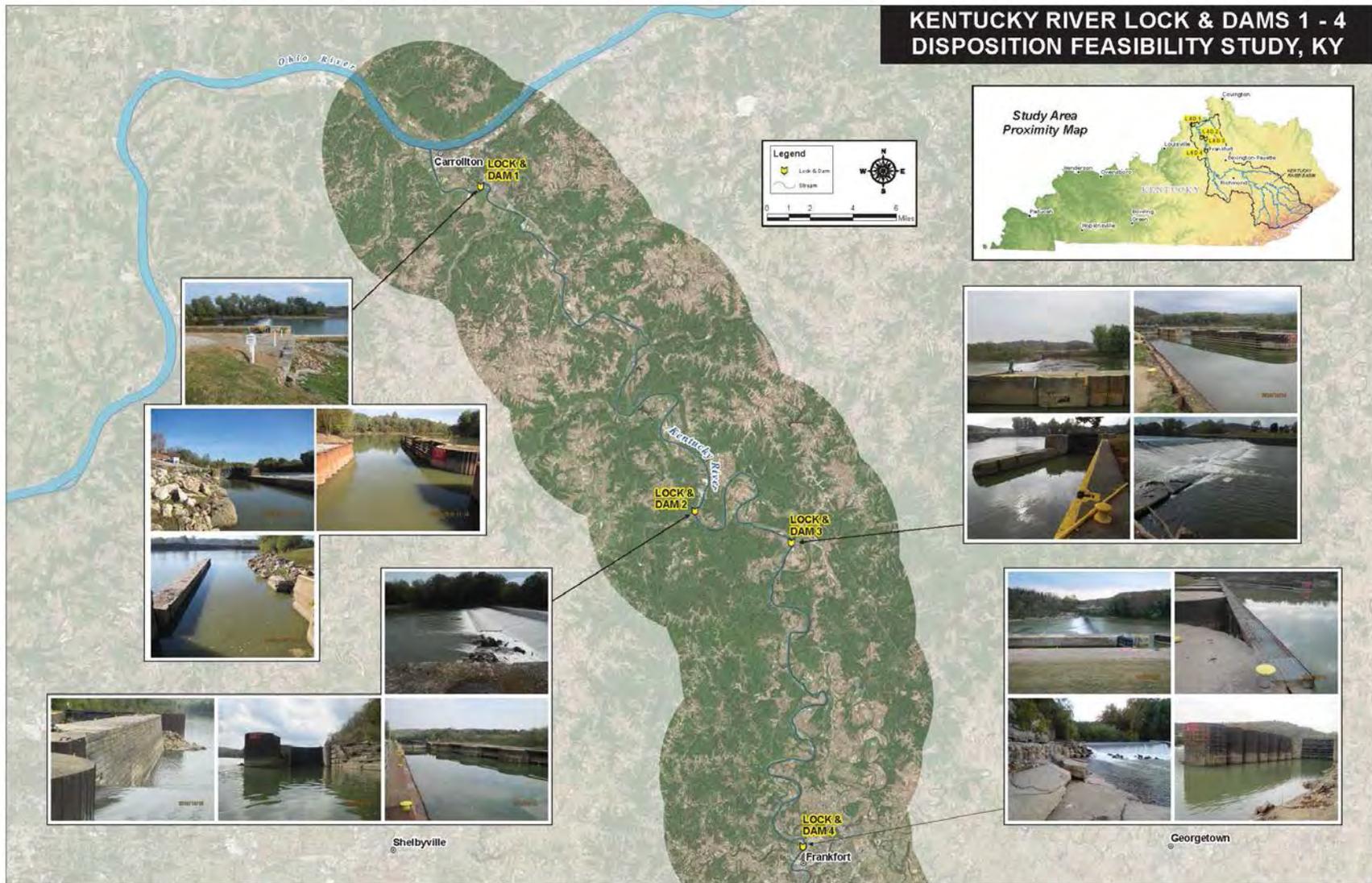


Figure 3 Kentucky River Locks and Dams 1-4



Photos 1-4 below provide a general overview of each individual project site. Specific details for each site regarding zoning, site characteristics, land holdings, improvements and outgrants are located in the Real Estate Appendix. Detailed information pertaining to the physical condition of each lock and dam structure will be included as a report addendum following the official assignment of a Dam Safety Action Classification (DSAC) rating.

- **Lock and Dam 1 (Carrollton)**

contains a total area of 13.22 fee acres by plat located on the right descending bank of the Kentucky River in Carroll County, at River Mile 4, approximately two miles southeast of Carrollton, Kentucky. The main features of the project include a 38' x 145' lock chamber, an overflow-type dam structure, and an abutment wall at the left bank. The dam structure is timber crib dam capped in concrete with a sheet piling on the upstream face of the dam. The site contains two residential houses that are uninhabitable and require extensive rehabilitation or removal. The upper pool extends 27 miles upstream to Lock and Dam 2 in Lockport, KY.



Photo 1 Lock and Dam 1 (Carrollton)

- **Lock & Dam 2 (Lockport)**

contains a total area of 18.24 fee acres located on the right and left banks of the Kentucky River in Owen and Henry Counties, at River Mile 31, near the town of Lockport, Kentucky. The main features of the project include a 38' x 145' lock chamber, an overflow-type dam structure, and an abutment wall at the right bank. The dam structure is timber crib dam founded on



Photo 2 Lock and Dam 2 (Lockport)

clays capped in concrete with sheet piling on the upstream face of the dam. The lock and associated structures are located on the Henry County side of the river. A small flat cleared area is at the southwest boundary and is improved with a project office building in poor condition. The upper pool extends 11 miles upstream to Lock and Dam 3 in Gest, KY.

- Lock & Dam 3 (Gest)** contains a total area of 9.69 acres located on the right and left banks of the Kentucky River in Henry and Owen Counties, at River Mile 42, near the town of Gest, Kentucky. The main features of the project include a 38' x 145' lock chamber, an overflow-type dam structure, and an abutment wall at the right bank. The dam structure is timber crib dam founded on clays capped in



Photo 3 Lock and Dam 3 (Gest)

concrete with a sheet piling on the upstream face of the dam. A cellular sheet pile structure was added upstream of the face of the dam in 2013. Most of the site is cleared for the two houses and associated site improvements that are in poor condition. The upper pool extends 23 miles upstream to Lock and Dam 4 in Frankfort, KY.

- Lock & Dam 4 (Frankfort)** contains a total area of 4.96 acres located on the left descending bank of the Kentucky River in Franklin County, at River Mile 65, in Frankfort, Kentucky. The main features of the project include a 38' x 145' lock chamber, an overflow-type dam structure, and an abutment wall at the right bank. The dam structure is timber crib dam founded on bedrock capped in concrete.



Photo 4 Lock and Dam 4 (Frankfort)

The site is generally cleared and improved with two storage building, two houses, a warehouse, and associated site improvements for its current use. The warehouse and

storage buildings are in fair condition and one of the houses is in poor condition. The other house has undergone recent renovations in preparation of being the future site of KRA’s main office. The site is located on Kentucky Avenue. The upper pool extends 17.2 miles upstream to Lock and Dam 5 in Lawrenceburg, KY.

5. Historic and Existing Conditions

a. History of Performance

The Louisville District has verified that there has been no recorded commercial navigation traffic (authorized federal purpose) on KY 1-4 for over 30 years. District research included efforts to locate commercial tonnage data recorded in the Corps of Engineers electronic Lock Performance Monitoring System (LPMS) database (dating back to 2000), Navigation Books maintained at PCXIN – Inland Navigation Center of Expertise (dating back to 1993), historical data kept at CEIWR-Navigation and Civil Works Decision Support Center (dating back to 1985), and with the KRA.

The locks and dams on the Kentucky River and their associated pools currently support water supply and recreational boat traffic. Currently, KY 1-4 are only open for recreational navigation during the summer and fall (Friday - Sunday) and major holidays. According to recent lockage data provided to the Louisville District by the KRA, there are total of approximately 1,000 annual lockages on KY 1-4. Table 1 below displays lockages, boats and people reported by KRA in 2015.

Table 1 Lockages at KY 1-4 (2015)

	LOCKAGES	BOATS	PEOPLE
LOCK 1	348	594	2246
LOCK 2	164	294	988
LOCK 3	137	268	834
LOCK 4	353	569	2134
Total	1002	1725	6202

According to KRA, there are eleven water intake structures located in the pools formed by KY 1-4. Of those intake structures, there are five active water supply users whose use and withdrawal activities were reported to the Louisville District. Table 2 displays water intakes located in the pools formed by KY 1-4.

Table 2 Water Intakes at KY 1-4 Pools

Pool #	Name	Active	MGD
1	Geoghegan & Mathis, Inc.	No	0
1	L&N Railroad Company Intake (Carroll County)	No	0
1	Liter's Quarry (near Lockport, KY)	Yes	Sporadic
3	Lexington & Owenton (Kentucky American Water)	Yes	8.3
3	Buffalo Trace Distillery (AKA - Leestown Company)	Yes	0.2
3	Buffalo Trace Distillery (old intake)	No	0
4	Frankfort (Frankfort Electric and Water Plant Board)	Yes	8.1
4	Harrod Rock Quarry (Frankfort, KY)	Yes	0.1
4	State Air Condition System Intake (Frankfort, KY)	No	0
4	Jim Beam Distillery Intake (Franklin, County)	No	0
4	Frankfort Electric & Water Co Intake	No	0
Total Million Gallons per Day (MGD)			16.7

b. Operations and Maintenance

Federal investments in real estate management costs of these facilities has averaged \$16,000 annually since the structures were leased to KRA in 2002. Most of this annual budget is used by the Corps' Real Estate Division for real property asset management of the lease, as well as cultural resources and environmental compliance review of the lease holder's developments. Since the 2002 lease, there has been no federal investments for capital improvements at KY 1-4.

Life cycle real estate management costs were calculated utilizing the average real estate management investment (\$16,000), current federal discount rate (2.875%), and a period of analysis of 50 years. The current net present value of these annual real estate management costs (provided through the annual O&M appropriations to the Louisville District) over 50 years would be the equivalent of \$433,750. It is noted that this estimated life cycle cost only accounts for annual real estate management expenditures and does not incorporate any potential (federal or non-federal) capital investment costs. Since leasing KY 1-4 in 2002, KRA has invested over \$25 million in capital improvement costs in the project. These capital investments are displayed in Table 3.

Table 3 Capital Improvements by KRA

Year	L&D	Improvement	Cost
2013	3	New Dam	\$16,134,037
	3	Lock Renovation	\$2,433,409
	4	Lock Renovation	\$2,433,409
2015	1	Lock Renovation	\$2,103,653
	2	Lock Renovation	\$2,103,653
	4	Two new roofs on two Lockmaster houses	\$9,000
	4	Two new porches on two Lockmaster houses	\$3,000
	3	One new roof, two new porches on Lockmaster house	\$6,000
TOTAL			\$25,226,161

c. Existing Safety Evaluation

At the time of this study the four dams for KY 1-4 have not been formally evaluated and assigned a Dam Safety Action Classification (DSAC) as part of the national portfolio of dams for USACE’s Dam Safety Program. The DSAC rating from the Periodic Assessment (PA) has not been finalized by the Project Delivery Team (PDT), nor has it been reviewed or approved by the Dam Safety Senior Oversight Group (DSOG) scheduled to meet in April 2017. Once the PDT has finalized the DSAC rating and it has been presented and approved by the DSOG, the DSAC rating and final Periodic Assessment Report will be presented as an addendum to this disposition study. During the Decision Milestone Meeting on September 27, 2016 the Corps of Engineers agreed that the DSAC work would be performed concurrently with the Disposition Study and not halt the planning effort for the Disposition Study.

The PAs, which included site investigations, were conducted in October 2016 in support of the development of the forthcoming DSAC rating. Only general maintenance actions were identified and no critical deficiencies were discovered, which would impact plan formulation and the subsequent deauthorization and disposal of KY 1-4. Table 4 below presents the recommendation inspections for KY 1-4 identified during the PA.

Table 4 Recommended Routine Inspections

Lock and Dam	Recommended Inspection	Estimated Cost
1	Annual probing of the downstream toe of the dam to check for scour. Should any scour concerns be identified a dive inspection should be performed.	< \$20K (Cost of dive inspection)
1	Conduct stability analysis of lock walls for dewater load case prior to any dewatering event of the lock chamber. Stability analysis performed in 1984 indicates lock should not be dewatered, elevations need to be verified. This should be performed by a licensed engineer.	< \$10K
1	On an annual basis, survey the left abutment wall to track movement. The left abutment wall exhibits significant cracking and is currently tilting inward towards the river. This could be a visual inspection 2-3 times per year with survey points measured every 3-5 years.	< \$5K
1	During operation of the upstream riverside miter gate leaf, there was a rubbing sound coming from what seemed like the bottom of the gate but could not be determined for sure. Recommend monitoring to see if condition worsens or appears to inhibit operation.	TBD
2	Conduct stability analysis of lock walls for dewater load case prior to any dewatering event of the lock chamber. Stability analysis performed in 1984 indicates lock should not be dewatered, elevations need to be verified. This should be performed by a licensed engineer.	< \$10K
2	On an annual basis, survey the right abutment wall to track movement. The right abutment wall exhibits significant cracking and is currently tilting inward towards the river. This could be a visual inspection 2-3 times per year with survey points measured every 3-5 years.	< \$5K
3	Conduct stability analysis of lock walls for dewater load case prior to any dewatering event of the lock chamber. This should be performed by a licensed engineer.	< \$10K
3	After high river events, monitor the esplanade for backward head cut erosion on the downstream bank.	TBD
4	Conduct stability analysis of lock walls for dewater load case prior to any dewatering event of the lock chamber. This should be performed by a licensed engineer.	< \$10K
4	Annual probing of the downstream toe of the dam to check for scour. Should any scour concerns be identified a dive inspection should be performed.	< \$20K (Cost of dive inspection)
4	Monitor the esplanade for backward head-cut erosion along the downstream banks, especially after high water events.	TBD

d. Summary of Asset Holding

A complete summary of real estate actions completed at KY 1-4 is provided in the Real Estate Appendix. The table below displays the original acres acquired by the federal government, acres previously disposed and total acres that remain for disposal at KY 1-4.

Table 5 Federal Real Estate Holdings at KY 1-4

SITE	ACRES ACQUIRED	ACRES PREVIOUSLY DISPOSED	REMAINING ACREAGE FOR DISPOSAL
KENTUCKY RIVER LOCK & DAM NO. 1	17.50	4.30	13.22 Fee
KENTUCKY RIVER LOCK & DAM NO. 2	18.24	0	18.24 Fee
KENTUCKY RIVER LOCK & DAM NO. 3	9.69	0	9.69 Fee
KENTUCKY RIVER LOCK & DAM NO. 4	30.28	25.32	4.96 Fee 12.0 Flowage Easement

e. Real Estate Market Analysis and Re-Use Analysis Conclusions

The Market Analysis, reviewed several alternative uses that KY 1-4 were capable of providing with their associated land and improvements:

- Recreation
- Flood control
- Water storage/supply
- Hydroelectric power
- Waste management (mine tailings & debris control)
- River navigation
- Wildlife habitat.

The Market Analysis considered a range of economic, environmental, and social benefits of existing public and private users and provided the opinion of continued use by KRA under Lease No. DACW27-1-02-005 (lease is located in the Real Estate Appendix).

Building on the Market Analysis and alternative uses identified above, the Real Estate Division completed a Re-Use Scenario Analysis for the potential uses for the project or project segments. This analysis intended to generate the maximum economic productivity for the asset. The Real Estate Division utilized existing information, conducted record searches, collected data from Property Valuation Administrators Offices, reviewed zoning maps/restrictions, and inspected each site to investigate the physical layout and surrounding influences.

Photographs of the existing improvements were recorded and the general characteristics of the real property were observed. The potential re-use scenarios identify potential users, focusing on the real property and improvements economic or commercial value. The general Highest and Best Use of the alternative uses were considered in the context of the feasibility, marketability, and the potential unreasonable costs involved with due diligence, environmental, and requirements of the disposal process.

The Re-Use Scenario Analysis considered the information collected and researched to develop the estimated Highest and Best Use and Re-Use Analysis in order to provide the Rough Order of Magnitude Cost Estimate (see Real Estate Appendix). Vacant land sales in the Carroll County, Henry County, and Franklin County areas most similar to the locations being analyzed were assembled and presented to reflect the dollar per acre that would be considered reasonable in an arms-length transfer for the project lands. No consideration of value is appropriated for the dam structures, locks, buildings, and associated site improvements and equipment. It may be reasonable to assume that some leasehold value has been created by the lessee (KRA) that outweighs any potential gain by conveyance to a different user.

The potential to dispose of the residential and building structures is not feasible due to observed condition and required renovation/rehabilitation of these structures for other users with allocated land areas due to the expense of the disposal/divestiture in relation to any “shell” value of the improvements and excess acreage. The capital expenditures by KRA have rehabilitated these facilities for the recreational, water supply, and potential hydroelectric power systems.

The operation of the locks and dams may be considered a value in use; however, the poor condition of the residential improvements and the special purpose function of most site improvements do not contribute to the overall value unless they continue to operate for their intended function.

Due to the limitations imposed by the location, floodplain, and infrastructure available to support most alternate uses, the Louisville District Real Estate Division has summarized the likelihood of success for the various uses based on the priority between Public Use and Private Use. This is directly associated with the current government (public) ownership and the limitations imposed by the lack of continued funding for operations as an inland navigation system. The financial feasibility of potential uses is currently limited due to the special purpose facilities design, function, and required operating budget.

Table 6 Priority of Public and Private Uses

<u>Private Use</u>	<u>Priority</u>	<u>Public Use</u>
Inland Waterway	1	Agency Lease/Permit
Recreation	2	Hydroelectric
Water Districts	3	Water Districts
Hydroelectric	4	Conservation
Mixed Use Development	5	HUD
Residential	6	Indian tribes
Agricultural	7	Inland Waterway

6. Affected Environment

a. Climate

The climate of Kentucky reflects the interplay of several locational influences. Kentucky's inland location contributes to continental influence which acting alone tends to produce a large seasonal temperature range between summer and winter. Meanwhile, its position north of the Gulf of Mexico contributes a tropical marine influence that moderates temperatures and yields ample precipitation. Kentucky's mid-latitude position places it in a region where weather can be highly variable. Kentucky's climate is influenced by interactions involving the oceans and atmosphere. While these influences originate thousands of miles away, they may contribute to significant variations in Kentucky's climate on a seasonal or annual time frame.

Mean annual temperature (all temperatures are reported in degrees Fahrenheit) ranges from 53^o in the northeast to 59^o in the southwest but there is significant seasonal variation in temperature. Summer days are typically sunny, warm and humid. The average daily high temperature for July increases from about 86^o in the east to 90^o in the west. High temperatures exceed 90^o an average of 20 days per year in the north and east and 40 or more days in the south and west. Temperatures occasionally exceed 100^o. The passage of frontal systems is less frequent during summer, so weather patterns are typically more persistent. In January, average daily high temperatures increase from 33^o in the north to 44 F in the south. Polar air masses occasionally affect Kentucky for short periods. Temperatures dip below 0^o an average of five days in the north and two days in the south. The diurnal temperature range is about 20^o during the summer and winter but increases to near 25^o during the spring and fall, when warm days and cool nights are prevalent.

Kentucky's growing season varies across the state. The average date of the last spring freeze ranges from early April in the southwest to early May in the northeast. Meanwhile, the average date of the first fall freeze extends from early October in the northeast to late October in the southwest. The average length of the frost-free period varies from about 165 days in the northeast to 200 days in the southwest, but the average can vary with local topography.

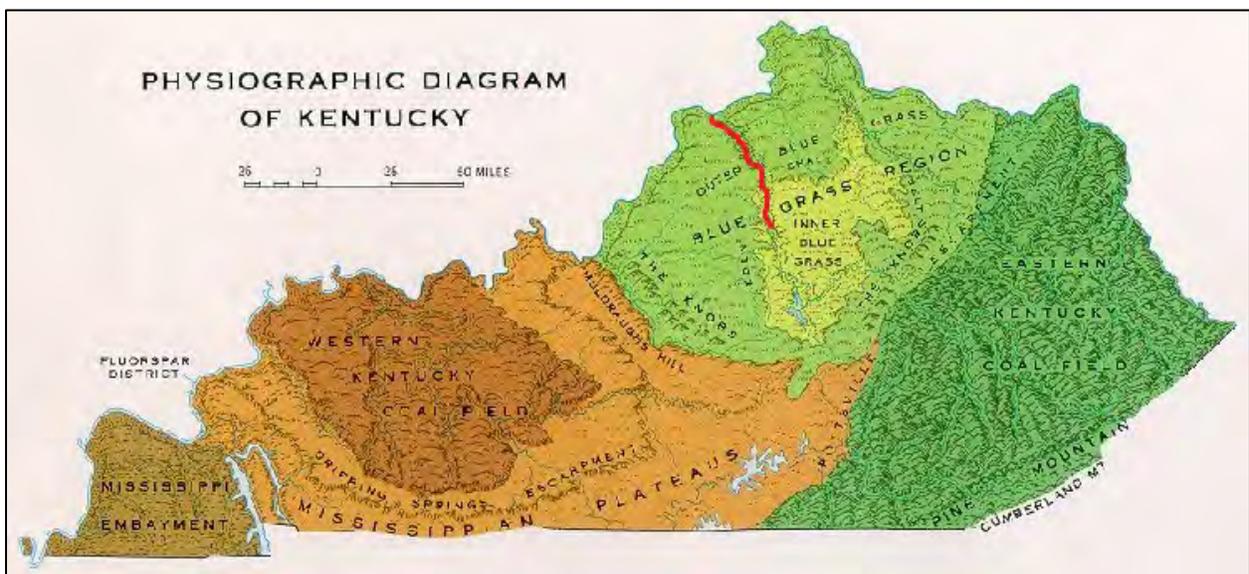
Precipitation is generally plentiful to meet agricultural needs and the needs of municipalities that serve industrial, commercial, and residential users. Average annual precipitation ranges from 42 inches in the north to 52 inches in the south.

Fall is normally Kentucky's dry season, while the spring season is typically the wettest. But precipitation is well distributed through the year. Thunderstorms are responsible for much of the rainfall during summer. Rainfall intensities generally increase towards the southwest. Rates exceeding one inch per hour are not unusual, and 24-hour totals of five inches or more occur an average of about one in ten years at a given location. Meanwhile it is common for a location to go for a period of two weeks or more without measurable precipitation in the summer or fall. Snowfall is most likely from December to March. Seasonal amounts average from nearly 10 inches in the south to more than 20 inches in the north. Amounts are highly variable from year to year. In some years, a single heavy snowfall event may represent a large percentage of the seasonal total. Across southern Kentucky, seasonal totals of less than five inches are fairly common, while totals of more than 20 inches are infrequent. Northern areas rarely receive less than 10 inches of snow and occasionally receive as much as 40 inches or more. Snow cover seldom persists for more than a week in the south or more than two weeks in the north (Kentucky Climate Center, 2016).

b. Geology and Physiology

The Kentucky River from Lock and Dam 4 to the Ohio River (highlighted in red on Figure 4 below) lies within the Bluegrass physiological region (Kentucky Geological Survey, 2012). The Bluegrass Region is a gently rolling karst plain characterized by sinkholes, sinking streams and springs.

Figure 4 Physiographic Regions of Kentucky



Weathering of the limestones produces sink holes, sinking streams, springs, caves and soils. The soils are fertile because the Ordovician limestones contain phosphate minerals (e.g., apatite), which are natural fertilizers. The Kentucky River Palisades are cliffs in the gorge or canyon along the Kentucky River where it cuts through resistant massive limestones and dolostones (High Bridge Group). These massive limestones and dolostones are the oldest strata exposed at the surface in Kentucky.

The Outer Bluegrass is characterized by valleys, with little flat land, because the bedrock in this area is mostly composed of interbedded Ordovician limestones and shales that are more easily eroded than the limestones of the Inner Bluegrass (Kentucky Geological Survey, 2012).

Relief increases gradually and the soil becomes less fertile towards the margin of the Bluegrass. The City of Lexington lies in the heart of the Bluegrass while the outer Bluegrass includes the Ohio River cities of Louisville and Covington. This is the most highly urbanized and industrialized region in Kentucky (Kentucky Climate Center, 2016).

c. Soil Associations

According to the Natural Resources Conservation Service (NRCS) Web Soil Survey, soils differ slightly at each lock and dam. Dry soils around locks and dams 3 and 4, are mostly Elk silt loam. Soils around Lock and Dam 2 are mostly made up of Nolin silt loam and Fairmount-Woolper complex soils. Lock and Dam 1, nearer the Ohio River, sits mostly on well drained alluvial soils. Because the dams act to trap sediment within the river, the substrate directly behind the dams (upstream) mostly consists of a thick layer of unconsolidated sediment.

d. Hydric Soils

Soils near KY 1-4 are generally well drained and not considered to be hydric.

e. Surface Water

The Kentucky River is a major tributary of the Ohio River, with the main stem beginning in Beattyville, Kentucky. From there, the Kentucky River runs northwest approximately 259 river miles until reaching the Ohio River near Carrollton. The river and its tributaries drain much of the central region of the state, with its watershed encompassing about 7,000 square miles.

The Kentucky River is included on the Kentucky Division of Water 303(d) List of Waters, which reports on streams and lakes identified as impaired for one or more pollutants. This is a requirement of states under Sections 305(d) and 303(d) of the Clean Water Act (CWA). Some of the more common causes of impairments include excessive sedimentation/siltation, nutrient/eutrophication, and mercury in fish tissue.

f. Ground Water

Groundwater flow direction in the majority of surrounding counties is generally towards the Kentucky River. Potentiometric surface elevations near the river are directly influenced by water levels of the river.

g. Floodplains

Depending on the surrounding topography, the Kentucky River's floodplain can vary greatly in width. The KY 1-4 structures are within the 100-year floodplain of the river.

h. Wetlands

According to the United States Fish and Wildlife Service (USFWS), National Wetlands Inventory, there are no wetlands on Corps-owned properties that contain the KY 1-4 facilities. The main stem of the Kentucky River does support some adjacent forested/shrub wetlands and abundant riparian habitats along its lower reach.

i. Terrestrial and Aquatic Vegetation

The U.S. Department of Agriculture (USDA) PLANTS Database lists 47 species of aquatic plant species that occur within Carroll, Henry, Owen, and Franklin counties in Kentucky. Species include spikerushes, rushes, docks and arrowheads make up the majority of the total.

Forest within the lower Kentucky River basin consist of scattered tracts of hardwoods with intermingled conifers. Large tracts of forest land have become increasingly rare due to clearing for agricultural activities in the watershed. Most of the Kentucky River is bordered by a thin strip of riparian trees and vegetation. The principle species within the basin are white oak, chestnut oak, beech, black oak, yellow poplar, hickory, basswood, shortleaf pine, gum, hemlock, buckeye, sycamore, ash, white pine, birch, walnut, and locust.

j. Fauna

The Kentucky River maintains a diverse assemblage of fish species, including several popular game fish species like bluegill, blue catfish, flathead catfish, white crappie, white bass, walleye, sauger, muskellunge, and largemouth, smallmouth, and spotted bass.

The river supports a host of reptiles and amphibians. Frog and toad species include, but are not limited to: the green frog, bullfrog, northern leopard frog, pickerel frog, wood frog, eastern gray tree frog, northern spring peeper, American toad and Fowlers toad.

Salamander species that may occur within the Kentucky River include the hellbender, mudpuppy, spotted salamander, marbled salamander, small-mouth salamander, red-spotted newt, slimy salamander, northern two-lined salamander, and long-tailed salamander. The river also supports a plethora of reptiles which include, but is not limited to: the snapping turtle, map turtle, midland painted turtle, red-eared turtle, spiny soft shell turtle, northern fence lizard, five-lined skink, rough green snake, black kingsnake, eastern ribbon snake, and the northern water snake.

Aquatic macroinvertebrates are an essential component of any healthy aquatic ecosystem. The Kentucky River is home to many species of invertebrates including midges, caddisflies, mayflies, stoneflies, lacewings, Dobsonflies, crayfish, snails, and mussel species of the Unionidae family.

Some common mammals that utilize the river and its riparian areas include raccoons, weasels, minks, river otters, spotted and striped skunks, chipmunks, squirrels, bats, and beavers. Numerous birds are known to utilize the riparian and riverine habitat provided by the Kentucky River. This includes many migrating, wintering, summering, and permanent resident birds and waterfowl.

k. Existing Terrestrial and Aquatic Habitat

Fish populations in the lower Kentucky River are greatly influenced by environmental factors and water conditions that can mimic both a lake and a river. Dramatic fluctuations in the river's level have beneficial impacts such as creating sand bars, cutting ditches and deposition of wood in shallow water (provides structure used by a wide variety of fish species). When water levels drop, the river becomes a series of lake-like pools due in large part to the dams. Riparian areas of the river offer abundant and diverse habitats for a variety of animals. Terrestrial habitat in the immediate vicinity of the locks and dams is generally low quality and limited by the development of the structures. When not completely submerged, the low head dams aerate water by creating turbulence and artificial riffle scenarios which benefit macroinvertebrates, fish, and their predators.

l. Federal Threatened and Endangered Species

According to the U.S. Fish and Wildlife Service, there are a total of 13 federally threatened or endangered species that may occur within or near the Kentucky River from Lock and Dam 1 to Lock and Dam 4 (Table 7). Because these structures impact large reaches of the river, the entire stretch of the river downstream of Lock and Dam 5 was used in this assessment. Any potential impact(s) to these species will be assessed and coordinated with the appropriate resource agencies. Official species lists can be found in the Environmental Appendix of this report.

Table 7 Threatened or Endangered Species (federal)

Group	Scientific Name	Common Name	Status
Mussels	<i>Pleurobema clava</i>	Clubshell	Endangered
Mussels	<i>Cyprogenia stegaria</i>	Fanshell	Endangered
Mussels	<i>Plethobasus cooperianus</i>	Orangefoot pimpleback	Endangered
Mussels	<i>Lampsilis abrupta</i>	Pink mucket	Endangered
Mussels	<i>Obovaria retusa</i>	Ring pink	Endangered
Mussels	<i>Pleurobema plenum</i>	Rough pigtoe	Endangered
Mussels	<i>Plethobasus cyphus</i>	Sheepnose	Endangered
Plants	<i>Arabis perstellata</i>	Braun's rock-cress	Endangered
Plants	<i>Trifolium stoloniferum</i>	Running Buffalo clover	Endangered
Plants	<i>Physaria globosa</i>	Short's bladderpod	Endangered
Mammals	<i>Myotis grisescens</i>	Gray bat	Endangered
Mammals	<i>Myotis sodalis</i>	Indiana bat	Endangered
Mammals	<i>Myotis septentrionalis</i>	Northern long-eared Bat	Threatened

m. State Threatened and Endangered Species

KY 1-4 are located in Carroll, Owen, Henry, and Franklin counties in Kentucky. The Kentucky State Nature Preserves Commission lists 61 species within these counties as endangered, threatened, special concern, historic, or extirpated. A list of this species by county can be found in the Environmental Appendix of this report.

n. Critical Habitat

No critical habitat has been identified within the study area.

o. Recreational, Scenic and Aesthetic Resources

The Kentucky River is a picturesque waterway with numerous quiet backwaters and tree-shaded tributary streams. Along many stretches of the river, the banks are bordered by woodlands which offer pleasing aesthetic qualities and high-quality wildlife habitat. Primary recreational opportunities associated with the river include recreational boating, fishing, hiking, canoeing, kayaking, camping, and waterfowl hunting. The Kentucky River Authority usually operates the locks and dams on weekends and holidays for anglers and recreational boaters throughout the summer months. The tailwaters of the dams are popular fishing locations for anglers.

p. Cultural Resources

KY 1-4 are part of a historic district (Kentucky River Navigation System, locks and dams 1-14) considered eligible for listing on the National Register of Historic Places (NRHP) since 1987. This historic district is a non-contiguous linear district with significance in the areas of transportation and engineering during the period 1836 to 1938. All land and structures, that were part of the operation of the system, were considered as contributing elements of this

transportation system. While some loss of site integrity was noted, each complex was deemed to retain sufficient integrity of location, design, workmanship, setting, materials, feeling and association to qualify for the National Register. Locks and Dams 1 – 4 are the oldest of the locks and dams on the Kentucky River, having been constructed by a Commonwealth of Kentucky chartered company from 1836 to 1842.

There have been several projects undertaken at KY 1-4 since these facilities have been considered eligible for listing on the NRHP. These have resulted in documentation and/or coordination on some of the facilities including state level documentation of Lock and Dam 1, architectural documentation of a hemp mill adjacent to Lock and Dam 4 and coordination on the rehabilitation of as lock master house at Lock and Dam 4.

An archaeological reconnaissance was undertaken of the lands associated with the entire system (1 – 14) in 1987. The 1988 report, entitled “An Archaeological Reconnaissance of Locks and Dams Nos. 1 – 14 on the Kentucky River, Kentucky” documents the findings of this effort. No archaeological sites were located at Kentucky River Locks and Dams 1, 2 or 4. Two archaeological sites (15Hy26 and 15Hy27) were however located at Lock and Dam 3. Site 15Hy26 contained both prehistoric and historic components. The prehistoric component dates to the Early to Middle Archaic period (approximately 8,000 – 3,000 B.C.) while the historic artifacts, recovered from a secondarily deposited refuse area, date from approximately 1850 to 1987 (the time of the reconnaissance). Site 15Hy27 could only be dated as an unassigned prehistoric component because no temporally diagnostic artifacts were recovered. Sites 15Hy26 and 15Hy27 have not been evaluated for NRHP eligibility.

q. Air Quality

Each location of the locks and dams being evaluated, is in attainment with both State and Federal National Ambient Air Quality Standards parameters (U.S. Environmental Protection Agency, 2016).

r. Noise

Elevated noise levels within the study area are usually the result of motor vehicles, including boats. Noise from vehicles is generally increased on weekends throughout the summer when recreational boaters are more active. Otherwise, noise levels are typically low in the vicinities of the locks and dams.

s. Hazardous and Toxic Substances

An Environmental Baseline Study (EBS) was performed in 2002 to establish the baseline environmental conditions at Lock and Dam 1, and to identify any liabilities associated with potential environmental contamination at the site. Based on records by the Louisville District, the site was considered to be free of environmental contamination by hazardous, toxic, or radiological materials, with the exception of lead. Based on the age of the two dwellings (constructed prior to 1978) they were (and still are) presumed to contain lead-based paint. Asbestos testing was conducted and asbestos material has been removed.

Although baseline studies have not been completed on locks and dams 2-4, similar conditions exist at all four properties. Because the structures were constructed prior to 1978, the presence of lead-based paint is very likely.

t. Executive Order 12898 Environmental Justice

On February 11, 1994, the President issued Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations. The purpose of this order is to avoid the disproportionate placement of any adverse environmental or economic impacts from Federal policies and actions on minority or low-income populations. The executive order required that any significant adverse impacts of the project or alternatives on minority or low-income populations be addressed. Table 8 presents U.S. Census Bureau (2016) data for each county in which the locks and dams are located.

Table 8 U.S. Census Bureau race and income data

Lock and Dam	Census Unit	Population	Racial Composition	Population in Poverty
1	Franklin County	50,375	84.2% White	13.7%
2	Owen and Henry County	26,350	95.8% White	17.3%
3	Owen and Henry County	26,350	95.8% White	17.3%
4	Carroll County	10,699	95.2% White	17.6%

u. Executive Order 13045 Protection of Children

Executive Order 13045 - Protection of Children from Environmental Health Risks and Safety Risks - was issued by the President in 1997. The order applies to economically significant rules under EO 12866 (Regulatory and Planning Review) that concern an environmental health or safety risk that EPA has reason to believe may disproportionately affect children. Environmental health risks or safety risks refer to risks to health or to safety that are attributable to products or substances that the child is likely to come in contact with or ingest (such as the air we breathe, the food we eat, the water we drink or use for recreation, the soil we live on, and the products we use or are exposed to). When promulgating a rule of this description, EPA must evaluate the effects of the planned regulation on children and explain why the regulation is preferable to potentially effective and reasonably feasible alternatives. Table 9 presents U.S. Census Bureau (2016) data for children in each county where the locks and dams are located.

Table 9 U.S. Census Bureau age data

Lock and Dam	Census Unit	Population	Persons Under 5 years	Persons Under 18 Years
1	Franklin County	50,375	5.7%	21%
2	Owen and Henry County	26,350	5.4%	23.5%
3	Owen and Henry County	26,350	5.4%	23.5%
4	Carroll County	10,699	7.2%	25%

7. Description of Federal Interest in Disposition

The Kentucky River Navigation System was authorized solely for commercial navigation. The cessation of all commerce traffic through KY 1-4, for a duration of over 30 consecutive years, supports the conclusion that federal interest no longer exists to retain the projects for their authorized purpose. According to KRA and Institute for Water Resources (IWR) data there has been no commercial activity recorded at the locks since 1985.

a. Screening and Selection Criteria

In order to screen alternatives and determine the Recommended Plan, the PDT used the following decision criteria: completeness, effectiveness, efficiency, acceptability, cost, safety, environmental impacts, and socioeconomic impacts.

Criteria 1: Completeness

Metric 1: The extent to which a given alternative plan provides and accounts for all necessary investments or other actions to ensure the realization of the planned effects. For the Recommended Plan, completeness will be based on the relative likelihood that an alternative will be able to be successfully implemented.

Methods, Models and Procedures: The metric was assessed based on the willingness of an entity to take over the facilities, operate and maintain the facility and the likelihood that the government will be able take the necessary steps to transfer the facilities.

Criteria 2: Effectiveness

Metric 2: The extent to which an alternative plan alleviates the specified problems and achieves the specified opportunities. The performance against the planning objectives was used to assess the effectiveness of alternatives for this study.

Methods, Models and Procedures: The assessment differs based on what degree the alternative plan achieves the identified planning objectives.

Criteria 3: Efficiency

Metric 3: The extent to which an alternative plan is the most cost effective means of alleviating the specified problems and achieving the opportunities.

Methods, Models and Procedures: Costs were calculated based on the federal costs to transfer, decommission, dispose of, or abandon the facilities and any other costs necessary to implement the alternative. The benefits were assessed in comparison to the no action alternative and specific to the expected outputs related to each alternative.

Criteria 4: Acceptability

Metric 4: The workability and viability of the alternative plan with respect to acceptance by state and local entities and the public and compatibility with existing laws, regulations and public policies.

Methods, Models and Procedures: A qualitative assessment was made as to the extent to which each alternative avoids the planning constraints and a relative comparison was made amongst alternatives.

Criteria 5: Cost

Metric 5: This is a measure of the overall cost to the federal government to implement the alternative over the 50 year period of analysis.

Methods, Models and Procedures: The PDT determined any transfer costs, costs to improve the existing facilities prior to transfer, removal costs, Operation Maintenance Repair, Replace and Rehabilitation (OMRR&R), and costs to implement the alternatives.

Criteria 6: Safety

Metric 6: Although improvement to safety is identified as a study objective, it was included as an evaluation criteria because the potential impacts to public safety as a result of a federal action is an important consideration as to whether or not an alternative is viable.

Methods, Models and Procedures: A general assessment was made using best professional judgment of dam safety experts and the PDT as to the potential for various alternatives to alleviate or exacerbate safety concerns.

Criteria 7: Environmental Impacts

Metric 7: This metric looked at the potential for negative and/or positive environmental impacts as a result of implementing alternatives.

Methods, Models and Procedures: This was based upon the assessment of environmental impacts (positive and negative) in the Environmental Assessment.

Criteria 8: Socioeconomic Impacts

Metric 8: This criteria included assessments of the potential to impact recreation, water supply, and other socioeconomic factors.

Methods, Models and Procedures: Water supply and recreation impacts were assessed based on the next-most-likely-alternative to obtain water from a different source.

b. Eligibility for Disposition

USACE is in the midst of a 25-year lease with the KRA, with the only course of breaking the lease being to demonstrate that the KRA has been a neglectful tenant. The KRA has invested over \$25M in lock rehabilitation and replacement of Dam 3 and by all accounts, been an exemplary tenants. As such, any recommended plan that does not involve transfer to KRA would result in impacts to the cost and schedule of the disposal. No additional factors were identified that would preclude disposal.

8. Formulation of Alternative Plans

a. Future Without Project Description

Upon consultation with the Inland Navigation Planning Center of Expertise and KRA, there is no discernable indication that future project conditions, specifically commercial navigation, will diverge from existing conditions. In addition, the Kentucky General Assembly has declared that it is the public policy of the Commonwealth to protect the health and welfare of the citizens who are dependent upon the Kentucky River locks and dams for their source of clean water. To that end, the Commonwealth provided for the proper maintenance of the Kentucky River locks and dams through the KRA.

The General Assembly also directed that the Commonwealth would assume ownership of United States property on or adjacent to the Kentucky River after 90 days from the date on which the Corps obtains final authority to dispose of the property. Ky. Rev. Stat. Ann. § 151.700(2). The KRA was also provided with numerous powers to fulfill its mission, including but not limited to, promulgating regulations to provide for clean water; enforcing regulations; developing and implementing long-range water resource plans and drought response plans; developing recreational areas; and collecting water user fees. Ky. Rev. Stat. Ann. §§ 151.720 and 151.723. It is thus reasonable to conclude that KRA will continue to support and protect water supply and recreational traffic for the foreseeable future.

b. Alternatives Description

Four alternatives are being considered in the KY 1-4 Disposition Study. Alternative 1 is the No Action plan. Alternative 2 is deauthorization and disposal of the projects as-is. Alternative 3 is deauthorization and disposal of the projects with additional inspections completed by the Corps of Engineers. Alternative 4 is deauthorization of the projects and removal of the locks and dams. All four alternatives are presented in Table 10.

Table 10 Alternative Cost Comparison

Alternative		Method of Disposal	Cost
1	No Action ^{1, 2, 3}	N/A	\$477,125
2	Deauthorize/ Dispose as-is	A. Via the Property Act ^{4,5,6,7}	\$286,000
		B. Special Legislation To KRA⁶	\$32,000
3	Deauthorize/ USACE complete inspections/ Dispose	A. Via the Property Act ^{4,5,6,7}	\$381,000
		B. Special Legislation To KRA ⁶	\$122,000
4	Deauthorize/ Remove Locks and Dams/ Dispose	Via the Property Act ^{4,5,6,7}	\$24,991,000
1. Assumes lease with KRA continues through 2027. 2. Assumes no USACE investment for capital improvements. 3. Net Present Value= 50 years of annual real estate management costs (\$16,000) at current discount rate (2.875) + 10% contingency. 4. Assumes 5 years for GSA to complete disposal and GSA cannot dispose until lease terminates in 2027. 5. Potential leaseholder interest could result in substantial costs to the federal government if properties were transferred to an entity other than KRA. 6. Costs associated with cultural resource mitigation could impact final disposal cost. The estimated cost ceiling is \$287,000. 7. Because the estimated fair market value of real property is > \$50,000, GSA would be engaged to dispose under authority of the Property Act.			

Alternatives 2 and 3, both consist of deauthorization and disposal of the projects; however, each alternative provides for two different disposal methods to be considered: A) Disposal through the Property Act and B) Disposal directly to KRA via special legislation. Tables 11 and 12 present a breakout of the administrative costs and timeline for each method.

Table 11 Disposal Method A: Property Act

Task	Office	Cost	Duration
Real Property Management / Lease Management	Real Estate	\$160,000	10 years (remaining lease term)
Prepare Legal Descriptions	Real Estate	\$10,000*	30 days
Prepare Fair Market Value Appraisal Reports	Real Estate	\$20,000	60 days includes review
Prepare Disposal Report	Real Estate	\$5,000	60 days includes review and approval
NEPA/Cultural Resource Reviews	Planning	\$11,000^	60 days
DoD Screening	Real Estate	-	30 days
Non-DoD, HUD, State and Local Screening/Marketing	GSA	-	3-5 Years
Execution of Quitclaim Deed, Closing, Final Title	GSA	-	
Termination of KRA Lease	Real Estate	-	
Property Management	Real Estate	\$80,000	15 years
Total Estimate		\$286,000[#]	13-15 Years

* May include limited field verification. Does not include boundary survey. Legal descriptions will be based on acquisition documentation and boundary survey plats prepared in 1978.

^ Estimate does not include potential cultural resource mitigation

Estimate does not include cost or time associated with conducting a negotiated public sale; assumes screening will identify an eligible grantee.

Table 12 Disposal Method B: Special Legislation

Task	Agency	Cost	Duration
Prepare Legal Descriptions*	Real Estate	\$10,000	30 days
Prepare Quitclaim Deed	Counsel	\$5,000**	90 days
NEPA/Cultural Resource Reviews	Planning	\$11,000^	60 days
Execution of Quitclaim Deed	Counsel	\$3,000	60 days
Real Property Records Update	Real Estate	\$3,000	10 days
Terminate Lease	Real Estate	-	30 days
Total Estimate		\$32,000	6-9 months

* May include limited field verification. Does not include boundary survey. Legal descriptions will be based on acquisition documentation and boundary survey plats prepared in 1978.

^ Estimate does not include potential cultural resource mitigation

**Assumes all four properties are conveyed at the same time in a single instrument to one entity. If a determination that separate deeds are required, then estimate to prepare each deed is \$3,000 and closing costs will also increase.

c. Evaluation of Benefits and Costs

Federal interest for inland navigation projects requires the project to contribute to the net value of the national output of goods and services, expressed in monetary units. This contribution is measured with the national economic development (NED) account. For inland navigation, the main NED benefit is transportation rate savings, or the reduction in the value of resources required to transport commodities. In other words, inland navigation reduces the cost of transporting commodities, so industries can spend resources elsewhere. The jobs and income provided by industries that rely on the waterway would fall under the regional economic development (RED) account, which is not a means of justifying continued federal interest in inland navigation projects. The cessation of any and all commercial traffic along and through KY 1-4, for a duration of over 30 consecutive years, supports the conclusion that a federal interest no longer exists to retain the project for its authorized purpose.

Alternative 1 – No Action Plan

The current levels of funding could not address all necessary O&M activities to ensure long-term safety and viability of these facilities. Even at these reduced amounts, annual expenditures do not produce overall net positive NED benefits for the purposes of commercial navigation. Further, life cycle cost calculations indicate a net present value of \$477,125 (including 10% contingency) cost to the federal government for this alternative.

Alternative 2 – Deauthorization and Disposal of the Projects As Is

Transfer of the facilities eliminates the real estate management burden on the federal government after and, if properly maintained by the new owner, reduces potential for future failures or outages. Alternative 2, regardless of disposal method (special legislation, or through the Property Act), involves the least amount of initial federal investment (\$32,000, or \$286,000 respectively) in order to address current maintenance deficiencies and successfully transfer the facilities. From the federal perspective, Alternative 2 is the least costly alternative presented in KY 1-4 Disposition Study, now and in the future.

Alternative 2A – Through the Property Act

The primary uncertainty in this study is if any recommendation other than transferring ownership to the KRA is considered. The Corps of Engineers is in the midst of a 25-year lease with the KRA, with the only course of breaking the lease to show that the KRA has been neglectful tenant. KRA has invested over \$25 million in lock rehabilitation and replacement of Dam 3. It is highly uncertain how soon or how likely recommendations other than disposal and transfer to the KRA can be implemented.

Alternative 2B – Through Special Legislation to KRA

If transferred to KRA, Alternative 2 also involves transfer to an entity that is most likely to have the capability and financial incentive to maintain the facilities long-term. The KRA views their ownership of KY 1-4 as being critical to their success in continuing to operate and maintain the structures for municipal water supply and recreational use of the river.

Alternative 3 – Deauthorization and Disposal of the Project with Additional USACE Inspections

As with Alternative 2, transfer of the facilities eliminates the O&M burden on the federal government and, if properly maintained by the new owner, reduces potential for future failures or outages. However, Alternative 3 also involves additional USACE inspections (see Table 4) at the project prior to deauthorization and disposal. These additional inspections include dive inspections, stability analyses, and surveying of abutment walls at each of the four lock and dam facilities. Costs associated with Alternative 3 vary upon the disposal method (special legislation - \$122,000, via the Property Act - \$381,000) but each presents

the federal government with a capital outlay much higher than those presented in Alternative 2. While providing benefits equivalent to Alternative 2, Alternative 3 has a higher cost with no additional federal benefit or contribution to expediting disposal.

During the periodic assessment completed by the Louisville Dam Safety Team in November 2016, no critical repairs were identified at any of the locks and dam sites. Only routine inspections were noted, which should be completed by KRA as a component of routine operation and maintenance. Completion of the additional inspections does not impact the assignment of a DSAC rating and does not alter the Corps decision to request Congressional deauthorization of commercial navigation or disposal of the lock and dam sites. The federal investment in additional inspections, does not result any benefits beyond what are identified in the Tentatively Selected Plan and consequently Alternatives 3a and 3b were determined to not be feasible.

Alternative 4 – Deauthorization of the Projects, Removal of all Improvements, and Disposal

Deauthorization of the projects and removal of all improvements is the most costly of all alternatives studied. Alternative 4 is estimated to cost approximately \$24,991,000. Alternative 4 also threatens to adversely impact both water supply and recreation interests and requires removal and elimination of National Register of Historic Places eligible properties.

The initial cost of Alternative 4 was estimated to be \$24M plus any damages associated with the potential leaseholder interests that the KRA may have in connection with the lock and dam sites. In addition to opposition from the multiple communities that depend on the pools for municipal water supply, it is extremely unlikely that a non-federal sponsor would serve as a project proponent for dam removal. The Louisville District has also determined that the increase in rare/scare/significant habitat types would not be sufficient to overcome the cost and lack of an interested proponent/sponsor. Additionally, KY 5-14 are already controlled by KRA and those locks and dams would remain in place limiting benefits to the overall Kentucky River system that may occur by removing KY 1-4. Based on these economic, environmental and social factors, Alternative 4 was not considered feasible.

d. Safety Evaluation of Alternatives

Alternative 1 – No Action Plan

The long term stability (future failures and outages) of the lock and dams would be dependent on continuation of the current lease with KRA. Vertical conditions at the lock chambers and drowning hazards associated with the dam would remain. No immediate safety concerns relative to the stability of the locks and dams were identified during the October 2016 site inspection.

Alternative 2 – Deauthorization and Disposal of the Projects As-is

Direct conveyance of locks and dams to KRA would convey property to an entity committed to maintain lock and dam stability. The conveyance of the locks and dams through the Property Act (Alternative 2A) could result in transfer to an entity that does not have the capability to safely operate and maintain the lock and dam facilities. Vertical conditions at the lock chambers and drowning hazards associated with the dam would remain.

Alternative 3 – Deauthorization and Disposal of the Project with Additional USACE Inspections

Direct conveyance of locks and dams to KRA would convey property to an entity committed to maintain lock and dam stability. The conveyance of the locks and dams through the GSA process (Alternative 3B) could result in transfer to an entity that does not have the demonstrated capability to safely operate and maintain the lock and dam facilities. The vertical conditions at the lock chambers and drowning hazards associated with the dam would remain.

Alternative 4 – Deauthorization of the Projects, Removal of all Improvements, and Disposal

The vertical conditions at the lock chambers and drowning hazards associated with low head dams would be removed. Consequences associated with failure would be removed.

e. Comparison of Alternatives

Table 13 provides an evaluation and comparison of the suite of alternatives against decision criteria: completeness, effectiveness, efficiency, acceptability, cost, safety environmental impacts, and socioeconomic impacts.

The scale used for this evaluation is qualitative. Green indicates high performance against the criteria and a more desirable anticipated outcome. Amber indicates a moderate performance and Red indicates a poor performance and less desirable anticipated outcome

Table 13 Evaluation and Comparison of Alternatives

Evaluation Criteria	<u>Alternative 1</u> (No Action)	Alternative 2A (Deauthorize/ Dispose as-is through Property Act)	<u>Alternative 2B</u> (Deauthorize/ Dispose as-is via special legislation directly to KRA)	<u>Alternative 3A</u> Deauthorize/ USACE complete additional inspections/ Dispose through Property Act)	<u>Alternative 3B</u> (Deauthorize/ USACE complete additional inspections/ Dispose via special legislation directly to KRA)	<u>Alternative 4</u> (Deauthorize/ Remove all improvements/ Dispose through Property Act)
<u>Completeness</u>	MODERATE - Real property and improvements would remain under federal ownership. Continued annual federal O&M costs would remain in perpetuity.	LOW - The screening process could result in conveyance to an entity that does not have capability to continue O&M and periodic repairs. Other entities may request additional modifications to facilities prior to acceptance. No other entity has expressed interest. Conveyance could not occur until expiration of lease in 2027.	HIGH - The KRA has demonstrated their ability to execute O&M requirements and complete necessary repairs. KRA has expressed a willingness to accept L&Ds and associated real estate as-is.	LOW - No critical repairs were identified during safety inspection that would impede conveyance. Additional inspections were recommended as part of continued O&M. Unknown recipient identified through screening process. Conveyance could not occur until expiration of lease in 2027.	MODERATE - No critical repairs were identified during 2016 safety inspection that would impede conveyance. Additional inspections were recommended as part of continued O&M. The KRA has expressed a willingness to accept L&Ds and associated real estate as-is.	LOW - Loss of pools would result in disruption to local water supply and recreation activities. No stakeholder has indicated interest in receipt of property with locks and dams removed. Disposal would be unlikely with locks and dams removed. Any action could not occur until expiration of lease with KRA in 2027.

Evaluation Criteria	Alternative 1 (No Action)	Alternative 2A (Deauthorize/ Dispose as-is through Property Act)	Alternative 2B (Deauthorize/ Dispose as-is via special legislation directly to KRA)	Alternative 3A (Deauthorize/ USACE complete additional inspections/ Dispose through Property Act)	Alternative 3B (Deauthorize/ USACE complete additional inspections/ Dispose via special legislation directly to KRA)	Alternative 4 (Deauthorize/ Remove all improvements/ Dispose through Property Act)
Effectiveness	MODERATE- The absence of commercial navigation indicates that there is zero return on federal investment. Maintenance of lock and dam for recreation and water supply is likely, but not certain as the property is still under a lease.	MODERATE- The realization of objectives is dependent on what entity is identified for conveyance during the screening process. Following disposal O&M expenditures would cease.	HIGH - Federal O&M expenditures would cease. The KRA has the financial capability to maintain facilities to maintain pool for water supply and safety (i.e. lock and dam integrity / security). Direct conveyance minimizes transaction costs.	MODERATE- There is not an overriding USACE policy favoring the investment of federal funds in order to dispose of structures and associated real property that no longer serve a USACE mission. The realization of objectives is dependent on what entity is identified for conveyance during the screening process.	MODERATE- There is not an overriding USACE policy favoring the investment of federal funds in order to dispose of structures and associated real property that no longer serve a USACE mission. The realization of objectives is dependent on what entity is identified for conveyance in during the screening process.	LOW - Any NER benefits would need to be evaluated through separate study. Overall safety would be improved with the removal of low head dams and vertical conditions at lock walls. Any water supply and current recreational uses would be impacted.
Efficiency	LOW - Does not address problems and opportunities	MODERATE- Federal O&M costs would be removed. The estimated conveyance costs would be higher through disposal than direct conveyance to KRA.	HIGH - Federal O&M costs would be removed. Direct conveyance to KRA is the least cost alternative over the study period. Conveyance through Property Act is higher than special legislation.	MODERATE- Preliminary investigations did not identify any immediate critical repairs. Conveyance through the Property Act is higher than special legislation.	MODERATE- Preliminary investigations did not identify any immediate critical repairs. Direct conveyance to KRA through special legislation is the least cost alternative over the study period.	LOW - Following initial investment O&M costs would be zero. Additional investment to modify water intake structures and boat ramps would be required by other entities to maintain those uses.

Evaluation Criteria	Alternative 1 (No Action)	Alternative 2A (Deauthorize/ Dispose as-is through Property Act)	Alternative 2B (Deauthorize/ Dispose as-is via special legislation directly to KRA)	Alternative 3A Deauthorize/ USACE complete additional inspections/ Dispose through Property Act)	Alternative 3B (Deauthorize/ USACE complete additional inspections/ Dispose via special legislation directly to KRA)	Alternative 4 (Deauthorize/ Remove all improvements/ Dispose through Property Act)
Acceptability	HIGH- Does not violate any constraints	MODERATE- Conveyance to an entity other than KRA prior to 2027 would violate lease terms unless KRA was identified as recipient.	HIGH- Does not violate any constraints	MODERATE- Conveyance to an entity other than KRA prior to 2027 would violate lease terms unless KRA was identified as recipient.	HIGH - Does not violate any constraints	LOW - Removal of locks and dams and disposal through Property Act would violate constraints
Cost	MODERATE- \$477,125	HIGH - \$286,000	HIGH – \$32,000	MODERATE - \$381,000	MODERATE - \$122,000	LOW - \$24,991,000
Safety	MODERATE - The long term stability of the lock and dams would be dependent on continuation of lease with KRA. Vertical conditions at lock chamber and drowning hazard associated with dam would remain.	LOW - Unknown recipient may not maintain facilities. Vertical conditions at lock chamber and drowning hazard associated with dam would remain.	MODERATE - Direct conveyance of locks and dams to KRA would convey property to entity committed to maintain lock and dam integrity. Vertical conditions at lock chamber and drowning hazard associated with dam would remain.	LOW - Unknown recipient may not maintain facilities. Vertical conditions at lock chamber and drowning hazard associated with dam would remain.	MODERATE - Direct conveyance of locks and dams to KRA would convey property to entity committed to maintain lock and dam integrity. Vertical conditions at lock chamber and drowning hazard associated with dam would remain.	HIGH - The vertical conditions at the lock chambers and drowning hazard associated with low head dams would be removed. Any consequences associated with failure would be removed.

Evaluation Criteria	Alternative 1 (No Action)	Alternative 2A (Deauthorize/ Dispose as-is through Property Act)	Alternative 2B (Deauthorize/ Dispose as-is via special legislation directly to KRA)	Alternative 3A Deauthorize/ USACE complete additional inspections/ Dispose through Property Act)	Alternative 3B (Deauthorize/ USACE complete additional inspections/ Dispose via special legislation directly to KRA)	Alternative 4 (Deauthorize/ Remove all improvements/ Dispose through Property Act)
<u>Environmental Impacts</u>	MODERATE - Does not result in any new environmental and cultural resource impacts or provide for any additional benefits.	MODERATE - Environmental and cultural resource Impacts would be dependent on final use of facilities as determined by recipient identified in disposal process.	MODERATE - Does not result in any new environmental impacts or provide for any additional benefits. Short term cultural resources mitigation costs are anticipated; however, long term there would be preservation of National Register of Historic Places eligible L&Ds and some land based structures.	MODERATE - Environmental and cultural resource Impacts would be dependent on final use of facilities as determined by recipient identified in disposal process.	MODERATE - Does not result in any new environmental impacts or provide for any additional benefits. Short term cultural resources mitigation costs are anticipated; however, long term there would be preservation of National Register of Historic Places eligible L&Ds and some land based structures.	HIGH - Restoration to free flowing conditions would improve habitat. Barrier removal could result in upstream migration of invasive species. Short term cultural resources mitigation costs are anticipated however long term there would be loss of National Register of Historic Places eligible L&Ds and potentially some or all land based structures.
<u>Socioeconomic Impacts</u>	MODERATE - Would not result in any new impacts. Long-term implications for continued water supply and recreation are less certain than direct conveyance to KRA.	MODERATE - Impacts would be dependent on final use of facilities as determined by recipient identified in disposal process.	HIGH - Does not result in any new socioeconomic impacts or provide for any additional benefits. Current uses such as water supply and recreation would remain.	MODERATE - Impacts would be dependent on final use of facilities as determined by recipient identified in disposal process.	HIGH - Does not result in any new socioeconomic impacts or provide for any additional benefits. Current uses such as water supply and recreation would remain.	LOW - Would result in negative impacts to water supply and recreation. Removal would also preclude future hydropower development
Rating Summary	MODERATE - Amber	MODERATE - Amber	HIGH – Green	MODERATE - Amber	MODERATE - Amber	LOW - Red

f. Key Considerations in Alternative Evaluation

- A letter of interest dated July 14, 2015 was sent to the Chief, Planning Division, Louisville District from KRA requesting to obtain fee simple title to KY 1-4 and expressing the KRA's willingness to take the properties "as-is" with no improvements or repairs necessary prior to transfer of the property interests. At the time of this report, no other interested parties have been identified.
- Conveyance through the Property Act to any other entity other than KRA could not occur until at least 2027. The current lease does not contain a termination clause and could only be revoked by the United States if the KRA refused to eliminate an immediate threat to health and/or danger to life or property. Over the last 15 years numerous requests to make improvements to the properties (in accordance with the terms of the lease) have been approved by the Louisville District.
- The Property Act requires screening of the properties with the Department of Housing and Urban Development (HUD), and other-than-DOD federal, state and local governments. If no HUD or federal interests were identified, a state or local government agency could receive the properties under a no cost or low cost Public Benefit Conveyance. This process would be highly objectionable due to the investment by the KRA to provide the inland waterway, recreation, and water supply that may not be protected by another agency (identified through screening process) with limited resources or differing objectives.
- Assuming transfer to an entity other than KRA occurs after 2027, the Restoration clause (17) of the lease (see Real Estate Appendix) says no compensation for improvements that are left behind (i.e. the dam) after expiration or termination will be granted. However, the lease also states (6) that equipment provided and structures erected by the KRA will remain the property of the KRA. The substantial investment made by KRA has likely created a leasehold interest in these special purpose properties and KRA would likely have to be compensated if KY 1-4 were transferred to another entity. These two clauses appear to conflict and further evaluation will be required by appropriate legal and real estate representatives.
- During the GSA disposal process, USACE would remain the responsible landholding agency until the quitclaim deed(s) were executed. The USACE would also continue to incur \$16,000 annual real estate management cost until GSA completes the disposal process.
- The primary benefit that GSA offers in a disposal action is marketing and screening the properties to identify receiving entities. In the case of KY 1-4, these activities are not

required as KRA currently leases the properties, has requested conveyance of the facilities and intends to accept them as-is.

- Disposing of assets to the Commonwealth of Kentucky under the direct authority of Congressional legislation alleviates the requirement to screen the properties against the needs of other federal, state, local and private interests.
- Locks and dams 5-14 were successfully conveyed under authority granted by Water Resources Development Act of 1986 (Public Law 102-377) and the Energy & Water Development Appropriations Act of 1994 (Public Law 103-126). Special legislation assures transfer to KRA, which preserve the complete system under one entity.

9. Tentatively Selected Plan

a. Description of Plan

The Tentatively Selected Plan is Alternative 2B, deauthorization and disposal of the project as-is. Following deauthorization, KY 1-4 should be conveyed through special legislation to the Kentucky River Authority. Alternative 2B would involve the least amount of initial federal investment in order to address current maintenance deficiencies and successfully transfer the facilities. It would also involve transfer to an entity that is most likely to have the capability and financial incentive to maintain the facilities long-term.

b. Environmental Impacts of the No Action Alternative

The KRA's powers are detailed in Kentucky Revised Statute § 151.720. These powers include maintaining the locks and dams on the Kentucky River, acquiring fee simple title to real property on or adjacent to the basin, developing comprehensive plans for the basin, and promoting private investment in the installation of hydropower units on all Kentucky River dams. KRA is required to conduct a continuing study of the water availability and needs of the Kentucky River basin. § 151.727. Actions undertaken by the KRA toward the development of a drought response plan or unified long-range water resource plan are subject to public notice and participation. Ky. Admin. Reg. 1:020. These plans must address, among other things, the acquisition, operation and control of projects and facilities in the Kentucky River basin for the storage, use, and release of water. Ky. Admin. Reg. 1:030. The General Assembly has declared that the Commonwealth will assume ownership 90 days from the date the Corps obtains final authority to dispose of the property. Ky. Rev. Stat. Ann. §§ 151.700(2)."

With the legal authorities and facts described above, it is reasonable to conclude that management of the locks and dams by KRA would continue as-is, and therefore the environmental effects of the no action alternative would be expected to be the same as those of the Tentatively Selected Plan (except there would be no potential adverse effect to cultural resources because there would be no disposal to a non-federal entity).

c. Environmental Effects of Tentatively Selected Plan

1) Climate

Implementing the recommended plan of deauthorizing and disposing of KY 1-4 would have no impacts to climate.

2) Soils

No impacts to soils are expected from the deauthorization and disposal of KY 1-4.

3) Surface Water

No impacts to surface waters are expected from the deauthorization and disposal of KY 1-4.

4) Ground Water

No impacts to groundwater are expected from the deauthorization and disposal of KY 1-4.

5) Floodplains

No impacts to floodplains or flooding frequency/intensity are expected from the deauthorization and disposal of KY 1-4.

6) Wetlands

No impacts to wetlands are expected from the deauthorization and disposal of KY 1-4.

7) Fish and Wildlife Habitats

No physical changes are proposed to the structures or adjacent property, therefore no impacts to fish and wildlife habitats are expected from the deauthorization and disposal of KY 1-4.

8) Threatened and Endangered Species

No impacts to any state and/or federally listed threatened or endangered species are expected from the deauthorization and disposal of KY 1-4.

9) Recreational, Scenic and Aesthetic Resources

No impacts to recreational, scenic, or aesthetic resources are expected from the deauthorization and disposal of KY 1-4.

10) Cultural Resources

No physical changes are proposed to the lock and dam structures or associated buildings on adjacent property. Congressional deauthorization of commercial navigation would have no effect to the structures or archaeological sites 15Hy26 and 15Hy27. However, the proposed disposal of KY 1-4 from federal government ownership is considered an adverse effect unless conditions are placed on the disposal or mitigation alternatives are developed to mitigate the adverse effect.

11) Air Quality

No impacts to air quality are expected from the deauthorization and disposal KY 1-4.

12) Noise

No impacts to noise levels are expected from the deauthorization and disposal KY 1-4.

13) Hazardous and Toxic Substances

The recommended plan would not affect or produce hazardous or toxic substances.

14) Executive Order 12898 Environmental Justice

By implementing the recommended plan, the locks and dams would not be physically altered, therefore, no short-term or long-term impacts in the socioeconomic conditions of the study area would be expected.

The recommended plan will not have the potential for disproportionate health or environmental effects on minorities or low-income populations and communities and would be in full compliance with Executive Orders 12898 following completion of the NEPA process.

15) Executive Order 13045 Protection of Children

The recommended plan would not have the potential to disproportionately affect the safety or health of children and would be in full compliance with Executive Order 13045.

16) Clean Water Act (CWA)

Compliance with Section 404 of the CWA is required for discharges of dredged or fill material in to waters of the United States, including adjacent wetlands. No discharge of dredged or fill material would occur from the deauthorization and disposal of KY 1-4.

17) Floodplain Management

Executive Order (EO) 11988, Floodplain Management requires federal agencies to evaluate and minimize to the extent possible, impacts and modifications to the floodplain. The recommended plan does not conflict with applicable state and local standards concerning floodplain protection, nor would it have any impacts to the 100-year floodplain.

18) Endangered Species Act (ESA)

The ESA requires the determination of possible harm or degradation to federally listed threatened or endangered species and critical habitat. The USFWS provided an official list of threatened or endangered species that may be present within the project vicinity. The recommended plan is proposing no physical changes to the lock and dam structures or properties; therefore, the Corps made a determination of “no effect” for the species listed in Section 10.3.5.1 of this report. This report has been provided to USFWS for their review and comment with regard to their determination of compliance with the

Endangered Species Act (ESA), 16 U.S.C. §§ 1531-1544 and the Corps determination of effects. Any comments from the USFWS received by the Corps will be included in the Environmental Appendix of the Final Disposition Study and Integrated EA.

19) Fish and Wildlife Coordination Act (FWCA)

A NEPA scoping letter dated January 9, 2017 was mailed to stakeholders soliciting comments for this action. The scoping letter was used to invite comments from Federal, State, and local agencies, affected Indian Tribes, and other interested private organizations and individuals. Comments were accepted through February 10, 2017 and are located in Environmental Appendix, along with a copy of the scoping letter.

20) Clean Air Act (CAA)

In compliance with the CAA (42 USC § 7401 et seq.) and the 1977 and 1990 amendments, the Environmental Protection Agency has promulgated ambient air quality standards and regulations to protect health and the environment. Areas that are below the standards are in “attainment,” while those that are equal or exceed the standards are said to be in “non-attainment.” The proposed project sites are within an attainment area and the recommended plan would not impact long-term ambient air quality standards (U.S. Environmental Protection Agency, 2016).

21) National Pollutant Discharge Elimination System Storm Water Permit (NPDES)

A NPDES permit for stormwater discharges is required for activities that disturb more than one acre of land. For the recommended plan, no land would be disturbed, therefore a Storm Water Pollution Prevention Plan would not be required.

22) National Historic Preservation Act (NHPA)

In compliance with the National Historic Preservation Act, consultation was initiated with the Kentucky State Historic Preservation Officer (KY-SHPO) and other interested parties regarding historic properties (cultural resources listed, or eligible for listing, on the National Register of Historic Places [NRHP]). No physical changes are proposed to the lock and dam structures or associated buildings on adjacent property, however the proposed disposal of KY 1-4 from government ownership has the potential to adversely affect the locks and dams. Consultation with the KY-SHPO and other interested parties would be undertaken to develop appropriate conditions to place on the disposal or to develop appropriate mitigation measures for inclusion in a Memorandum of Agreement to address project effects and completed prior to disposal

On February 3, 2017 a Section 106 initiation letter was sent to the KY-SHPO, Indian Nations, and other interested parties to solicit cultural resources comments for this action. Comments have been received to date from the Miami Tribe of Oklahoma, the Osage Nation and the Shawnee Tribe. All three have requested consulting party status for the Kentucky River Locks and Dam 1, 2, 3, 4 Disposition Study. The KY-SHPO provided

comments concurring that deauthorization of commercial navigation wouldn't cause effects, as long as facilities and structures continued to be maintained. The KY-SHPO also conditionally concurred that placing conditions on disposal or, if appropriate, developing mitigation alternatives would aid in avoiding potential adverse effects. Conditional concurrence was due to reservations concerning archaeological resources information therefore discussions continue on this topic.

23) Cumulative Effects

NEPA requires a Federal agency to consider not only the direct and indirect impacts of a proposed action, but also the cumulative impact of the action. A cumulative impact is defined as *"the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 CFR§1508.7)."* Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time. These actions include on- or off-site projects conducted by government agencies, businesses, or individuals that are within the spatial and temporal boundaries of the actions considered.

The recommend plan proposes no changes to the physical environment of the Kentucky River or KY 1-4. Furthermore, no significant changes or modifications to the facilities by the KRA are anticipated that would have any effect on the physical environment; therefore, no cumulative effects are anticipated.

d. Economic Effects

Since leasing KY 1-4 to KRA in 2002, KRA has invested more than \$25 million in capital improvements across all four lock and dam sites. Further, KRA has already formerly requested ownership of KY 1-4 as-is via a letter to the Corps of Engineers dated 14 July 2015. The KRA views their ownership of KY1-4 as being critical to their success in continuing to operate and maintain the structures for municipal water supply and recreational use of the river. KRA's ownership of KY 1-4 will bolster the Regional Economic Development and Other Social Effects accounts and is the least costly alternative.

e. Safety Effects

Congressional deauthorization of commercial navigation and the direct conveyance of KY 1-4 to KRA would convey property to an entity committed to maintain lock and dam integrity to support current uses of water supply and recreation. Vertical conditions at the lock chambers and drowning hazards associated with the dam would remain.

10. Description of Interested Party / Capability to Assume Ownership

The Kentucky River Authority was established by the Kentucky General Assembly in 1986 to take over operation of the Kentucky River locks and dams 5-14 from USACE.

Since 1986, the KRA mission has been expanded to protect and improve the waters of the Kentucky River through environmental management of the entire watershed. The KRA is charged with developing comprehensive plans for the management of the Kentucky River Basin, including long range water supply, drought response and ground water protection plans.

In addition to owning locks and dams 5 -14, the KRA signed a lease with USACE in 2002 for KY 1-4 for a period of 25 years. Thus, the KRA is responsible for maintaining the 14 lock and dam structures on the Kentucky River. These structures were constructed by the Commonwealth of Kentucky and the USACE for navigation purposes but are now only used for recreational boating and water supply.

The KRA is supported by water use fees collected from facilities that withdraw water from the basin. Exemptions are given to facilities using water for agricultural purposes. These fees are then passed on to the citizens in the basin who purchase water or the product manufactured by use of the water resources.

Since leasing KY 1-4 in 2002, KRA has invested over \$25 million in capital improvement costs in the project.

No other entity has expressed interest in receipt of KY1-4 and associated real property.

11. Requirements for Implementation

a. Deauthorization

Federal interest in operating and maintaining the project as authorized no longer exists due to the lack of commercial traffic along the Kentucky River. Congressional deauthorization of commercial navigation is the necessary first action for implementation.

b. Disposal

Upon deauthorization of the projects by Congress, the preferred method of transferring ownership of the real property and all associated Government-owned improvements would be through the passing of special legislation. Disposing of assets to the Commonwealth of Kentucky under the direct authority of Congressional legislation alleviates the requirement to screen the properties against the needs of other state, local and private interests. 10 U.S.C. § 2696 requires screening of properties for further Federal use that are directed by Special Legislation to be conveyed to non-Federal entities. Locks and dams 5-14 were successfully conveyed to the Commonwealth of Kentucky in 2006 under authority granted by the Energy and Water Development Appropriations Act (Public Law 102-377, dated October 1, 1992 and Public Law 103-126, dated October 28, 1993). It is assumed that KY 1 – 4 would follow similarly and all disposal activities would be conducted by the USACE. GSA can assist landholding agencies with conveyance of real property that is subject to Special Legislation on a reimbursable basis through the issuance of a Reimbursable Work Authorization.

As an alternative, in the case that deauthorizing legislation does not set out specific guidelines for disposal, the property would be conveyed under authority of the Federal Property and Administrative Services Act of 1949, as amended (codified as amended in scattered sections of 40 U.S.C. and 41 U.S.C.), the Property Act. The disposal process begins with an estimate of the current fair market value. The Department of Defense has a delegation of authority from GSA that allows the USACE to dispose of excess real property when the estimated fair market value is less than \$50,000. This delegation does not preclude GSA from disposing of property on behalf of the USACE.

General procedures for disposing of the properties under authority of the Property Act with GSA acting as the disposal agency are as follows. A Report and Recommendation of Excess (RROE) is prepared and submitted, along with environmental and cultural resources clearances, through the Great Lakes and Ohio River Division to USACE headquarters for approval. Upon approval of the RROE, the USACE would then screen the property against the needs of other Department of Defense (DOD) agencies. If there is no DOD interest, a SF 118 - Report of Excess Real and Related Personal Property would then be prepared and forwarded to the appropriate GSA regional office. GSA would perform the entire disposal process including screening with HUD, and other-than-DOD federal, state and local governments. If no HUD or federal interests were identified, the Commonwealth of Kentucky would most likely receive the properties under a no cost or low cost Public Benefit Conveyance for parks and recreation. The USACE would remain the responsible landholding agency during the disposal process until the quitclaim deed(s) were executed.

c. Mitigation

Although consultation on some mitigation alternatives for cultural resource impacts was completed under the disposal of locks and dams 5-14 study, further consultation with the KY-SHPO and other interested parties would be required if the properties are disposed of and/or altered. As part of the Section 106 consultation process the USACE would notify the Advisory Council on Historic Preservation of the undertaking affecting NHRP eligible properties.

Section 106 cultural resource mitigation costs associated with disposal could range from \$2,500 to \$286,500 depending on final outcomes of consultation with the KY-SHPO and other interested parties. Multiple factors may influence the final mitigation cost including, but not limited to: change in actual acreage requiring archaeological survey (structure footprints etc.); determination of need for Phase I Archaeological Subsurface Reconnaissance in addition to surface work; determination of actual level of structural documentation required; determination of adequacy of documentation already completed/found to exist (i.e. as-builts); and contract wage rates.

12. Recommendation

In view of the conclusions set forth, and after considering the expected social, economic, and environmental impacts, the Louisville District recommends that KY 1-4 should be deauthorized for commercial navigation, as they are no longer serving this authorized purpose. Following deauthorization, KY 1-4 should be conveyed through special legislation to the KRA.

The recommendation contained herein reflects the information available at this time and current Departmental policies governing formulation of individual projects. They do not reflect program and budgeting priorities inherent in the formulation of a national Civil Works programs nor the perspective of higher review levels within the Executive Branch. Consequently, the recommendation may be modified before they are transmitted to Congress as proposals for authorization and implementation funding. However, prior to transmittal to Congress, the States, interested Federal agencies, and other parties would be advised of any modifications and would be afforded an opportunity to comment further.

13. Public Involvement

A NEPA scoping letter dated January 9, 2017 was mailed to stakeholders soliciting comments for this action. The scoping letter was used to invite comments from Federal, State, and local agencies, affected Indian Tribes, and other interested private organizations and individuals. Comments were accepted through February 10, 2017 and are located in Environmental Appendix, along with a copy of the scoping letter. In compliance with 40 CFR 1501.4(e)(2), this Disposition Study and Integrated EA is being circulated for a 30-day review to concerned agencies, organizations, and the interested public. All comments received during this review period will be evaluated and appropriate changes to the EA will be implemented. All comments received will be placed in the Agency and Public Review Appendix of the final report.

14. References

Kentucky Climate Center. Department of Geography and Geology, Western Kentucky University Kentucky Climate Center. <http://kyclimate.org/climatography.html>. Accessed 08 Dec 2016.

Kentucky Geological Survey. University of Kentucky. <https://www.uky.edu/KGS/geoky/regionbluegrass.htm>. 2012. Accessed 08 Dec 2016

U.S. Army Corps of Engineers. 1988. *An Archaeological Reconnaissance of Locks and Dams Nos. 1-14 on the Kentucky River, Kentucky*.

U.S. Census Bureau. 2016. *Quickfacts*: Carroll, Owen, Henry and Franklin, Counties, KY. <http://quickfacts.census.gov>. Accessed 20 Dec 2016.

U.S. Environmental Protection Agency. *Current Nonattainment Counties for All Criteria Pollutants*. <http://www3.epa.gov/airquality/greenbook/ancl.html>. 22 September 2016. Accessed 15 Dec 2016.

**Kentucky River Locks & Dam 1,2,3,4 Disposition Study
And Integrated Environmental Assessment
27 March 2017**

REAL ESTATE APPENDIX

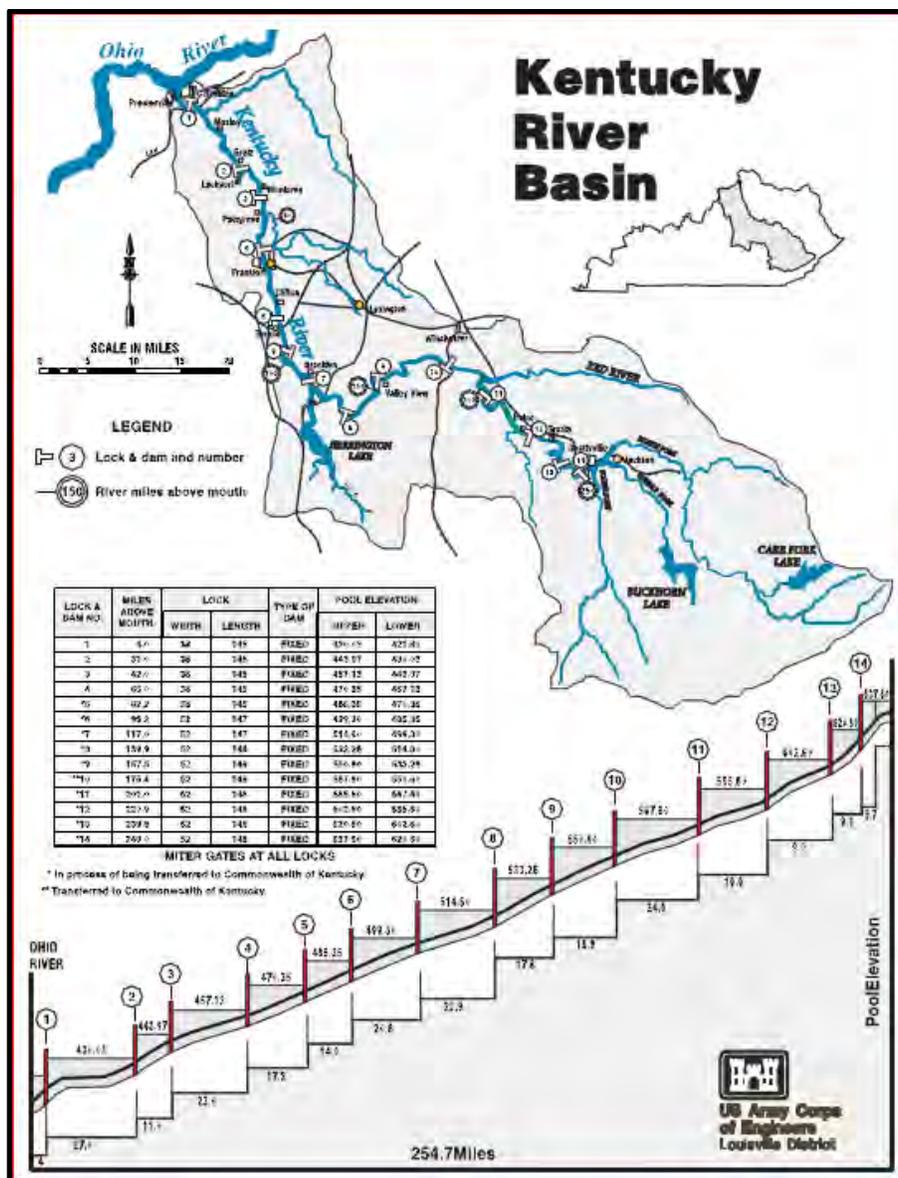


**US Army Corps
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Louisville District

**KENTUCKY RIVER LOCKS AND DAMS 1, 2, 3 & 4 DISPOSITION STUDY
REAL ESTATE APPENDIX
March 2017**

1. PROJECT BACKGROUND/AUTHORIZATION

Commercial navigation on the Kentucky River has been a Corps mission since the late 19th century, involving 14 lock & dam facilities in east-central Kentucky. The Rivers and Harbors Act of 1879 provided for the Federal government to assume jurisdiction over Kentucky River Locks and Dams 1–5, as well as authorized the Corps of Engineers to construct nine additional locks and dams.



Navigation on the Kentucky River began a steady decline in the mid-20th century until it was determined in the mid-1970's that a Federal interest in continued operation of Kentucky River Locks and Dams no longer existed. Pursuant to WRDA in 1986, Congress deauthorized Kentucky River Locks and Dams 5 - 14. In 2006, Locks & Dams 5 - 14 were conveyed by Quitclaim Deed to the Commonwealth of Kentucky for the use and benefit of the Kentucky River Authority (KRA). No commercial navigation has been recorded by the government since 1985. It has been reported that light commercial navigation occurred until the late 1990's in connection with a rock quarry near Lock & Dam 3. Locks & Dams 1 - 4 are currently operated and maintained by the KRA under a long-term lease agreement with USACE.

2. GENERAL DESCRIPTION OF EXISTING CONDITIONS

A. Real Estate

A summary of real estate actions completed at Kentucky River Locks and Dams Nos. 1 - 4 is provided in the following section of the report. A summary of real estate holdings for each site is located in Section 2.B. Acquisition Deeds, Declarations of Taking, Transfers and Quitclaim Deeds cited below are in the records of the Louisville District, Real Estate Division.

(1) Kentucky River Lock & Dam No. 1 (Carrollton)

Site Description

The site currently contains a total area of 13.2 fee acres by plat located on the right descending bank of the Kentucky River in Carroll County, at River Mile 4, approximately two miles southeast of Carrollton, Kentucky. The site is located at the terminus of Kentucky State Road 320, also known as Lock Road. A map of the area is attached as Exhibit KL&D01.

Summary of Land Acquisitions

Ownership of site was transferred and ceded to the United States of America by the Kentucky Act, Chapter 58, Statutes of 1880 approved by the General Assembly of the Commonwealth of Kentucky on January 24, 1880.

Parcel A

3.50 acres by plat transferred and ceded from Commonwealth of Kentucky in 1880. Location and acreage referenced from Plat of Survey dated 10 January 1978 by John C. Horne (Dwg No. 77-L1).

Parcel B

9.0 acres by plat transferred and ceded from Commonwealth of Kentucky in 1880. Location and acreage referenced from Plat of Survey dated 10 January 1978 by John C. Horne (Dwg No. 77-L1).

Parcel C

5.0 acres by plat transferred and ceded from Commonwealth of Kentucky in 1880. Location and acreage referenced from Plat of Survey dated 10 January 1978 by John C. Horne (Dwg No. 77-L1).

Completed Disposal Actions

A portion of Parcel B consisting of 4.30 acres (by deed) was conveyed to J.B. Fishback by deed dated January 26, 1955 recorded in Deed Book 54, page 345 of the records of the Carroll County Clerks' Office. This conveyance reserved to the United States easements for all Government owned roads, power lines, pipelines, sewers, telephone lines, railroad spurs and any other existing utilities, and also mining rights to uranium, thorium, and all other materials determined to be essential to production of fissionable material, pursuant to Sec 5(b)(1) of the Atomic Energy Act.

Current United States Landholdings

The United States currently owns fee simple title to approximately 13.20 acres located in Carroll County.

Outgrants

The entire 13.20 acres are currently under lease to the Commonwealth of Kentucky, for the use and benefit of the Kentucky River Authority, under Supplemental Agreement No. 1 to Department of the Army Lease No. DACW27-1-02-005. The lease term is twenty-five (25) years ending on February 28, 2027.

(2) Kentucky River Lock & Dam No. 2 (Lockport)

Site Description

The site contains a total area of 18.24 fee acres located on the right and left banks of the Kentucky River in Owen and Henry Counties, at River Mile 31, near the town of Lockport, Kentucky. The site is located on State Road 389, also known as River Road. The lock and associated structures are located on the Henry County side of the river. A map of the area is attached as Exhibit KL&D02.

Summary of Land Acquisitions

Ownership of Parcels A, B and D was transferred and ceded to the United States of America by the Kentucky Act, Chapter 58, Statutes of 1880 approved by the General Assembly of the Commonwealth of Kentucky on January 24, 1880.

Parcel A

14.0 acres transferred and ceded from Commonwealth of Kentucky in 1880. Location and acreage referenced from Plat of Survey dated 01 April 1978 by John C. Horne (Dwg No. 77-L2).

Parcel B

0.472 acres transferred and ceded from Commonwealth of Kentucky in 1880. Location and acreage referenced from Plat of Survey dated 01 April 1978 by John C. Horne (Dwg No. 77-L2).

Parcel C

0.472 acres acquired from W. R. Stivers, et ux by deed dated 23 November 1896, recorded in Deed Book Vol. 50, page 202 in the records of Henry County, Kentucky. Consideration paid was \$200.00.

Parcel D

3.30 acres located on the abutment side of the dam in Owen County was transferred and ceded from the Commonwealth of Kentucky in 1880. No conveyance records found. Title to the property owned by the Commonwealth of Kentucky was established by affidavits of William Walston and Joel Payne dated 22 November 1883. Location and acreage referenced from plat of record of the U.S. Engineer Office, Cincinnati, Ohio dated 06 November 1925, Dwg No. 010-L2-11/4.

Completed Disposal Actions

No disposal actions on record.

Current United States Land Holdings

The United States currently owns fee simple title to approximately 18.24 acres of which 14.94 acres is situated in Henry County and 3.30 acres is situated in Owen County.

Outgrants

The entire 18.24 acres are currently under lease to the Commonwealth of Kentucky, for the use and benefit of the Kentucky River Authority, under Department of the Army Lease No. DACW27-1-02-005. The lease term is twenty-five (25) years ending on February 28, 2027.

(3) Kentucky River Lock & Dam No. 3 (Gest)

General Description of the Site

The site contains a total area of 9.69 acres located on the right and left banks of the Kentucky River in Henry and Owen Counties, at River Mile 42, near the town of Gest, Kentucky. The site is located on State Road 561, also known as Fallis-Gest Road. The lock and associated structures are located on the Henry County side of the river. A map of the area is attached as Exhibit KL&D03.

Summary of Land Acquisitions

Parcel A

9.69 acres transferred and ceded from the Commonwealth of Kentucky to the United States of America by the Kentucky Act, Chapter 58, Statutes of 1880 approved by the General Assembly of the Commonwealth of Kentucky on January 24, 1880. Location and acreage referenced from Plat of Survey dated 01 April 1978 by John C. Horne (Dwg No. 77-L3).

Completed Disposal Actions

No disposal actions on record.

Current United States Land Holdings

The United States currently owns fee simple title to approximately 9.69 acres located in Henry County. No records of property ownership on the abutment side of the dam in Owen County were found.

Outgrants

The entire 9.69 acres are currently under lease to the Commonwealth of Kentucky, for the use and benefit of the Kentucky River Authority, under Department of the Army Lease No. DACW27-1-02-005. The lease term is twenty-five (25) years ending on February 28, 2027.

(4) Kentucky River Lock & Dam No. 4 (Frankfort)

Site Description

The site currently contains a total area of 4.96 acres located on the left descending bank of the Kentucky River in Franklin County, at River Mile 65, in Frankfort, Kentucky. The site is located on Kentucky Avenue. A map of the area is attached as Exhibit KL&D-04.

Summary of Land Acquisition

Ownership of Parcels A and F was transferred and ceded to the United States of America by the Kentucky Act, Chapter 58, Statutes of 1880 approved by the General Assembly of the Commonwealth of Kentucky on January 24, 1880.

Parcel A

8.00 acres transferred and ceded from Commonwealth of Kentucky in 1880. Location and acreage referenced from Plat of Survey dated 01 April 1978 by John C. Horne (Dwg No. 77-L4).

Parcels B & C

1.63 acres and 4.82 acres, respectively, acquired from Ellen A. Todd, et al, by deed dated 25 March 1918, recorded in Deed Book Volume 65, page 373 in the records of Franklin County, Kentucky. Consideration for both parcels was \$5,300.00.

Parcel D

0.83 acres acquired by Declaration of Taking styled as Civil Action No. 952, U.S. vs. 0.83 acres, et al filed in the U.S. District Court of the Eastern District of Kentucky and by Commissioner's Deed dated 15 February 1923 recorded in Deed Book Volume 72, page 19 in the records of Franklin County, Kentucky. Consideration paid was \$950.00.

Parcel E

3.00 acres acquired by Declaration of Taking styled as Civil Action No. 954, U.S. vs. 3 acres of land & Thomas J. Congleton in the U.S. District Court of the Eastern District of Kentucky and by Commissioner's Deed dated 09 November 1923 recorded in Deed Book Volume 73, page 527 in the records of Franklin County, Kentucky. Consideration paid was \$1,500.00.

Parcel F

12.00 acres transferred and ceded from Commonwealth of Kentucky in 1880. Location and acreage referenced from plat of record of the U.S. Engineer Office, Cincinnati, Ohio dated 06 November 1925, Dwg No. 010-L4-11/3.

Completed Disposal Actions

A portion of Parcel A and all of Parcels B, C, D, and E consisting of 13.32 acres were reported excess to GSA by Form 30 dated 18 October 1954 and subsequently conveyed by the Department of Health, Education and Welfare to the Franklin County Board of Education by Quitclaim Deed dated 26 October 1955, reserving to the United States a perpetual easement and reasonable right of ingress and egress with respect to that portion of the United States Lock and Dam No. 4 which is not conveyed by this deed, for persons, animals, and vehicles, and 2) an perpetual easement and right to erect, construct, install, operate, and maintain such utility line, or lines, as may be necessary in and for the maintenance and operation of the project.

All of Parcel F consisting of 12.00 acres was reported excess to GSA on SF118 dated 28 October 1958 and subsequently conveyed to the Commonwealth of Kentucky by Quitclaim Deed dated 24 December 1958, reserving to the United States 1) an easement for ingress and egress to the property for purposes of inspection, operation, repair, maintenance or reconstruction of the existing abutment of the dam, and 2) an easement for the flooding of the land incidental to the operation and maintenance of the existing navigation structures or to the construction, operation and maintenance of any future navigation improvements which may be erected.

Current United States Land Holdings

The United States currently owns fee simple title to approximately 4.96 acres and 12.00 acres reserved flowage easement.

Outgrants

The entire 4.96 acres are currently under lease to the Commonwealth of Kentucky, for the use and benefit of the Kentucky River Authority, under Department of the Army Lease No. DACW27-1-02-005. The lease term is twenty-five (25) years ending on February 28, 2027.

B. Real Estate Summary

SITE	ACRES ACQUIRED	ACRES PREVIOUSLY DISPOSED	REMAINING ACREAGE FOR DISPOSAL
LOCK & DAM NO. 1	17.50	4.30	13.22 Fee
LOCK & DAM NO. 2	18.24	-	18.24 Fee
LOCK & DAM NO. 3	9.69	-	9.69 Fee
LOCK & DAM NO. 4	30.28	25.32	4.96 Fee 12.0 Flowage Easement

C. Existing Lease No. DACW27-1-02-005 (Attached as Exhibit 1)

The Louisville District issued a lease for public park and recreation purposes to the Commonwealth of Kentucky for the use and benefit of the Kentucky River Authority in March 2002. The term of the lease is twenty-five (25) years ending February 28, 2027. The lease was granted under authority of 16 USC 460d. The lease does not provide for termination by the USACE or the State. It is the opinion of the District that in order to revoke the lease, the State or its sublessees would have to commit an extreme act of negligence or misconduct that directly conflicted with a term or terms of the lease. Apart from conveying the properties to the KRA, no scenario can be foreseen that would rise to the level of justified termination of the lease until its expiration in 2027. The consideration for the lease is the continued operation and maintenance of the premises by the KRA for the benefit of the United States and the general public.

The KRA has invested over \$25M in capital improvements at the projects since 2002. In accordance with the terms of the lease, requests to make improvements and implement developments at the projects have been submitted and approved on many occasions by the Louisville District. Improvements completed to date include reconstruction of the dam at Lock and Dam No. 3, reconstruction of the upper guide wall at Lock and Dam No. 1, a comprehensive rehabilitation of the navigation locks at all four projects, and numerous other minor infrastructure improvements. The Commonwealth of Kentucky has indicated their desire in writing to obtain fee title to all four properties in “as is” condition. Notwithstanding a full assessment of the safety conditions at all four sites, improvements or alterations to the properties prior to disposal are not anticipated to be required. Through the capital investments previously mentioned as well as additional planned improvements, the KRA has demonstrated its financial willingness to assume immediate ownership of the properties.

KRA Capital Investments since 2002		
Lock 1	Renovation completed in 2015	\$ 2,103,653
Lock 2	Renovation completed in 2015	\$ 2,103,653
Lock 3	Renovation completed in 2013	\$ 2,433,409
Lock 3	Construction of a new dam in 2013	\$16,134,037
Lock 3	New roof and porches on houses	\$ 6,000
Lock 4	Renovation completed in 2013	\$ 2,433,409
Lock 4	New roofs on houses	\$ 9,000
Lock 4	New porches on houses	\$ 3,000
Total Improvements to Ky. River Locks & Dams 1-4		\$25,226,161

D. DSAC Rating

The dams are currently undergoing a Dam Safety Assessment Classification (DSAC) assessment by the Dam Safety program at USACE. Reference Section 4.c. of the Main Report for further detail.

E. Annual Holding Cost

The five-year average annual Federal holding cost for all four projects is approximately \$16,000. This includes real property inventory inspections, general outgrant administration and periodic environmental and cultural assessments.

3. POTENTIAL RE-USES

A. Market Analysis Summary and Conclusion

The Market Analysis reviewed several uses that the project areas were capable of providing with the associated land and improvements. The report identified the KRA as the principle user of Locks and Dams 1– 4 and provided the opinion of continued use under Lease No. DACW27-1-02-005. The reported and cited capital improvements to the facilities support this use. The evaluation of the re-use scenarios support the Rough Order of Magnitude Cost Estimate set forth in Section 4.

The initial investigations and assessments by the Real Estate Division during the pre-decisional process were designed to determine possible uses for the projects’ real property and to assess the economic and/or public benefit value. The initial investigations were intended to identify potential end-users and provide a conclusion as to the most likely use and final conveyance recommendation. The re-use scenarios contemplated herein will focus on the desired end-user(s) for the disposition and provide the Rough Order of Magnitude Cost Estimate for the project assets, if it is concluded they are no longer required by USACE, and address the re-use scenarios to complete a successful divestiture of the real property through conveyance to another end-user. As stated in the Market Analysis, the project areas may provide a range of economic,

environmental, and social benefits, including recreation, flood control, water storage/supply, hydroelectric power, waste management, river navigation, and wildlife habitat.

The discussion involving adaptive re-uses will consider the following uses.

B. Public Uses

Recreation/Park

Dams provide prime recreational facilities throughout the United States. Activities such as boating, skiing, camping, picnic areas, and boat launch facilities are all supported by dams. The retention of water also supports hunting and fishing.

Electrical Generation

The U.S. is one of the largest producers of hydropower in the world, second to Canada. Dams produce over 103,800 megawatts of renewable electricity and meet 8 to 12 percent of the Nation's power needs. Hydropower is considered clean because it does not contribute to global warming, air pollution, acid rain, or ozone depletion. This use may also fall into the private sector category.

Water Storage/Supply

Dams create reservoirs throughout the United States that supply water for many uses, including industrial, municipal, and agricultural.

Flood Control

In addition to helping farmers, dams help prevent the loss of life and reduce property damage caused by flooding. Flood control dams impound floodwaters and then either release them under control to the river below the dam or store or divert the water for other uses.

Navigation/Inland Waterway

Dams and locks provide a stable system of inland river transportation routes that benefits commerce throughout the heartland of the Nation and provide recreational boating opportunities. The current lease supports this use.

Irrigation

Ten percent of American cropland is irrigated using water stored behind dams. Thousands of jobs are tied to producing crops grown with irrigated water. Kentucky River Locks and Dams Locks 1 - 3 are located in primarily agricultural and forested areas.

Conservation/Wildlife Management/Habitat

Dams support ecosystems, altered habitats, and lacustrine habitats for several types of fish and water-dependent animals. Many public and private conservation groups are land owners of properties to protect wildlife and control development. The use of water resources for fishing/hunting and preservation of historic areas by Indian Tribes is possible, but is more predominant in the western United States.

Mine Tailings

There are mine tailings impoundments in the United States that allow the mining and processing of coal and other vital minerals while protecting the environment. These facilities (1-4) are not located in mining areas aside from the quarry operation near Lock & Dam 2 (Lockport), which formerly used barges, but is now dependent on trucking those materials and stockpiling onsite.

Debris Control

In some instances, dams provide enhanced environmental protection, such as the retention of hazardous materials and detrimental sedimentation. Several industries and agricultural operations are located along or near the river.

C. Private Uses

Many of the uses above are dependent on public agencies and state or federal funding. The private sector uses such as agricultural, residential, and mixed-use development are dependent on soil types, topography, zoning, access, and infrastructure. The discussion involving the private sector uses will consider the following uses in addition to those mentioned above:

Agricultural

The potential use for agricultural purposes considers the size of the tract that has reasonable topography and adequate soil type. Irrigation would be dependent on approval of water user permits and costs. Locks & Dams 1 and 3 are the only facilities which may have excess land that could be sold to adjacent owners for agricultural purposes. The acreage at Lock & Dam 2 is mostly wooded hillside.

Residential

A potential transfer/disposal of the existing residential dwellings with land to support the use and access to a public roadway are considered reasonable. However, the condition of the dwellings is marginal to poor and the cost to provide habitable dwellings is unknown, but could be prohibitive in relation to their market value. The cost of demolition may exceed \$5,000 each, subject to any environmental hazards. The residential structures are located in the floodway.

Mixed-Use Development

The only viable potential for a mixed-use of residential, recreational, agricultural, or other use and continued use of the existing locks and dams for their current purpose would be at Locks & Dams 1 (Carrollton) and 4 (Frankfort), which are located in areas with similar uses, as well as being more urban/suburban in location and having access to main highways, interstates, and demographics. The government employment and population of Frankfort as the state capital is larger than Carrollton; however, Carrollton does have a large industrial base along the Ohio River and a similar transient influx of employment.

D. Physical Characteristics & Zoning

In order to determine the overall potential utility of the land, as well as constraints to adaptive re-use, the topographic characteristics, parcel shape/boundaries and zoning restrictions are considered.

Lock & Dam 1 in Carrollton, Ky. is a 13.22 acre parcel that is irregular in shape and bisected by the river with a 5 acre tract (remnant) on the left embankment. The parcel slopes gradually from the river to the road and then slopes sharply to the north and northwest boundaries with dense foliage and trees on the hillside. The two residential houses are uninhabitable and require extensive rehabilitation or removal. Removal would require coordinating with SHPO.

Zoning: The subject project lands are currently not zoned and are located outside the city limits. The area is predominantly residential and agricultural and adjoins General Butler State Park. The road running through the project was connected to Hwy. 227 back in the late 60's to early 70's, but washed out along the Kentucky River and has not been rebuilt. Due to this break in the linkage to the city, several businesses on Lock Road relocated for better access. No plans are known to exist to replace or rebuild this highway, although it has been discussed for many years.

Lock & Dam 2 in Lockport, Ky. is an 18.24 acre parcel that is divided into a 14.94 acre and a 3.3 acre sites in Owen and Henry Counties, as split by the river. The parcel is low-lying and level along the east portion in Owen County and rises sharply from the river to the west in Henry County and is covered in foliage and trees. A small flat cleared area is at the southwest boundary and is improved with a project office building in poor condition.

Zoning: The subject project lands are zoned A-1, Agricultural Farming Oriented requiring a minimum lot area of 5 acres with no public sewer.

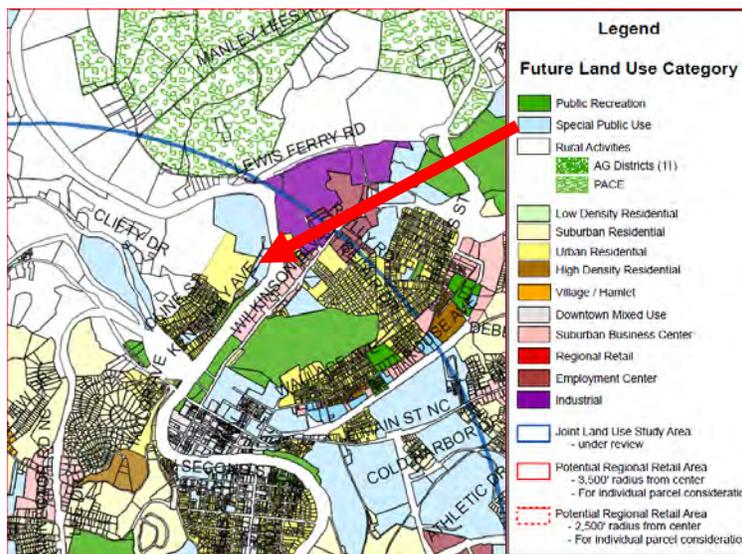
Lock & Dam 3 in the Gest community near Monterey, Ky. is a 9.69 acre parcel that is irregular but mostly rectangular in shape and slopes from the river up to the main road along the west boundary. Most of the site is cleared for the 2 houses and associated site improvements that are in poor condition. It is heavily wooded on the northern portion; minimal timber value exists.

Zoning: The subject project lands are zoned A-3, Agricultural Small Community, requiring a minimum lot area of 20,000 SF for residential and 28,000 SF for duplex with no public sewer.

Lock & Dam 4 in Frankfort, Ky. is a 4.96 acre parcel that is mostly level and slopes to the east along the river. It is generally cleared and improved with 2 storage building, 2 houses, a warehouse, and associated site improvements for its current use. The warehouse and storage buildings are in fair condition and one of the houses is in poor condition. The other house has undergone recent renovations in preparation of being the future site of KRA’s main office. The west portion of the original tract along the main roadway containing storage buildings was transferred to Franklin County and an access was retained for the remainder project lands.

Zoning: The subject project lands are currently zoned “SH” Special Historic and proposed under the Comprehensive Plan to be zoned for Special Public Use.

The Special Government District “SG” is applied by extension. By definition, this zoning classification applies to all property owned by governments and government owned public corporations or agencies, other than those in the “SH” Historic District and the “SC” Special Capitol District.



Lock & Dam No. 4 Area Zoning Map

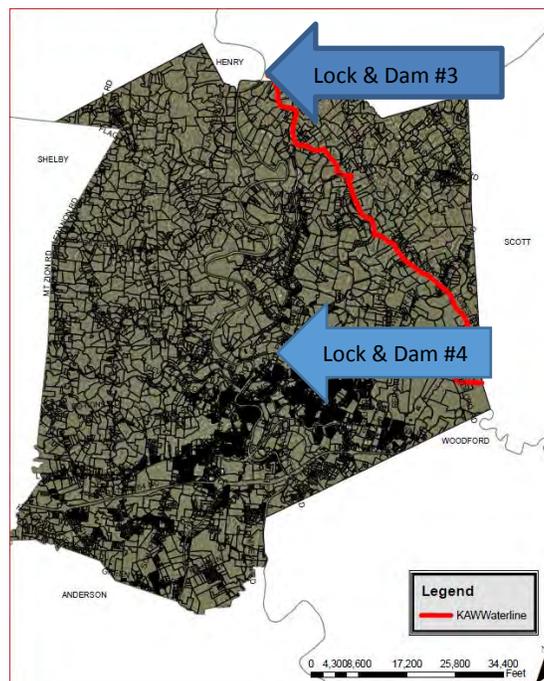
E. Impacts of Recreational Uses of the Kentucky River

The KRA has indicated that recreational use on the river will have negligible impact on the potable water in the Kentucky River. KRA is planning to maintain the current lock schedule hours at Lock 4 which are primarily Saturdays and Sundays during the summer months. Because of the limited lock hours, a majority of recreational traffic will still originate from the local boat ramps servicing the river in Frankfort. As for the amount of water available, the river level is not controlled (i.e.

managed) by the Lock and Dam structures, so there will be no difference in the amount of water available in Pool No. 4, with or without a functioning navigation lock. During a severe drought, the preservation of the pool level behind Dam 4 would have precedence over recreational boat lockages. Because each lockage cycle passes approximately 0.5 million gallons of water downstream, the KRA would cease lock operations if they were having detrimental effects on the pool level. This was done once before during the 1999 drought at Lock & Dam No. 10 near Fort Boonesboro.

F. Water Supply

Much of Franklin County is served with public water service, although some of the more rural or rugged areas of the county are not yet completely served. Currently only the extreme northwestern and northeastern areas of the county are without public water service. A 42-inch water transmission line has been constructed by Kentucky American Water from Pool No. 3 in Franklin County. This line will supply up to 20 million gallons of potable water per day to Fayette County (see map below). Currently, only emergency service in the form of fire hydrants provides water to Franklin County from the pipeline. The option of obtaining water from Louisville has been discussed by local officials.



Eleven (11) municipal and industrial water supply intakes exist within the four pools under consideration in the study area. In particular, in Pool No. 3 there is an intake for Fayette County, Kentucky, which includes the city of Lexington, and in Pool No. 4 there is an intake for the city of Frankfort, the state capitol. Beattyville, Irvine, Richmond, Lancaster, Nicholasville, Harrodsburg,

Wilmore, Versailles, and Lawrenceburg also draw water from the river for their municipal water supplies.

Information that supports feasibility of the assets to continue their current use and the marketability of the water storage and supply function is supported by the revenue generated by public water-supply withdrawals in Kentucky. Rates range from \$0.022 to \$0.13 per thousand gallons.

The re-use scenarios have considered the information collected and researched to develop the estimated Highest and Best Use and Re-Use Analysis in order to provide the Rough Order of Magnitude Cost Estimate. Vacant land sales in the Carroll County, Henry County, and Franklin County areas most similar to the locations being analyzed were assembled and presented to reflect the dollar per acre that would be considered reasonable in an arms-length transfer for the project lands. No consideration of value is appropriated for the dam structures, locks, buildings, and associated site improvements and equipment. It may be reasonable to assume that some leasehold value has been created by the lessee (KRA) that outweighs any potential gain by conveyance to a different user.

The potential to dispose of the residential and building structures is not feasible due to observed condition and required renovation/rehabilitation of these structures for other users with allocated land areas due to the expense of the disposal/divestiture in relation to any “shell” value of the improvements and excess acreage. The capital expenditures by KRA have rehabilitated these structures for the recreational, water supply, and potential hydroelectric power systems.

The operation of the locks and dams may be considered a value in use; however, the poor condition of the residential improvements and the special purpose function of most site improvements do not contribute to the overall value unless they continue to operate for their intended function. The operating cost of the locks and dams are prohibitive to most private users.

Due to the limitations imposed by the location, floodplain, and infrastructure available to support most alternate uses, the Real Estate Division has summarized the likelihood of success for the various uses based on the priority between Public Use and Private Use. This is directly associated with the current government (public) ownership and the limitations imposed by the lack of continued funding for operations as an inland navigation system. The financial feasibility of potential uses is currently limited due to the special-purpose design, function, and required operating budget of the facilities. Priority of the Private and Public uses is summarized below:

<u>Private Use</u>	<u>Priority</u>	<u>Public Use</u>
Inland Waterway	1	Agency Lease/Permit
Recreation	2	Hydroelectric
Water Districts	3	Water Districts
Hydroelectric	4	Conservation
Mixed Use Development	5	HUD
Residential	6	Indian tribes
Agricultural	7	Inland Waterway

G. Reconciliation

Alternative 1: No Action

Public Use: Additional users such as recreation, hydroelectric, water supply, irrigation, and conservation/wildlife could sub-lease from KRA under the current lease expiring in 2027 with Corps approval. Repurposing to other agencies does not fit with special purpose use and improvements, which is KRA's designed function. KRA has committed substantial capital expenditures and projected future funding to continue to provide water storage/supply, flood control, recreation, and support the environmental uses including ecosystems, conservation/wildlife, mine tailings, and debris control.

Private Use: May include small agricultural cropland leases; however, the acreages are not supportive of farming scale of operation and logistics. Residential and Mixed-Use may only be possible at Carrollton (Lock & Dam 1) and Frankfort (Lock & Dam 4) due to demographics and location; however, these uses may not be feasible, and may be prohibited under existing lease which could interfere with KRA operations. Potential to connect with adjoining park system (Carrollton) and nearby park (Frankfort).

Alternative 2: Deauthorize and dispose of "As-Is"

a. Dispose via the Property Act process. Structures will be recommended for deauthorization in their current condition and all associated property declared excess.

Public Use: This process would be highly objectionable due to the risk of being conveyed to an entity other than KRA. Investment by the state to provide the inland waterway, recreation, and water supply may not be protected by another agency with limited resources.

Private Use: Any potential uses under this scenario are highly speculative and require substantial costs that do not support unknown offers and due diligence requirements with possible loss of inland waterway infrastructure and associated functions.

b. Directly to KRA. Structures will be recommended for deauthorization in their current condition and all associated real property conveyed to the Commonwealth of Kentucky for the use and benefit of the KRA through the enactment of Special Legislation.

Public Use: This would follow a successful conveyance of Locks & Dams 5-14 and has strong public support and requires limited cost to government. Protects leasehold investment by KRA. Protects inland waterway operations and all recreation, water supply, flood control, and ecosystem. Supported by political representatives.

Private Use: Any feasibility of sublease is under requirements of KRA, relieving government from liability.

Alternative 3: Deauthorize and dispose with additional inspections

a. Dispose via the Property Act process. Structures will be recommended for deauthorization in their current condition and all associated real property declared excess after additional inspections are completed.

Public Use: Same as Alternative 2.a. above

Private Use: Same as Alternative 2.a. above.

b. Directly to KRA. Structures will be recommended for deauthorization in their current condition and all associated real property conveyed to the Commonwealth of Kentucky for the use and benefit of the KRA through the enactment of Special Legislation after additional inspections are completed.

Public Use: Same as Alternative 2.b. above.

Private Use: Same as Alternative 2.b. above.

Alternative 4: Deauthorize, remove all improvements, and dispose through the Property Act process.

Public Use: This would require substantial due diligence, environmental, and demolition/cleanup, and other unknown cost to government/taxpayer. Loss of inland waterway (recreation), water storage/supply, flood control.

Private Use: Any potential uses under this scenario are highly speculative and require substantial costs that do not support unknown offers and due diligence requirements

Opinion of re-use scenario with greatest benefit

Based on the information provided, it is the opinion of the LRL Lead Appraiser for the Real Estate Division that **Alternative 2, Option b** provides an economic and public benefit that is supported by the current recreational use and water storage/supply. This alleviates future costs incurred by the government beyond the cost to convey the real property interests. The continued operation and maintenance cost is an important financial aspect to insure the safe and long-term function of these special-purpose facilities. This alternative also protects all leasehold interests by the Commonwealth of Kentucky.

4. ROUGH ORDER MAGNITUDE (ROM) COST ESTIMATE

The ‘Rough Order of Magnitude Cost Estimate’ set forth below is *not* an appraisal. Based on the estates held by the Government and the indicated land uses from the recommended re-use scenario, the Real Estate Division has developed a macro-level estimate based on comparable land sales which will use the acreages summarized in the preceding table.

Depreciated Value of Existing Improvements

Based on the ‘Inventory Report by Project with Betterments/Components’ listed in CEFMS/REMIS and in accordance with Resource Management policies, the leased improvements have been depreciated to a \$0 book value for the listed structures described later in the report.

In the case of the storage buildings, warehouses and houses, the market value of the improvements has not been determined but in most cases is considered to be minimal. The cost of renovation would likely be greater than demolition costs. The values of the lock and dam structures have not been considered as part of this report.

A. Kentucky River Lock & Dam No. 1 (Carrollton, KY)

CARROLL COUNTY LAND SALES

CARROLL COUNTY		LOCK & DAM # 1					
MAP ID	ADDRESS	DATE	SIZE (AC)	PRICE	\$/AC	COMMENT	TOTAL
39-18-02-15/16	KAEDING CT	11/6/2015	7.11	\$45,000	\$6,329	VACANT	
31-28-05/6	HWY 389	1/8/2016	9.58	\$40,850	\$4,264	VACANT	
15-13-07	MOUND HILL	5/29/2015	18	\$52,250	\$2,903	VACANT	
16-04-01	CALENDAR RD	11/14/2015	10.14	\$42,000	\$4,142	VACANT	
16-04-03	CALENDAR RD	5/17/2016	11.1	\$41,000	\$3,694	VACANT	
19-32	LOCK RD	5/12/2015	27.45	\$103,000	\$3,752	HOUSE \$82,000	\$185,000
24-45-28	HARTMAN LANDING	2/3/2016	21.52	\$40,000	\$1,859	VACANT	
30-26-02	GOOSE CREEK	9/2/2015	25.13	\$42,040	\$1,673	VACANT	
24-24-01	HWY 227	11/1/2016	42.7	\$137,500	\$3,220	VACANT	
19-45/47/48	HWY 389	3/14/2016	337.66	\$1,890,000	\$5,597	FARMS (3)	
					\$3,743		AVG/AC
23-48	JAY LOUDEN RD	6/1/2015	2.33	\$124,655	\$53,500	COMMERCIAL	
23-96-02	HWY 227	1/4/2016	0.66	\$70,000	\$106,061	COMMERCIAL	
24-09	HWY 227	11/3/2015	0.85	\$203,500	\$239,412	COMMERCIAL	

13.22 acres as Larger Parcel (includes 5 acres on opposite bank)

ROM = \$3,500 to \$4,500 per acre

Cost Estimate: \$46,270 to \$59,490 (Fee Simple)

B. Kentucky River Lock & Dam No. 2 (Lockport, KY)

HENRY COUNTY LAND SALES

HENRY COUNTY		LOCK & DAM # 2 & 3		LAND			
MAP ID	ADDRESS	DATE	SIZE (AC)	PRICE	\$/AC	COMMENT	TOTAL
75-00-00-009	GEST RD	4/1/2016	5.44	\$28,560	\$5,250	VACANT	
68-00-00-012.07	CARTERS RD	2/1/2016	5.002	\$10,750	\$2,149	VACANT	
68-00-00012.09	CARTERS RD	8/1/2015	5.04	\$10,000	\$1,984	VACANT	
76-00-00-044	BAILEY LN	6/1/2015	1.54	\$6,000	\$3,896	VACANT	
70-00-00-028.05	CASTLE HWY	11/1/2014	8.83	\$15,000	\$1,699	VACANT	
70-00-00-03	DIXIE HWY	12/1/2014	10	\$33,000	\$3,300	VACANT	
73-00-00-047	HARPERS FERRY	1/1/2013	30	\$40,000	\$1,333	VACANT	
75-00-00-030	GEST RD	4/1/2013	3	\$14,500	\$4,833	VACANT	
75-00-00-021	GEST RD	4/1/2013	5	\$21,000	\$4,200	VACANT	
75-00-00-019	FALLIS-GEST	11/1/2012	25.84	\$62,761	\$2,429	VACANT	
76-00-00-044	BAILEY LN	8/1/2012	1.54	\$6,000	\$3,896	VACANT	
76-00-00-043	BAILEY LN	11/1/2010	0.99	\$3,000	\$3,030	VACANT	
NORTH COUNTY					\$3,167		AVG/AC
57-00-00-034	MADDOX RIDGE	7/1/2013	5	\$13,900	\$2,780	VACANT	
66-00-00-014	RIVER RD	8/1/2013	2.84	\$4,600	\$1,620	VACANT	
67-90-05-001	PLUM ST	11/1/2013	4.29	\$11,000	\$2,564	VACANT	
57-00-00-013.00	RIVER RD	7/1/2016	7.5	\$40,000	\$5,333	HOUSE \$23,127	\$63,127
57-00-00-022	RIVER RD	9/1/2015	36.64	\$57,000	\$1,556	VACANT	
65-00-00-003	MARSHALLS BOTTOM	1/1/2010	20.179	\$60,000	\$2,973	VACANT	
SOUTH COUNTY					\$2,804		AVG/AC
58-00-00-026	RIVER RD	8/1/2010	0.66	\$15,000	\$22,727	RIVERFRONT	

Land sales were researched in the Henry County market based on locations in the north and south sections of the county and considered proximity to the Kentucky River and the project locations (River Mile 31.0 and 42.0). Land sales were not researched in Owen County due to the small amount of acreage located in that county, but it seems reasonable to assume the land sales will reflect similar prices.

18.24 acres as Larger Parcel (includes 3.3 acres on opposite bank in Owen County)
 ROM = \$2,000 to \$3,000 per acre
Cost Estimate: \$54,720 to \$72,960 (Fee Simple)

C. Kentucky River Lock & Dam No. 3 (Gest/Monterey, KY)

Estimate based on Henry County land sales as shown above.

9.69 acres as Larger Parcel
 ROM = \$2,000 to \$3,000 per acre
Cost Estimate: \$19,380 to \$29,070 (Fee Simple)

D. Kentucky River Lock & Dam No. 4 (Frankfort, KY)

FRANKLIN COUNTY LAND SALES

FRANKLIN COUNTY		LOCK & DAM # 4		LAND				
MAP ID	ADDRESS	DATE	SIZE (AC)	PRICE	\$/AC	COMMENT	TOTAL	
80-00-00-011	GREGORY RD	11/14/2016	15.12	\$28,000	\$1,852	VACANT		
76-00-00-036	HANLEY LN	1/29/2016	59.33	\$135,000	\$2,275	VACANT		
65-00-00-002	HANKS LN	6/27/2016	29	\$126,000	\$4,345	VACANT		
62-31-26-019	FOURTH ST	10/18/2016	0.164	\$13,400	\$81,707	LOT		
48-00-00-008	BENSON VALLEY RD	1/15/2016	28	\$80,000	\$2,857	VACANT		
47-00-00-056.04	BALD KNOB RD	9/2/2016	2.839	\$25,000	\$8,806	TELECOM SITE		
44-00-00-029.01	FLAT CREEK RD	9/30/2016	13.56	\$25,000	\$1,844	VACANT		
37-00-00-010.01	SCHOFIELD LN	9/22/2016	1.655	\$36,000	\$21,752	LOT		
35-00-00-024.03	HUNTERS TRACE	4/29/2016	10.01	\$65,000	\$6,494	VACANT		
47-00-00-117	LEWIS FERRY RD	1/21/2015	118.5	\$450,000	\$3,797	FARM		
48-00-00-028.13	MOSS LN	5/26/2015	21.89	\$60,000	\$2,741	VACANT		
61-20-04-009	PAYNE ST	7/1/2015	0.388	\$5,000	\$12,887	LOT		
61-34-06-008	CODY PASS	12/22/2015	0.253	\$9,000	\$35,573	LOT		
61-43-05-027	MURRELL ST	5/27/2015	0.184	\$1,000	\$5,435	LOT		
64-00-00-002.02	OLD LAWRENCEBURG	11/13/2015	10.02	\$80,000	\$7,984	VACANT		
73-00-00-024	US 127 N	4/14/2015	49.655	\$390,000	\$7,854	FARM		
76-00-00-020.02	GLENNS CREEK RD	9/22/2015	1.5	\$15,000	\$10,000	VACANT		
65-00-00-021.02	NINEVAH RD	10/13/2014	1.919	\$52,500	\$27,358	VACANT		
					\$13,642		AVG/AC	
74-43-02-003	VERSAILLES RD	8/7/2015	4.259	\$155,820	\$36,586	COMMERCIAL		
61-00-00-085	WILKINSON BLVD	7/1/2015	1.99	\$500,000	\$251,256	COMMERCIAL		

4.96 acres as Larger Parcel

ROM = \$14,000 to \$18,000 per acre

Cost Estimate: \$69,440 to \$89,280 (Fee Simple)

Flowage Easement: 12.0 acres (Assumed to transfer with Deed at no cost)

E. Incremental Real Estate Costs

Formerly categorized as “Contingencies,” these elements of real estate costs must be anticipated and must be supported by narrative discussion. Incremental costs represent anticipated costs above the estimated Rough Order of Magnitude Cost Estimate of the Project lands themselves (but not the administrative acquisition costs). Incremental cost estimates are intended to take into account the reliability of the data available, the type and scope of the project and the real estate involved. The validity of appropriate incremental costs includes explanation and justification. Project-level contingencies will be applied by the district cost engineers through relevant risk analysis, and should not be confused with incremental costs being estimated by the Real Estate Division. Based on the findings, no Incremental Real Estate Costs are anticipated.

G. Projection of Time Required to Sell Project Lands

Exposure time plays a more significant role in the appraisal process than does marketing time. The former must always be considered (and at times an opinion of exposure time must even be developed and disclosed) while the need for developing an opinion of the marketing time may seldom arise. USPAP 2016-2017 DEFINITIONS section defines exposure time:

EXPOSURE TIME: estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal.

The Rough Order of Magnitude Cost Estimate is not an appraisal; therefore the projected amount of time required to sell project lands to a private user may be extended due to the special purpose use of the project lands and improvements.

Comment: *Exposure time is a retrospective opinion based on an analysis of past events assuming a competitive and open market. (USPAP)*

Exposure time occurs prior to the effective date of the Rough Order of Magnitude Cost Estimate and mirrors the marketing time required to sell the comparable properties at their indicated and recorded sale price. The comparable land sales are being used as a basis for the opinion being developed for the subject property.

Marketing time occurs **after** the effective date and is the anticipated time required to “get the word out” to an adequately large number of prospective purchasers, to allow appropriate time for advertising and inspection, for conducting a negotiated or an auction sale, for the exercise of due diligence, and in general, for the consummation of a sale at the property’s Rough Order of Magnitude Cost Estimate.

5. IMPEDIMENTS

The greatest impediment to repurposing the properties or conveying the properties to an entity other than KRA, is the special-use characteristics of the properties and their locations within the floodplain. Other issues affecting the marketability of the assets include: existing lease to KRA (potential leasehold interest); Congressional opposition; high maintenance costs; safety and environmental requirements; responsibility for water quality and control; dam removal costs; liability insurance for private-use.

6. PRELIMINARY SCREENING

No Department of Defense or other agency screening occurred as part of this Disposition Study. Title V of the McKinney-Vento Homeless Assistance Act requires that suitable federal properties, which are categorized as unutilized, underutilized, excess, or surplus, are made available to states, local governments, and nonprofit organizations for use to assist homeless persons. The program is administered by the General Services Administration (GSA) and the U.S. Department of Housing and Urban Development (HUD). Title V may be waived for properties determined to be unsuitable. The location of a particular property within the floodway of a 100-year floodplain is one of the characteristics used to determine that a property is unsuitable (Federal

Management Regulations, Subchapter C Subpart 1 102-75.1185 (4). Kentucky River Locks and Dams 1 – 4 are all located within Special Flood Hazard Areas (SFHA) that will be inundated by a flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood.

7. INTERESTED PARTIES

A letter of interest dated July 14, 2015 was sent to the Chief, Planning Division, Louisville District from KRA requesting to obtain fee simple title to Kentucky River Locks and Dams 1 – 4 and expressing the KRA’s willingness to take the properties “as-is” with no improvements or repairs necessary prior to transfer of the property interests. At the time of this report, no other interested parties have been identified.

8. ENVIRONMENTAL CONDITION

Compliance with the National Environmental Protection Act, Comprehensive Environmental Response, Compensation, and Liability Act, National Historic Preservation Act, Endangered Species Act, and the Archaeological and Historic Preservation Act will be achieved prior to disposition of the projects by USACE. An Environmental Baseline Study was prepared prior to the properties being leased to KRA. It is assumed the EBS would be updated prior to conveyance.

9. RECOMMENDATION OF PREFERRED PATH AHEAD

Kentucky River Lock and Dam Nos. 1 - 4 have not been operated by the USACE for their authorized purpose, commercial navigation, since 2002 when all four properties were leased to the Commonwealth of Kentucky. Federal interest in operating and maintaining the project as authorized no longer exists due to the lack of commercial traffic along the Kentucky River. Records indicate that commercial navigation along the river has not occurred for over 30 years. There is little evidence that a need for commercial navigation will arise in the foreseeable future. If the existing lease with the State were to be terminated and the USACE were to reassume operation of the projects again, the continued costs of operation and maintenance could not be justified. It is the recommendation of the Louisville District, Real Estate Division that the projects be deauthorized and all associated real property and Government-owned improvements be conveyed to the Commonwealth of Kentucky for the use and benefit of the KRA. Doing so would divest the properties from the USACE’s real property inventory, remove any future Federal costs and liability risk and allow the KRA to continue to operate and maintain the projects for water supply, recreational use, and for the general benefit of the public.

10. DISPOSAL METHODS

Upon deauthorization of the projects by Congress, the preferred method of transferring ownership of the real property and all associated Government-owned improvements would be through the passing of special legislation. Disposing of assets to the Commonwealth of Kentucky under the direct authority of Congressional legislation alleviates the requirement to screen the properties against the needs of other state, local and private interests. 10 U.S.C. § 2696 requires screening of properties for further Federal use that are directed by Special Legislation to be conveyed to non-Federal entities. Kentucky Locks and Dams Nos. 5 – 14 were successfully conveyed to the Commonwealth of Kentucky in 2006 under authority granted by the Energy and Water Development Appropriations Act (Public Law 102-377, dated October 1, 1992 and Public Law 103-126, dated October 28, 1993). It is assumed that Kentucky Lock and Dam Nos. 1 – 4 would follow similarly and all disposal activities would be conducted by the USACE. GSA can assist landholding agencies with conveyance of real property that is subject to Special Legislation on a reimbursable basis through the issuance of a Reimbursable Work Authorization.

As an alternative, in the case that deauthorizing legislation does not set out specific guidelines for disposal, the property would be conveyed under authority of the Federal Property and Administrative Services Act of 1949, as amended (codified as amended in scattered sections of 40 U.S.C. and 41 U.S.C.), the Property Act. The disposal process begins with an estimate of the current fair market value. The Department of Defense has a delegation of authority from GSA that allows the USACE to dispose of excess real property when the estimated fair market value is less than \$50,000. This delegation does not preclude GSA from disposing of property on behalf of the USACE.

General procedures for disposing of the properties under authority of the Property Act with GSA acting as the disposal agency are as follows. A Report and Recommendation of Excess (RROE) is prepared and submitted, along with environmental and cultural resources clearances, through the Great Lakes and Ohio River Division to USACE headquarters for approval. Upon approval of the RROE, the USACE would then screen the property against the needs of other Department of Defense (DOD) agencies. If there is no DOD interest, a SF 118 - Report of Excess Real and Related Personal Property would then be prepared and forwarded to the appropriate GSA regional office. GSA would perform the entire disposal process including screening with HUD, and other-than-DOD Federal, state and local governments. If no HUD or Federal interests were identified, the Commonwealth of Kentucky could conceivably receive the properties under a low cost or no cost Public Benefit Conveyance for public parks and recreation under 40 U.S.C. § 550(e). The USACE would remain the responsible landholding agency during the disposal process until the quitclaim deed(s) were executed. Disposal via the Property Act could not occur until the term of the KRA lease has passed.

11. SPECIAL LEGISLATION DISPOSAL: ADMINISTRATIVE COST ESTIMATE AND TIMELINE

Disposal Method: Special Legislation

Task	Agency	Cost	Duration
Prepare Legal Descriptions*	Real Estate	\$10,000	30 days
Prepare Quitclaim Deed	Counsel	\$5,000**	90 days
NEPA/Cultural Resource Reviews	Planning	\$11,000^	60 days
Execution of Quitclaim Deed	Counsel	\$3,000	60 days
Real Property Records Update	Real Estate	\$3,000	10 days
Terminate Lease	Real Estate	-	30 days
Total Estimate		\$32,000	6-9 months

* May include limited field verification. Does not include boundary survey. Legal descriptions will be based on acquisition documentation and boundary survey plats prepared in 1978.

^ Estimate does not include potential cultural resource mitigation costs

**Assumes all four properties are conveyed at the same time in a single instrument to one entity. If a determination that separate deeds are required, then estimate to prepare each deed is \$3,000 and closing costs will also increase.

12. PROPERTY ACT DISPOSAL: ADMINISTRATIVE COST ESTIMATE AND TIMELINE

Disposal Method:

Property Act – real property > \$50,000 per site or USACE elects to use GSA as disposal agency

Task	Office	Cost	Duration
Real Property/Lease Management	Real Estate	\$160,000	10 years (remaining lease term)
Termination of KRA Lease	Real Estate	-	-
Prepare Legal Descriptions	Real Estate	\$10,000*	30 days
Prepare Fair Market Value Appraisal Reports	Real Estate	\$20,000	60 days includes review
Prepare Disposal Report	Real Estate	\$5,000	60 days includes review and approval
NEPA/Cultural Resource Reviews	Planning	\$11,000^	60 days
DoD Screening	Real Estate	-	30 days
Non-DoD, HUD, State and Local Screening/Marketing	GSA	-	3-5 Years
Execution of Quitclaim Deed, Closing, Final Title	GSA	-	
Real Property Management	Real Estate	\$80,000	5 Years (during disposal process)
Total Estimate		\$286,000#	13-15 Years

* May include limited field verification. Does not include boundary survey. Legal descriptions will be based on acquisition documentation and boundary survey plats prepared in 1978.

^ Estimate does not include potential cultural resource mitigation costs

Estimate does not include cost or time associated with conducting a negotiated public sale; assumes screening will identify an eligible grantee. Conveyance under authority of the Property Act cannot occur until 2027 due to long-term lease agreement.



 U.S. Boundary (Approx. 13.2 acres)



**KENTUCKY RIVER
LOCK & DAM NO. 1**
CARROLL COUNTY, KENTUCKY



US ARMY ENGINEER DISTRICT
LOUISVILLE DISTRICT CORPS OF ENGINEERS
REAL ESTATE DIVISION

DATE: 30 DEC 2016

SHEET: KL&D01



HENRY COUNTY

KENTUCKY RIVER

OWEN COUNTY

 U.S. Boundary (Approx. 18.2 acres)



**KENTUCKY RIVER
LOCK & DAM NO. 2**

HENRY & OWEN COUNTIES, KENTUCKY



US ARMY ENGINEER DISTRICT
LOUISVILLE DISTRICT CORPS OF ENGINEERS
REAL ESTATE DIVISION

DATE: 30 DEC 2016

SHEET: KL&D02



 U.S. Boundary (Approx. 9.7 acres)



**KENTUCKY RIVER
LOCK & DAM NO. 3**

HENRY & OWEN COUNTIES, KENTUCKY



**US ARMY ENGINEER DISTRICT
LOUISVILLE DISTRICT CORPS OF ENGINEERS
REAL ESTATE DIVISION**

DATE: 30 DEC 2016

SHEET: KL&D03



FRANKLIN COUNTY

FRANKLIN COUNTY

Kentucky River

KENTUCKY RIVER

 U.S. Boundary (Approx. 4.9 acres)



**KENTUCKY RIVER
LOCK & DAM NO. 4**
FRANKLIN COUNTY, KENTUCKY



US ARMY ENGINEER DISTRICT
LOUISVILLE DISTRICT CORPS OF ENGINEERS
REAL ESTATE DIVISION

DATE: 30 DEC 2016

SHEET: KL&D04

RECEIVED
MAR 25 2002
LEGAL & LEGISLATIVE
SERVICES

DEPARTMENT OF THE ARMY
LEASE NO. DACW27-1-02-005
TO THE KENTUCKY RIVER AUTHORITY
FOR PUBLIC PARK AND RECREATIONAL PURPOSES
KENTUCKY RIVER LOCKS AND DAMS 2, 3, AND 4
HENRY, OWEN, AND FRANKLIN COUNTIES, KENTUCKY

THIS LEASE is made on behalf of the United States, between the **SECRETARY OF THE ARMY**, hereinafter referred to as the Secretary, and **THE COMMONWEALTH OF KENTUCKY**, for the use and benefit of the **KENTUCKY RIVER AUTHORITY**, 70 Wilkinson Boulevard, Frankfort, Kentucky 40601, hereinafter referred to as the Lessee,

WITNESSETH:

That the Secretary, by authority of Title 16, United States Code, Section 460d, and for the consideration hereinafter set forth, hereby leases to the Lessee, the property identified in Exhibits "A-1", "A-2", and "A-3", attached hereto and made a part hereof, hereinafter referred to as the premises, for public park and recreational purposes.

THIS LEASE is granted subject to the following conditions:

1. TERM

Said premises are hereby leased for a term of twenty five (25) years, beginning March 1, 2002 and ending February 28, 2027, subject to termination and renewal rights as may hereinafter set forth.

2. CONSIDERATION

The consideration for this lease is the operation and maintenance of the premises by the Lessee for the benefit of the United States and the general public in accordance with the conditions herein set forth.

3. NOTICES

All correspondence and notices to be given pursuant to this lease shall be addressed, if to the Lessee, to the Executive Director, Kentucky River Authority, 70 Wilkinson Boulevard, Frankfort, Kentucky 40601; and, if to the United States, to the District Engineer, ATTN: Chief, Real Estate Division, U. S. Army Corps of Engineers, Post Office Box 59, Louisville, Kentucky 40201-0059, or as may from time to time otherwise be directed by the parties. Notice shall be deemed to have been duly given if and when enclosed in a properly sealed envelope, or wrapper, addressed as aforesaid, and deposited postage prepaid in a post office regularly maintained by the United States Postal Service.

EXHIBIT 1

4. AUTHORIZED REPRESENTATIVES

Except as otherwise specifically provided, any reference herein to "Secretary of the Army," "District Engineer," "said officer" or "Lessor" shall include their duly authorized representatives. Any reference to "Lessee" shall include sublessees, assignees, transferees, concessionaires, and its duly authorized representatives.

5. DEVELOPMENT PLANS

The Lessee shall be guided by an implementing Plan of Recreation Development and Management (Development Plan) attached as Exhibit "B", which shows the facilities and services necessary to meet the current and potential public demand and the management and development activities to be undertaken by the Lessee and any sublessees. The Lessee shall provide a copy of any amendment to the Development Plan before proceeding to implement any changes in the development or management of the leased premises. The use and occupation of the premises shall be subject to the general supervision and approval of the District Engineer.

6. STRUCTURES AND EQUIPMENT

The Lessee shall have the right, during the term of the lease, to erect such structures and to provide such equipment upon the premises as may be necessary to furnish the facilities and services authorized. Those structures and equipment shall be and remain the property of the Lessee, except as otherwise provided in the Condition on **RESTORATION**.

7. APPLICABLE LAWS AND REGULATIONS

a. The Lessee shall comply with all applicable Federal laws and regulations and with all applicable laws, ordinances, and regulations of the state, county, and municipality wherein the premises are located, including, but not limited to, those regarding construction, health, safety, food service, water supply, sanitation, use of pesticides, and licenses or permits to do business. The Lessee shall make and enforce such regulations as are necessary and within its legal authority in exercising the privileges granted in this lease, provided that such regulations are not inconsistent with those issued by the Secretary of the Army or with the provisions of 16 U.S.C. 460d.

b. The Lessee will provide an annual certification that all water and sanitary systems on the premises have been inspected and comply with Federal, state and local standards. The Lessee will also provide a statement of compliance with the Rehabilitations Act and the Americans with Disabilities Act, as required in the condition on **NON-DISCRIMINATION**, noting any deficiencies and providing a schedule for correction.

8. CONDITION OF PREMISES

a. The Lessee acknowledges that it has inspected the premises, knows its condition, and understands that the same is leased without any representations or warranties whatsoever and

without obligation on the part of the United States to make any alterations, repairs, or additions thereto.

b. As of the date of this lease, an inventory and condition report of all personal property and improvements of the United States included in this lease shall be made by the District Engineer and the Lessee to reflect the condition of said property and said improvements. A copy of said report is attached hereto as Exhibits "C-1", "C-2", and "C-3" and made a part hereof. Upon the expiration, revocation, or termination of this lease, another inventory and condition report shall be similarly prepared. This report shall constitute the basis for settlement for property damaged or destroyed. Any such property must be either replaced or restored to the condition required by the Condition on **PROTECTION OF PROPERTY**.

9. FACILITIES AND SERVICES

The Lessee shall provide the facilities and services as agreed upon in the Development Plan referred to in the Condition on **DEVELOPMENT PLANS** either directly or through subleases or concession agreements that have been reviewed and accepted by the District Engineer. These subleases or agreements shall state: (1) that they are granted subject to the provisions of this lease; and (2) that the agreement will not be effective until the third party activities have been approved by the District Engineer. The Lessee will not allow any third party activities with a rental to the Lessee or prices to the public which would give the third party an undue economic advantage or circumvent the intent of the Development Plan. The rates and prices charged by the Lessee or its sublessees or concessionaires shall be reasonable and comparable to rates charged for similar goods and services by others in the area. The use of sublessees and concessionaires will not relieve the Lessee from the primary responsibility for ensuring compliance with all of the terms and conditions of this lease.

10. TRANSFERS, ASSIGNMENTS, SUBLEASES

a. Without prior written approval of the District Engineer, the Lessee shall neither transfer nor assign this lease nor sublet the premises or any part thereof, nor grant any interest, privilege, or license whatsoever in connection with this lease. Such approval shall not be unreasonably withheld or delayed. Every sublease shall contain the **ENVIRONMENTAL PROTECTION PROVISIONS** herein.

b. The Lessee will not sponsor or participate in timeshare ownership of any structures, facilities, accommodations, or personal property on the premises. The Lessee will not subdivide nor develop the premises into private residential development.

11. FEES

Fees may be charged by the Lessee for the entrance to or use of the premises or any facilities, however, no user fees may be charged by the Lessee or its sublessees for use of facilities developed in whole or part with federal funds if a user charge by the Corps of Engineers for the facility would be prohibited under law.

12. ACCOUNTS, RECORDS AND RECEIPTS

All monies received by the Lessee from operations conducted on the premises, including, but not limited to, entrance, admission and user fees and rental or other consideration received from its concessionaires, may be utilized by the Lessee for the administration, maintenance, operation and development of the premises. Beginning 5 years from the date of this lease and continuing at 5-year intervals, any such monies not so utilized or programmed for utilization within a reasonable time shall be paid to the District Engineer. The Lessee shall provide an annual statement of receipts and expenditures to the District Engineer. Annual or weekly entrance fees not collected on the Project, which also are honored at other recreational areas operated by the Lessee, are excluded from this requirement. The District Engineer shall have the right to perform audits or to require the Lessee to audit the records and accounts of the Lessee, third party concessionaires and sublessees, in accordance with auditing standards and procedures promulgated by the American Institute of Certified Public Accountants or by the state, and furnish the District Engineer with the results of such an audit.

13. PROTECTION OF PROPERTY

The Lessee shall be responsible for any damage that may be caused to property of the United States by the activities of the Lessee under this lease and shall exercise due diligence in the protection of all property located on the premises against fire or damage from any and all other causes. Any property of the United States damaged or destroyed by the Lessee incident to the exercise of the privileges herein granted shall be promptly repaired or replaced by the Lessee to the satisfaction of the District Engineer, or, at the election of the District Engineer, reimbursement may be made therefore by the Lessee in an amount necessary to restore or replace the property to a condition satisfactory to the District Engineer.

14. RIGHT TO ENTER AND FLOOD

The right is reserved to the United States, its officers, agents, and employees to enter upon the premises at any time and for any purpose necessary or convenient in connection with Government purposes; to make inspections; to remove timber or other material, except property of the Lessee; to flood the premises; to manipulate the level of the lake or pool in any manner whatsoever; and/or to make any other use of the land as may be necessary in connection with project purposes, and the Lessee shall have no claim for damages on account thereof against the United States or any officer, agent, or employee thereof.

15. LIGHTS, SIGNALS AND NAVIGATION

There shall be no unreasonable interference with navigation by the exercise of the privileges granted by this lease. If the display of lights and signals on any work hereby authorized is not otherwise provided for by law, such lights and signals as may be prescribed by the Coast Guard or by the District Engineer shall be installed and maintained by and at the expense of the Lessee.

16. INSURANCE

a. At the commencement of this lease, the Lessee, unless self-insured, and its sublessees and concessionaires at the commencement of operating under the terms of this lease as third parties, shall obtain from a reputable insurance company or companies contracts of liability insurance. The insurance shall provide an amount not less than that which is prudent, reasonable and consistent with sound business practices, for any number of persons or claims arising from any one incident with respect to bodily injuries or death resulting therefrom, property damage, or both, suffered or alleged to have been suffered by any person or persons, resulting from the operations of the sublessees and concessionaires under the terms of this lease. The Lessee shall require its insurance company to furnish to the District Engineer a copy of the policy or policies, or, if acceptable to the District Engineer, certificates of insurance evidencing the purchase of such insurance.

b. The insurance policy or policies shall specifically provide protection appropriate for the types of facilities, services and products involved; and shall provide that the District Engineer be given thirty (30) days notice of any cancellation or change in such insurance.

c. The District Engineer may require closure of any or all of the premises during any period for which the sublessees and concessionaires do not have the required insurance coverage.

17. RESTORATION

On or before the expiration of this lease or its termination by the Lessee, the Lessee shall vacate the premises, remove the property of the Lessee, and restore the premises to a condition satisfactory to the District Engineer. If, however, this lease is revoked, the Lessee shall vacate the premises, remove said property therefrom, and restore the premises to the aforesaid condition within such time as the District Engineer may designate. In either event, if the Lessee shall fail or neglect to remove said property and restore the premises, then, at the option of the District Engineer, said property shall either become the property of the United States without compensation therefor, or the District Engineer may cause the property to be removed and no claim for damages against the United States or its officers or agents shall be created by or made on account of such removal and restoration work. The Lessee shall also pay the United States on demand any sum which may be expended by the United States after the expiration, revocation, or termination of this lease in restoring the premises.

18. NON-DISCRIMINATION

a. The Lessee shall not discriminate against any person or persons or exclude them from participation in the Lessee's operations, programs or activities conducted on the leased premises, because of race, color, religion, sex, age, handicap, or national origin. The Lessee will comply with the Americans with Disabilities Act and attendant Americans with Disabilities Act Accessibility Guidelines (ADAAG) published by the Architectural And Transportation Barriers Compliance Board.

b. The Lessee, by acceptance of this lease, is receiving a type of Federal assistance and, therefore, hereby gives assurance that it will comply with the provisions of Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. § 2000d); the Age Discrimination Act of 1975 (42 U.S.C. § 6102); the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794); and all requirements imposed by or pursuant to the Directive of the Department of Defense (32 CFR Part 300) issued as Department of Defense Directives 5500.11 and 1020.1, and Army Regulation 600-7. This assurance shall be binding on the Lessee, its agents, successors, transferees, sublessees and assignees.

19. SUBJECT TO EASEMENTS

This lease is subject to all existing easements, easements subsequently granted, and established access routes for roadways and utilities located, or to be located, on the premises, provided that the proposed grant of any new easement or route will be coordinated with the Lessee, and easements will not be granted which will, in the opinion of the District Engineer, interfere with developments, present or proposed, by the Lessee. The Lessee will not close any established access routes without written permission of the District Engineer.

20. SUBJECT TO MINERAL INTERESTS

This lease is subject to all outstanding mineral interests. As to federally owned mineral interests, it is understood that they may be included in present or future mineral leases issued by the Bureau of Land Management (BLM), which has responsibility for mineral development on Federal lands. The Secretary will provide lease stipulations to BLM for inclusion in such mineral leases that are designed to protect the premises from activities that would interfere with the Lessee's operations or would be contrary to local laws.

21. COMPLIANCE, CLOSURE, REVOCATION AND RELINQUISHMENT

a. The Lessee and/or any sublessees or licensees are charged at all times with full knowledge of all the limitations and requirements of this lease, and the necessity for correction of deficiencies, and with compliance with reasonable requests by the District Engineer. This lease may be revoked in the event the Lessee violates any of the terms and conditions and continues and persists in such non-compliance. The Lessee will be notified of any non-compliance, which notice shall be in writing or shall be confirmed in writing, giving a period of time in which to correct the non-compliance. Failure to satisfactorily correct any substantial or persistent non-compliance within the specified time is grounds for closure of all or part of the premises, temporary suspension of operation, or revocation of the lease, after notice in writing of such intent. Future requests by the Lessee to extend the lease, expand the premises, modify authorized activities, or assign the lease shall take into consideration the Lessee's past performance and compliance with the lease terms.

b. This lease may be relinquished by the Lessee by giving thirty (30) days prior written notice to the District Engineer in the manner prescribed in the Condition on **NOTICES**.

22. HEALTH AND SAFETY

a. The Lessee shall keep the premises in good order and in a clean, sanitary, and safe condition and shall have the primary responsibility for ensuring that any sublessees and concessionaires operate and maintain the premises in such a manner.

b. In addition to the rights of revocation for non-compliance, the District Engineer, upon discovery of any hazardous conditions on the premises that presents an immediate threat to health and/or danger to life or property, will so notify the Lessee and will require that the affected part or all of the premises be closed to the public until such condition is corrected and the danger to the public eliminated. If the condition is not corrected, the District Engineer will have the option to: (1) correct the hazardous conditions and collect the cost of repairs from the Lessee; or, (2) revoke the lease. The Lessee and its assignees or sublessees shall have no claim for damages against the United States, or any officer, agent, or employee thereof on account of action taken pursuant to this condition.

23. PUBLIC USE

No attempt shall be made by the Lessee, or any of its sublessees or concessionaires, to forbid the full use by the public of the premises and of the water areas of the project, subject, however, to the authority and responsibility of the Lessee to manage the premises and provide safety and security to the visiting public.

24. PROHIBITED USES

a. The Lessee shall not permit gambling on the premises or install or operate, or permit to be installed or operated thereon, any device which is illegal, or use the premises or permit them to be used for any illegal business or purpose. There shall not be conducted on or permitted upon the premises any activity which would constitute a nuisance.

b. As an exception, some games of chance, such as raffles, games and sporting events, may be conducted by nonprofit organizations under special use permits issued in conjunction with special events, if permissible by state and local law. Any request to conduct such activities must be submitted in writing to the District Engineer.

c. In accordance with state and local laws and regulations, the Lessee may sell, store, or dispense, or permit the sale, storage, or dispensing of beer, malt beverages, light wines or other intoxicating beverages on the premises in those facilities where such service is customarily found. Bar facilities will only be permitted if offered in connection with other approved activities. Advertising of such beverages outside of buildings is not permitted. Carry out package sales of hard liquor is prohibited.

25. NATURAL RESOURCES

The Lessee shall cut no timber, conduct no mining operations, remove no sand, gravel, or kindred substances from the ground, commit no waste of any kind, nor in any manner substantially change the contour or condition of the premises, except as may be authorized under and pursuant to the Development Plan described in the Condition on **DEVELOPMENT PLANS** herein. The Lessee may salvage fallen or dead timber; however, no commercial use shall be made of such timber. Except for timber salvaged by the Lessee when in the way of construction of improvements or other facilities, all sales of forest products will be conducted by the United States and the proceeds therefrom shall not be available to the Lessee under the provisions of this lease.

26. DISPUTES CLAUSE

a. This lease is subject to the Contract Disputes Act of 1978. Except as provided in the Act, all disputes arising under or relating to this lease shall be resolved under this clause.

b. "Claim", as used in this clause, means a written demand or written assertion by one of the lease parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of lease terms, or other relief arising under or relating to this lease.

c. A claim arising under a lease, unlike a claim relating to that lease, is a claim that can be resolved under a lease clause that provides for the relief sought by the claimant. However, a written demand or written assertion by the Lessor seeking the payment of money exceeding \$100,000 is not a claim under the Act until certified as required by the following paragraph. A voucher, invoice or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act by complying with the submission and certification requirements of this clause, if it is disputed either as to a liability or amount or is not acted upon in a reasonable time.

d. A claim by the Lessor shall be made in writing and submitted to the Chief, Real Estate Division for a written decision. A claim by the Government against the Lessor shall be subject to a written decision by the Chief, Real Estate Division. For Lessor claims exceeding \$100,000, the Lessor shall submit with the claim a certification that the claim is made in good faith, supporting data are accurate and complete to the best of the Lessor's knowledge and belief and the amount requested accurately reflects the lease adjustment for which the Lessor believes the Government is liable.

e. If the Lessor is an individual, the certification shall be executed by the individual. If the Lessor is not an individual, the certification shall be executed by a senior company official in charge at the Lessor's plant or location involved or an officer or general partner of the Lessor having overall responsibility for the conduct of the Lessor's affairs.

f. For the Lessor claims of \$100,000 or less, the Chief, Real Estate Division must, if requested in writing by the Lessor, render a decision within 60 days of the request. For Lessor

certified claims over \$100,000, the Chief, Real Estate Division must, within 60 days, decide the claim or notify the Lessor of the date of which the decisions will be made.

g. The Chief, Real Estate Division decision shall be final unless the Lessor appeals or files a suit as provided in the Act.

h. The Government shall pay interest on the amount found due and unpaid from (1) the date the Chief, Real Estate Division receives the claim (property certified if required) or (2) the date payment otherwise would be due, if that date is later, until the date of payment. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Chief, Real Estate Division receives the claim and then at the rate applicable for each 6 month period as fixed by the Treasury Secretary during the pendency of the claim.

j. The Lessor shall proceed diligently with performance of this lease, pending final resolution of any request for relief, claim, appeal or action arising under the lease and comply with any decision of the Chief, Real Estate Division.

27. ENVIRONMENTAL PROTECTION PROVISIONS

a. Within the limits of their respective legal powers, the parties to this lease shall protect the project against pollution of its air, ground, and water. The Lessee shall comply promptly with any laws, regulations, conditions or instructions affecting the activity hereby authorized, if and when issued by the Environmental Protection Agency, or any Federal, state, interstate or local governmental agency having jurisdiction to abate or prevent pollution. The disposal of any toxic or hazardous materials within the premises is specifically prohibited. Such regulations, conditions, or instructions in effect or prescribed by the Environmental Protection Agency, or any Federal, state, interstate or local governmental agency, are hereby made a condition of this lease. The Lessee shall require all sanitation facilities on boats moored at the Lessee's facilities, including rental boats, to be sealed against any discharge into the lake. Services for waste disposal, including sewage pump-out of watercraft, shall be provided by the Lessee as appropriate. The Lessee shall not discharge waste or effluent from the premises in such a manner that the discharge will contaminate streams or other bodies of water or otherwise become a public nuisance.

b. The Lessee will use all reasonable means available to protect the environment and natural resources, and where damage nonetheless occurs from the Lessee's activities, the Lessee shall be liable to restore the damaged resources.

c. The Lessee must obtain approval in writing from the District Engineer before any pesticides or herbicides are applied to the premises.

d. The Lessee shall be solely responsible for obtaining at its cost and expense any environmental permits required for its operations under the Lease, independent of any existing permits.

e. The Government's rights under this Lease specifically include the right for Government officials to inspect upon reasonable notice the Leased Premises for compliance with environmental, safety, and occupational health laws and regulations, whether or not the Government is responsible for enforcing them. Such inspections are without prejudice to the right of duly constituted enforcement officials to make such inspections. The Government normally will give the Lessee twenty-four (24) hours prior notice of its intention to enter the Leased Premises unless it determines the entry is required for safety, environmental, operations, or security purposes. The Lessee shall have no claim on account of any entries against the United States or any officer, agent, employee, or contractor thereof.

f. The Lessee shall not use the Leased Premises for the storage or disposal of non-Department of Defense owned hazardous or toxic materials, as defined in 10 U.S.C. 2692, unless authorized under 10 U.S.C. 2692 and properly approved by the government.

g. The Army may impose any additional environmental protection conditions and restrictions during the term of this lease that it deems necessary by providing written notice of such conditions or restrictions to the Lessee.

28. ENVIRONMENTAL BASELINE STUDY

An Environmental Baseline Study (EBS) documenting the known history of the property with regard to the storage, release or disposal of hazardous substances thereon is attached hereto and made a part hereof as Exhibit "D-1", "D-2", and "D-3". Upon expiration, revocation or termination of this lease, another EBS shall be prepared which will document the environmental condition of the property at that time. A comparison of the two assessments will assist the District Engineer in determining any environmental restoration requirements. Any such requirements will be completed by the Lessee in accordance with the condition on **RESTORATION.**

29. LEAD-BASED PAINT WARNING AND COVENANT

a. The Leased Premises do not contain residential dwellings and are not being leased for residential purposes. The Lessee is notified that the Lease Premises contains buildings built prior to 1978 that contain lead-based paint. Lead from paint, paint chips, and dust can pose health hazards if not managed properly. Such property may present exposure to lead from lead-based paint that may place young children at risk of developing lead poisoning. Lead poisoning in young children may produce permanent neurological damage, including learning disabilities, reduced intelligence quotient, behavioral problems and impaired memory. A risk assessment or inspection for possible lead-based paint hazards is recommended prior to lease.

b. Available information concerning known lead-based paint and/or lead-based paint hazards, the location of lead-based paint and/or lead-based paint hazards, and the condition of painted surfaces is contained in the Environmental Baseline Survey, which has been provided to the Lessee.

c. The Lessee acknowledges that it has received the opportunity to conduct a risk assessment or inspection for the presence of lead-based paint and/or lead-based paint hazards prior to execution of this Lease.

d. The Lessee shall not permit use of any buildings or structures on the Leased Premises for residential habitation without first obtaining the written consent of the Army. As a condition of its consent, the Army may require the Lessee to: (i) inspect for the presence of lead-based paint and/or lead-based paint hazards in and around buildings and structures on the Leased Premises; (ii) abate and eliminate lead-based paint hazards in accordance with all applicable laws and regulations; and (iii) comply with the notice and disclosure requirements under applicable Federal and state law. The Lessee agrees to be responsible for any future remediation of lead-based paint found to be necessary on the Leased Premises.

e. The Army assumes no liability for remediation or damages for personal injury, illness, disability, or death, to the Lessee, its successors or assigns, sublessees or to any other person, including members of the general public, arising from or incident to possession and/or use of any portion of the Leased Premises containing lead-based paint as residential housing. The Lessee further agrees to indemnify and hold harmless the Army, its officers, agents and employees, from and against all suits, claims, demands or actions, liabilities, judgments costs and attorneys' fees arising out of, or in any manner predicated upon, personal injury, death or property damage resulting from, related to, caused by or arising out of the possession and/or use of any portion of the Leased Premises containing lead-based paint as residential housing. This section e. and the obligations of the Lessee hereunder shall survive the expiration or termination of this Lease and any conveyance of the Leased Premises to the Lessee. The Lessee's obligation hereunder shall apply whenever the United States of America incurs costs or liabilities for actions giving rise to liability under this section.

30. NOTICE OF THE PRESENCE OF ASBESTOS AND COVENANT

a. The Lessee is hereby informed and does acknowledge that asbestos or asbestos-containing materials (ACM) may be on the Leased Premises, as described in the EBS. The ACM on the Leased Premises does not currently pose a threat to human health or the environment.

b. The Lessee covenants and agrees that its use and occupancy of the Leased Premises will be in compliance with all applicable laws relating to asbestos; and that the Grantor assumes no liability for future remediation of asbestos or damages for personal injury, illness, disability, or death, to the Lessee, its successors or assigns, sublessees, or to any other person, including members of the general public, arising from or incident to the purchase, transportation, removal, handling, use, disposition, or other activity causing or leading to contact of any kind whatsoever with asbestos on the Leased Premises described in this Lease, whether the Lessee, its successors or assigns have properly warned or failed to properly warn the individual(s) injured. The Lessee agrees to be responsible for any future remediation of asbestos found to be necessary on the Leased Premises.

31. HISTORIC PRESERVATION

a. The Lessee shall not remove or disturb, or cause or permit to be removed or disturbed, any historical, archaeological, architectural or other cultural artifacts, relics, remains, or objects of antiquity. In the event such items are discovered on the premises, the Lessee shall immediately notify the District Engineer and protect the site and the material from further disturbance until the District Engineer gives clearance to proceed.

b. The Leased premises may contain buildings or properties which are eligible for listing in the National Register of Historic Places. Such properties will be maintained by the Lessee in accordance with the recommended approaches in the Secretary of the Interior's Standards for Rehabilitation and Illustrated Guidelines for Rehabilitating Historic Buildings (U.S. Department of the Interior, National Park Service 1992) (Secretary's Standards). The Lessee will notify the Department of the Army and the State Historic Preservation Officer (SHPO) of any proposed rehabilitation and structural or landscape alterations to these buildings or properties prior to undertaking said rehabilitation or alteration. Any approved rehabilitation or structural or landscape alteration to these buildings or properties must adhere to the Secretary's Standards. If the Lessee does not receive a written objection from the Department of the Army or the SHPO within 30 days, the Lessee may proceed with the proposed rehabilitation or alterations.

32. SOIL AND WATER CONSERVATION

The Lessee shall maintain, in a manner satisfactory to the District Engineer, all soil and water conservation structures that may be in existence upon said premises at the beginning of, or that may be constructed by the Lessee during the term of, this lease, and the Lessee shall take appropriate measures to prevent or control soil erosion within the premises. Any soil erosion occurring outside the premises resulting from the activities of the Lessee shall be corrected by the Lessee as directed by the District Engineer.

33. TRANSIENT USE

a. Camping, including transient trailers or recreational vehicles, at one or more campsites for a period longer than thirty (30) days during any sixty (60) consecutive day period is prohibited. The Lessee will maintain a ledger and reservation system for the use of any such campsites.

b. Occupying any lands, buildings, vessels or other facilities within the premises for the purpose of maintaining a full- or part-time residence is prohibited, except for employees residing on the premises for security purposes, if authorized by the District Engineer.

34. COVENANT AGAINST CONTINGENT FEES

The Lessee warrants that no person or selling agency has been employed or retained to solicit or secure this lease upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial

or selling agencies maintained by the Lessee for the purpose of securing business. For breach or violation of this warranty, the United States shall have the right to annul this lease without liability or, in its discretion, to require the Lessee to pay, in addition to the lease rental or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

35. OFFICIALS NOT TO BENEFIT

No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this lease or to any benefits to arise therefrom. However, nothing herein contained shall be construed to extend to any incorporated company if the lease be for the general benefit of such corporation or company.

36. MODIFICATIONS

This lease contains the entire agreement between the parties hereto, and no modification of this agreement, or waiver, or consent hereunder shall be valid unless the same be in writing, signed by the parties to be bound or by a duly authorized representative; and this provision shall apply to this clause as well as all other conditions of this lease.

37. DISCLAIMER

This lease is effective only insofar as the rights of the United States in the premises are concerned; and the Lessee shall obtain such permission as may be required on account of any other existing rights. It is understood that the granting of this lease does not eliminate the necessity of obtaining any Department of the Army permit which may be required pursuant to the provisions of Section 10 of the Rivers and Harbors Act of 3 March 1899 (30 Stat. 1151; 33 U.S.C. § 403), or Section 404 of the Clean Water Act (33 U.S.C. § 1344).

IN WITNESS WHEREOF I have hereunto set my hand by authority/direction of the Secretary of the Army this 3rd day of April, 2002.

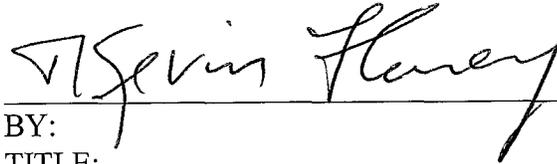
UNITED STATES OF AMERICA

BY:

Lloyd A. For
MICHAEL G. BARTER *Lloyd A. For*
Acting Chief, Real Estate Division
Louisville District, Corps of Engineers
Louisville, Kentucky

THIS LEASE is also executed by the Lessee this 20th day of Feb, 2002.

COMMONWEALTH OF KENTUCKY



BY:
TITLE:
Secretary, Finance and Administration Cabinet

Date

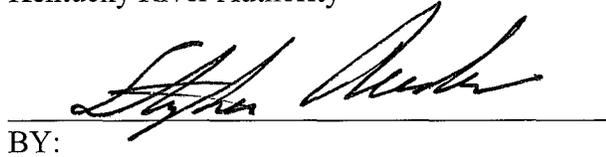
KENTUCKY RIVER AUTHORITY



BY:
TITLE:
Kentucky River Authority

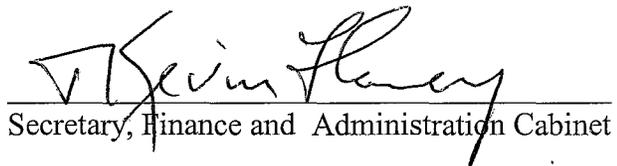
2-20-02
Date

2/21/02
Date


BY:
TITLE:
Kentucky River Authority

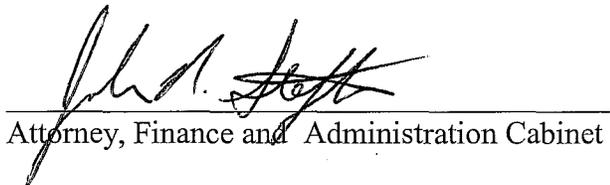
APPROVED BY:

3/27/02
Date

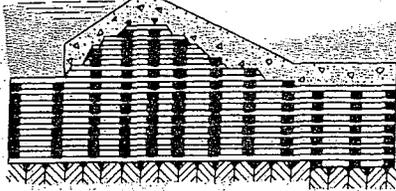

Secretary, Finance and Administration Cabinet

APPROVED AS TO FORM AND LEGALITY:

3/26/02
Date


Attorney, Finance and Administration Cabinet

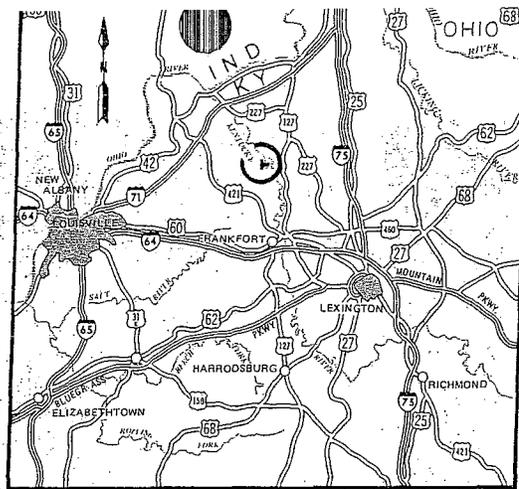
U.P. EL. 443.97



L.P. EL. 430.03

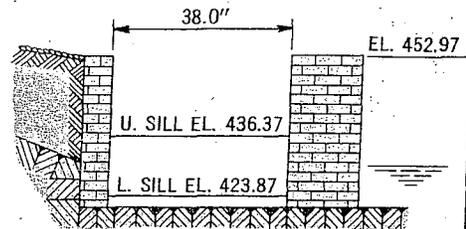
SECTION THRU DAM

SCALE IN FEET
0 20 40



VICINITY MAP

SCALE IN MILES
0 10 20 30 40

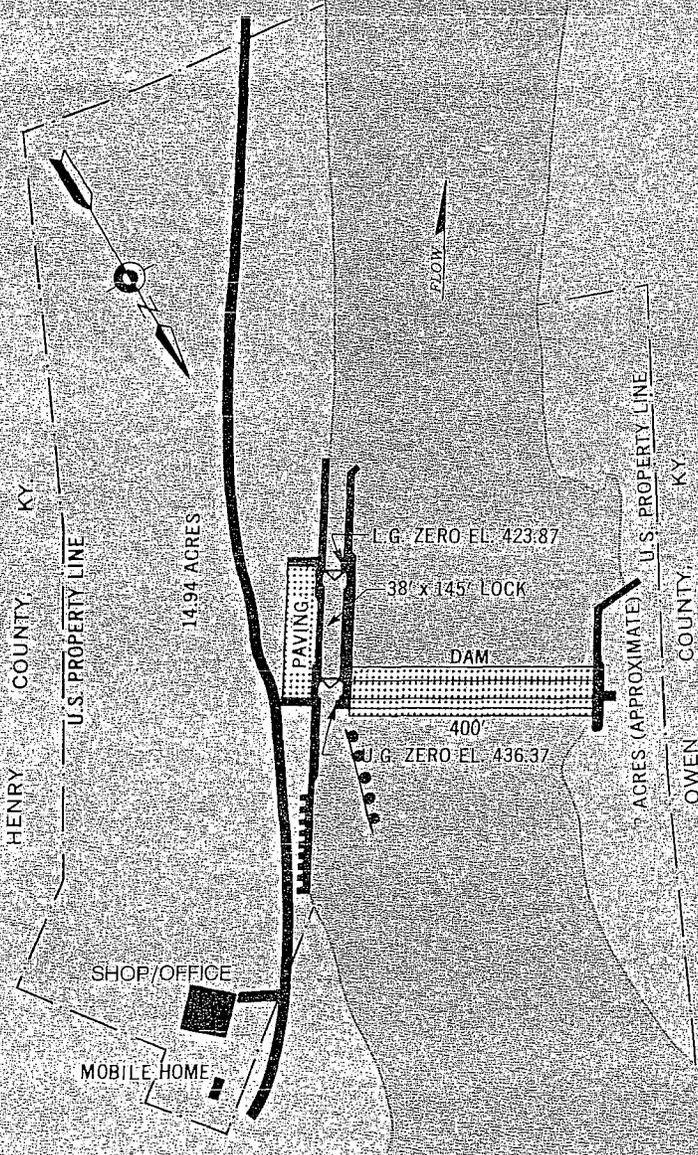


SECTION THRU LOCK

SCALE IN FEET
0 20 40

MILE 31.0
H.W. 493.22 (1937)
U.P. 443.97
L.P. 430.03
LIFT 13.94'

BUILT 1836-1839
PART OF SIX FOOT PROJECT KY. RIVER
PUT IN OPERATION 1839
DEPTH ON UPPER MITER SILL 7.6'
DEPTH ON LOWER MITER SILL 6.16'
U.S. PROPERTY 18.24 ACRES FEE



PLAN

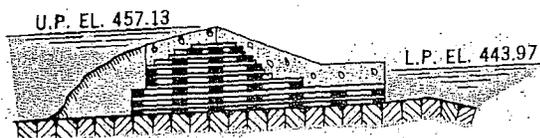
SCALE IN FEET
0 150 300

KENTUCKY RIVER LOCK & DAM NO. 2

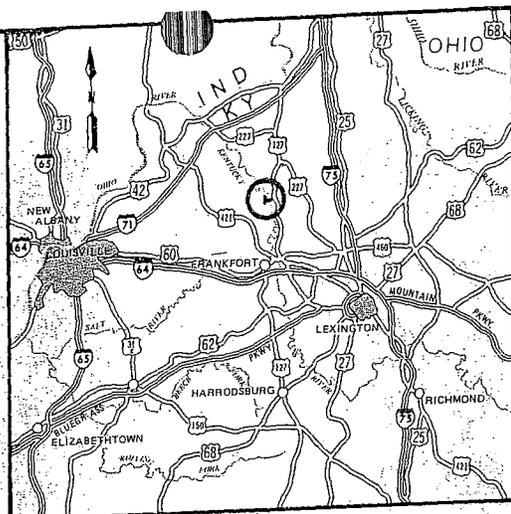
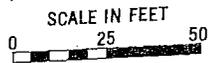
LOUISVILLE, KY. DISTRICT

SCALES AS SHOWN

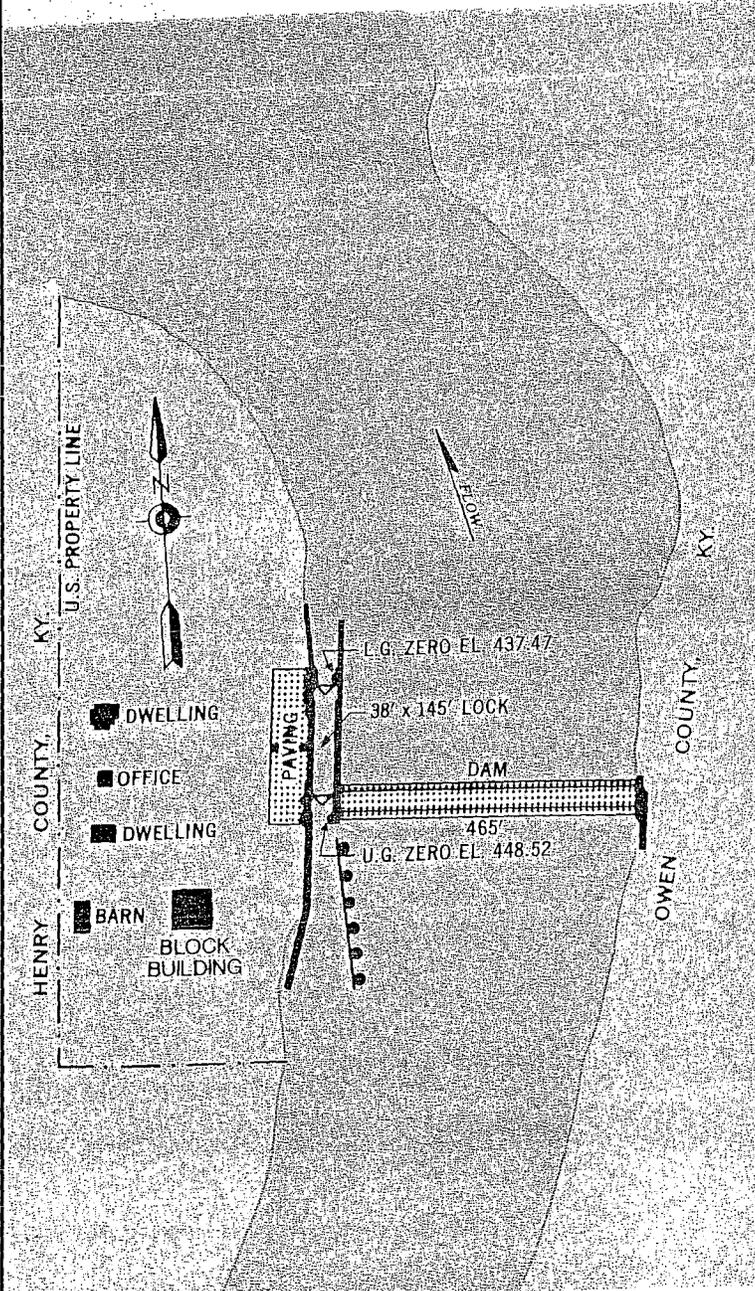
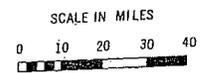
REVISED 30 SEPTEMBER 1995



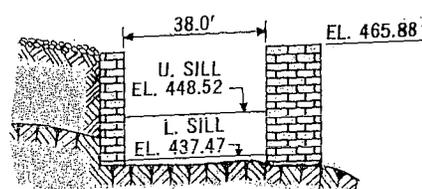
SECTION THRU DAM



VICINITY MAP



PLAN



SECTION THRU LOCK

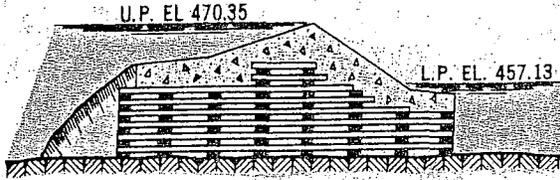


MILE 42.0
 H.W. 498.32 (1937)
 U.P. 457.13
 L.P. 443.97
 LIFT 13.16'

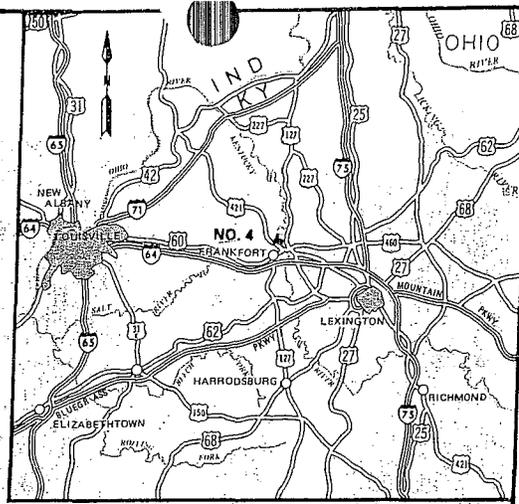
BUILT 1836-1844
 PART OF 6 FOOT PROJECT KY. RIVER
 PUT IN OPERATION 1844
 DEPTH ON UPPER MITER SILL 8.61'
 DEPTH ON LOWER MITER SILL 6.50'
 U.S. PROPERTY 9.69 ACRES FEE

KENTUCKY RIVER
 LOCK & DAM NO. 3

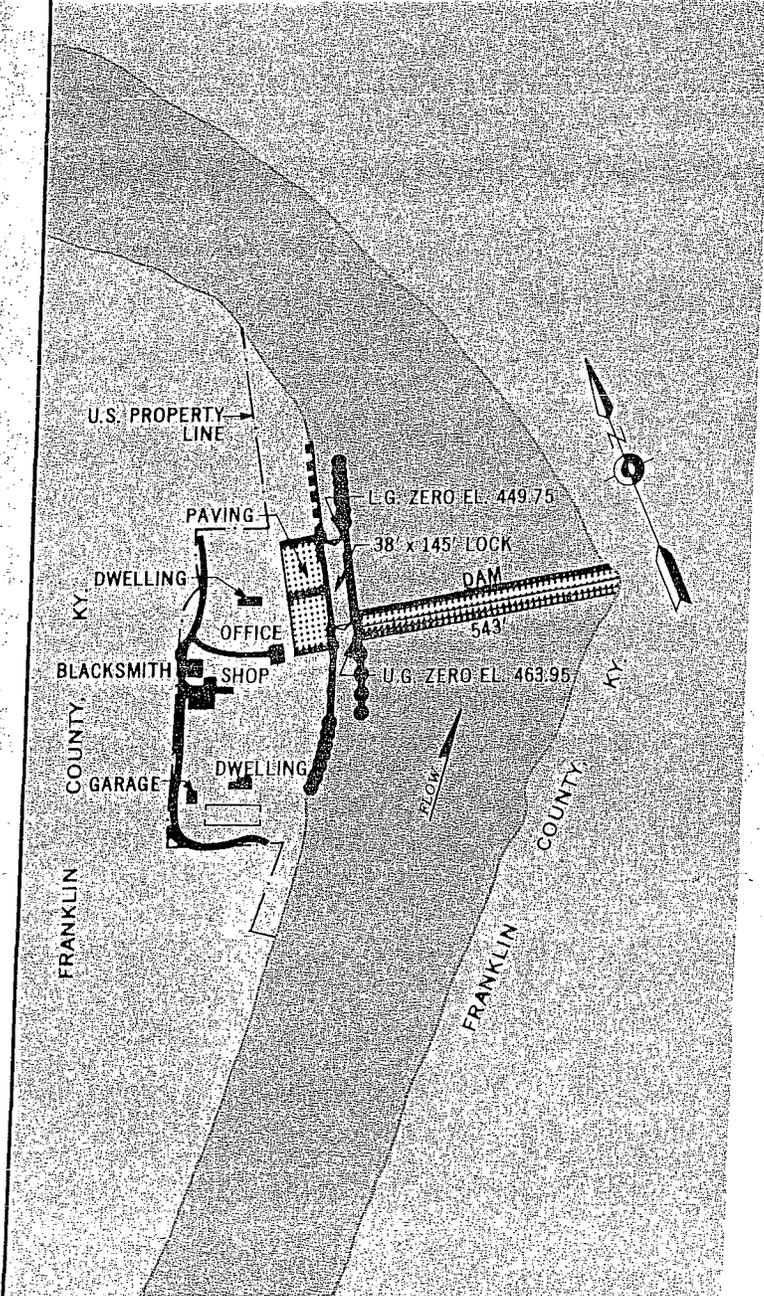
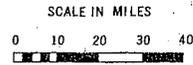
LOUISVILLE, KY. DISTRICT
 SCALES AS SHOWN
 REVISED 30 SEPTEMBER 1995



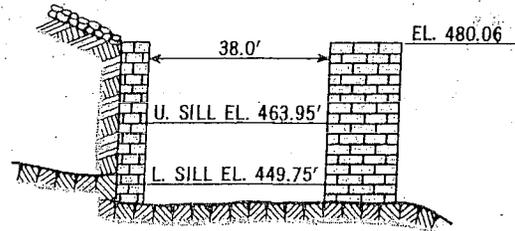
SECTION THRU DAM



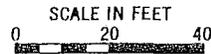
VICINITY MAP



PLAN



SECTION THRU LOCK



MILE 65.0
 H.W. 512.4 (1978)
 U.P. 470.35
 L.P. 457.13
 LIFT 13.22'

BUILT 1836-1844
 PART OF 6 FOOT PROJECT KY. RIVER
 PUT IN OPERATION 1844
 DEPTH ON UPPER MITER SILL 6.40'
 DEPTH ON LOWER MITER SILL 7.38'
 U.S. PROPERTY 4.96 ACRES (FEE)
 12.00 ACRES (FLOWAGE EASEMENT)

KENTUCKY RIVER
 LOCK & DAM NO. 4

LOUISVILLE, KY. DISTRICT
 SCALES AS SHOWN

REVISED 30 SEPTEMBER 1995



STEPHEN REEDER
EXECUTIVE DIRECTOR

PAUL E. PATTON
GOVERNOR

WM. NEAL CASSITY
CHAIRMAN

COMMONWEALTH OF KENTUCKY
KENTUCKY RIVER AUTHORITY
70 WILKINSON BOULEVARD
FRANKFORT, KENTUCKY 40601
OFFICE (502) 564-2866
FAX (502) 564-2681
KRA.state.ky.us

November 28, 2001

Mr. Gerard Edelen
Project Manger
U. S. Army Corps of Engineers
CELRL PM C
P. O. Box 59
Louisville, Kentucky 40201-0059

Dear Mr. Edelen:

This letter is in response to the Lease Agreement on Locks and Dams 2 – 4 Section 5, Plan of Recreation and Development and Management. The Kentucky River Authority has no plans to open the leased premises to the public and will continue to observe the no trespassing policy to the general public. However, the locks will be operated for recreational boaters beginning in May and ending in October. If the Authority's budget decreases for the Lock and Dam Section Locks 2 – 4 may operate on a limited schedule.

If you have any questions, please call my office.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen Reeder".

Stephen Reeder
Executive Director



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EXHIBIT "B"

CONDITION AND INVENTORY REPORT
KENTUCKY RIVER LOCKS & DAM NO. 2
EXHIBIT "C-1"

<u>Property ID No.</u>	<u>Description</u>	<u>Condition</u>
KL&D2-31530	✓ Office & Shop	Good
KL&D2-31532	✓ Lock (38' X 145')	Good
KL&D2-31392	✓ Dam	Good
KL&D2-31535	✓ Cistern (NOT USED)	Fair
KL&D2-31536	✓ Sewage Treatment Plant (Septic)	Fair
KL&D2-31537	✓ Security Lights	Good
KL&D2-31538	✓ Security Lights	Good
KL&D2-31539	✓ Security Lights	Good
KL&D2-31390	✓ Project Sign	Good
KL&D2-31391	✓ Flag Pole	Good

CONDITION AND INVENTORY REPORT
 KENTUCKY RIVER LOCKS & DAM NO. 3
 EXHIBIT "C-2"

<u>Property ID No.</u>	<u>Description</u>	<u>Condition</u>
KL&D3-31394	Office & Shop	Good
KL&D3-31417	Dam	Good
KL&D3-31396	Dwelling (Includes AST)	Fair
KL&D3-313977	Dwelling (Includes AST)	Fair
KL&D3-31398	Machine Shop	Good
KL&D3-31399	Coal House	Fair
KL&D3-31400	Coal House	Fair
KL&D3-31403	Sewage Treatment Plant (Septic)	Good
KL&D3-31404	Deep Well (NOT USED)	Fair
KL&D3-31405	Cistern (NOT USED)	Fair
KL&D3-31406	Cistern (NOT USED)	Fair
KL&D3-31407	Cistern (NOT USED)	Fair
KL&D3-31408	Security Light	Good
KL&D3-31409	Security Light	Good
KL&D3-31410	Security Light	Good
KL&D3-31411	Project Sign	Good
KL&D3-31412	Flag Pole	Good
KL&D3-31413	Fence	Good

CONDITION AND INVENTORY REPORT
KENTUCKY RIVER LOCKS & DAM NO. 4
EXHIBIT "C-3"

<u>Property ID No.</u>	<u>Description</u>	<u>Condition</u>
KL&D4-31419	Office	Good
KL&D4-31420	Lock (38' X 145')	Good
KL&D4-31436	Dam	Good
KL&D4-31421	Dwelling	Fair
KL&D4-31422	Dwelling	Fair
KL&D4-31423	Workshop	Good
KL&D4-31424	Machine Shop	Good
KL&D4-31425	Coal House	Fair
KL&D4-31426	Coal House	Fair
KL&D4-31427	Garage	Fair
KL&D4-31428	Warehouse	Good
KL&D4-31429	Sewage Treatment Plant (Lift Station)	Good
KL&D4-31430	Open Coal Bin	Fair
KL&D4-31431	Security Light	Good
KL&D4-31432	Security Light	Good
KL&D4-31433	Project Sign	Good
KL&D4-31435	Flag Pole	Good

**SUPPLEMENTAL AGREEMENT NO. 1
TO DEPARTMENT OF THE ARMY
LEASE NO. DACW27-1-02-005
FOR PUBLIC PARK AND RECREATIONAL PURPOSES
KENTUCKY RIVER LOCKS AND DAMS NOS. 1, 2, 3, AND 4
HENRY, OWEN, FRANKLIN AND CARROLL COUNTIES**

**RECEIVED
MAY 03 2002**

LEGAL & LEGISLATIVE
SERVICES

This Supplemental Agreement No. 1, entered into by and between the Secretary of the Army, hereinafter referred to as the Government, and the **COMMONWEALTH OF KENTUCKY**, for the use and benefit of the **KENTUCKY RIVER AUTHORITY, 70 Wilkinson Boulevard, Frankfort, Kentucky 40601**, hereinafter referred to as the Lessee, **WITNESSETH THAT:**

WHEREAS, Department of the Army Lease No. DACW27-1-02-005 was entered into by and between the Government and the Lessee for a period of twenty-five (25) years beginning March 1, 2002 and ending February 28, 2027, granting use and occupancy of the Kentucky River Locks and Dams 2, 3 and 4 for public park and recreational purposes; and

WHEREAS, the Government has determined that the property located at the Kentucky River Lock and Dam No. 1 is available and it is in the best interest of the Government to modify the lease to add the Kentucky River Lock and Dam No. 1 to the lease.

NOW THEREFORE, effective 1 April 2002, Department of the Army Lease No. DACW27-1-02-005 is hereby amended in the following particulars, but no others:

1. That the basic lease is amended to include the property identified in Exhibit "A-4", attached hereto and made a part hereof, hereinafter referred to as the premises, for public park and recreational purposes.
2. An inventory and condition report of all personal property and improvements of the United States included in this supplemental agreement to the lease is attached hereto as Exhibit "C-4" and made a part hereof.
3. The Environmental Baseline Study (EBS), documenting the known history of the property with regard to the storage, release or disposal of hazardous substances thereon is attached hereto and made a part hereof as Exhibit "D-4".

Said lease shall remain in full force and effect in all other respects.

IN WITNESS THEREOF, I have hereunto set my hand by authority of the Secretary of the Army this 10th day of MAY, 2002.

UNITED STATES OF AMERICA

BY: _____

Michael G. Barter
MICHAEL G. BARTER

Chief, Real Estate Division

Louisville District, Corps of Engineers

Louisville, Kentucky

SUPPLEMENTAL AGREEMENT NO. 1 to
DEPARTMENT OF THE ARMY LEASE NO. DACW27-1-02-005
KENTUCKY RIVER LOCKS AND DAMS 1, 2, 3 and 4

This Supplemental Agreement No. 1 is also executed by the Lessee this 7th day of May, 2002.

COMMONWEALTH OF KENTUCKY

5/7/02
Date

Kevin Flanery
BY:
TITLE:
Secretary, Finance and Administration Cabinet

KENTUCKY RIVER AUTHORITY

4-17-02
Date

Wm Neal Canty
BY:
TITLE: CHAIRMAN
Kentucky River Authority

4/23/02
Date

[Signature]
BY:
TITLE: EXECUTIVE DIRECTOR
Kentucky River Authority

APPROVED BY:

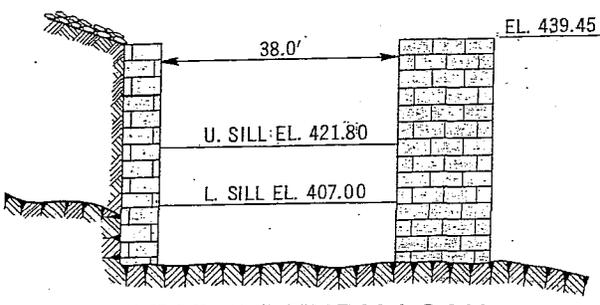
5/7/02
Date

Kevin Flanery
Secretary, Finance and Administration Cabinet

APPROVED AS TO FORM AND LEGALITY:

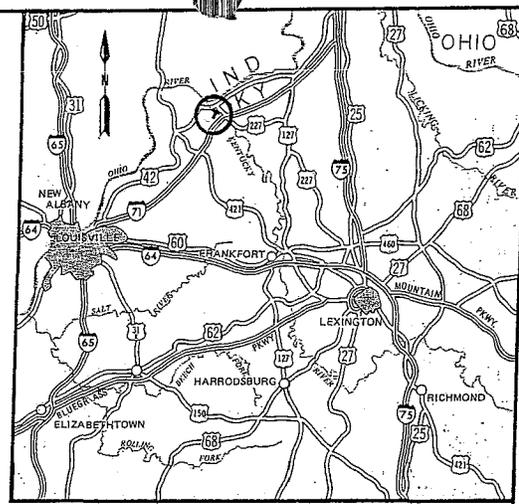
5/3/02
Date

[Signature]
Attorney, Finance and Administration Cabinet



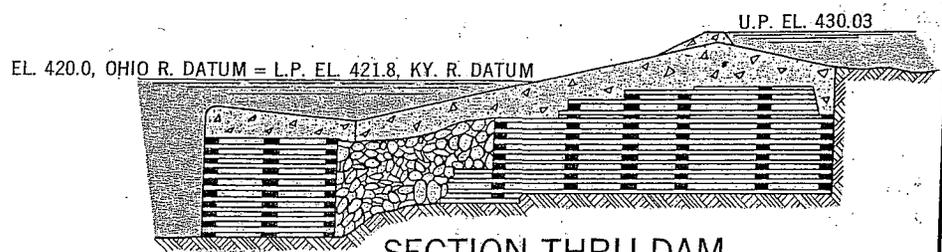
SECTION THRU LOCK

SCALE IN FEET
0 15 30



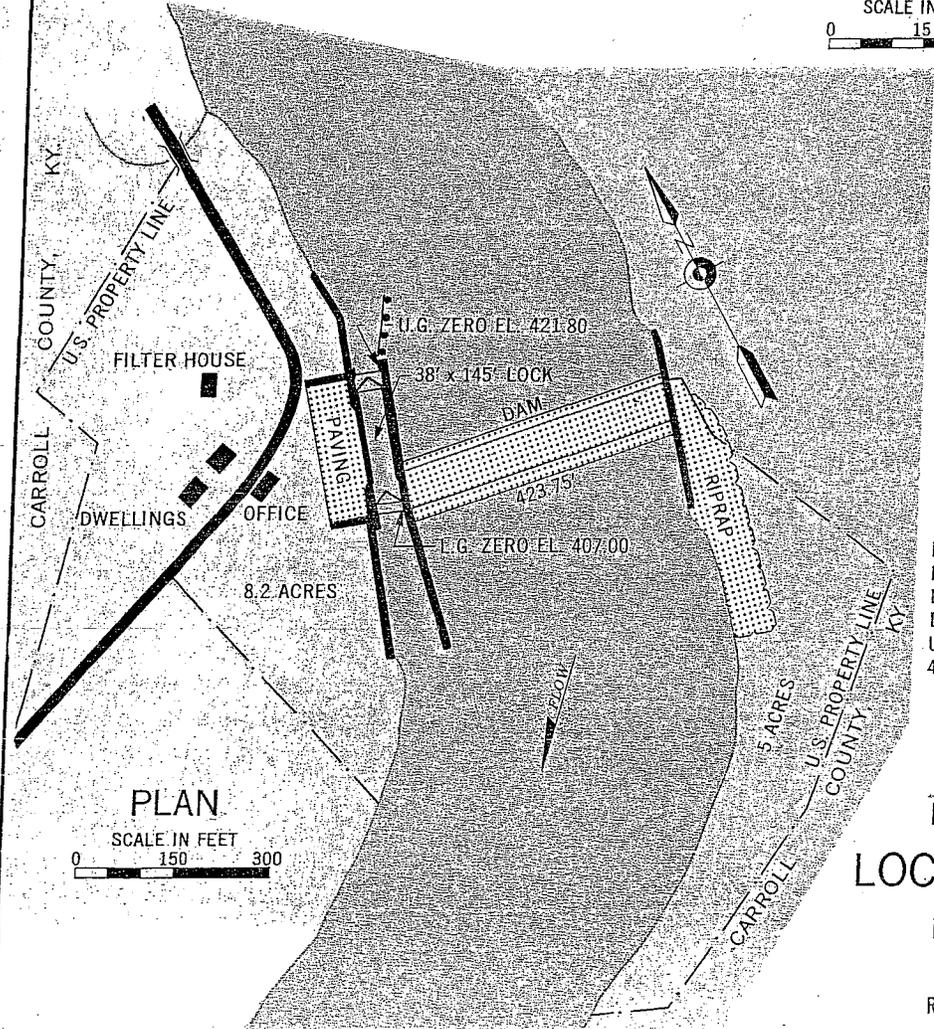
VICINITY MAP

SCALE IN MILES
0 10 20 30 40



SECTION THRU DAM

SCALE IN FEET
0 15 30



PLAN

SCALE IN FEET
0 150 300

MILE 4
H.W. 482.10 (1937)
U.P. 430.03
L.P. 421.80
LIFT 8.23'

BUILT 1836-1839
PART OF 6 FOOT PROJECT KY. RIVER
PUT IN OPERATION 1839
DEPTH ON UPPER MITER SILL 8.23'
DEPTH ON LOWER MITER SILL 14.80'
U.S. PROPERTY 13.2 ACRES (FEE)
4.3 ACRES (FLOWAGE EASEMENT)

KENTUCKY RIVER
LOCK & DAM NO. 1

LOUISVILLE, KY. DISTRICT
SCALES AS SHOWN
REVISED 30 SEPTEMBER 1981

CONDITION AND INVENTORY REPORT
KENTUCKY RIVER LOCKS & DAM NO. 1
EXHIBIT "C-4"

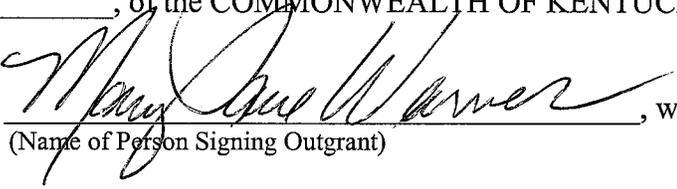
<u>Property ID No.</u>	<u>Description</u>	<u>Condition</u>
KL&D1-31583	Office	Good
KL&D1-31590	Dam Structure	Good
KL&D1-31585	Dwelling	Fair
KL&D1-31586	Dwelling	Fair
KL&D1-31587	Spring House	Good
KL&D1-31589	Project Sign	Good

CERTIFICATE OF AUTHORITY

(To be signed by a corporate official other than the
person who signed the outgrant)

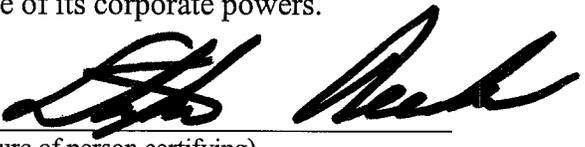
I, , certify that I am the Executive
(Name of person certifying) (Title or position of

Director, of the COMMONWEALTH OF KENTUCKY, named as
person certifying)

Grantee herein and that , who signed this
(Name of Person Signing Outgrant)

SUPPLEMENTAL AGREEMENT NO. 1 to the LEASE on behalf of the COMMONWEALTH
OF KENTUCKY, was then VICE CHAIRMAN - KY RIVER AUTHORITY and that said
(Position or title of person signing outgrant)

instrument was duly signed for and on behalf of the COMMONWEALTH OF KENTUCKY
by authority of its governing body and is within the scope of its corporate powers.

BY: 
(Signature of person certifying)

TITLE: EXECUTIVE DIRECTOR

**Kentucky River Locks & Dam 1,2,3,4 Disposition Study
And Integrated Environmental Assessment
27 March 2017**

ENVIRONMENTAL AND CULTURAL RESOURCES APPENDIX



**US Army Corps
of Engineers®**
Louisville District

**Kentucky River Locks & Dam 1,2,3,4 Disposition Study
And Integrated Environmental Assessment
27 March 2017**

DRAFT FONSI



**US Army Corps
of Engineers®**
Louisville District

**DRAFT
FINDING OF NO SIGNIFICANT IMPACT**

Kentucky River Locks and Dams 1, 2, 3, and 4 Disposition Study

The U.S. Army Corps of Engineers, Louisville District (Corps) has conducted an environmental analysis in accordance with the National Environmental Policy Act of 1969, as amended. The Draft Integrated Disposition Study and Environmental Assessment (IFR/EA) dated 10 March 2017, for the Kentucky River Locks and Dams 1, 2, 3, and 4 evaluates the existing navigation facilities located on the Kentucky River including locks & dams 1, 2, 3 and 4 to determine whether federal interest exists to deauthorize these projects and dispose of all associated real property and improvements.

The Draft IFR/EA, incorporated herein by reference, evaluated various alternatives for disposal of the existing navigation facilities located on the Kentucky River including Locks & Dams 1, 2, 3 and 4. The recommended plan is as follows:

- The Louisville District recommends the deauthorization and disposal of the navigation facilities as-is, to the Commonwealth of Kentucky via the Kentucky River Authority (KRA).

In addition to a “no action” plan, three alternatives were evaluated, one of which was subdivided into two options. The alternatives included: 1) deauthorization and disposal of the projects as-is a) to the KRA (recommended) or b) through the GSA disposal process 2) deauthorization and disposal of the projects with additional Corps inspections, and 3) deauthorization of the projects, removal of all improvements, and disposal. Refer to Section 8 of the Draft IFR/EA for a detailed discussion of alternatives formulation and selection.

The potential effects to the following resources from the recommended plan were evaluated:

	In-depth evaluation conducted	Brief evaluation due to minor effects	Resource unaffected by action
Aesthetics	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Air quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Aquatic resources/wetlands	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Invasive species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fish and wildlife habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Threatened/Endangered species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Historic properties	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other cultural resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Floodplains	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hazardous, toxic & radioactive waste	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hydrology	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Land use	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Navigation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Noise levels	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Socio-economics	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Environmental justice	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Soils	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tribal trust resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Water quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Climate change	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No physical changes are proposed to the lock and dam structures or associated buildings on adjacent property. The EA revealed no effects on the human environment from the actions constituting the recommended plan that would, when added to other past, present and reasonably foreseeable future effects, be significant. The recommended plan is in compliance with the Clean Air Act and Executive Order 12898 for Environmental Justice and would not disproportionately place any adverse environmental, economic, social, or health impacts on minority or low-income populations. The recommended plan is not subject to Sections 401 or 404 of the Clean Water Act.

Pursuant to section 7 of the Endangered Species Act of 1973, as amended, the U.S. Army Corps of Engineers determined that the recommended plan will have no effect on federally listed species or their designated critical habitat. The United States Fish and Wildlife Service concurred with the Corps' determination of no effect. [PENDING]

Pursuant to section 106 of the National Historic Preservation Act of 1966, as amended, the U.S. Army Corps of Engineers determined that historic properties may be adversely affected by the recommended plan, and the KYSHPO provisionally concurred. Consultation with the KYSHPO and other interested parties has been initiated to develop appropriate conditions to place on the disposal or to develop appropriate mitigation measures for inclusion in a Memorandum of Agreement to address project effects. [PENDING]

Public review of the Draft IFR/EA was completed on April 27th, 2017. All comments submitted during the public comment period were responded to in the Final IFR/EA. A

30-day state and agency review of the Draft IFR/EA was completed on April 27th, 2017. Comments from state and federal agency review did not result in any changes to the Final IFR/EIS. [*PENDING*]

Technical, environmental, economic, and cost effectiveness criteria used in the formulation of alternative plans were those specified in the Water Resources Council's 1983 Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies. All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. Based on this report, the reviews by other Federal, State and local agencies, Tribes, input of the public, and the review by my staff, it is my determination that the recommended plan would not significantly affect the human environment; therefore, preparation of an Environmental Impact Statement is not required.

Date

Christopher G. Beck
Colonel, Corps of Engineers
District Commander

**Kentucky River Locks & Dam 1,2,3,4 Disposition Study
And Integrated Environmental Assessment
27 March 2017**

USFWS – OFFICAL SPECIES LIST



**US Army Corps
of Engineers®**
Louisville District



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Kentucky Ecological Services Field Office
J C WATTS FEDERAL BUILDING, ROOM 265, 330 WEST
BROADWAY
FRANKFORT, KY 40601
PHONE: (502)695-0468 FAX: (502)695-1024
URL: www.fws.gov/frankfort/

Consultation Code: 04EK1000-2016-SLI-0826

September 02, 2016

Event Code: 04EK1000-2016-E-01834

Project Name: Kentucky River Locks and Dams 1-4 Disposition Study

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies federal trust species that may occur within the boundary that you provided in the IPaC application. For this list to most accurately represent the species that may potentially be affected by the proposed project, the boundary that you input into IPaC should represent the entire “action area” of the proposed project by considering all the potential “effects of the action,” including potential direct, indirect, and cumulative effects, to federally-listed species or their critical habitat as defined in 50 CFR 402.02. This includes effects of any “interrelated actions” that are part of a larger action and depend on the larger action for their justification and “interdependent actions” that have no independent utility apart from the action under consideration (e.g.; utilities, access roads, etc.) and future actions that are reasonably certain to occur as a result of the proposed project (e.g.; development in response to a new road).

The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.) to provide information as to whether any proposed or listed species may be present in the area of a proposed action. This is not a concurrence letter; additional consultation with the Service may be required.

We must advise you that our database is a compilation of collection records made available by various individuals and resource agencies available to the Service and may not be all-inclusive. This information is seldom based on comprehensive surveys of all potential habitats and, thus, does not necessarily provide conclusive evidence that species are present or absent at a specific locality. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please contact the

Kentucky Field Office if you need assistance regarding potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and associated information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the ESA is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the ESA and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12. We recommend that Biological Assessments and biological evaluations be submitted to the Kentucky Field Office following the guidance at: <http://www.fws.gov/frankfort/PreDevelopment.html>.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Proposed projects that do not have a federal nexus (non-federal projects) are not subject to the obligations under section 7 of the ESA. However, section 9 of the ESA prohibits certain activities that directly or indirectly affect federally-listed species. These prohibitions apply to all the individuals subject to the jurisdiction of the United States. Non-federal project proponents can request technical assistance from the Service regarding recommendations on how to avoid and/or minimize impacts to listed species. The project proponent can choose to implement these recommendations in the proposed project design to avoid an ESA violation.

In addition to species covered under the Endangered Species Act (ESA), birds covered under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) should be considered during project reviews. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish & Wildlife Service (50 C.F.R. 10.12 and 16 U.S.C.

668(a)). For more information regarding these acts go to:
<http://www.fws.gov/migratorybirds/RegulationsandPolicies.html>.

The MBTA currently has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within a NEPA document (if there is a federal nexus) or a Bird- or Eagle-specific Conservation Plan, or both. Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds to the project-related stressors; proponents should also implement a rigorous plan to monitor the effectiveness of conservation measure. For more information on avian stressors and recommended conservation measures go to: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/BirdHazards.html>.

In addition to MBTA and BGEPA, Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <http://www.fws.gov/migratorybirds/AboutUS.html>.

We appreciate your concern for federal trust species and encourage Federal agencies to include conservation of these species into their project planning. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Kentucky River Locks and Dams 1-4 Disposition Study

Official Species List

Provided by:

Kentucky Ecological Services Field Office
J C WATTS FEDERAL BUILDING, ROOM 265
330 WEST BROADWAY
FRANKFORT, KY 40601
(502) 695-0468
<http://www.fws.gov/frankfort/>

Consultation Code: 04EK1000-2016-SLI-0826

Event Code: 04EK1000-2016-E-01834

Project Type: LAND - DISPOSAL / TRANSFER

Project Name: Kentucky River Locks and Dams 1-4 Disposition Study

Project Description: The U.S. Army Corps of Engineers is beginning a disposition study for Kentucky River Locks and Dams 1, 2, 3, and 4. The study, which will include an environmental assessment, will focus on whether federal interest exists to retain the projects for the originally authorized purpose(s), based on an evaluation and comparison of the benefits, costs, and impacts (positive and negative) of continued operation, maintenance, repair, replacement, and rehabilitation, or the lack thereof, on the one hand and of deauthorization and disposal of the associated real property and Government-owned improvements on the other.

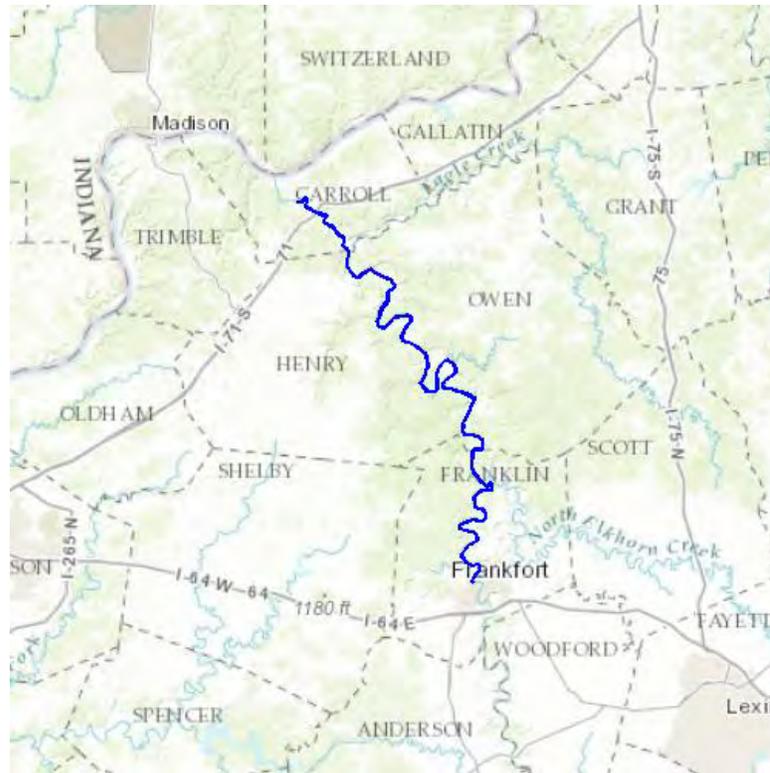
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: Kentucky River Locks and Dams 1-4 Disposition Study

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: Carroll, KY | Franklin, KY | Henry, KY | Owen, KY



Endangered Species Act Species List

There are a total of 13 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Clams	Status	Has Critical Habitat	Condition(s)
clubshell (<i>Pleurobema clava</i>) Population: Wherever found; Except where listed as Experimental Populations	Endangered		
fanshell (<i>Cyprogenia stegaria</i>)	Endangered		
Orangefoot pimpleback (<i>Plethobasus cooperianus</i>)	Endangered		
Pink mucket (<i>Lampsilis abrupta</i>) Population: Entire	Endangered		
ring pink (<i>Obovaria retusa</i>)	Endangered		
Rough pigtoe (<i>Pleurobema plenum</i>)	Endangered		
Sheepnose Mussel (<i>Plethobasus cyphus</i>)	Endangered		
Flowering Plants			
Braun's rock-cress (<i>Arabis perstellata</i>)	Endangered	Final designated	
Running Buffalo clover (<i>Trifolium stoloniferum</i>)	Endangered		
Short's bladderpod (<i>Physaria globosa</i>)	Endangered	Final designated	



United States Department of Interior
Fish and Wildlife Service

Project name: Kentucky River Locks and Dams 1-4 Disposition Study

Mammals			
Gray bat (<i>Myotis grisescens</i>) Population: Entire	Endangered		
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
Northern long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened		This project would result in take other than incidental take.



United States Department of Interior
Fish and Wildlife Service

Project name: Kentucky River Locks and Dams 1-4 Disposition Study

Critical habitats that lie within your project area

The following critical habitats lie fully or partially within your project area.

Flowering Plants	Critical Habitat Type
Braun's rock-cress (<i>Arabis perstellata</i>)	Final designated
Short's bladderpod (<i>Physaria globosa</i>)	Final designated

**Kentucky River Locks & Dam 1,2,3,4 Disposition Study
And Integrated Environmental Assessment
27 March 2017**

LOUISVILLE DISTRICT SCOPING LETTER



**US Army Corps
of Engineers®**
Louisville District



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
P.O. BOX 59
LOUISVILLE KY 40201-0059

<http://www.lrl.usace.army.mil/>

January 9, 2017

Civil Works Planning, Programs and Project Management Branch
Planning Section

To all interested parties:

The U.S. Army Corps of Engineers, Louisville District (USACE) is initiating scoping and preparing an Environmental Assessment (EA), under the National Environmental Policy Act (NEPA) of 1969, as amended, to evaluate alternatives for the disposition of Kentucky River Lock and Dam Nos. 1, 2, 3, and 4 (KY River L&Ds 1 – 4). Disposal of these navigational facilities is being considered by USACE due to changes in usage which have occurred since the construction of these projects and which are forecasted to occur over the next 50 years. The only federally authorized purpose of the facilities is for commercial navigation, and there have not been commercial vessels recorded at the locks since 1985. Local communities currently utilize the pools created by the dams for water supply and recreation. KY River L&Ds 1 – 4 are considered eligible for listing on the National Register of Historic Places as part of the Kentucky River Navigation System (L&Ds 1 – 14). The Kentucky River Authority (KRA) currently owns and operates L&Ds 5 - 14 on the Kentucky River and signed a lease with USACE in 2002 for L&Ds 1 - 4 for a period of 25 years. Thus, the KRA is currently responsible for maintaining all 14 lock and dam structures on the Kentucky River.

In accordance with NEPA, and associated implementing regulations, the EA will be prepared to evaluate viable alternatives, including the “No Action” alternative, for disposing of these facilities. We request any information you may have about resources (such as biological and cultural) on or near these facilities that should be considered. We also encourage comments regarding the disposal of these facilities and any plans or proposals for disposal that your agency may offer. This information will aid in development and evaluation of alternatives, as well as agency coordination. This EA would provide the basis for a decision whether to proceed with an Environmental Impact Statement or a Finding of No Significant Impact.

We request your comments by February 10th, 2017. If you do not reply by that date, we will assume that you have no comments at this stage of project development. If you have any questions regarding the enclosed, please contact Drew Russell at drew.c.russell@usace.army.mil or (502) 315-6130.

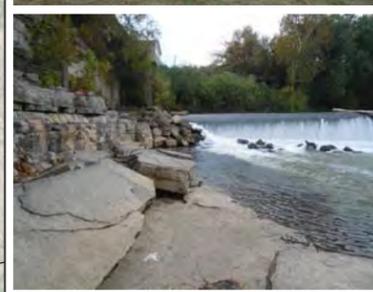
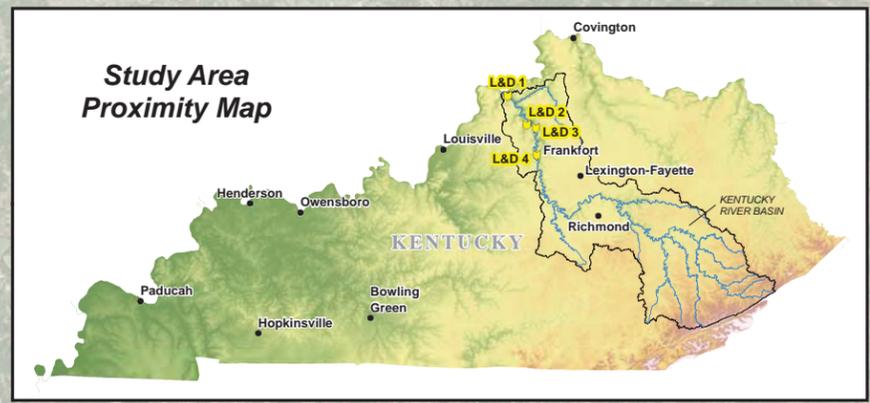
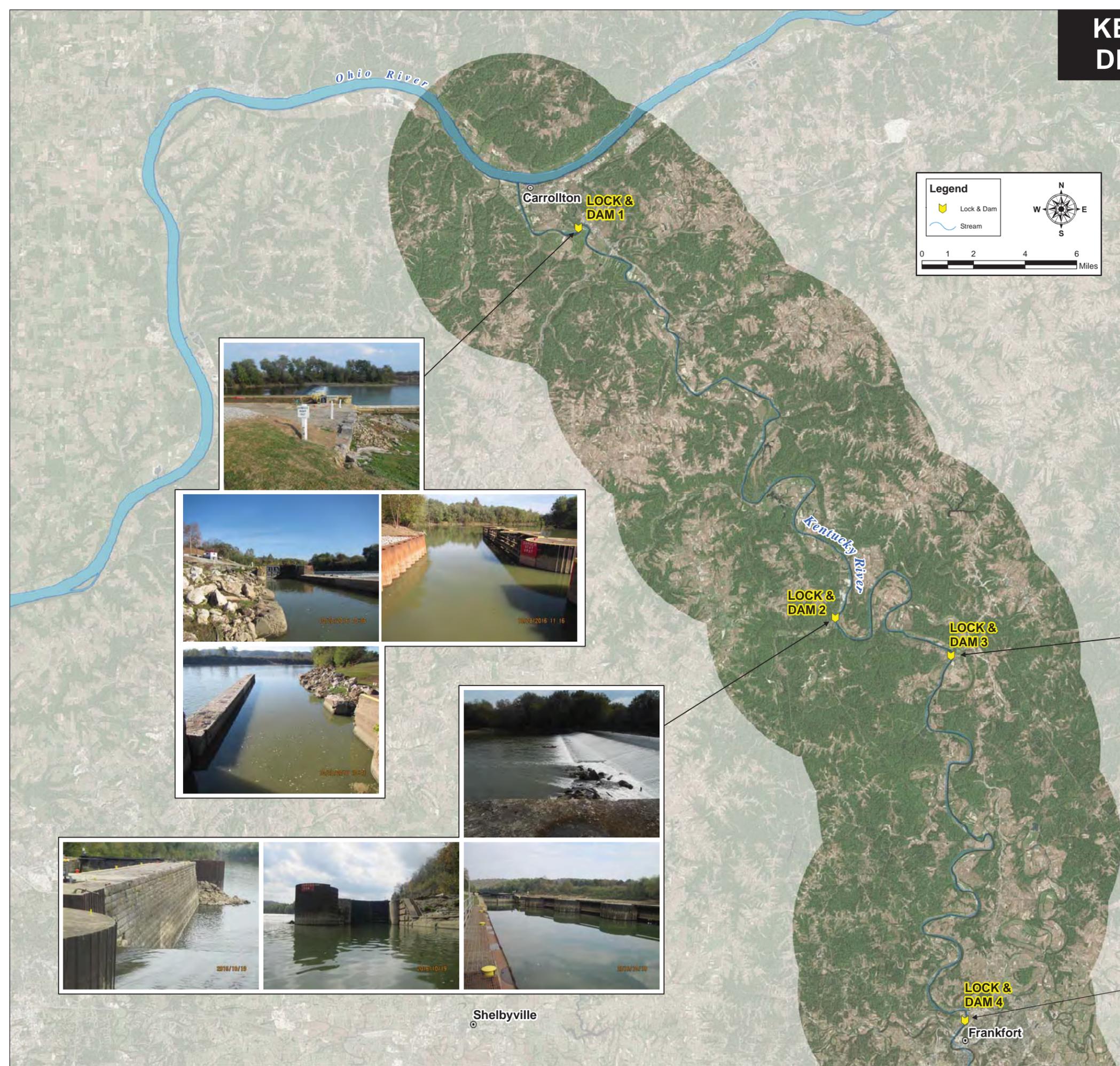
Sincerely,

A handwritten signature in cursive script that reads "Amy S. Babey".

Amy S. Babey
Chief, Planning Section

Enclosed:
Project Area Map

KENTUCKY RIVER LOCK & DAMS 1 - 4 DISPOSITION FEASIBILITY STUDY, KY



Shelbyville

Frankfort

Georgetown

**Kentucky River Locks & Dam 1,2,3,4 Disposition Study
And Integrated Environmental Assessment
27 March 2017**

KENTUCKY DEPARTMENT OF FISH AND WILDLIFE SCOPING COMMENT



**US Army Corps
of Engineers®
Louisville District**

From: [Dawson, Doug \(FW\)](#)
To: [Russell, Drew C CIV USARMY CELRL \(US\)](#)
Subject: [EXTERNAL] Kentucky River Lock and Dam 1-4 Disposition Environmental Assessment
Date: Wednesday, February 08, 2017 12:26:00 PM

Mr. Russell,

The Kentucky Department of Fish & Wildlife Resources (KDFWR) has reviewed the information provided concerning the development of an Environmental Assessment on the disposition of the Kentucky River Lock and Dam Nos. 1, 2, 3, & 4. Based on the information provided, the KDFWR does not have any comments at this time in the review process. We appreciate the opportunity to review and we look forward to providing comments on future USACE documents concerning the proposed disposition study. Please let me know if you need any additional information.

Thank you,

Doug

Doug Dawson

Environmental Section Chief

Kentucky Dept. of Fish & Wildlife Resources

#1 Sportsman's Lane

Frankfort, KY 40601

PH: 502-564-7109 ext. 4472

Fax: 502-564-4519

visit our website at [Blockedwww.fw.ky.gov](http://www.fw.ky.gov) <[Blockedhttp://www.fw.ky.gov/](http://www.fw.ky.gov)>

Did you know...The world record smallmouth bass (11 lb. 15 oz) was caught in Kentucky?

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**Kentucky River Locks & Dam 1,2,3,4 Disposition Study
And Integrated Environmental Assessment
27 March 2017**

**U.S. FISH AND WILDLIFE SERVICE
SCOPING COMMENT**



**US Army Corps
of Engineers®**
Louisville District



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Kentucky Ecological Services Field Office
330 West Broadway, Suite 265
Frankfort, Kentucky 40601
(502) 695-0468

February 6, 2017

Mr. Drew Russell
U.S. Army Corps of Engineers
Civil Works Planning
P. O. Box 59
Louisville, Kentucky 40201

RE: FWS 2017-B-0185; USACE Disposition of Kentucky River Lock and Dam Numbers 1, 2, 3, and 4

Dear Mr. Russell:

The U.S. Fish and Wildlife Service Kentucky Field Office has reviewed your January 9, 2017 initial scoping notice requesting comments on the preparation of the draft environmental assessment (EA) regarding the disposition of Kentucky River Lock and Dam Numbers 1, 2, 3, and 4. Disposal of these navigational facilities is being considered due to changes in usage that have occurred since their construction and which are forecasted to occur over the next 50 years. According to our records, the following federally listed species may occur in the project area and should be considered when preparing the environmental assessment:

- Indiana bat (*Myotis sodalis*) - Endangered
- Northern long-eared bat (*Myotis septentrionalis*) - Threatened
- Gray bat (*Myotis grisescens*) - Endangered
- Sheepnose mussel (*Plethobasus Plethobasus cyphus*) - Endangered
- Running buffalo clover (*Trifolium stoloniferum*) - Endangered
- Short's bladderpod (*Physaria globosa*) – Endangered

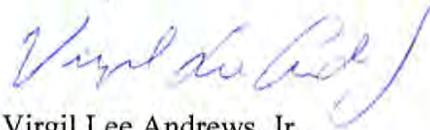
The January 9, 2017 correspondence also encouraged comments regarding plans for the disposal of these facilities. Based on the information provided, the only federally authorized purpose of the facilities is for commercial navigation, and there have not been commercial vessels recorded at the locks since 1985. Because the system no longer appears to be used for commercial navigation, we recommend removal of these locks and dams to facilitate ecosystem restoration. The population of sheepnose mussels in the Kentucky River is considered small and is only known from a single, recently dead shell found in 1996. Removing the facilities would, over time, allow the river to return to a natural gravel/sand substrate that could potentially encourage sheepnose recruitment in this stretch of the Kentucky River. We appreciate the opportunity to

Mr. Drew Russell

2

provide comments on the proposed action. If you have any questions, please contact Carrie Allison of my staff at 502-695-0468, extension 103.

Sincerely,

A handwritten signature in blue ink, appearing to read "Virgil Lee Andrews, Jr.", written in a cursive style.

Virgil Lee Andrews, Jr.
Field Supervisor

**Kentucky River Locks & Dam 1,2,3,4 Disposition Study
And Integrated Environmental Assessment
27 March 2017**

**KENTUCKY STATE NATURE PRESERVES
COMMISSION – LIST OF SPECIES**

Kentucky State Nature Preserves Commission
List of Species for Carroll, Franklin, Henry, and Owen Counties

Kentucky State Nature Preserves Commission status:

E = endangered T = threatened S = special concern H = historic X = extirpated

County	Group	Scientific Name	Common Name	Status
Carroll	Freshwater Mussels	<i>Hemistena lata</i>	Cracking Pearlymussel	X
Carroll	Freshwater Mussels	<i>Lampsilis abrupta</i>	Pink Mucket	E
Carroll	Freshwater Mussels	<i>Lampsilis ovata Po</i>	Pocketbook	E
Carroll	Freshwater Mussels	<i>Obovaria retusa Ri</i>	Ring Pink	E
Carroll	Freshwater Mussels	<i>Plethobasus cooperianus</i>	Orangefoot pimpleback	E
Carroll	Freshwater Mussels	<i>Plethobasus cyphus</i>	Sheepnose	E
Carroll	Freshwater Mussels	<i>Pleurobema rubrum</i>	Pyramid Pigtoe	E
Carroll	Freshwater Mussels	<i>Simpsonaias ambigua</i>	Salamander	T
Carroll	Amphibians	<i>Cryptobranchus alleganiensis</i>	Eastern Hellbender	E
Carroll	Amphibians	<i>Rana pipiens</i>	Northern Leopardard Frog	S
Carroll	Breeding Birds	<i>Falco peregrinus</i>	Peregrine Falcon	E
Carroll	Breeding Birds	<i>Ixobrychus exilis</i>	Least Bittern	T
Carroll	Breeding Birds	<i>Riparia riparia</i>	Bank Swallow	S
Carroll	Breeding Birds	<i>Tyto alba</i>	Barn Owl	S
Franklin	Vascular Plants	<i>Arabis perstellata</i>	Braun's Rockcress	T
Franklin	Vascular Plants	<i>Elymus svensonii</i>	Svenson's Wildrye	T
Franklin	Vascular Plants	<i>Gentiana flavida</i>	Yellow Gentian	E
Franklin	Vascular Plants	<i>Lonicera reticulata</i>	Grape Honeysuckle	T
Franklin	Vascular Plants	<i>Oenothera triloba</i>	Stemless Evening-	T
Franklin	Vascular Plants	<i>Onosmodium hispidissimum</i>	Hairy False Gromwell	E
Franklin	Vascular Plants	<i>Onosmodium occidentale</i>	Western False Gromwell	E
Franklin	Vascular Plants	<i>Perideridia americana</i>	Eastern Yampah	T
Franklin	Vascular Plants	<i>Philadelphus inodorus</i>	Mock Orange	T
Franklin	Vascular Plants	<i>Physaria globosa</i>	Globe Bladderpod	E
Franklin	Vascular Plants	<i>Prenanthes crepidinea</i>	Nodding Rattlesnake-root	S
Franklin	Vascular Plants	<i>Sagina fontinalis</i>	Water Stitchwort	E
Franklin	Vascular Plants	<i>Trifolium kentuckiense</i>	Kentucky Clover	E
Franklin	Vascular Plants	<i>Veratrum woodii</i>	Wood's Bunchflower	T
Franklin	Vascular Plants	<i>Viburnum molle</i>	Softleaf Arrowwood	S
Franklin	Freshwater Mussels	<i>Alasmidonta marginata</i>	Elktoe	T
Franklin	Freshwater Mussels	<i>Epioblasma torulosa rangiana</i>	Northern Riffleshell	E
Franklin	Freshwater Mussels	<i>Simpsonaias ambigua</i>	Salamander Mussel	T
Franklin	Insects	<i>Dryobius sexnotatus</i>	Six-banded Longhorn Beetle	T
Franklin	Fishes	<i>Nocomis biguttatus</i>	Hornyhead Chub	S
Franklin	Amphibians	<i>Cryptobranchus alleganiensis alleganiensis</i>	Eastern Hellbender	E
Franklin	Amphibians	<i>Rana pipiens</i>	Northern Leopard Frog	S
Franklin	Breeding Birds	<i>Accipiter striatus</i>	Sharp-shinned Hawk	S

Franklin	Breeding Birds	<i>Actitis macularius</i>	Spotted Sandpiper	E
Franklin	Breeding Birds	<i>Ammodramus henslowii</i>	Henslow's Sparrow	S
Franklin	Breeding Birds	<i>Gallinula galeata</i>	Common Gallinule	T
Franklin	Breeding Birds	<i>Haliaeetus leucocephalus</i>	Bald Eagle	T
Franklin	Breeding Birds	<i>Lophodytes cucullatus</i>	Hooded Merganser	T
Franklin	Breeding Birds	<i>Poocetes gramineus</i>	Vesper Sparrow	E
Franklin	Breeding Birds	<i>Thryomanes bewickii</i>	Bewick's Wren	S
Franklin	Mammals	<i>Myotis grisescens</i>	Gray Myotis	T
Franklin	Mammals	<i>Myotis septentrionalis</i>	Northern Long-Eared Bat	E
Henry	Vascular Plants	<i>Arabis perstellata</i>	Braun's Rockcress	T
Henry	Vascular Plants	<i>Gentiana flavida</i>	Yellow Gentian	E
Henry	Vascular Plants	<i>Onosmodium hispidissimum</i>	Hairy False Gromwell	E
Henry	Vascular Plants	<i>Prenanthes crepidinea</i>	Nodding Rattlesnake-root	S
Henry	Vascular Plants	<i>Salix discolor</i>	Pussy Willow	H
Henry	Vascular Plants	<i>Veratrum woodii</i>	Wood's Bunchflower	T
Henry	Aquatic Snails	<i>Lithasia armigera</i>	Armored Rocksnail	S
Henry	Freshwater Mussels	<i>Cyrogenia stegaria</i>	Fanshell	E
Henry	Freshwater Mussels	<i>Simpsonaias ambigua</i>	Salamander Mussel	T
Henry	Insects	<i>Nicrophorus americanus</i>	American Burying Beetle	X
Henry	Insects	<i>Pseudanophthalmus tenebrosus</i>	Stevens Creek Cave Beetle	T
Henry	Fishes	<i>Lota lota</i>	Burbot	S
Henry	Amphibians	<i>Cryptobranchus alleganiensis</i>	Eastern Hellbender	E
Henry	Amphibians	<i>Rana pipiens</i>	Northern Leopard Frog	S
Henry	Breeding Birds	<i>Aimophila aestivalis</i>	Bachman's Sparrow	E
Henry	Breeding Birds	<i>Dolichonyx oryzivorus</i>	Bobolink	S
Henry	Breeding Birds	<i>Haliaeetus leucocephalus</i>	Bald Eagle	T
Henry	Breeding Birds	<i>Passerculus sandwichensis</i>	Savannah Sparrow	S
Henry	Breeding Birds	<i>Tyto alba</i>	Barn Owl	S
Henry	Mammals	<i>Nycticeius humeralis</i>	Evening Bat	S
Owen	Vascular Plants	<i>Arabis perstellata</i>	Braun's Rockcress	T
Owen	Vascular Plants	<i>Elymus svensonii</i>	Svenson's Wildrye	T
Owen	Vascular Plants	<i>Lonicera reticulata</i>	Grape Honeysuckle	T
Owen	Vascular Plants	<i>Salix discolor</i>	Pussy Willow	H
Owen	Vascular Plants	<i>Trifolium stoloniferum</i>	Running Buffalo Clover	T
Owen	Vascular Plants	<i>Veratrum woodii</i>	Wood's Bunchflower	T
Owen	Aquatic Snails	<i>Lioplax sulculosa</i>	Furrowed Lioplax	S
Owen	Aquatic Snails	<i>Lithasia armigera</i>	Armored Rocksnail	S
Owen	Freshwater Mussels	<i>Cyrogenia stegaria</i>	Fanshell	E
Owen	Freshwater Mussels	<i>Pleurobema clava</i>	Clubshell	E
Owen	Freshwater Mussels	<i>Simpsonaias ambigua</i>	Salamander Mussel	T
Owen	Freshwater Mussels	<i>Villosa fabalis</i>	Rayed Bean	X
Owen	Fishes	<i>Lota lota</i>	Burbot	S
Owen	Amphibians	<i>Cryptobranchus alleganiensis alleganiensis</i>	Eastern Hellbender	E

Owen	Amphibians	<i>Plethodon cinereus</i>	Redback Salamander	S
Owen	Amphibians	<i>Rana pipiens</i>	Northern Leopard Frog	S
Owen	Breeding Birds	<i>Aimophila aestivalis</i>	Bachman's Sparrow	E
Owen	Breeding Birds	<i>Ammodramus henslowii</i>	Henslow's Sparrow	S
Owen	Breeding Birds	<i>Chondestes grammacus</i>	Lark Sparrow	T
Owen	Breeding Birds	<i>Pooecetes gramineus</i>	Vesper Sparrow	E
Owen	Breeding Birds	<i>Thryomanes bewickii</i>	Bewick's Wren	S
Owen	Breeding Birds	<i>Tyto alba</i>	Barn Owl	S
Owen	Mammals	<i>Myotis sodalis</i>	Indiana Bat	E

**Kentucky River Locks & Dam 1,2,3,4 Disposition Study
And Integrated Environmental Assessment
27 March 2017**

LOUISVILLE DISTRICT SECTION 106 LETTERS



**US Army Corps
of Engineers®
Louisville District**



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
P.O. BOX 59
LOUISVILLE, KENTUCKY 40201-0059

February 3, 2017

Planning, Programs and
Project Management Branch
Planning Section

Mr. Craig Potts
Kentucky Heritage Council
State Historic Preservation Office
300 Washington Street
Frankfort, KY 40601

Dear Mr. Potts:

The U.S. Army Corps of Engineers, Louisville District (District) is initiating Section 106 for the Kentucky River Locks and Dams 1-4 Disposition Study. As outlined in the January 9, 2017 scoping letter sent to your agency, the purpose of the study is to evaluate the existing navigation facilities at Kentucky River Lock and Dam Nos. 1, 2, 3 and 4 (KY River L&Ds 1-4) to determine whether a federal interest exists to deauthorize these projects and to dispose of the associated properties and improvements (Figure 1-2).

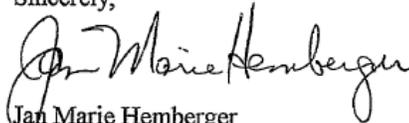
The KY River L&Ds 1-4 are the oldest of the locks and dams on the Kentucky River, having been constructed by a Commonwealth of Kentucky charter company from 1836 to 1842. These four locks and dams are a part of a non-contiguous linear historic district (Kentucky River Navigation System, Locks and Dams 1-14) that is considered eligible for the listing on the National Register of Historic Places (NRHP). The noted areas of significance are transportation and engineering during the period 1836 to 1938. While there had been loss of site integrity to land and structures that are a part of the system, each complex was deemed, in the 1980s, to retain sufficient integrity of location, workmanship, design, setting, materials, feelings and association to qualify for the NRHP.

An archaeological reconnaissance was conducted on the entire system (1-14) in 1987. The 1988 report, entitled "An Archaeological Reconnaissance of Locks and Dams Nos. 1-14 on the Kentucky River, Kentucky" documents the results of the survey. No archaeological sites were identified at KY River L&Ds 1, 2 and 4. However, two archaeological sites (15Hy26 and 15Hy27) were located at L&D 3. Site 15Hy26 is a multicomponent site consisting of both prehistoric and historic components. The prehistoric component dates to the Early to Middle Archaic period (approximately 8,000-3,000 B.C.) whereas the historic artifacts date from approximately 1850 to 1987. Site 15Hy27 could only be dated as unassigned prehistoric because no temporally diagnostic artifacts were recovered. Sites 15HY26 and 15Hy27 have not been evaluated for NRHP eligibility.

Based on the current knowledge of cultural resources at the facilities and the purpose of the study the following statements are provided for consideration/comment: 1) Congressional deauthorization of commercial navigation is not considered to cause effects to the structures or archaeological sites 15HY26 and 15HY27 as no changes to the facilities, or how they are managed while owned by the Louisville District, are part of this study (currently operated by the Kentucky River Authority under a lease agreement until 2027); and 2) The proposed disposal of KY River L&Ds 1-4 from government ownership is considered to have the potential for an adverse effect to the locks and dams unless conditions are placed on the disposal or, if appropriate, mitigation alternatives are developed to mitigate the adverse effects.

The Louisville District requests your comments on the cultural resources information and statements provided in this Section 106 initiation letter. These comments, as well as any additional information you may be aware of that the District should consider, will aid in the preparation of the draft study report. If you have any questions or comments on the presented material you may provide them at any time but they are requested no later than March 3, 2017. You can contact me via e-mail: jan.m.hemberger@usace.army.mil, phone: 502-315-6872 or by writing to my attention in PMC-PL at the above address.

Sincerely,



Jan Marie Hemberger
Archaeologist
Planning Section

Figure 1: Kentucky River Navigation System-Location Map

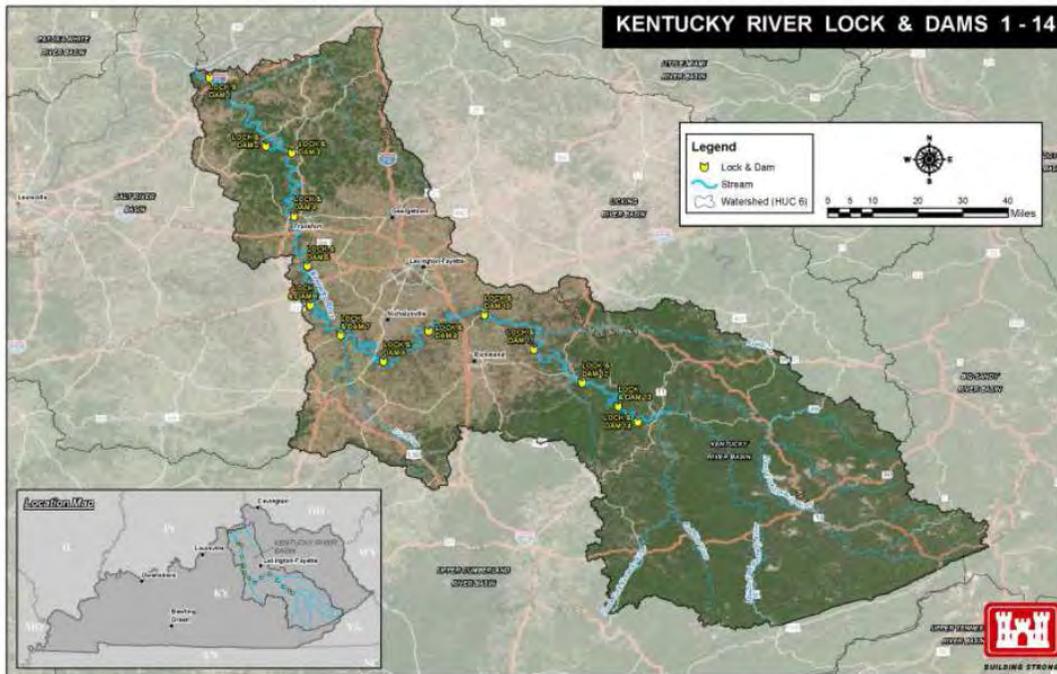
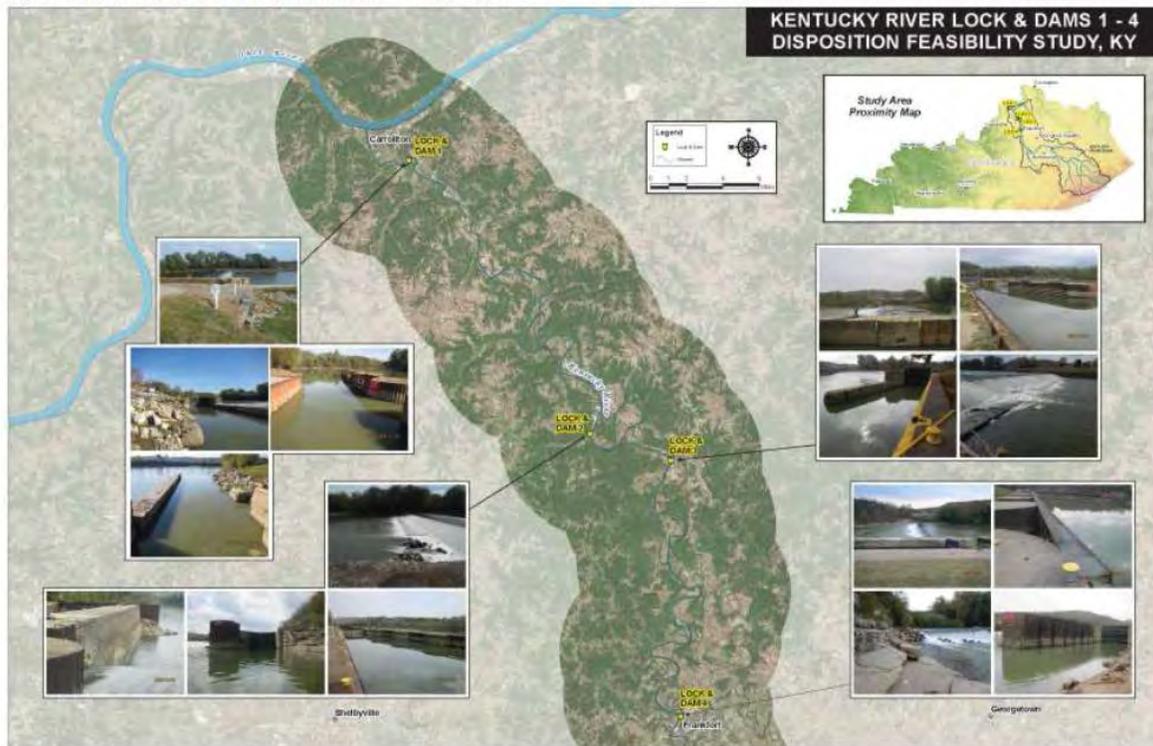


Figure 2: Kentucky River Lock and Dam Nos 1-4 Locations





DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
P.O. BOX 59
LOUISVILLE, KENTUCKY 40201-0059

February 3, 2017

Planning, Programs and
Project Management Branch
Planning Section

Tribe
Address
Address 2
City, State, Zip

Dear (Tribal Contact):

The U.S. Army Corps of Engineers, Louisville District (District) is initiating Section 106 for the Kentucky River Locks and Dams 1-4 Disposition Study. As outlined in the January 9, 2017 scoping letter sent to your Nation, the purpose of the study is to evaluate the existing navigation facilities at Kentucky River Lock and Dam Nos. 1, 2, 3 and 4 (KY River L&Ds 1-4) to determine whether a federal interest exists to deauthorize these projects and to dispose of the associated properties and improvements (Figures 1-2 and Table 1). The District invites your Nation to consult on this project pursuant to Section 106 of the National Historic Preservation Act of 1966 (as amended) and 36 CFR Part 800.

The KY River L&Ds 1-4 are the oldest of the locks and dams on the Kentucky River, having been constructed by a Commonwealth of Kentucky charter company from 1836 to 1842. These four locks and dams are a part of a non-contiguous linear historic district (Kentucky River Navigation System, Locks and Dams 1-14) that is considered eligible for the listing on the National Register of Historic Places (NRHP). The noted areas of significance are transportation and engineering during the period 1836 to 1938. While there had been loss of site integrity to land and structures that are a part of the system, each complex was deemed, in the 1980s, to retain sufficient integrity of location, workmanship, design, setting, materials, feelings and association to qualify for the NRHP.

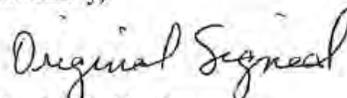
An archaeological reconnaissance was conducted on the entire system (1-14) in 1987. The 1988 report, entitled "An Archaeological Reconnaissance of Locks and Dams Nos. 1-14 on the Kentucky River, Kentucky" documents the results of the survey. No archaeological sites were identified at KY River L&Ds 1, 2 and 4. However, two archaeological sites (15Hy26 and 15Hy27) were located at L&D 3. Site 15Hy26 is a multicomponent site consisting of both prehistoric and historic components. The prehistoric component dates to the Early to Middle Archaic period (approximately 8,000-3,000 B.C.) whereas the historic artifacts date from

approximately 1850 to 1987. Site 15Hy27 could only be dated as unassigned prehistoric because no temporally diagnostic artifacts were recovered. No human remains have been found at sites 15HY26 and 15Hy27 and neither site has been evaluated for NRHP eligibility.

Based on the current knowledge of cultural resources at the facilities and the purpose of the study the following statements are provided for consideration/comment: 1) Congressional deauthorization of commercial navigation is not considered to cause effects to the structures or archaeological sites 15HY26 and 15HY27 as no changes to the facilities, or how they are managed while owned by the Louisville District, are part of this study (currently operated by the Kentucky River Authority under a lease agreement until 2027); and 2) The proposed disposal of KY River L&Ds 1-4 from government ownership is considered to have the potential for an adverse effect to the locks and dams unless conditions are placed on the disposal or, if appropriate, mitigation alternatives are developed to mitigate the adverse effects.

Please let the Louisville District know whether or not you want to consult on this project and if you have any initial comments. Specifically, the District requests your comments on the cultural resources information and statements provided in this Section 106 initiation letter. These comments, as well as any additional information you may be aware of that the District should consider, will aid in the preparation of the draft study report. A copy of this letter is being provided to (NAME), of your staff. If you, or your staff, have any questions or comments on the presented material you may provide them at any time but they are requested no later than March 3, 2017. You can contact me via e-mail: jan.m.hemberger@usace.army.mil, phone: 502-315-6872 or by writing to my attention in PMC-PL at the above address.

Sincerely,



Jan Marie Hemberger
Archaeologist
Planning Section

Figure 1: Kentucky River Navigation System-Location Map

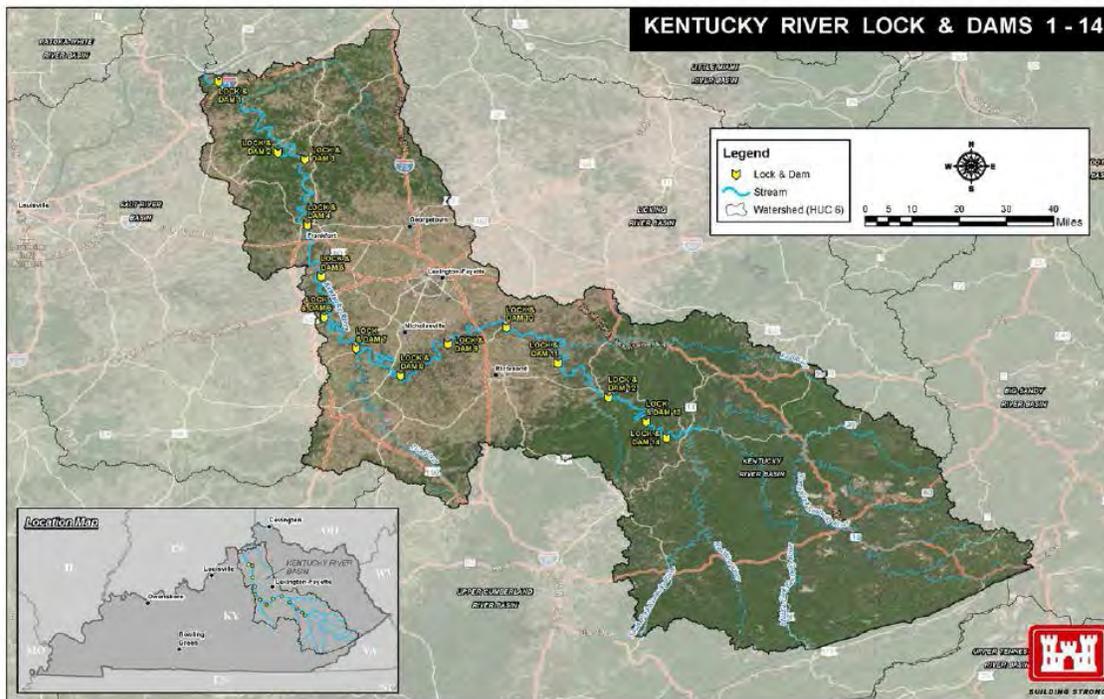


Figure 2: Kentucky River Lock and Dam Nos 1-4 Locations

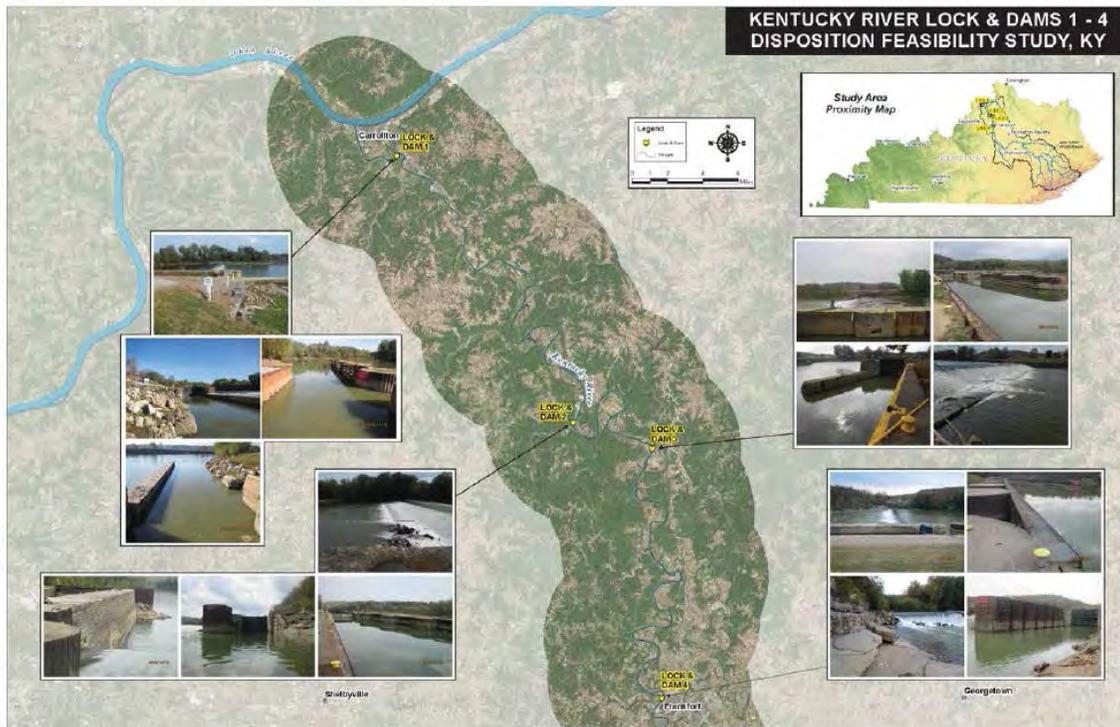


Table 1: Kentucky River Lock and Dam Nos 1-4 Locations by County

KY Lock & Dam	County or Counties
No. 1	Carroll
No. 2	Henry & Owen
No. 3	Henry & Owen
No. 4	Franklin

**Kentucky River Locks & Dam 1,2,3,4 Disposition Study
And Integrated Environmental Assessment
27 March 2017**

KENTUCKY SHPO COMMENTS



MATTHEW G. BEVIN
GOVERNOR

**TOURISM, ARTS AND HERITAGE CABINET
KENTUCKY HERITAGE COUNCIL**

REGINA STIVERS
DEPUTY SECRETARY

DON PARKINSON
SECRETARY

THE STATE HISTORIC PRESERVATION OFFICE

300 WASHINGTON STREET
FRANKFORT, KENTUCKY 40601
PHONE (502) 564-7005
FAX (502) 564-5820
www.heritage.ky.gov
March 9, 2017

CRAIG A. POTTS
EXECUTIVE DIRECTOR
& STATE HISTORIC
PRESERVATION OFFICER

United States Corps of Engineers
ATTN: Jan Marie Hemberger, PMC-PL
P.O. Box 59
Louisville, KY 40201-0059

Re: Section 106 initiation, Kentucky River Locks and Dams 1-4

Dear Ms. Hemberger:

We are writing in regards to you letter, received February 7, 2017. The letter informs us of the initiation of Section 106 consultation on the potential effects of the Federal government's disposal of the Kentucky River Locks and Dams 1-4. The lock and dam structures and associated buildings were deemed eligible for nomination to the National Register of Historic Places during the 1980s. Archaeological assessment of the lock and dam areas was conducted in 1987, resulting in the identification of two archaeological sites (15Hy26 and 15Hy27) at Lock and Dam 3.

The letter solicited comment on two statements. These are:

#1 – *Congressional deauthorization of commercial navigation is not considered to cause effects to the structures or archaeological sites 15Hy26 and 158Hy27 as no changes to the facilities, or how they are managed while owned by the Louisville District, are part of this study...*

We concur with this statement so long as facilities and structures associated with the locks and dams are maintained after deactivation. The deactivation should not result in neglect of structures that would lead to a loss of integrity, features, or character that make them eligible for the National Register.

#2 – *The proposed disposal of KY River L&Ds 1-4 from government ownership is considered to have the potential for an adverse effect to the locks and dams unless conditions are placed on the disposal or, if appropriate, mitigation alternative are developed to mitigate the adverse effect.*

We conditionally concur with this statement. Our only reservation is that the archaeological survey of the locks and dams was conducted prior to the development of our current specifications for conducting archaeological fieldwork, and may be inadequate. Additional assessment of lock and dam locations may be necessary before we can comment on effects to archaeological resources.

Should you have any questions concerning effects to archaeological resources, feel free to contact Chris Gunn of my staff at chris.gunn@ky.gov. Questions concerning architectural resources may be directed to Jennifer Ryall at jennifer.ryall@ky.gov.

Sincerely,

Craig A. Potts,
Executive Director and
State Historic Preservation Officer

CP:cmg jr KHC # 48489

**Kentucky River Locks & Dam 1,2,3,4 Disposition Study
And Integrated Environmental Assessment
27 March 2017**

**LOUISVILLE DISTRICT INDIAN NATION
COMMENTS
MIAMI TRIBE
OSAGE NATION
SHAWNEE TRIBE**



**US Army Corps
of Engineers®
Louisville District**

From: Diane Hunter [<mailto:dhunter@miamination.com>]
Sent: Friday, February 03, 2017 11:06 AM
To: Russell, Drew C CIV USARMY CELRL (US) <Drew.C.Russell@usace.army.mil>
Subject: [EXTERNAL] Kentucky River Lock and Dam Nos. 1, 2, 3, and 4

Dear Mr. Russell:

Aya, kikwehsitoole – I show you respect. My name is Diane Hunter, and I am the Tribal Historic Preservation Officer for the Federally Recognized Miami Tribe of Oklahoma. In this capacity, I am the Miami Tribe's point of contact for all Section 106 issues.

The Miami Tribe offers no objection to the above-mentioned project at this time, as we are not currently aware of existing documentation directly linking a specific Miami cultural or historic site to the project site. However, as this site is within the aboriginal homelands of the Miami Tribe, if any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of this project, the Miami Tribe requests immediate consultation with the entity of jurisdiction for the location of discovery. In such a case, please contact me at 918-541-8966, or by email at dhunter@miamination.com <<mailto:dhunter@miamination.com>> to initiate consultation.

The Miami Tribe requests to serve as an interested party to the proposed project. In my capacity as Tribal Historic Preservation Officer I am the point of contact for consultation.

Respectfully,

Diane Hunter
Tribal Historic Preservation Officer
Miami Tribe of Oklahoma
P.O. Box 1326
Miami, OK 74355

From: [Tonya Tipton](#)
To: [Hemberger, Jan M CIV USARMY CELRL \(US\)](#)
Cc: ben.barnes@gmail.com
Subject: [EXTERNAL] Section 106 for the Kentucky River Locks and Dams 1-4 Disposition Study
Date: Thursday, February 16, 2017 11:29:43 AM

In response to the above referenced project.

Second Chief, Ben Barnes would like to be a consulting party on this project.

You may contact Ben via e-mail at ben.barnes@gmail.com <<mailto:ben.barnes@gmail.com>> .

Thank you,

Tonya Tipton



TRIBAL HISTORIC PRESERVATION OFFICE

Date: February 22, 2017

File: 1617-1842KY-1

RE: DOA, USACE, Louisville District, Evaluate alternatives for disposition of Kentucky Lock and Dam Number 1,2,3, and 4, Owen, Henry, Carroll, and Franklin counties, Kentucky

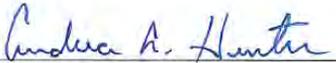
USACE – Louisville District
Drew Russell
P. O. Box 59
Louisville, KY 40201-0059

Dear Mr. Russell,

The Osage Nation Historic Preservation Office has received notification and accompanying information for the proposed project listed as DOA, USACE, Louisville District, Evaluate alternatives for disposition of Kentucky Lock and Dam Number 1,2,3, and 4, Owen, Henry, Carroll, and Franklin counties, Kentucky. The Osage Nation has significant cultural sites dating from the Early to Middle Woodland and potentially the Archaic periods along the Kentucky River that must be evaluated and considered prior to the disposal of Kentucky Lock and Dam Numbers 1-4. The Osage Nation requests consulting party status to the EA and the opportunity to review and comment on draft versions of the EA as it is finalized.

In accordance with the National Historic Preservation Act, (NHPA) [16 U.S.C. 470 §§ 470-470w-6] 1966, undertakings subject to the review process are referred in S101 (d)(6)(A), which clarifies that historic properties may have religious and cultural significance to Indian tribes. Additionally, Section 106 of NHPA requires Federal agencies to consider the effects of their actions on historic properties (36 CFR Part 800) as does the National Environmental Policy Act (43 U.S.C. 4321 and 4331-35 and 40 CFR 1501.7(a) of 1969).

Should you have any questions or need any additional information, please feel free to contact me at the number listed below. Thank you for consulting with the Osage Nation on this matter.


Andrea A. Hunter, Ph.D
Director, Tribal Historic Preservation Officer


Jackie Rodgers
Archaeologist

From: [Diane Hunter](#)
To: [Hemberger, Jan M CIV USARMY CELRL \(US\)](#)
Subject: [EXTERNAL] Kentucky River Locks and Dams 1-4 Disposition Study
Date: Tuesday, February 28, 2017 3:18:11 PM

Dear Ms. Hemberger:

Aya, kikwehsitoole – I show you respect. My name is Diane Hunter, and I am the Tribal Historic Preservation Officer for the Federally Recognized Miami Tribe of Oklahoma. In this capacity, I am the Miami Tribe's point of contact for all Section 106 issues.

The Miami Tribe accepts the invitation to serve as a consulting party to the above-mentioned project. I am the point of contact for consultation.

The Miami Tribe objects to projects that will disturb or destroy archaeological sites that may be eligible for the National Register of Historic Places and requests copies of the SHPO's report and any archaeological surveys that are performed on these sites. Please email all documentation to dhunter@miamination.com <<mailto:dhunter@miamination.com>>. We request to participate in consultation regarding the potential adverse effects to the archaeological sites.

If any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of this project, the Miami Tribe requests immediate consultation with the entity of jurisdiction for the location of discovery. In such a case, please contact me at 918-541-8966 or by email at dhunter@miamination.com <<mailto:dhunter@miamination.com>>.

Respectfully,

Diane Hunter
Tribal Historic Preservation Officer
Miami Tribe of Oklahoma
P.O. Box 1326
Miami, OK 74355