

3.21 Environmental Commitments

Mitigation is required for impacts to natural and human resources that are unavoidable. The project does not impact cultural, historical, or threatened and endangered species; therefore, no mitigation is required for those resources. For resource impacts that require mitigation, the project will adhere to all applicable federal, state, and local laws and regulations. Descriptions of the various mitigation measures and commitments have been organized by their respective discipline. This section summarizes the mitigation measures and commitments that have been made for this project.

3.21.1 Mitigation for Impacts to Natural Resources

Based on the scoping comments received early in Tier Two, mitigation for natural resource impacts (e.g., wetland/waters of the U.S., water quality, etc.) would be a key issue for the EO-WB project. Mitigation has been discussed at various meetings with regulatory/resource agencies and other stakeholders throughout Tier Two. Since publication of the Tier Two Draft EIS, additional coordination relating to mitigation of impacts to natural environments has occurred and commitments have been refined. The resource agencies have been provided with a conceptual water quality best management practice plan for the Build Alternative and over 20 potential wetland/waters mitigation sites for review. The resource agencies will continue to review and discuss the potential wetland/waters mitigation sites, as necessary, so that a final site(s) may be selected. Detailed review of water quality best management practices will take place during the Section 404 CWA permit process. As part of the permit process, applicable design engineering plan sheets showing proposed grading, soil erosion and sediment control, drainage, and post construction water quality/quantity best management practices would be submitted for review prior to construction.

A summary of the natural resource commitments, including these refinements, is provided in the following subsections.

3.21.1.1 Stormwater and Water Quality Best Practices

- Stormwater will be managed by a system of conveyance (e.g., pipes, grassed ditches, and best management practice swales), detention and infiltration. Preliminary engineering plans have been developed for the implementation of an overall stormwater management system (CH2M HILL, 2012). The project will, to the extent practicable, meet the intent of the DuPage County Countywide Stormwater and Flood Plain Ordinance regarding capturing the first flush volume (that typically includes a higher concentration of pollutants compared to later in the storm). Additionally, the best management practices would be designed to detain stormwater (in accordance with FAA regulations, draw down is within 48 hours after the end of the design storm) and allow it to infiltrate into the ground with minimal discharge. The details found in the preliminary engineering plans will be further refined during final design.
- The proposed improvements will comply with FAA AC No. 150/5200-33B, *Hazardous Wildlife Attractants on or near Airports* (dated August 28, 2007), to the extent practicable. Specific requirements pertaining to stormwater management facilities, wetland mitigation, and landscaping are being coordinated with and confirmed by FAA. USDA-APHIS wildlife biology staff will assist FAA with their review. The principal criteria includes no new wildlife attractants (e.g., open water, wetland, or vegetation attractive

to wildlife) within five miles of O'Hare Airport and 10,000 feet of Schaumburg Airport. Engineering plans will be submitted to the FAA/USDA-APHIS for review and approval of the best management practice design features within the limits prescribed by the advisory circular, as necessary.

- Best management practices will be implemented in conjunction with the project's drainage conveyance and detention system (which includes detention ponds along the existing Elgin-O'Hare Expressway) to minimize impacts to receiving waters. Detention facilities, grassed ditches, and vegetated buffers will be installed where practicable to minimize transport of sediment, heavy metals, and other pollutants to surface waters. Additional stormwater best management practices (e.g., best management practice swales and infiltration basins/trenches) will be installed where necessary to protect wetlands and surface waters.
- The intent of the best management practice design consists of the implementation of a treatment train program. Multiple best management practices would be installed in series. Each best management practice would have different removal capabilities allowing for treatment of contaminants of concern (e.g., TSS, heavy metals, etc.). The resource agencies agreed, in principle, that the best management practice concept plan had sufficient detail for this Tier Two Final EIS, and that specific details would be coordinated during the Section 404 CWA permitting process.¹¹¹
- Post construction water quality/quantity best management practices (including vegetative buffers) will be provided to protect wetlands and surface waters (including existing mitigation sites) that are to remain within and adjacent to the project corridor. In particular, a wetland buffer will be incorporated into the plan near wetland Sites 84 and 125 (i.e., wetland sites that INHS identified as having high quality wildlife habitat). Native plant species that meet FAA wildlife hazard safety requirements will be considered when designing seed mixes for the wetland buffers. Specifically, plant species listed in the *OMP Master Specifications*, "Section 02905: Sustainable Airport Landscaping," will be considered when preparing Landscape Plans to address FAA AC guidelines (CDA, 2012).
- The Illinois Tollway will sponsor a chloride water quality initiative with the following objectives:
 - Implementation of chloride water quality best management practices to reduce impacts to receiving waters.
 - Promoting weather-related data sharing with local communities that enables more efficient chloride applications to minimize over-application of road salt.
 - Approaching chloride reduction on a watershed basis by partnering with local municipalities. The outcome of these partnerships will assist in providing a holistic view and approach to chloride application and reduction on a watershed level.

¹¹¹ Based on meeting with the FAA, USDA-APHIS, USACE, USEPA, USFWS, IDNR, IDOT, Illinois Tollway, and project consultants on July 23, 2012.

- Additionally, over the next two and half years (by winter 2014/2015 – prior to winter maintenance of the new facility), road salting practices, procedures, and materials will be reviewed by the Illinois Tollway. This review will include evaluation of chloride reduction implementation plan recommendations for chloride TMDL within the watersheds affected by the project. Adjustments will be made where practicable and feasible. Additional operator training will be provided, as necessary, based on this review. The potential use of chloride reduction best management practices, including a water quality monitoring program, will be explored with resource agencies and interested stakeholders.
- Compliance with soil erosion and sediment control requirements will consider the use of the Kane-DuPage and North Cook County SWCD's (via agreements) for soil erosion and sediment control plan review and site inspection during construction.
- Stormwater management strategies that benefit both the roadway and community needs will be considered.
- Identified flooding complaints will be investigated and solutions for drainage concerns will be recommended, as practicable. The IDOT's *Illinois Drainage Manual* (2004), Illinois Tollway's *Drainage Design Manual* (2012), American Council of Engineering Companies of Illinois/IDOT 2006 Drainage Seminar and local Stormwater Management Ordinances will be used to guide the preparation of Location Drainage Study and Hydraulic Report.
- Water quality best management practices will be provided at the proposed system interchange at I-290. As practicable and feasible, stormwater runoff will be treated by stormwater best management practices prior to leaving the proposed right-of-way outlet to the Devon Avenue Tributary ponds.
- It is the intent to drain surface runoff from bridge decks and roadways to ditches or detention ponds via scuppers and storm sewers, prior to discharge to off-site drainageways. As practical and feasible, stormwater runoff from the proposed bridge over Salt Creek will be routed to a stabilized outlet and through additional best management practices, where it can receive treatment prior to discharge into the creek.

3.21.1.2 Wetlands, Surface Waters, and Riparian Mitigation

- Waters of the U.S., including wetlands, which are impacted as a result of the proposed improvements, will be mitigated at determined ratios in locations agreeable to federal and state agencies. During final design, effort will be made to reduce impacts to wetland and waters. Disturbance of streamside/riparian vegetation will be minimized to the extent practicable. Areas that are disturbed would be restored and stabilized in accordance with NPDES and Section 404 CWA permit requirements. Tree and vegetation replacement will be guided by FAA, Illinois Tollway, and IDOT policies.
- Impacted waters of the U.S., including wetlands, will be mitigated at determined ratios at locations within the Des Plaines River basin agreeable to federal and state agencies.
- Wetland/waters mitigation will be implemented off-site, but within the Des Plaines River basin. Potential sites for mitigation have been coordinated with appropriate federal and state regulatory agencies. Mitigation will require one or more sites being

considered to satisfy the mitigation requirements. A final decision regarding wetland mitigation approach and site selection will be completed during the Section 404 CWA permitting process and IWPA review. The mitigation sites will be conveyed (if necessary) to a steward such as a forest preserve district, IDNR, etc. for long term maintenance.

- Acquisition of wetland/waters mitigation sites will be accomplished by one of two methods: 1) an IGA between the Illinois Tollway and land steward that specifies a partnership wherein the build out of mitigation and acquisition of land is accomplished; 2) the Illinois Tollway both acquires and develops the property and conveys to the long term property steward.
- Wetland mitigation approach and site selection will continue to be coordinated with federal and state resource agencies. A list of over 20 potential sites was previously provided for agency review. Based on preliminary agency coordination, that list of 20 sites has been reduced. Additional information regarding these sites was provided to the resource agencies for review and discussion. A final decision regarding wetland mitigation approach and site selection will be completed during the Section 404 CWA permitting process and IWPA review.
- Wetland mitigation at an off-site location will be coordinated with the property owner/entity that will be responsible for long-term management (e.g., forest preserve district) as well as with state and federal resource agencies. As part of this coordination, conceptual plans that identify proposed community types will be prepared.
- Mitigation for unvegetated waters of the U.S. impacts will be provided. Depending on the potential mitigation sites, mitigation for unvegetated waters may include re-meandering channelized streams, removing/replacing existing drain tiles/culverts with stabilized stream channels, stabilizing eroded streambanks, constructing in-stream habitat, creating riparian buffer, etc. (or a combination of these methods).
- Coordination with the DRSCW is taking place to investigate local sites within the Salt Creek Watershed that could provide riparian or waters mitigation.

3.21.1.3 Fish and Wildlife Passage

- Where new bridges over waterways would be installed (e.g., Higgins Creek and Salt Creek), final bridge design would accommodate wildlife movement, to the extent practical and feasible, and to the extent that the existing bridge(s) (which shall remain) allows.
- New culverts at waterways and/or wetlands will be designed to accommodate anticipated high-water flows and not to impede low-water flows to minimize the negative effects to the aquatic ecosystem. Per the Illinois Tollway drainage design criteria, culverts are designed for the 50-year peak flow and checked for the 100-year and 500-year peak flows to avoid overtopping.
- New culverts located on intermittent or perennial waters of the U.S. will be designed to accommodate fish passage (e.g., embedding the upstream and downstream culvert invert six to 12 inches below the streambed elevation). Existing culverts will be retained and in some cases extended in accordance with appropriate design criteria.

- The bottom of new culverts greater than 48 inches in diameter or height associated with waters of the U.S. will be buried below streambed elevations to maintain a more natural condition, when feasible. Bottomless culverts will be considered in final design, when feasible based on size of the span, geometry, skew, potential environmental impact associated with its installation, and cost. It is important to note that if a culvert is less than 48-inches in diameter, it is very difficult to place riverbed material within the entirety of the pipe.

3.21.2 Noise

The determination of proposed noise barriers has been in compliance with FHWA and IDOT guidance on selecting feasible and reasonable locations for barriers. During the Tier Two Draft EIS comment period and after, the benefited receptors from proposed barriers were sent a postcard requesting their vote as to whether or not they want barriers implemented (see subsection 3.8.3.2 for the results of the polling). For all barriers except two, a majority of responses supported implementation of the barriers. Noise barriers that will be implemented include B2, C1, C2, C3, C4, D1, D3, E1, E3, and E6. No responses were received after the distribution of the two postcards that were sent out to benefited receptors for Barrier E2. A third postcard was sent on October 12, 2012, and a final determination of likelihood will be made following the results of that mailing. Based on the voting by benefited receptors, Barrier E4 has been dismissed from further consideration. The implementation of the noise barriers will be carried forward into future phases of the project. The final design aspects of the barriers including adjustments in location, length, height, types of materials, etc. will be determined in final design. Public involvement venues will be used to update the public on final design details for the noise barriers, and their schedule of implementation.

3.21.3 Air Quality

The proposed project has applied the most advanced air quality modeling and has determined that the project conforms with the regional CMAP's *GO TO 2040 Comprehensive Regional Plan* and the IDOT *STIP* (CMAP, 2010; IDOT, 2011a). The Illinois Tollway and IDOT have also considered other air quality measures that would control temporary sources of air pollutants such as construction dust and particulate matter, and construction equipment emissions.

The Illinois Tollway Supplemental Specifications include requirements for dust control and other construction related air quality requirements – see sections 107.36 and 107.37 of the specifications.

The Illinois Tollway specifies that construction equipment shall reduce air emissions with the use of retrofit emission control devices, and/or the use of cleaner burning diesel fuels for equipment greater than 50 horsepower. The retrofit device shall be technology included on USEPA's verified retrofit technology list, or certified by the manufacturer. Air emissions are also reduced with idling restrictions. Diesel powered equipment will not be allowed to idle except for short periods (five minutes) when loading or unloading, when forced to remain motionless in traffic, when necessary to use auxiliary equipment, and when equipment is being repaired.

The contractor will designate a point person to coordinate with the Illinois Tollway on matters of air quality. If adverse air quality conditions arise an appropriate course of action will be determined by the Illinois Tollway and the contractor.

3.21.4 Traffic and Access Management

- Frontage roads will be provided along the east-west corridor at locations noted in the preliminary plans to maintain local access.
- Plans detailing maintenance of traffic during each phase of construction will be developed to specify how traffic flow and access to businesses and other destinations will be maintained.
- Plans will be developed by the Illinois Tollway with emergency service agencies and school systems to ensure that emergency service will not be adversely impacted during construction and that school busing impacts are minimized.
- Efforts will be made to conduct construction activities affecting the Salt Creek Golf Course between November 1 to April, thereby, avoiding heavy use periods.

3.21.5 Sustainability

- Sustainable practices have been incorporated in the Tier One and Tier Two phases of the project, and will be applied to all remaining phases (i.e., final design, construction, operation). Both IDOT's I-LAST sustainable process (IDOT, 2010) and the goals and recommendations stemming from the Governor's Advisory Council have guided the process in Tier One and Tier Two. Future phases of development will be guided by principles that align with the objectives of the Illinois Tollway.

3.21.6 Special Use

- Construction of the West Bypass corridor will be coordinated closely with special uses including O'Hare Airport, CP railroad's Bensenville Yard, and MWRDGC's Touhy flood control reservoir per MOA developed between the Illinois Tollway and each agency.

3.21.7 Aviation

- The FAA's 7460 (airspace compliance) have been performed in both Tier One and Tier Two, and recommendations from those evaluations will be incorporated into the advancing design of the roadway improvements. As final design approaches 60 percent for roadway improvements that are located near or on airport property, an updated 7460 submittal will be prepared for FAA review and evaluation. Based on the recommendations from those reviews, aspects of the improvements will be adjusted, as needed, to maintain compliance with airspace regulations.
- Glideslope analyses have been conducted for each runway at O'Hare Airport to determine any potential conflicts with signal transmission from the antenna to arriving aircraft. Based on the recommendation of the analysis, roadway design features may be adjusted to avoid signal conflicts.

- Conformance with the FAA Wildlife AC will be monitored by the USDA through an IGA between the Illinois Tollway, City of Chicago, and the USDA. The USDA and the Illinois Tollway will develop an overall strategy for the use of practices that would minimize the attraction of birds and wildlife to roadway features specifically detention/retention basins and compensatory storage areas, roadway landscaping within five miles of O'Hare Airport, and 10,000 feet of Schaumburg Airport. The USDA will receive 60 percent complete design plans and will review new open water features of the project and landscape features for compliance. The USDA will advise the Illinois Tollway of any design refinements related to minimizing bird and wildlife attraction.

3.21.8 Residential and Business Relocation

- Relocation of businesses and residences will be performed in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and IDOT's *Land Acquisition Policies and Procedures Manual* (IDOT, 2011b), and the Illinois Tollway's land acquisition policies (Illinois Tollway, 2011), as applicable, to all residents and businesses displaced by the proposed improvements. Relocations will be performed sufficiently ahead of construction so that major businesses avoid extended closures or gaps in their operations.

3.21.9 Alternative Transportation Modes

- Preservation of space for transit improvements in the Elgin O'Hare corridor, north leg of the West Bypass corridor, and the I-90 corridor will be provided.
- Space is reserved for bicycle and pedestrian facilities within, adjacent, or crossing select sections of planned roadway improvements. Where the project corridor crosses existing bicycle or state routes, restoration of the facilities will be provided, while new elements of the bicycle and pedestrian plan will be subject to interagency agreements that address jurisdictional responsibility, cost sharing, and long-term maintenance.

3.21.10 Aesthetics

- The aesthetic design guidelines developed by the CAAT will be used as a guide during future phases of project development.

3.21.11 Tree Replacement

- Adverse impacts to wooded areas will be reduced and minimized by implementing a tree protection and preservation plan. Efforts will be made to preserve specimen trees, as practical and feasible.
- Tree and vegetation replacement will be guided by IDOT and Tollway policies, and also by the FAA hazardous wildlife attractant AC.
- No varieties of ash trees (*Fraxinus* spp.) will be planted in the project corridor to mitigate for tree loss as part of this project. The removal and disposition of ash trees will comply with USDA/IDOA quarantine restrictions (7 CFR 301.53, as amended) (IDOA, 2006).

3.21.12 Special Waste

- Contaminated soil or water will be managed as follows: The PESA and Phase II Environmental Site Assessments will be used to characterize the nature and extent of contamination for specific properties, and preferred methods of removal. Information will be compiled for inclusion in bid documents to guide prospective bidders. Depending on the degree of contamination, onsite management may be possible for some materials.
- Contamination encountered during construction will be managed to avoid unintended migration of contaminants and protect against potential worker exposures. Impacted material will be screened and characterized on a case-by-case basis and further investigations and remediation determined. If construction is managed by IDOT, special waste issues will be managed in accordance with the IDOT's "Standard Specifications for Road and Bridge Construction" and "Supplemental Specifications and Recurring Special Provisions" (IDOT, 2012a; IDOT, 2012b).

3.22 Summary of Environmental Consequences

A summary of the environmental impacts are shown in Table 3-56 for the Build Alternative. The project is located in an urban area, and repeated efforts have been made to locate and design a project that fits within the context of its landscape without major impact to natural and socioeconomic resources. The impacts summarized in Table 3-56 are comparatively small for a project of this magnitude and scope. There are only seven residential displacements, and less than 50 business displacements. There are no impacts to historical, cultural, or threatened and endangered species. Impacts to wetlands and waters are 22.8 acres and 2.45 acres, respectively. The conversion of private properties to highway use would remove about \$4.5 million annually from the tax rolls. Floodplain encroachments are shown and compensatory storage will be developed in the area to off-set the floodplain loss. The project has the potential to be a sizable economic engine for the area and is projected to stimulate positive economic effects in terms of direct and indirect impact. Among these include: construction employment of 2,000 to 3000 jobs per year for the term of construction (approximately 12 years); permanent employment in the area through new economic development attracted to the area (41,000 jobs by the year 2040); and tax revenue to federal, state, and local governments that total about \$730 million during the construction period. The unavoidable impacts shown in Table 3-56 will be re-established through a variety of mitigation measures listed in subsection 3.21.

TABLE 3-56 Summary of Environmental Consequences of the Build Alternative	
Resource	Impact
Socioeconomics	
Residential displacements (#)	7
Businesses displaced (employees displaced) (#)	46 (1,332)
Other business impacts (#) ^a	13

