

### **3.19 Environmental Commitments and Mitigation**

- The Uniform Relocation Assistance and Real Property Acquisition Act of 1970 (Uniform Relocation Act) (Title 42 United States Code Sections 4601-4655), as amended, provides relocation assistance and compensation to any residence or business displaced.
- Evaluation for traffic signals on roadways at ramp terminals will be performed at the time of design. The re-aligned intersection of Wabash Avenue and Old 51 will also be evaluated for traffic signals.
- Oil wells within the ROW would be purchased and plugged in accordance with 62 Ill. Adm. Code Ch. I, Section 240.
- Design alignments to utilize frontage (or access) roads to decrease adverse travel, landlocked parcels, and severance of farm operations.
- Farm access points will be coordinated with property owners at the time of design to ensure access to farm fields, where deemed practical.
- Phase II archaeological testing will occur after the preferred alternative is identified. IDOT, in understanding with the SHPO, commits to avoid, mitigate, or minimize any impacts to National Register eligible sites identified during Phase II or later testing.
- If piers for the US 51 Build Alternative bridge south of Vandalia are required in the Kaskaskia River, they may require cofferdams and causeways. These temporary construction measures will disturb habitat for the western sand darter, the mudpuppy, and the smooth softshell turtle during construction. Once the in stream work is completed, cofferdams and causeways will be removed then the river bed can be restored for habitat.
- No in-stream work shall occur between June 16 and August 16 in order to protect the western sand darter.
- To avoid direct impacts to the Indiana bat and the northern long-eared bat, tree removal should be scheduled between November and March along wooded riparian corridors.
- To minimize and avoid direct impacts, the proposed construction and reconstruction of the new bridge would span the entire Ramsey Creek.

- Because the Vandalia Geologic Area has highly erodible soils, strict adherence to erosion and sediment control during construction would minimize the impact. Furthermore, quick re-vegetation of final graded areas not under pavement would stabilize soils and prevent erosion.
- Design, construction, and operational features would be included in the design of the alternatives to minimize highway impacts upon receiving streams. These measures would include the use of drainage ditches, erosion control features, and deicing management.
- Mitigation measures are identified in IDOT specifications to reduce erosion potential. Soil erosion control practices would limit sediment reaching the stream. For example, river and stream banks disturbed by construction would be re-vegetated immediately following construction. Raw banks would be mulched or protected with blankets until vegetation is established.
- Any construction in an existing waterway would be conducted in low-to zero-flow conditions. As necessary, flow will be maintained during construction, and erosion and sediment controls will be used to minimize downstream impacts. Disturbance to streamside vegetation will be kept to a minimum. Temporary fencing or alternative measures would be considered to protect existing vegetation to remain in critical erosion prone areas. Opportunities for stream enhancements (e.g., streambank stabilization, installing rock riffles) within the project corridor watersheds will be investigated with mitigation.
- Storm water effects will be minimized by collection of all storm water runoff in a ditch system.
- Deicing is important to maintain safe roads; however, IDOT continues to develop improved maintenance and management strategies to minimize salt application rates.
- Mitigation for Webster Creek stream re-alignment will be needed per 33 CFR part 332 using the Illinois Stream Mitigation Guidance. Meanders will be incorporated as part of the mitigation, to the extent feasible.
- There will be bridges across the special designation streams (Sewer Creek, Crooked Creek, Prairie Creek, Lost Creek, East Fork Kaskaskia River, North Fork Kaskaskia River, Hickory Creek, Kaskaskia River, and Ramsey Creek) reducing the impact to the loss of stream bottom for aquatic life associated with culverts. The piers will be placed outside

the stream for six of the streams. For the Kaskaskia River, North Fork Kaskaskia River, and Hickory Creek piers will be placed in the stream.

- As the highly erodible soils are near the stream banks, special provisions will be used for erosion control to minimize impacts to these streams during construction. The high quality streams of Ramsey Creek and Lost Creek will be bridged for the US 51 Build Alternative and CS Alt 1, respectively. The bridges will minimize potential impacts to the fisheries and mussels in these two streams.
- Private water wells within the ROW would be properly abandoned in accordance with the Illinois Department of Health codes. If a home remains, the well would be replaced. Roadway runoff would be controlled via a ditch system in the project area and there would be no sheet runoff to adjacent areas. These actions minimize the potential for infiltration of chlorides and other pollutants.
- In the Vandalia area where shallow groundwater is used for drinking water wells additional protection would be provided. The base of the ditch system would be designed to remain above the shallow water table. The depth is estimated at 19 feet based upon available water well data. The ditch system near V Alt 2 and V Alt 3 can also be lined with clay to reduce any possible infiltration to the shallow groundwater table.
- All activities in the floodplain will comply with applicable FEMA approved state and local floodplain management requirements. Where alternatives encroach on floodplains, structures and facilities will be designed to allow no more than a 1-foot increase in the base flood elevation.
- Where fill within floodplains is unavoidable, mitigation such as compensatory storage will be provided to offset the impact to the floodplain. Mitigation for fill in the floodplain will be based upon IL Administrative Code Title 17 Part 3700, 8/20/10.
- All practical measures will be used to reduce impacts to wetlands during construction. IDOT will protect and preserve wetlands within the project corridor through various ways. The most important way is to identify wetland areas for the construction workers to prevent them from accidentally entering a site with equipment. Identification can be accomplished by fencing off wetlands that are not proposed to be impacted. In addition, wetland areas will be illustrated on plan sheets that the construction contractors use in the field.

- Mitigation or replacement for wetland impacts will follow the Interagency Wetland Policy Act of 1989 (IWPA) and Section 404 of the Clean Water Act. In keeping with the “no net loss” policy, the IWPA requires replacement wetlands to be created for all impacts to wetlands regardless of size. The IWPA includes a set of pre-described replacement ratios which must be followed.

At a minimum, IDOT must replace every acre of disturbed wetland with one acre of replacement. For every acre of high floristic quality wetland impact, 5.5 acres will be built. Typical replacement ratios are 2.0 acres of new wetland creation for every one acre impacted. Based on the proposed impacts, wetland mitigation ranges from 159 to 235 acres for the alternative combinations.

- A validated and updated Preliminary Environmental Site Assessment (PESA) will be incorporated into the Final Environmental Impact Statement.
- Prior to the acquisition of property or a temporary or permanent easement, and prior to construction, a Preliminary Site Investigation (PSI) will be performed at each affected property containing a Recognized Environmental Condition (REC) to determine the nature and extent of the waste present.
- A PSI will be conducted if the proposed improvements require excavation on or adjacent to a property identified with a REC or requires excavation, including subsurface utility relocation, on a property with an easement.
- IDOT will manage and dispose of contaminated materials in accordance with applicable federal and state regulations and in a manner that will protect human health and the environment. If the affected properties containing the RECs are full takes, then the property is ineligible to be risk managed, according to IDOT BDE Chapter 27, Section 2.05(a).”
- Special waste issues encountered during construction, and not otherwise identified in a special provision, will be managed in accordance with the IDOT “Standard Specifications for Road and Bridge Construction and Supplemental Specifications and Recurring Special Provisions.”