Appendix D

Summary of Commitments

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix D: Summary of Commitments

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
Community and Neighborhood				
Construction of the project will separate one residential neighborhood from the core of Wilmington	In Illinois, following construction of the Illiana Corridor, Widows Road will remain open to maintain access from the residential neighborhood on the north side of the project to the Wilmington downtown area.	FEIS Section 3.2.5 ROD Section 6.0	Design	IDOT
Public Facilities				
Construction of the project will potentially have access impacts to City of Wilmington water treatment plant	In Illinois, during the land acquisition process, IDOT will continue to coordinate with the City of Wilmington to address the driveway to the water treatment plant, following the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) in its evaluation of property needed for this project.	FEIS Section 3.2.7 Uniform Relocation Assistance and Real Property Acquisition Policies Act for 1970 ROD Section 6.0	Design	IDOT
Construction of the project will potentially have access impacts to Bobcat Field	• In Illinois, the City of Wilmington and IDOT have had prior discussions as documented in Section 6.0 and Appendix Z of the Tier Two FEIS, and City officials have indicated their willingness to work with IDOT to identify a solution that will allow the continuation of the private recreational activities now accommodated at Bobcat Field, potentially at an alternate location. • IDOT will continue to coordinate with the City of Wilmington to address this issue during the land acquisition process following the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) in its evaluation of property needed for this project.	FEIS Section 3.2.7 FEIS Appendix DD - Response to Tier Two DEIS Comments Uniform Relocation Assistance and Real Property Acquisition Policies Act for 1970 ROD Section 6.0	Design	IDOT

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
Relocation				
In Illinois and Indiana, construction of the project will cause permanent property displacements. Determination of property displacements will be based on the detailed design plans for the project and during the land acquisition process. Displacements are determined based on each property's unique circumstances in relation to the project right-of-way, therefore, the amount of property to be acquired is determined on a case-by-case basis.	Both IDOT and INDOT follow the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) in evaluating property needed for this project.	FEIS Section 3.2.8 FEIS Appendix DD - Response to Tier Two DEIS Comments Uniform Relocation Assistance and Real Property Acquisition Policies Act for 1970 ROD Section 6.0	Design	IDOT/INDOT
Transportation Systems				
Construction of the project is projected to result in increased traffic volumes on some local roads due to additional vehicles involved in construction activities, road closures, and temporary detours	Prior to the start of construction activities, a Traffic Management Plan (TMP) will be developed and implemented to ensure reasonable access for cars, trucks, freight rail traffic, and transit vehicles to residences, businesses, public facilities, community/emergency services, and local roads during construction.	FEIS Section 3.2.10 ROD Section 6.0	Design and Pre-Construction	IDOT/INDOT

Appendix D: Summary of Commitments (continued)

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
Agricultural Resources				
Construction of the project will impact agricultural land	• During the land acquisition process, re-establish field access points for farm machinery, where practical; • Maintain existing surface and subsurface drainage and consult with landowners prior to construction to locate existing field tiles; • Re-establish drainage for adjacent property following construction of roadway; and • Consider the use of acquired uneconomical remnants and landlocked parcels when choosing locations for project elements, such as storm water quality improvements or other mitigation requirements.	FEIS Section 3.3.4 ROD Section 6.0	Design	IDOT/INDOT
Cultural Resources				
Construction of the project may adversely affect at least 37 potentially NRHP-eligible archaeological sites (34 sites in Illinois and three sites in Indiana)	Implement the measures detailed in the Tier Two Section 106 Programmatic Agreement.	FEIS Section 3.4 FEIS Appendix K (full Tier Two Programmatic Agreement) ROD Section 6.0	Design	IDOT/INDOT

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
Construction of the project may have indirect impacts to 15 above-ground historic properties	In Illinois, implement specific measures and design guidelines detailed in the FEIS to minimize and avoid indirect impacts to above-ground historic properties including: • Preserve vegetation along the construction footprint to the extent possible to minimize visual impacts and provide screening for historic properties.	FEIS Section 3.4 ROD Section 6.0	Design	IDOT
	In Illinois, at IL-53, may implement: • Historic period-appropriate or aesthetic treatments for the Illiana Corridor bridge over the historic road in keeping with the historic appearance of Alternate Route 66.	FEIS Section 3.4 ROD Section 6.0	Design	IDOT
Air Quality				
Project construction activities may cause an increase in greenhouse gas emissions	• In Illinois, IDOT will follow normal procedures with regards to idling specifications that they already have in place. These specifications limit the idling of construction equipment, thereby conserving energy and reducing emissions of greenhouse gases. • In Indiana, INDOT will include incentives for limited idling of construction equipment in the construction plans. Furthermore, staging areas will be located as close as possible to work sites in order to minimize the distance that construction equipment must travel, thereby conserving energy and reducing emissions of greenhouse gases.	FEIS Section 3.5 ROD Section 6.0 IDOT Policy	Construction	IDOT/INDOT and Contractor

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
Natural Resources - Upland Plant Communities				
Construction of the project will impact forested areas and other tree resources	• In Illinois, forest mitigation has been coordinated with the USFWS, Illinois DNR, and other local stakeholders including Midewin National Tallgrass Prairie, and Forest Preserve District of Will County. • The final mitigation plan will focus on the establishment of native tree species in the forest mitigation areas. The plan will include providing suitable habitat for native wildlife that includes migratory birds, mammals including the northern long-eared bat, and forest dwelling reptiles and amphibians. • IDOT will not replace native forest trees with known invasive species such as buckthorn, honeysuckle, and box elder.	FEIS Section 3.8.1 ROD Section 6.0	Design	IDOT
	• In Indiana, INDOT is working with USFWS, Indiana DNR, IDEM, and local stakeholders including Lake County Parks to develop the forest mitigation plan. The exact locations of the forest mitigation sites have not been determined. INDOT's strategy for locating and developing sites will focus on those with the highest potential for the following: suitable wildlife habitat, especially for the northern long-eared bat; both wetland and upland forest; and stream enhancement. • INDOT will not replace native forest trees with known invasive species such as buckthorn, honeysuckle, and box elder.	FEIS Section 3.8.1 ROD Section 6.0	Design	INDOT
	In Illinois, following construction, replacement of trees	FEIS Section 3.8.1	Post-	IDOT

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
	would follow IDOT Policy *Preservation and Replacement of Trees* (IDOT, 2002) for impacts in Illinois.	ROD Section 6.0 IDOT Policy (D&E 18)	Construction	
	In Indiana, following construction, replacement of trees would be led by INDOT and Indiana Department of Environmental Management (IDEM) in coordination with Indiana Department of Natural Resources (DNR) for project specific tree replacement in Indiana.	FEIS Section 3.8.1 ROD Section 6.0 INDOT Policy	Post-Construction	INDOT
Construction of the project will impact prairie remnants	In Illinois, mitigate impacts to noteworthy prairies (prairies that were deemed high-quality, defined as prairies Grade C or better) by implementing mitigation measures to include: • The removal of trees to accommodate sites designated for future prairie restoration, as well as providing seed to create new prairie areas; and • Prairie mitigation will follow a hierarchy, with the Midewin National Tallgrass Prairie as the preferred mitigation site. IDOT will work with the Midewin National Tallgrass Prairie to develop a mitigation plan. If mitigation cannot be accomplished at the Midewin National Tallgrass Prairie, IDOT will coordinate with the Forest Preserve District of Will County (FPDWC) and other project stakeholders on a suitable mitigation plan for upland prairie impacts.	FEIS Section 3.8.1 ROD Section 6.0	Design	IDOT
	Allow Midewin National Tallgrass Prairie to collect selected seed and live plants from the construction	FEIS Appendix DD - Response to Tier Two	Design	IDOT

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
	footprint of the Illiana Corridor for preservation and propagation at Midewin National Tallgrass Prairie.	DEIS Comments		
	• In Indiana, noteworthy prairie remnants will be mitigated in cooperation with Indiana DNR, Lake County Parks and Recreation, and other regulatory agencies as appropriate for the selection of the final mitigation site; and • Upland prairie will also be restored as buffer for wetland mitigation efforts, especially within the Indiana portion of the project.	FEIS Section 3.8.1 ROD Section 6.0	Design	INDOT
Project construction activities may increase the spread of invasive species	During construction, minimize the spread of invasive species with measures to include the rapid seeding and revegetation of bare soil with native/non-invasive species, cleaning of construction equipment prior to entering areas near sensitive habitats, and active management of invasive plants that become established during construction. IDOT and INDOT will comply with the implementing measures of Executive Order 13112 to combat the introduction and spread of invasive plant species.	FEIS Section 3.8.1 ROD Section 6.0 Executive Order 13112 of February 3, 1999 – Invasive Species	Construction	IDOT/INDOT
Natural Resources - Wildlife Resources				
Construction of the project may impact wildlife resources	Potential locations for wildlife crossings have been identified in Section 3.8.2 and in Appendix Q (Wildlife Corridor Analysis) of the Tier Two FEIS. As part of the Section 4(f) evaluation, IDOT and INDOT have committed to include a wildlife crossing at the Wauponsee Glacial Trail. The intent is to provide crossings in the approximate locations as listed in Section 3.8.2 and Appendix Q of the Tier Two FEIS, with the	FEIS Section 3.8.2 ROD Section 6.0 FEIS Appendix Q - Wildlife Corridor Memorandum (2014)	Design	IDOT/INDOT

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
	understanding that reasonable modifications, refinements or alterations to these locations may be made during final design and permitting of the project, pursuant to Section 6.0 of this Tier Two ROD. IDOT and INDOT will be responsible for monitoring and maintaining bridges and the culvert structure that serves for wildlife crossings.			
	• All crossings identified as wildlife crossings will have wildlife passage features such as shelves on one or both sides of a stream.	FEIS Appendix DD - Response to Tier Two DEIS Comments ROD Section 6.0	Design	IDOT

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
Construction of the project may indirectly impact grassland birds due to noise	In Illinois, • IDOT will provide $2.5 million for grassland bird habitat mitigation, in the form of acquisition and/or restoration of land suitable for grassland bird habitat within the vicinity of the Project; and • IDOT will identify and evaluate appropriate properties for acquisition and/or restoration, and will continue to coordinate with Midewin National Tallgrass Prairie, US Fish and Wildlife Service, FPDWC, Illinois DNR, and other entities as appropriate. This strategy may involve a combination of the purchase and restoration of land from third parties (e.g., existing agricultural land), along with the restoration of land within one or more areas already protected under the jurisdiction of Midewin National Tallgrass Prairie, FPDWC, Illinois DNR, or others within the project vicinity.	FEIS Section 3.8 FEIS Appendix R ROD Section 6.0	Design	IDOT
Natural Resources – Federal Listed Threatened and Endangered Species				
Construction of the project may affect and is likely to adversely affect the sheepnose mussel	• In Illinois, IDOT will conduct surveys to determine location of mussels; • Relocate all individuals of native mussels within areas of construction to suitable habitat upstream of the proposed construction activities prior to the Kankakee River bridge construction; and • The final location for relocation of the native mussels will be determined based on coordination with the USFWS and the INHS; • Post-construction monitoring will be performed at the sites where the sheepnose mussels are relocated. Monitoring will be done in Year 2 and Year 4 after	FEIS Section 3.8.3 ROD Section6.0 Section 7 Biological Opinion	Pre-Construction, Construction, and Post-Construction	IDOT/INDOT and Contractor

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
	the completion of construction. INHS will perform the monitoring and provide the results to IDOT who will provide to USFWS; • In-stream work within the Kankakee River will not occur during March 15 to July 15, the spawning timeframes of the sauger, the host fish species of the sheepnose mussel; • It is anticipated that temporary causeways will be utilized to construct the bridge over the Kankakee River. The total area of temporary direct impact related to the causeway is estimated at two acres of river bottom. No more than one-half of the river would be closed at any one time. Once construction is completed, the causeways will be removed. Final construction methods and impacts will be determined during CWA permitting in cooperation with state and federal regulatory agencies; • BMPs will be utilized to improve the quality of runoff draining into adjacent waterways, with particular attention to the Kankakee River in order to protect sheepnose mussel and the sheepnose mussel host fish species habitat. Stormwater runoff from the proposed bridge over the Kankakee River would be routed to treatment basins on either side of the river. No runoff will be routed directly to the river. Permanent BMPs will be included in the proposed project to ensure that drainage from the proposed bridge over the Kankakee River will achieve the project performance standards established in the BO;			

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
	• All in-stream work will be performed in accordance with USACE, Chicago District – Regulatory Branch Requirements for In-stream Construction Activities (USACE 2013); • As previously mentioned, if in-stream work is required, river substrate will be restored to approximate preconstruction conditions in order to restore habitat for aquatic species.			
Construction of the project may affect, but is not likely to adversely affect the eastern prairie fringed orchid	• In Illinois, IDOT has committed to minimizing stray lighting from the roadway in areas near Midewin National Tallgrass Prairie, Grant Creek Prairie Nature Preserve, and other areas where the orchid is known to occur. • In Illinois, IDOT has committed to the use of directional lighting near the interchange closest to Midewin National Tallgrass Prairie; • Lighting used will be limited to the minimum intensity necessary to provide night visibility; and • Lighting will be limited to interchange and toll collection areas only and not on the general mainline roadway. • FHWA and IDOT will commit to working with the USFWS and the US Forest Service at Midewin National Tallgrass Prairie in finalizing a lighting plan that will minimize impacts to the potential moth pollinators.	FEIS Section 3.8.3 ROD Section 6.0 Section 7 Biological Opinion	Design	IDOT and Contractor
Construction of the project may affect and is likely to adversely	• Conservation measures for this species will include conducting all tree removal activities between October 15 and March 31 from areas of potential	FEIS Section 3.8.1.5 FEIS Section 3.8.3	Construction and Post-Construction	IDOT/INDOT

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
affect the northern long-eared bat	summer bat habitat. • Potential suitable habitat for the northern long-eared bat will be mitigated at a ratio of 3:1, accomplished by a combination of habitat creation and preservation of existing habitat. This results in a total mitigation requirement of 666 acres of suitable habitat for the northern long-eared bat; IDOT will be responsible for providing 339 acres of this mitigation in Illinois and INDOT will be responsible for providing 327 acres of this mitigation in Indiana. • The creation of suitable habitat for the northern long-eared bat will occur at a minimum ratio of 1:1 based on acreage of suitable habitat impacted. Therefore, IDOT will be responsible for the creation of 113 acres of suitable habitat and INDOT will be responsible for the creation of 109 acres of suitable habitat. The remaining mitigation for each state can be accomplished by either habitat creation or preservation of existing habitat (or a combination of both). The preservation of suitable habitat for the northern long-eared bat will occur at a maximum ratio of two acres to each acre lost. • Habitat creation will occur on land that does not already provide suitable habitat for this species. In order to create suitable habitat for the northern long-eared bat, trees will be planted at a suitable density on lands protected by easement or title. Tree planting will be located near the proposed project, but outside the project footprint and	ROD Section 6.0 Section 7 Biological Opinion		

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
	adjacent to existing summer habitat and flight corridors. • The final locations for northern long-eared bat habitat creation and preservation sites shall be determined based on coordination with the USFWS. This BA asserts that habitat creation and preservation requirements would be satisfied by multiple sites. Based on coordination with the USFWS, the initial set of candidate sites may have to be expanded to achieve the required acreage. Site selection requirements will include areas identified within the 5-mile radius from the locations where northern long-eared bats were captured in Indiana and in Illinois. • The FHWA shall ensure that the USFWS is notified of any and all changes to the construction plans, erosion and sediment control plans, and construction sequences/schedule that could impact the forested/wooded areas within the Illiana Corridor in any manner and to any extent (i.e., greater than 222 acres of trees being removed) not considered in this BA to determine whether re-initiation of consultation is necessary. The USFWS acknowledges that loss of habitat (i.e., the 222 acres of forested habitat) will be offset by the proposed establishment of northern long-eared bat habitat (see below). • A land manager shall be identified for the habitat creation and preservation sites to ensure that long term management is provided; initially and by			

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
	default, for both acquired and easement properties the property manager will be the state DOT. The habitat creation and preservation sites will be deed restricted to ensure that they are preserved as forest in perpetuity. • The DOTs or the identified land manager(s) shall be responsible for monitoring and maintaining the northern long-eared bat habitat creation areas while they are being established, for up to ten years. This maintenance and monitoring period may be extended if ecological performance measures have not been met at the end of ten years, and may be shortened if the site has met ecological performance measures before ten years. • After the final locations have been selected, the DOTs shall provide maintenance and monitoring plans and ecological performance measures for USFWS approval and review. The maintenance and monitoring plans will not be conceptual, but rather will contain detailed descriptions for each phase of mitigation including 1) initial construction and establishment, 2) post-construction monitoring phase, and 3) long-term management. • The maintenance and monitoring plans will address and/or establish the following: quantifiable criteria and methods for assessing success of all mitigation plantings, approved lists of tree/plant species to be planted (and their relative abundance/percent), proposed construction schedules, annual post-construction monitoring schedules, and a long-term,			

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
	on-going management strategy. • Reports will be provided to the USFWS during the maintenance and monitoring period for the habitat creation sites documenting conditions and performance measure monitoring at the habitat creation sites. The frequency at which inspections will occur and reports provided will be coordinated with and approved by the USFWS prior to the completion of the final mitigation plan.			

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
Construction of the project may affect and is likely to adversely affect the Eryngium stem borer moth (also known as the Rattlesnake-master borer moth)	• Areas of potential temporary impacts to habitat will be restored upon completion of construction. The restoration would include restoring the prairie habitat through planting or seeding. • The proposed impact will also require coordination with the Illinois DNR for an ITA and development of additional potential mitigation measures if warranted. • Prior to construction, areas within the vicinity of construction that contain rattlesnake master will be identified and protected with non-intrusion fencing. Identification of locations where the rattlesnake master is present will include a screening of all access road and areas adjacent to known populations of Eryngium stem borer moth within the study area. This effort will serve to alert workers of the species presence and prevent accidental intrusions to habitat for the Eryngium stem borer moth. Non-intrusion fencing will remain in place throughout the construction sequence. Worker awareness training will also be provided by a qualified environmental professional to aide in the minimization and avoidance of impacts to suitable habitat for the Eryngium stem borer moth. • To mitigate impacts, IDOT will use directional lighting within and adjacent to suitable habitat and known populations of the Eryngium stem borer moth in Illinois.	FEIS Section 3.8.3 ROD Section 6.0 Section 7 Biological Opinion	Construction and Post-Construction	IDOT/INDOT

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
Natural Resources – State Listed Threatened and Endangered Species				
Construction of project may impact State listed threatened and endangered species in Illinois and Indiana	• In Illinois, prior to construction, IDOT will obtain an Incidental Take Authorization from Illinois DNR for the purple wartyback mussel, black sandshell mussel, slippershell mussel, sheepnose mussel, ornate box turtle, Blandings turtle, Eryngium stem borer moth, river redhorse, pallid shiner, and western sand darter; and • During construction, no in-stream work in the Kankakee River from March 15 through July 15 to protect the river redhorse, pallid shiner, and western sand darter.	FEIS Section 3.8.3.8 ROD Section 6.0	Pre-Construction and Construction	IDOT
	• In Indiana, prior to construction, INDOT will contact the Indiana DNR to discuss potential issues concerning habitat for the black-crowned night heron, Virginia rail, American badger, Franklin's ground squirrel, eastern red bat, northern long-eared bat, green twayblade orchid (State Watch List), blue-spotted salamander, northern leopard frog, and great egret; and • In cases where avoidance is not possible, a plan will be prepared between INDOT and the Indiana DNR regarding any precautions to be taken during construction and mitigation for loss of habitat.	FEIS Section 3.8.3.8 ROD Section 6.0	Pre-Construction and Construction	INDOT

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
Wetlands and Surface Water Resources				
Construction of the project will impact wetland and water resources	• Compensatory wetland mitigation ratios and locations will be determined with federal and/or state resource agencies during Clean Water Act (CWA) permitting; • In Illinois, Compensatory mitigation will follow the Interagency Wetland Policy Act (IWPA) of 1989 and/or Compensatory Mitigation for Losses of Aquatic Resources (40 CFR Part 230, 2008), whichever is more stringent; • In Illinois, wetland compensatory mitigation may be provided at, but not limited to, wetland mitigation banks, on FPDWC land, and/or Midewin National Tallgrass Prairie; • In Indiana, compensatory mitigation will follow the Compensatory Mitigation Rule (33 CFR Part 332, 2008) requirements for impacts to waters of the US, compensatory mitigation for state regulated wetlands 327 IAC 17—1--5 (a f), and the 1991 INDOT, Indiana DNR, and the USFWS MOU; • In Indiana, wetland compensatory mitigation may be provided at wetland mitigation banks; • Mitigation for impacted wetlands will be designed to offset the loss of wetland functions; and • Final design will incorporate wetland/waters avoidance and minimization objectives prior to the development of the project mitigation plan.	FEIS Section 3.9.4 FEIS Section 3.12.4 Compensatory Mitigation Rule (33 CFR Part 332) FEIS Section 3.12.4 (Table 3-115 for IL) (Table 3-116 for IN) [1] ROD Section 6.0 Wetland and Other Mitigation Opportunities Memo (May 2014)	Design	IDOT/INDOT

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
Construction of the project will require permanent fill placed in jurisdictional waters of the US	• Mitigation for permanent fill placed in jurisdictional waters of the US (including wetlands, lakes/ponds, streams, and other linear drainageways) will follow the Compensatory Mitigation Rule (33 CFR Part 332); • Additional coordination with respect to the potential jurisdiction of the roadside ditches will take place during the Section 404 CWA permitting process.	FEIS Section 3.9.3 and 3.9.4[1] FEIS Section 3.12.4 (Table 3-115 for IL) (Table 3-116 for IN) [1] ROD Section 6.0 Compensatory Mitigation Rule (33 CFR Part 332) Definition of Waters of the US (33 CFR Part 328) Definition of Navigable Waters of the US (33 CFR Part 329 Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material – Definitions (40 CFR Part 230.3) *A Function-Based Framework for Stream Assessment and Restoration Projects"* (Harman, et al.,	Design	IDOT/INDOT

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
		2012) *Chapter 16: Streambank and Shoreline Protection* (USDA–NRCS, 1996) *Bioengineered Materials and Techniques for Public Freshwater Lakes, Rivers, and Streams* (Indiana Natural Resources Commission, 2012a) *Floodway Habitat Mitigation* (Indiana Natural Resources Commission, 2012b)		
Construction of the project will impact some streams and tributaries	• As required by state and federal regulatory agencies, new and replacement stream crossings will be designed to maintain continuity of aquatic habitat and accommodate the passage of fish and other aquatic organisms at perennial and intermittent streams; • The bottom of new or replacement box or pipe culverts will be sumped or buried below streambed elevations to facilitate aquatic wildlife movement; • At cross-roads under the jurisdiction of the Will County Division of Transportation, new box culverts associated with the Illiana Corridor will be embedded to a depth of two feet below the	FEIS Section 3.9.1 and 3.9.4 FEIS Appendix DD - Response to Tier Two DEIS Comments ROD Section 6.0 FHWA (2001) Indiana Design Manual	Design	IDOT/INDOT

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
	streambed elevation, where feasible; • Span crossings (e.g., bridges, three-sided box culverts, open bottom culverts, and arches) should be considered in final design; • If it is necessary to convert a stream to a roadside ditch, the back slope of the ditch will be planted with native trees, shrubs, and/or herbaceous species, as required; and • Crossings proposed at perennial waters that are suitable for canoeing/kayaking will accommodate canoes/kayaks where practical and feasible.	IDOT Drainage Manual (2011c)		
Construction of the project will impact aquatic resources	• Evaluate the Best Management Practice (BMP) Opportunity Areas identified in *Sustainability Opportunity Areas Technical Memorandum* (see FEIS Appendix F) during the design phase of the project and incorporate post-construction BMPs into the project design to minimize impacts to receiving waters and other natural resources located adjacent to the project Corridor; • BMP design shall be developed to minimize impacts to forested areas and wetlands. During CWA permitting, specific BMP design requirements and locations will be determined; • Capture the 1.0-inch rainfall event with no discharge outside of the Illiana Corridor right-of-way, but strive to meet the 1.25-inch event as a project goal; • BMP design shall be developed to minimize impacts to forested areas and wetlands. During CWA permitting, specific BMP design requirements	FEIS Section 3.9.3 and 3.9.4 FEIS Appendix F - Sustainability Opportunity Areas Technical Memorandum FEIS Appendix DD - Response to Tier Two DEIS Comments ROD Section 6.0	Design	IDOT/INDOT

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
	and locations will be determined; • The intent is to drain stormwater runoff from bridge decks/roadways to ditches, detention ponds, or other BMPs via sheet flow or a closed drainage system, prior to discharge to off-site receiving waters; • As practical and feasible, stormwater runoff from the proposed crossing structure at high quality aquatic resources, such as the Kankakee River, will be routed to a stabilized outlet and through additional BMPs, where it can be filtered prior to discharge; • Specific BMP design requirements and locations will be determined during the CWA permitting process, including the Federal Aviation Administration Advisory Circular 150/5200-33B for BMP design near the proposed South Suburban Airport; and • Riparian buffers will be incorporated into the design. A 100 foot minimum buffer width will be considered on each side of the watercourse adjacent to high quality aquatic resources and/or other locations as determined during the CWA permitting process. Opportunities to restore native vegetation to much or all of the 100-year floodplain adjacent to the streams will be considered where space is available when determining riparian buffer widths. Along the Corridor, riparian restoration would be limited to floodplain areas within the alternative footprint. Final buffer widths will be			

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
	determined during CWA permitting.			
Project construction activities may result in the potential for pollutant discharges	• Follow appropriate IDOT and INDOT construction and design guidance; • Stabilization measures will be installed as soon as practicable at idle, disturbed, highly erodible soils and/or exposed soils adjacent to wetlands or surface waters, and any work below the ordinary high water mark of a stream. - Special attention will be provided at areas with high topographic relief near wetlands and other water resources; and - Specific details will be finalized during CWA permitting. • In-stream work within the Kankakee River will not occur during March 15 to July 15, the spawning timeframes of the sauger (the host fish species of the sheepnose mussel), state listed river redhorse, pallid shiner, and western sand darter. This instream work limitation may coincide with the release of glochidia from female sheepnose mussels.	FEIS Section 3.8.3 FEIS Section 3.9.4 ROD Section 6.0 IDOT (BDE 41 and 59) IDEM Indiana Storm Water Quality Manual IDOT/INDOT Standard Specifications Section 7 Biological Opinion	Design and Construction	IDOT/INDOT and Contractor
Post-Construction operation and maintenance of the facility may impact aquatic resources	• A permanent BMP maintenance and monitoring program will be implemented so that BMP maintenance is performed, as necessary, and that performance standards are met; • Implement BMPs to minimize the application of chlorides and continue to evaluate BMPs after the facility is built; and • Signage to be used during and/or after construction will be considered at stream crossings. Signage details/requirements would be determined during	FEIS Section 3.9.4 ROD Section 6.0	Design and Post-Construction	IDOT/INDOT

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
	CWA permitting.			
Project construction activities may impact wetlands and water resources	• Obtain all required permits and approvals. • Construction access and staging areas cannot be located in wetlands, jurisdictional waters of the US, floodplains, nature preserves, forest preserves, public parks, protected lands, or areas identified as habitat or potential habitat for federally listed species outside of the project right-of-way and designated Do Not Disturb locations located inside the project right-of-way.	FEIS Section 3.9.4 FEIS Section 3.12.4 FEIS Section 3.15 ROD Section 6.0	Design and Pre-Construction	IDOT/INDOT & Contractor
	• Natural wetlands and existing streams should not be used for stormwater detention or pollution prevention devices. All stormwater BMPs and detention areas will be built and located outside of natural wetlands and streams, unless unusual circumstances exist, and as subject to CWA permitting.	FEIS Appendix DD - Response to Tier Two DEIS Comments	Design and Pre-Construction	IDOT/INDOT
	• In Illinois, notify Ninth Coast Guard District at least 30 days prior to any work in the Kankakee River in order to issue general notices to mariners for safety.	FEIS Appendix DD - Response to Tier Two DEIS Comments	Pre-Construction	IDOT
Groundwater Resources				
Construction of the project will impact wells	Groundwater wells that are present within the roadway corridor will be properly abandoned.	FEIS Section 3.10 ROD Section 6.0	Construction	IDOT/INDOT and Contractor
Floodplain/Floodway				
Construction of the project will require permanent fill placed in floodplains	• State requirements for construction in the floodway will be followed; • In Illinois, where fill within the floodplain is	FEIS Section 3.11 ROD Section 6.0	Design	IDOT/INDOT

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
	unavoidable, applicable county ordinances for potential compensatory storage will be considered, as practical and feasible. Unincorporated Will County, Illinois, would require a compensatory storage volume ratio of 1.25:1 for riverine and non-riverine Regulatory Floodplain fill; and • In Indiana, INDOT is not considering providing compensatory storage for fill within the floodplain since the Indiana Flood Control Act requirement of no greater than 0.14 foot resulting surcharge is being met.			
Special and Hazardous Waste				
Construction of the project will impact special waste sites	• Detailed design will determine if any right-of-way or easement, permanent or temporary, will be required at any of the recognized environmental consideration (REC) locations; and • Further environmental studies will be conducted if the proposed improvements require excavation adjacent to a property identified with a REC or on a property to be used as a permanent easement with an identified REC.	FEIS Section 3.13.4 ROD Section 6.0	Design	IDOT/INDOT
Mineral and Geologic Resources				
Construction of the project will impact mineral and geologic resources	• Geotechnical investigations to further assess geological conditions will be completed and will be used to further refine the construction mitigation techniques used in poor soil conditions.	FEIS Section 3.16.4 ROD Section 6.0	Design	IDOT/INDOT
Section 4(f) Resources				
Construction of the project will	• The Wauponsee Glacial Trail would be relocated	FEIS Section 4.0	Design	IDOT/INDOT

Impact	Mitigation Measure	Reference	Implementation Timing	Responsible Party*
impact the Wauponsee Glacial Trail	approximately 375 feet east and elevated over the new roadway, and a wildlife undercrossing installed at the location of the existing trail; • IDOT's standards for pedestrian and bicycle trails in Chapter 17 of the Bureau of Design and Environment Manual are for minimum 1:3 (vertical:horizontal) side slopes; • Three foot side shoulders on each side of the path are recommended where equestrian uses are present, and are therefore incorporated in the Wauponsee Glacial Trail crossing; • An evaluation of the need for safety railing on the trail approaches to the proposed overhead crossing will be performed during further project development; and • According to IDOT BDE 17-2.03(b), the consideration of safety rails alongside slopes should be based on a subjective analysis of trail-side elements and conditions.	ROD Section 4.0 FEIS Appendix DD - Response to Tier Two DEIS Comments IDOT BDE Chapter 17		
Other				
Beneficial reuse of materials	The determination of feasibility for the reuse of items removed from Midewin National Tallgrass Prairie buildings, roads, bunkers and rail beds as Illiana construction materials will be evaluated during the design phase of the project.	FEIS Appendix DD - Response to Tier Two DEIS Comments	Design	IDOT

*Final determination of responsibility will be determined during project implementation.

[1] Minimum compensatory mitigation ratios for impacts to surface waters and wetlands are provided in Section 3.9.4 and Section 3.12.4, respectively. Final decisions regarding mitigation approach, compensation ratios, and site selection will be completed during the CWA permitting process.