

The mature woods habitat in the study corridor were identified as suitable summer roosting, foraging, and commuting habitat for the Indiana and northern long-eared bats. This habitat totals 33.0 acres (Figure 2). The project is located in Known Summer 1 habitat for the northern long-eared bats (Figure 3). Due to the lack of wooded habitat along the perennial streams within the study corridor, these features are not considered foraging and commuting habitat for the gray bat.

Potential habitat for the federally-listed mussel species includes streams and small rivers with moderate to fast-flowing current and substrate consisting of sand, gravel, cobble, and boulders. Two perennial streams are located within the study corridor; however, these features (Northern Ditch and Southern Ditch) are located in a highly urbanized area, have been extensively channelized, exhibit heavy sediment deposition, and are not considered habitat for the identified mussel species. Furthermore, no live mussels or relic shells were observed during the reconnaissance. Therefore, these federally-listed mussel species are considered absent from the proposed corridor.

Preferred habitat for Kentucky glade cress consists of shallow or rocky soil near dolomite formations. The study corridor is underlain by alluvium and loess geology. No areas of shallow or rocky soils suitable for this species were observed in the study corridor. Based on the lack of habitat, this species is considered absent from the study corridor.

Suitable habitat for running buffalo clover includes rich, mesic forests with partial to filtered sunlight that have periodic occurrences of moderate disturbance. The wooded areas within the study corridor generally have either closed canopies or dense understories; therefore, these areas do not provide the required filtered light or moderate disturbance conditions. Therefore, this species is likely not present within the study corridor.

Preferred habitat for piping plover and interior least tern consists of large sandbars, such as those found in and along large rivers. This habitat is not present in the study corridor; therefore, these species are presumed absent from the study corridor.


Waters of the U.S.: The following table summarizes potential streams and wetlands identified within the study corridor. The identified features are presented on Figure 2.


Feature	Stream Length (feet)	Area (acre)	Status
Southern Ditch	10,505	1.0	Jurisdictional
Northern Ditch	615	0.3	Jurisdictional
Wilson Creek	170	0.1	Jurisdictional
<b>Perennial Stream Total</b>	<b>11,290</b>	<b>1.4</b>	
Intermittent Stream 1	215	0.02	Jurisdictional
Intermittent Stream 2	610	0.06	Jurisdictional
Intermittent Stream 3	615	0.06	Jurisdictional
Intermittent Stream 4	250	0.03	Jurisdictional
<b>Intermittent Stream Total</b>	<b>1,690</b>	<b>0.17</b>	
Wetland 1	---	2.2	Jurisdictional
Wetland 2	---	2.1	Jurisdictional
Wetland 3	---	1.1	Jurisdictional
Wetland 4	---	6.1	Jurisdictional
Wetland 5	---	1.3	Jurisdictional
Wetland 6	---	1.4	Jurisdictional
Wetland 7	---	3.8	Jurisdictional
<b>Wetland Total</b>	<b>---</b>	<b>18.0</b>	





Source: World Imagery - Esri and the GIS User Community (2016).


**Legend**


 Outer Loop Corridor Study


 Perennial Stream

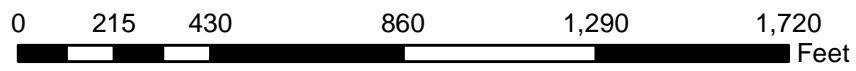
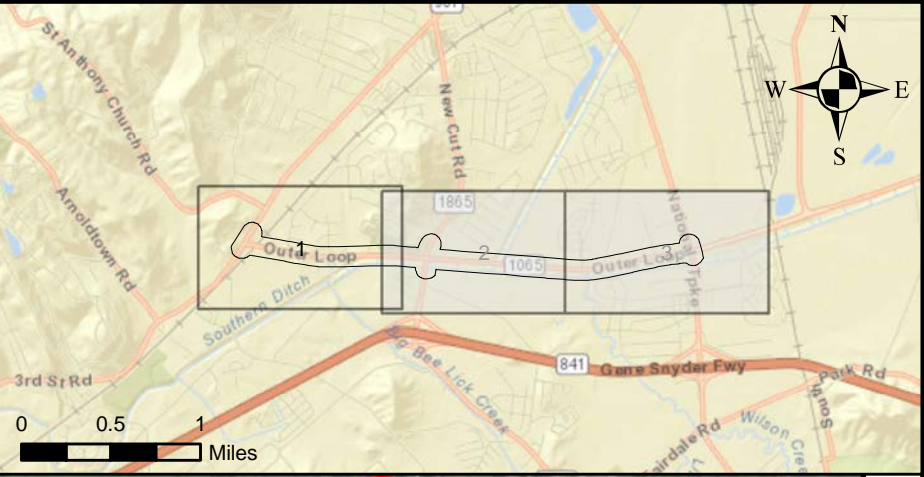
 Intermittent Stream

 Concrete Ditch

 Mitigation Site

 Potential Wetland Area (18 acres)

 Suitable Indiana and Northern Long-eared Bat Habitat (33 acres)



NOTE: HABITAT ASSESSMENT PERFORMED BY REDWING ECOLOGICAL SERVICES, INC. ON AUGUST 28, 2017.



OUTER LOOP CORRIDOR STUDY  
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ECOLOGICAL RESOURCES  
MAP

FIGURE 2  
SHEET 1 of 3

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## ECOLOGICAL RESOURCES MAP

FIGURE 2  
SHEET 2 of 3



Source: World Imagery - Esri and the GIS User Community (2016).

**Legend**

Outer Loop Corridor Study

Perennial Stream

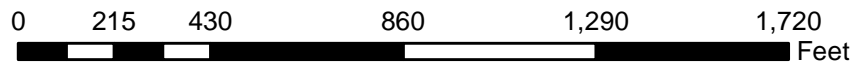
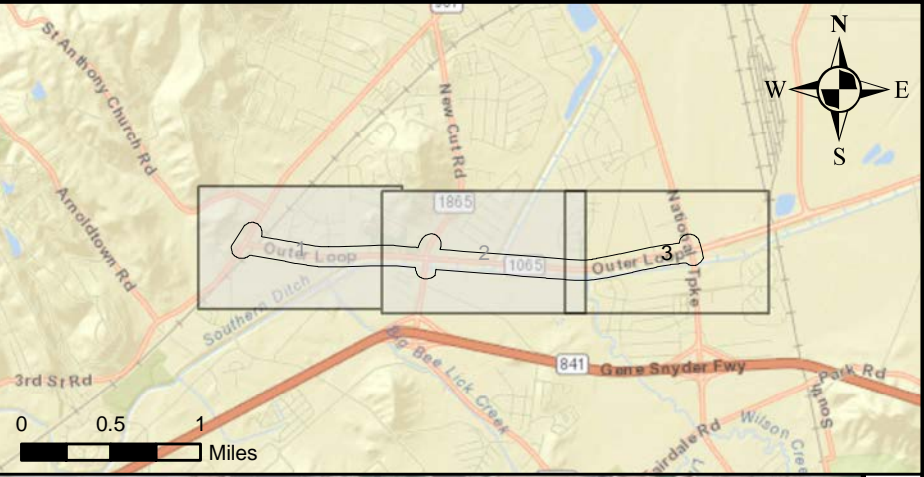
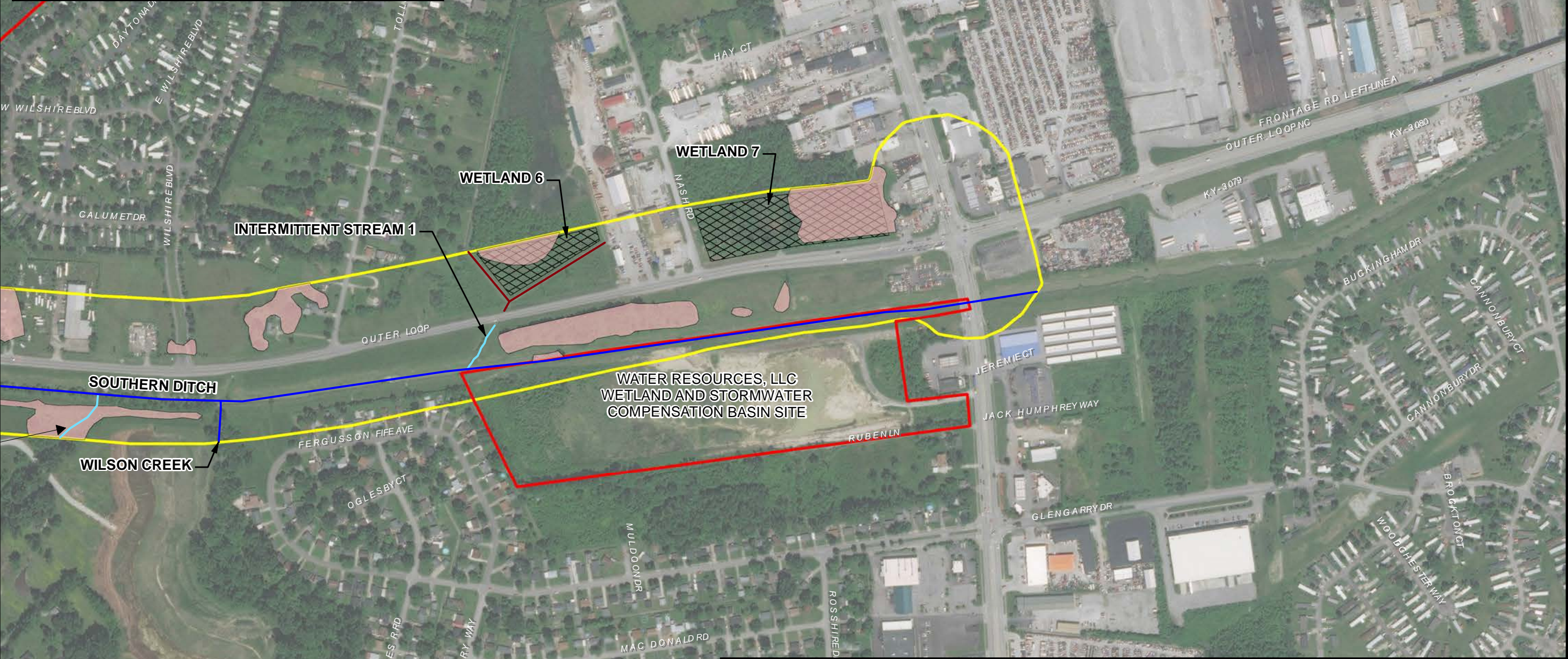
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ECOLOGICAL RESOURCES  
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FIGURE 2  
SHEET 3 of 3

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