

# Ecological Assessment

**Ballard County, Kentucky  
Item #01-115.00**

*for*

**Kentucky Transportation Cabinet  
Station: W5-22-02  
200 Mero Street  
Frankfort, Kentucky 40622**

*May 4, 2004*

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# Table of Contents

	<i>Page</i>
I. PROJECT DESCRIPTION .....	1
II. FIELD INVESTIGATION .....	1
III. STREAMS AND WETLANDS .....	1
IV. THREATENED AND ENDANGERED SPECIES .....	5

## **EXHIBIT**

Exhibit 1 – Project Corridor .....	2
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## **I. PROJECT DESCRIPTION**

A highway improvement/bypass (KYTC Item No. 01-115.00) for US 60 is proposed west of the McCracken - Ballard County line in western Kentucky. The improvement would continue the widening of US 60 from a two-lane to a four-lane road. Two alternatives are proposed for the project, which bypass the city of Kevil to the north or south. The area of the project corridor is a mix of rural residences with row crop and grazing farmland. The length of the corridor is approximately 3.7 miles.

## **II. FIELD INVESTIGATION**

On April 21, 2004, personnel from Third Rock surveyed the project corridor of both alternatives for potential impacts posed to aquatic and terrestrial ecosystems as well as threatened and endangered species. The disturbance limits of the entire corridor were visually inspected for wetlands, streams, and potential habitat for endangered species. The locations of the potential impacts found are shown on Exhibit 1.

## **III. STREAMS AND WETLANDS**

Alternatives 1 and 2 will cross four blue line streams according to USGS topographic mapping in five locations. Streams are numbered based on adjacent McCracken County highway project (Exhibit 1). Total disturbance length of blue line stream disturbance is approximately 831 linear feet for Alternative 1 and 1,084 linear feet for Alternative 2. Total stream disturbance (includes additional ephemeral and intermittent streams) approximately 1,555 linear feet / 0.11 acres for Alternative 1, and 1,909 linear feet / 0.125 acres



**Potentially impacted perennial stream in the project corridor**

of stream for Alternative 2. The length of proposed blue line stream impact for both alternatives would qualify for a section 401 permit from Kentucky Division of Water (> 200 linear feet). The disturbance size of both alternatives (< 0.5 acre, > 0.1 acre) is also large enough to possibly require a Nationwide 404 #14 permit from the United States Army Corps of Engineers (USACE). Information of this disturbance should be sent to the Louisville District USACE for external review.



**Stream Crossing 5**



**Stream Crossing 6**



**Stream Crossings 7 and 8**



**Stream Crossing 9**

No hydric soils were found in the county survey. As a result, the only found wetland in the project disturbance limits was a farm pond. This wetland (0.20 acres) was found on the west end of Alternative 1 (Exhibit 1). The pond was saturated and covered with an emergent stand of cattail and additional duckweed on the water surface. This wetland was determined non-jurisdictional due to the absence of an outlet channel.



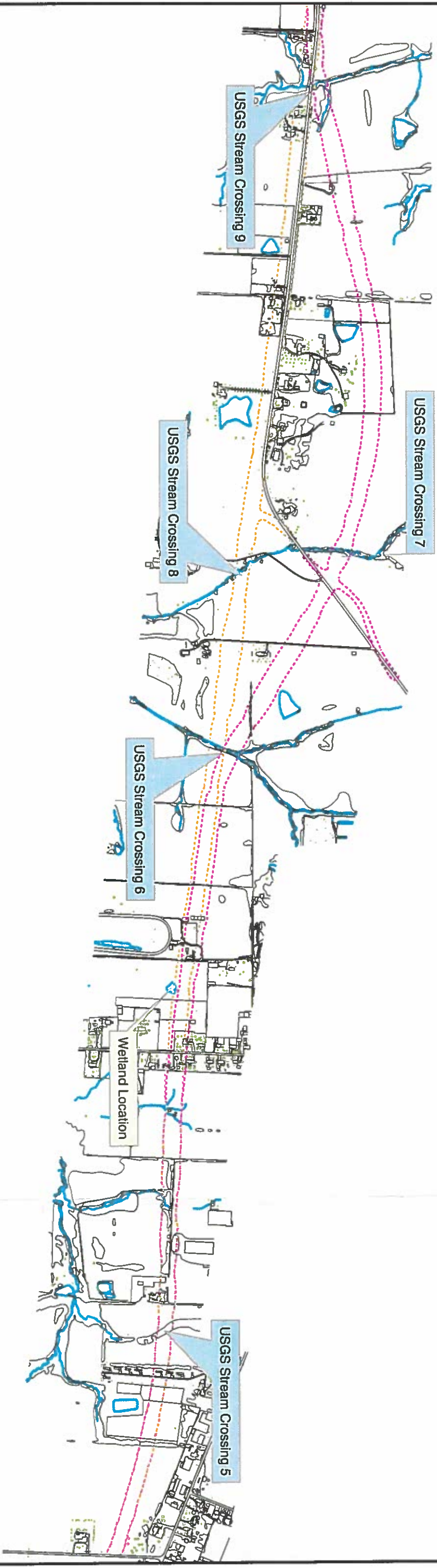
**Farm pond wetland in the disturbance limits of Alternative 1**

#### **IV. THREATENED AND ENDANGERED SPECIES**

After review of United States Fish and Wildlife Service (USFWS) and Kentucky Nature Preserve's web sites, the only federally listed species with the potential to occur in the project corridor was the Indiana bat (*Myotis sodalis*). Due to the abundance of row-crop farmland, no potential bat habitat was found in the project corridor. According to the USFWS several federally endangered mussels are known to exist in Ballard County. There was no stream habitat found that would be suitable for these mussel species.

Though the proposed alternatives cross several stream segments, neither of the construction alternatives poses significant environmental disturbance. Alternative 1 would have the least impact. It would impact the smallest amount of stream linear feet and acreage.





**Legend**

- Alternative 1 Disturbance Limits
- Alternative 2 Disturbance Limits

Exhibit 1  
 US 60 Reconstruction  
 KYTC Item No. 01-115.00  
 Ballard and McCracken Counties, Kentucky

1 inch equals 1,000 feet