# **Executive Summary**

- Chicago Metropolitan Agency for Planning (CMAP). 2010. GO TO 2040 Comprehensive Regional Plan.
- Federal Aviation Administration (FAA). 2007. *Hazardous Wildlife Attractants on or near Airports*. Advisory Circular (AC) No. 150/5200-33B. August 28.
- Illinois Department of Transportation (IDOT). 2011a. *Statewide Transportation Improvement Program*. October.
- Illinois Department of Transportation (IDOT). 2011b. Bureau of Design and Environment (BDE) Manual. "Complete Street's Policy."
- Illinois Department of Transportation (IDOT), Bureau of Land Acquisition. 2011c. Land Acquisition Policies and Procedures Manual. April.
- Illinois Tollway. 2011. Move Illinois: The Illinois Tollway Driving the Future. August.

# Section 1 – Purpose of and Need for Improvements

- Chicago Metropolitan Agency for Planning (CMAP). 2010. GO TO 2040 Comprehensive Regional Plan.
- Federal Aviation Administration (FAA). 2005a. O'Hare Modernization Final Environmental Impact Statement. July 22.
- Federal Aviation Administration (FAA). 2005b. O'Hare Modernization Record of Decision. September 29.
- Federal Highway Administration (FHWA). 2010. *Elgin O'Hare West Bypass Project Tier One Record of Decision (ROD)*. Prepared by CH2M HILL. June.
- Federal Highway Administration (FHWA) and Illinois Department of Transportation (IDOT). 2008. *Stakeholder Problem Definition*. Prepared by CH2M HILL. April.
- Federal Highway Administration (FHWA) and Illinois Department of Transportation (IDOT). 2009. *Transportation System Performance Report (TSPR)*. Prepared by CH2M HILL. April.
- Illinois Department of Transportation (IDOT). 2011. *Statewide Transportation Improvement Program*. October.
- Illinois Tollway. 2008. Jane Addams Memorial Tollway (I-90) (Widening and Reconstruction) Master Planning Study Report. Prepared by CH2M HILL, Entran Engineering, Knight Engineers & Architects, and Civiltech. April 25.

# Section 2 – Alternatives

- Brundtland Commission of the United Nations. 1987. *Our Common Future*. Published by Oxford University Press.
- City of Chicago Department of Aviation (CDA). 2005. O'Hare Airport Master Plan Update.
- CH2M HILL. 2011. "Bus Rapid Transit Comparison Analysis IL 53 Rohlwing Road." October 28.
- Chicago Metropolitan Agency for Planning (CMAP). 2010. GO TO 2040 Comprehensive Regional Plan.
- Federal Highway Administration (FHWA). 2010. Elgin O'Hare West Bypass Tier One Record of Decision (ROD).
- Illinois Department of Transportation (IDOT). 2004. IDOT Drainage Manual. June.
- Illinois Department of Transportation (IDOT). 2010a. *Interchange Type Study Report*. Prepared by CH2M HILL. December.
- Illinois Department of Transportation (IDOT). 2010b. *I-LAST Illinois Livable and Sustainable Transportation Rating System and Guide V 1.01.* January 8.
- Illinois Department of Transportation (IDOT). 2011a. *Interchange Type Study Report Addendum*. Prepared by CH2M HILL. December.
- Illinois Department of Transportation (IDOT). 2011b. Bureau of Design and Environment (BDE) Manual. "Complete Street's Policy."
- Illinois Department of Transportation (IDOT). 2011c. Fiscal Year 2012-2017 Statewide Transportation Improvement Program. April.
- Illinois Department of Transportation (IDOT). 2012. *Draft Combined Design Report*. Prepared by CH2M HILL. April.
- Illinois State Toll Highway Authority (ISTHA, now known as Illinois Tollway). 2008. Drainage Design Criteria. July.
- Illinois Tollway. 2011. Move Illinois: The Illinois Tollway Driving the Future. August.
- Metra. 2003. STAR Line Feasibility Study for a Metra Commuter Rail Service System. March 24.
- Transportation Research Board. 2010. Highway Capacity Manual: Special Report 209.
- Vlecides-Schroeder Associates, Inc. 2010. "Elgin O'Hare West Bypass Tier Two: Transit Corridor Location Analysis Memorandum." July 23.

# Section 3 – Environmental Resources, Impacts, and Mitigation

## 3.1 – Social Characteristics

Chicago Metropolitan Agency for Planning (CMAP). 2011. http://www.cmap.illinois.gov/census. Accessed February 22. Elk Grove Village. 2010. Website: http://www.elkgrove.org/index.aspx?page=282. Accessed November 1.

Hanover Park, Village of. 2010. Website: http://www.hanoverparkillinois.org/economicdevelopment/Demographics.htm. Accessed November 1.

- Illinois Department of Transportation (IDOT), Bureau of Land Acquisition. 2011. Land Acquisition Policies and Procedures Manual. April.
- Multiple Listing Service. 2012. http://www.mls.com/. Accessed February 10.

Schaumburg, City of. 2010. Website: http://www.ci.schaumburg.il.us/offic/history/Pages/1900s.aspx. Accessed November 1.

United States Bureau of the Census (Census). 1982. 1980 Census of Population.

United States Bureau of the Census (Census). 2010. 2005-2009 American Community Survey.

United States Bureau of the Census (Census). 2011. 2010 Census of Population and Housing.

United States Bureau of the Census (Census). 1952. Census of Population: 1950.

United States Department of Health and Human Services (DHHS). 2012. Website: http://aspe.hhs.gov/poverty/11poverty.shtml. Accessed on July 20.

#### 3.2 – Economic Conditions

- Chicago Metropolitan Agency for Planning (CMAP). 2011. Website: http://www.cmap.illinois.gov/population-forecast. Accessed October 4.
- Illinois Department of Employment Security. 2010. *Illinois at Work*. Website: http://lmi.ides.state.il.us/ilatwork/ilatwork.htm. Accessed March 16, 2011.
- Illinois Department of Employment Security. 2011. *Local Area Unemployment Statistics*. Website: http://lmi.ides.state.il.us/laus/lausmenu.htm. Accessed October 31, 2011.
- Illinois Department of Transportation (IDOT), Bureau of Land Acquisition. 2011. Land Acquisition Policies and Procedures Manual. April.
- Illinois Tollway. 2011. Move Illinois: The Illinois Tollway Driving the Future. August.
- S.B. Friedman & Company. 2011a. Elgin O'Hare West Bypass Build and No-Build Socioeconomic Analysis. June 1.
- S.B. Friedman & Company. 2011b. Email correspondence to CH2M HILL regarding Tax Revenue by Community. June 20.

United States Bureau of the Census. 2000. 2000 Census of Population and Housing.

United States Bureau of the Census. 2010. 2005-2009 American Community Survey.

United States Bureau of the Census. 2011. 2008-2010 American Community Survey.

## 3.3 - Land Use

None

## 3.4 - Special Land Uses

City of Chicago Department of Aviation (CDA). 2005. O'Hare Airport Master Plan Update.

CH2M HILL. 2011. Feasibility Study for Elgin O'Hare – West Bypass (EOWB) Tier Two Preliminary Engineering Phase Study. July 7.

CH2M HILL. 2012. "Summary of FAA 7460 Review – Tier Two." Technical Memorandum. February.

### 3.5 – Public Facilities and Services

AirPhoto USA. 2008. Aerial photography, used for potential utility conflict areas.

## 3.6 – Agriculture

United States Bureau of the Census. 2000. 2000 Census of Population and Housing.

## 3.7 – Cultural Resources

None

### 3.8 – Noise

- Illinois Department of Transportation (IDOT). 2011. Bureau of Design and Environment (BDE) Manual. Chapter 26, "Noise Analysis."
- Illinois Department of Transportation (IDOT). 2012. *Standard Specifications for Road and Bridge Construction* as Article 107.35. Effective January 1.

## 3.9 – Air Quality

Chicago Department of Department of Environment. 2008. Chicago Climate Action Plan.

- Chicago Metropolitan Agency for Planning (CMAP). 2010c. Federal Fiscal Year 2010-2015 Transportation Improvement Program (TIP).
- Chicago Metropolitan Agency for Planning (CMAP). 2010b. GO TO 2040 Comprehensive Regional Plan.

Chicago Metropolitan Agency for Planning (CMAP). 2010a. Interagency consultation meeting on September 10, 2010.

- Chicago Metropolitan Agency for Planning (CMAP). 2012. Interagency consultation meeting on March 13, 2012.
- Federal Highway Administration (FHWA). 2009. Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA.

Illinois Climate Change Advisory Group (ICCAG). 2007. Website: http://www.epa.state.il.us/air/climatechange/documents/07-02-22/il-emissionsoverview-v5.pdf.

- Illinois Department of Transportation (IDOT). 2010. FY 2010-2015 Proposed Highway Improvement Program.
- Illinois Department of Transportation (IDOT). 2012. *Standard Specifications for Road and Bridge Construction* as Article 107.35. Effective January 1.
- Illinois Environmental Protection Agency (IEPA). 2011. Annual Air Quality Report.
- United States Environmental Protection Agency (USEPA). 2007. Control of Hazardous Air Pollutants from Mobile Sources; Final Rule.
- United States Environmental Protection Agency (USEPA). 2010b. Integrated Risk Information System database.
- United States Environmental Protection Agency (USEPA). 1999. National Air Toxics Assessment (NATA).
- United States Environmental Protection Agency (USEPA). 2010a. "Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM<sub>2.5</sub> and PM<sub>10</sub> Nonattainment and Maintenance Areas." Technical Memorandum. December.
- United States Environmental Protection Agency (USEPA). 2012. Website: http://www.gpo.gov/fdsys/pkg/FR-2012-06-11/pdf/2012-14097.pdf.

### 3.10 – Water Resources and Aquatic Habitats

- AECOM, Inc. 2010. Des Plaines River/Higgins Creek Watershed TMDL Report (Draft). Prepared for the Illinois Environmental Protection Agency. July.
- AECOM, Inc. 2009. *DuPage River/Salt Creek Watershed TMDL Stage 1 Report*. Document Number 10042-003-501. Prepared for the Illinois Environmental Protection Agency. October.
- City of Chicago Department of Aviation (CDA). 2011. "Section 02905: Sustainable Airport Landscaping." O'Hare Modernization Program Master Specifications. May 4.
- CDM. 2007. *Chloride Usage Education and Reduction Program Study.* Published by the DuPage River Salt Creek Workgroup (DRSCW).
- CDM. 2008. *Conductivity and Chloride Monitoring Summary 2007/2008*. Prepared for the DuPage River Salt Creek Workgroup. August 6.
- CDM. 2009. West Branch and Mainstem DuPage River Stage 2 TMDL Sediment Oxygen Demand Monitoring. Prepared for the Illinois Environmental Protection Agency. December.
- CH2M HILL. 2004a. *Total Maximum Daily Loads for Salt Creek, Illinois*. Prepared for the Illinois Environmental Protection Agency. October.
- CH2M HILL. 2004b. *Total Maximum Daily Loads for West Branch DuPage River, Illinois*. Prepared for the Illinois Environmental Protection Agency. October.

Chicago Metropolitan Agency for Planning (CMAP). 2005. Land Use Inventory.

- Chicago Metropolitan Agency for Planning (CMAP). 2008. *Stormwater Management Strategy Paper*. November.
- Christopher B. Burke Engineering, Ltd. (CBBEL). 2011a. *Detailed Watershed Plan for the Lower Des Plaines River Watershed: Volumes I and II.* Prepared for the Metropolitan Water Reclamation District of Greater Chicago. February 28.
- Christopher B. Burke Engineering, Ltd. (CBBEL). 2011b. Photograph of Willow Creek South Tributary at Thorndale Avenue looking downstream (east). September.
- Christopher B. Burke Engineering, Ltd. (CBBEL). 2010. Photographs of York Road over Willow Creek, center channel, and Realigned Willow Creek in Vicinity of West Bypass Corridor at O'Hare Airport. November.
- Christopher B. Burke Engineering, Ltd. (CBBEL). 2004. Upper Des Plaines River Tributaries Watershed Plan for Willow-Higgins Creek, Bensenville Ditch, Crystal Creek, and Addison Creek Tributaries. Prepared for DuPage County Department of Engineering, Division of Stormwater Management and Environmental Concerns. September.
- Christopher B. Burke Engineering, Ltd. (CBBEL) West. 2006. West Branch DuPage River Watershed Plan (interim). Prepared for the DuPage County Division of Stormwater Management. February.
- Crane, J. L., et al. 2010. Contamination of Stormwater Pond Sediments by Polycyclic Aromatic Hydrocarbons (PAHs) in Minnesota. Minnesota Pollution Control Agency.
- Diment, W. H., et al. 1973. *Some Effects of Deicing Salts in Irondequoit and Its Drainage Basin.* Highway Research Board #425.
- Driscoll, E. D., P. E. Shelley, and E. W. Strecker. 1990. *Pollutant Loadings and Impacts from Highway Stormwater Runoff. Volume I: Design Procedure.* USDOT #FHWA-RD-88-006.
- DuPage County. 2008. "DuPage County Countywide Stormwater and Flood Plain Ordinance" (Adopted as Appendix F to the DuPage County Stormwater Management Plan). August 1 (revisions effective).
- DuPage County. 2012. "DuPage County Countywide Stormwater and Flood Plain Ordinance" (Adopted as Appendix F to the DuPage County Stormwater Management Plan). April 25 (revisions effective).
- DuPage River Coalition (DRC). 2007 (update). Upper DuPage River Watershed Plan.
- Dupuis, T.V., et al. 1985. *Effects of Highway Runoff on Receiving Waters*. Washington, DC. Federal Highway Administration, Vol. I - VI, FHWA/RD-84/062-66, Rexnord, Inc.
- Federal Aviation Administration (FAA). 2007. *Hazardous Wildlife Attractants on or near Airports*. Advisory Circular (AC) No. 150/5200-33B. August 28.
- Federal Emergency Management Agency (FEMA). 2008. Flood Insurance Study, Cook County, Illinois and Incorporated Areas. August 19.

- Federal Emergency Management Agency (FEMA) and DuPage County, Illinois. 2007. Flood Insurance Study, A Report of Flood Hazards in DuPage County, Illinois and Incorporated Areas. March.
- Frost, L. R., S. J. Pollock, and R.F. Wakelee. 1981. Hydrogeologic Effects of Highway-Deicing Chemicals in Massachusetts. Open File Report 81-209. Prepared for the U.S. Geological Survey.
- Headrick, M. 2002. *Aquatic Biological Resources, Chicago O'Hare International Airport*. Montgomery Watson Harza. October–November.
- Hilsenhoff, W.L. 1988. "Rapid Field Assessment of Organic Pollution with a Family Level Biotic Index." Journal of the North American Benthological Society. Volume 7: pages 65-68.
- Illinois Department of Natural Resources (IDNR). 2011. "Ecological Compliance Assessment Tool (EcoCAT) Natural Resource Review Results, Project Numbers: 1108370, 1108378, 1108384, 1108389, 1108393, 1108394, 1108396, 1108398, 1108402." February 11.
- Illinois Department of Natural Resources (IDNR). 2005. *Illinois Comprehensive Wildlife Conservation Plan & Strategy (Version 1.0).* Known as Illinois Wildlife Action Plan. July.
- Illinois Department of Natural Resources Office of Resource Conservation (IDNR-ORC). 2008. Integrating Multiple Taxa in a Biological Stream Rating System. State of Illinois. August.
- Illinois Department of Natural Resources (IDNR) and Illinois Natural Heritage Database. 2011. Endangered and Threatened Species and Illinois Natural Areas Inventory data in Geographic Information Systems format for the Elgin O'Hare – West Bypass Project Corridor. March 21.
- Illinois Department of Transportation (IDOT). 2011. *Bureau of Design and Environment (BDE) Manual,* Chapter 41, "Construction Site Storm Water Pollution Control" and Chapter 59, "Landscape Design."
- Illinois Department of Transportation (IDOT). 2010. Erosion and Sediment Control Field Guide for Construction Inspection.
- Illinois Department of Transportation (IDOT). 2012. *Standard Specification for Road and Bridge Construction*. Available at Web site: http://dot.state.il.us/desenv/stdspecs07.html.
- Illinois Environmental Protection Agency/Bureau of Water (IEPA/BOW). 2010. Illinois Integrated Water Quality Report and Section 303(d) List-2010- DRAFT, Volume I: Surface Water. Springfield, Illinois. April.
- Illinois Environmental Protection Agency/Bureau of Water (IEPA/BOW). 2012. *Illinois Integrated Water Quality Report and Section 303(d) List (Draft)*. Springfield, Illinois. March.

- Illinois Natural History Survey (INHS). 2005. Illinois Comprehensive Wildlife Conservation Plan & Strategy (Version 1.0). State of Illinois. July.
- Illinois Natural History Survey (INHS). 2009. Photographs of Salt Creek south of Thorndale Avenue, looking south, and of Higgins Creek north of I-90, looking west. June.
- Illinois Tollway. 2012. Erosion and Sediment Control, Landscape Design Criteria. January.
- Illinois Tollway. 2011. Tollway Supplemental Specifications to the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction. June.
- Kelsey, P. D., and R. G. Hootman. 1992. "Deicing Salt Dispersion and Effects on Vegetation Along Highways. Case Study: Deicing Salt Deposition on the Morton Arboretum," *Chemical Deicers and the Environment.* Chelsea, MI. Frank M. D'Itri, ed. Lewis Publishers.
- Lipka, G. S., and D. B. Aulenbach. 1976. "The Effect of Highway Deicing Salt on Chloride Budgets at Lake George, New York." Proceedings of the 31st Purdue University Industrial Waste Conference. Lafayette, Indiana.
- Lower Des Plaines River Ecosystem Partnership (LDPEP). 2004. Lower Des Plaines Watershed Plan. August.
- MacDonald, D. D., C. G. Ingersoll, and T. A. Berger. 2000. "Development and Evaluation of Consensus-Based Sediment Quality Guidelines for Freshwater Ecosystems." *Arch. Environ. Contam. Toxicol.* Volume 39: 20–31.
- Maestre, Pitt, and Center for Watershed Protection. 2005. A Compilation and Analysis of NPDES Stormwater Monitoring Information from the National Stormwater Quality Database, Version 1.1.
- Mahler, B. J. and P. C. Van Metre. 2011. *Coal-Tar-Based Pavement Sealcoat, Polycyclic Aromatic Hydrocarbons (PAHs), and Environmental Health*. USGS Fact Sheet 2011-3010.
- Matthews, J., and B. Zercher. 2010. *Survey of Streams, Lakes, and Non-Wetland Ponds for the Elgin O'Hare Expressway in Cook and DuPage Counties --Revised.* Illinois Natural History Survey technical report prepared for the Illinois Department of Transportation. December 2.
- Matthews, J., G. Geatz, and B. Zercher. 2011. *Wetland Delineation Report, Elgin O'Hare Expressway, Addendum C, Cook and DuPage Counties, Illinois*. Illinois Natural History Survey prepared for the Illinois Department of Transportation. September 8.
- Matthews, J., I. Draheim, and B. Zercher. 2009. *Wetland Survey Report for Elgin O'Hare Expressway in Cook and DuPage Counties*. Illinois Natural History Survey technical report prepared for the Illinois Department of Transportation. December 16.
- Matthews, J., I. Draheim, B. Zercher, and J. Zylka. 2010. Wetland Survey Report for Elgin O'Hare Expressway in Cook and DuPage Counties – Addenda A and B. Illinois Natural History Survey technical report prepared for the Illinois Department of Transportation. September 7.

- McCracken, S./The Conservation Foundation. 2011a. Personal communication with Mark Mittag/CH2M HILL. May 17.
- McCracken, S./The Conservation Foundation. 2011b. Personal communication with Mark Mittag/CH2M HILL. June 6.
- Meister, Scott/FPDDC. 2010. Personal communication with Peter Knysz/CBBEL. September 30.
- Memorandum of Agreement between the Federal Aviation Administration, the U.S. Air Force, the U.S. Army, the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture to Address Aircraft-Wildlife Strikes. July 29, 2003.
- Midwest Biodiversity Institute, Center for Applied Bioassessment and Biocriteria. 2008. Technical Report MBI/2008-12-3. *Biological and Water Quality Study of the East and West Branches of the DuPage River and the Salt Creek Watersheds.* Prepared for the DuPage River Salt Creek Workgroup. December 31.
- Montgomery Watson Harza (MWH). 2009. *Detailed Watershed Plan for the Upper Salt Creek Watershed: Volume 1.* Prepared for Metropolitan Water Reclamation District of Greater Chicago. November.
- Prabhukumar, G. and K. Pagilla. 2010. *Polycyclic Aromatic Hydrocarbons in Urban Runoff Sources, Sinks and Treatment: A Review*. Illinois Institute of Technology. Prepared for the DuPage River Salt Creek Workgroup. October.
- Public Sector Consultants, Inc. 1993. *The Use of Selected Deicing Materials on Michigan Roads: Environmental and Economic Impacts.* Lansing, Michigan. Michigan Department of Transportation. December.
- Sherwood, D.A. 2001. Effects of a Vegetated Stormwater-Detention Basin on Chemical Quality and Temperature of Runoff from a Small Residential Development in Monroe County, New York. Report WRIR 01-4099. United States Geological Survey (USGS). September.
- Shi X., et al. 2009. Evaluation of Alternative Anti-Icing and Deicing Compounds Using Sodium Chloride and Magnesium Chloride as Baseline Deicers - Phase I. Report No. CDOT-2009-1. Denver, CO. Colorado Department of Transportation, DTD Applied Research and Innovation Branch. February.
- Shoemaker, Leslie, Mohammed Lahlou, Amy Doll, and Patricia Cazenas. 2002. *Stormwater Best Management Practices in an Ultra-Urban Setting: Selection and Monitoring*. Prepared for the Federal Highway Administration (FHWA). Available at website: http://environment.fhwa.dot.gov/ecosystems/ultraurb/index.asp.
- Sucoff, E. 1975. *The Flow if Deicing Salt into the Atmosphere*. USEPA #600/2-76-105. Illinois State Water Survey. Urbana, Illinois.
- Transportation Research Board. 1991. *Highway Deicing, Comparing Salt and Calcium Magnesium Acetate.* Washington, DC. Special Report 235.

- United States Army Corps of Engineers (USACE). 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0). U.S. Army Engineer Research and Development Center: Vicksburg, MS. ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-16. August.
- United States Army Corps of Engineers (USACE), Chicago District. 2012. Chicago District Regional Permit Program. April 1.
- United States Department of Agriculture National Agriculture Statistics Service, Illinois Department of Agriculture, and Illinois Department of Natural Resources (USDA-NRCS and IEPA). 2002. *Land Cover of Illinois 1999–2000*. Springfield, Illinois. Website: http://www.agr.state.il.us/gis/landcover99-00.html. Accessed on December 15, 2008.
- United States Environmental Protection Agency (USEPA). 2006. *National Pollutant Discharge Elimination System. Dry Detention Ponds.* Website: http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=factshee t\_results&view=specific&bmp=67. Accessed on December 1, 2010.
- United States Environmental Protection Agency (USEPA). 2010. Source Water Protection Practices Bulletin: Managing Highway Deicing to Prevent Contamination of Drinking Water.
- United States Geological Survey (USGS). 2011. Coal-Tar-Based Pavement Sealcoat, Polycyclic Aromatic Hydrocarbons (PAHs), and Environmental Health, Fact Sheet 2011-3010. February.
- United States Geological Survey (USGS). 1997. Elmhurst, Illinois, Quadrangle Map.
- Van Metre, P. C., and B. J. Mahler. 2010. "Contribution of PAHs from Coal-Tar Pavement Sealcoat and Other Sources to 40 U.S. Lakes." *Sci. Total Environ.* 409. USGS.
- Wetzel, Mark J., S. Taylor, and C. Taylor. 2010b. A Limited Assessment of Aquatic Resources (Fishes, Aquatic Macroinvertebrates Other Than Unionid Mussels, and Water Quality) Associated with Streams in the IDOT Elgin-O'Hare Expressway 2010 Addenda A & B Project Corridors, DuPage County, Illinois. Illinois Natural History Survey Technical Report 2010 (25) prepared for the Illinois Department of Transportation. August 3.
- Wetzel, Mark J., S. Taylor, and C. Taylor. 2010a. A Limited Assessment of Aquatic Resources (Fishes, Aquatic Macroinvertebrates Other Than Unionid Mussels, and Water Quality) Associated with Five Streams in the IDOT Elgin-O'Hare Expressway Project Corridor, Cook and DuPage Counties, Illinois - 2009. Illinois Natural History Survey Technical Report 2009 (40) prepared for the Illinois Department of Transportation. Revised December 2.
- Williams, A., and G. Stensland. 2006. Atmospheric Dispersion Study of Deicing Salt Applied to Roads: Part II Final Report for Period July, 2002 to June, 2004. FHWA/IL/HRC.2006-1. Champaign, IL. Illinois State Water Survey. January.
- Williams, A., et al. 2000. Atmospheric Dispersion Study of Deicing Salt Applied to Roads: First Progress Report. Champaign, IL. Illinois State Water Survey. April.

Young, G. K., et al. 1996. *Evaluation and Management of Highway Runoff Water Quality*. Washington, DC. Federal Highway Administration. June.

#### 3.11 - Groundwater

Illinois Department of Public Health. 2011. *Commonly Found Substances in Drinking Water and Available Treatment.* 

http://www.idph.state.il.us/envhealth/pdf/DrinkingWater.pdf. Accessed on June 20.

- Illinois Environmental Protection Agency/Bureau of Water (IEPA/BOW). 2010. Illinois Integrated Water Quality Report and Section 303(d) List-2010- DRAFT, Volume I: Surface Water. April.
- Illinois Environmental Protection Agency/Bureau of Water (IEPA/BOW). 2012. *Illinois Integrated Water Quality Report and Section 303(d) List (Draft)*. Springfield, Illinois. March.
- Illinois Environmental Protection Agency/Bureau of Water (IEPA/BOW). 2008. Source Water Assessment Program (SWAP) ArcIMS Mapping Tool. Website: http://maps.epa.state.il.us/website/swap/intro.htm. Accessed on December 4, 2008.
- Illinois State Water Survey (ISWS). 2008a. *Center for Groundwater Science, Northeastern Illinois – General Information*. Website: http://www.isws.illinois.edu/gws/neillinois.asp.\_Accessed on April 17, 2009.
- Illinois State Water Survey (ISWS). 2008b. Illinois Water Supply Planning, Water Quality: Northeastern Illinois, Groundwater Quality. Website: http://www.isws.illinois.edu/wsp/regneILwq.asp. Accessed on April 17, 2009.
- Keefer, Donald A., and Richard C. Berg. 1990. Map: *Potential for Aquifer Recharge in Illinois*. Prepared for the Illinois Geological Survey with contributions from William S. Dey.
- Kelly, Walton R., and Steven D. Wilson. 2008. An Evaluation of Temporal Changes in Shallow Groundwater Quality in Northeastern Illinois Using Historical Data. February.

#### 3.12 – Floodplains

- Christopher B. Burke Engineering, Ltd. (CBBEL). 2011. North Avenue at I-290/I-294 Drainage Investigation. Prepared for Illinois Department of Transportation. October.
- Executive Order (EO) 11988. 1977. Floodplain Management. 42 FR 26951. May 24.
- Federal Aviation Administration (FAA). 2007. *Hazardous Wildlife Attractants on or near Airports*. Advisory Circular (AC) No. 150/5200-33B. August 28.
- Illinois Department of Transportation. 2011. *Bureau of Design and Environment (BDE) Manual.* Springfield, IL.
- Illinois Department of Transportation (IDOT). 2004. "Floodplain Encroachments." *Drainage Manual*. June.

### 3.13 - Wetlands

- City of Chicago Department of Aviation (CDA). 2011. "Section 02905: Sustainable Airport Landscaping." O'Hare Modernization Program Master Specifications. May 4.
- Chernich, K./U.S. Army Corps of Engineers. 2010. Personal communication with Peter Knysz/CBBEL. December 17.
- Christopher B. Burke Engineering, Ltd. (CBBEL). 2011. Field reconnaissance for Emergent wetland located southwest of existing Elgin-O'Hare Expressway and Meacham/Medinah Road. October.
- Christopher B. Burke Engineering, Ltd. (CBBEL). 2010. Field reconnaissance for Forested depression wetland adjacent to Thorndale Avenue. December.
- DuPage County. 2012. DuPage County Countywide Stormwater and Flood Plain Ordinance (Adopted as Appendix F to the DuPage County Stormwater Management Plan). April 25 (revisions effective).
- Environmental Laboratory. 1987. Corps of Engineers Wetland Delineation Manual. Vicksburg, MS. U.S. Army Corps of Engineers Waterways Experiment Station. Report Y-87-1. January.
- Executive Order (EO) 11990. 1977. "Protection of Wetlands." 42 FR 26961. May 24.
- Federal Aviation Administration (FAA). 2007. *Hazardous Wildlife Attractants on or near Airports*. Advisory Circular (AC) No. 150/5200-33B. August 28.
- Federal Highway Administration (FHWA). 2010. *Elgin O'Hare West Bypass Project Tier One Record of Decision (ROD)*. Prepared by CH2M HILL. June.
- Illinois Department of Natural Resources (IDNR). 2000. A Field Guide to the Wetlands of *Illinois, Second Edition.*
- Illinois Department of Natural Resources (IDNR) and Illinois Natural Heritage Database (INHD). 2011. Endangered and Threatened Species and Illinois Natural Areas Inventory data in Geographic Information Systems format for the Elgin O'Hare – West Bypass Project Corridor. March 21.
- Illinois Department of Transportation (IDOT). 2011. *Bureau of Design and Environment (BDE) Manual*. Available at Web site: http://www.dot.state.il.us/desenv/bdemanual.html.
- Illinois Tollway. 2012. Erosion and Sediment Control, Landscape Design Criteria. January.
- Matthews, J., G. Geatz, and B. Zercher. INHS. 2011. *Wetland Delineation Report, Elgin O'Hare Expressway, Addendum C, Cook and DuPage Counties, Illinois*. Prepared for the Illinois Department of Transportation. September 8.
- Matthews, J., I. Draheim, and B. Zercher. 2009. *Wetland Survey Report for Elgin O'Hare Expressway in Cook and DuPage Counties*. Illinois Natural History Survey technical report prepared for the Illinois Department of Transportation. December 16.

- Matthews, J., I. Draheim, B. Zercher, and J. Zylka. 2010. Wetland Survey Report for Elgin O'Hare Expressway in Cook and DuPage Counties – Addenda A and B. Illinois Natural History Survey technical report prepared for the Illinois Department of Transportation. September 7.
- Memorandum of Agreement Between the Federal Aviation Administration, the U.S. Air Force, the U.S. Army, the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture to Address Aircraft-Wildlife Strikes. July 29, 2003.
- S.B. Friedman & Company. 2011. Elgin O'Hare West Bypass Build and No-Build Socioeconomic Analysis. June 1.
- Suloway, L., and M. Hubbell. 1994. *Wetland Resources of Illinois, An Analysis and Atlas.* Urbana, Illinois: Illinois Natural History Survey. Special Publication 15. July.
- Swink, F. A., and G. Wilhelm. 1994. *Plants of the Chicago Region*. 4th edition. Indianapolis: Indiana Academy of Science.
- Taft, J., D. Ladd, G.S. Wilhelm, and L.A. Masters. 1997. Floristic Quality Assessment for Vegetation in Illinois: A Method for Assessing Vegetation Integrity. Erigenia 15:3-95.
- United States Army Corps of Engineers (USACE). 2008. Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region. U.S. Army Engineer Research and Development Center: Vicksburg, MS. ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-27. September.
- United States Army Corps of Engineers (USACE). 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0). August.
- United States Army Corps of Engineers (USACE), Chicago District. 2012. *Chicago District Regional Permit Program.* April 1.
- United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service, Wildlife Services. 2010. *Wildlife Hazard Management Plan, O'Hare International Airport*. Prepared for the City of Chicago, Department of Aviation, O'Hare International Airport. Revised September 3.
- United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS). 2006. Field Indicators of Hydric Soils of the United States.
- United States Environmental Protection Agency (USEPA) and United States Army Corps of Engineers (USACE). 2008. *Compensatory Mitigation for Losses of Aquatic Resources; Final Rule*. April 10.

Wozniak, K./USACE. 2001. Personal communication with John Kos/IDOT. August 1.

#### 3.14 – Natural Resources

- American Bird Conservancy. 2009. Saving Migratory Birds for Future Generations: The Success of the Neotropical Migratory Bird Conservation Act. Washington DC. 2009. May.
- Anchor, Chris/Forest Preserve District of Cook County (FPDCC). 2010. Personal communication with Sherry Sporina/CBBEL. September 21.

- Bavetz, M. 1994. Geographic Variation, Status, and Distribution of Kirtland's Snake (<u>Clonophis</u> <u>kirtlandii</u> Kennicott) in Illinois. Transactions of the Illinois State Academy of Science 87 (3-4): 151-163.
- City of Chicago (CDA). 2009. Aerial photography of O'Hare Airport.
- Christopher B. Burke Engineering, Ltd. (CBBEL). 2010a. Photograph of closed woodland at northwest corner of York Road and Thorndale Avenue. November.
- Christopher B. Burke Engineering, Ltd. (CBBEL). 2010b. Photograph of old successional field located near Thorndale Avenue and Central Avenue. September.
- Christopher B. Burke Engineering, Ltd. (CBBEL). 2011. *Tree Identification and Evaluation for the Proposed Elgin O'Hare – West Bypass Study Area in Cook and DuPage Counties, Illinois.* May 5.
- Cirton, S./U.S. Fish and Wildlife Service. 2010. Personal communication with Pete Knysz/CBBEL. March 31.
- DB Sterlin. 2009. Photograph of existing bridge at I-90 and Higgins Creek. November.
- Dooling, R., and A. Popper. 2007. *The Effects of Highway Noise on Birds*. Environmental BioAcoustics, LLC. Rockville, MD. September 30.
- DuPage County Transportation Data Management System. 2010. *Traffic Crash Location System* (2004-2008). Data accessed November 5 and 8.
- Enstrom, David A.; Illinois Natural History Survey (INHS). 2010. *Elgin O'Hare Project and Black–Crowned Night-Herons*. Prepared for Illinois Department of Transportation. October 25.
- Ernst, C.H., and E.M. Ernst. 2003. *Snakes of the United States and Canada*. Smithsonian Books, Washington and London.
- Ernst, C.H., and R.W. Barbour. 1989. *Snakes of Eastern North America*. George Mason University Press, Fairfax, Virginia. 282 pp.
- Executive Order (EO) 13112. 1999. "Invasive Species." 64 FR 6183. February 3.
- Federal Aviation Administration (FAA). 2007. *Hazardous Wildlife Attractants on or near Airports*. Advisory Circular (AC) No. 150/5200-33B. August 28.
- Forest Preserve District of Cook County (FPDCC). 2010. *Wildlife List for Ned Brown Forest Preserve.* September 15.
- Forest Preserve District of DuPage County (FPDDC). 2010d. Invertebrate Species Lists for DuPage County Forest Preserves: Mallard Lake – "Expressway Marsh," Salt Creek Marsh, and Silver Creek. September 17.
- Forest Preserve District of DuPage County (FPDDC). 2010b. *Medinah Wetlands*. Web site: http://www.dupageforest.com/Conservation/ForestPreserves/Medinah\_Wetlands .html. Accessed September 13, 2010.

- Forest Preserve District of DuPage County (FPDDC). 2010c. *Salt Creek Marsh.* Web site: http://www.dupageforest.com/Conservation/ForestPreserves/Salt\_Creek\_Marsh. html. Accessed September 13, 2010.
- Forest Preserve District of DuPage County (FPDDC). 2008. Wildlife List for Swift Prairie Forest Preserve. August 14.
- Forest Preserve District of DuPage County (FPDDC). 2010a. Wildlife Lists for DuPage County Forest Preserves: Mallard Lake – "Expressway Marsh," Medinah Wetlands, Salt Creek Marsh, and Silver Creek. September 17.
- Hamer, Steve/Illinois Department of Natural Resources. 2011. Personal communication with Pete Knysz/CBBEL (Regarding Project Numbers: 1108370, 1108378, 1108384, 1108402). February 14.
- Handel, William C. of Illinois Natural History Survey (INHS). 2009. *Eastern Prairie Fringed Orchid Survey Memorandum; Elgin O'Hare EIS*. Prepared for the Illinois Department of Transportation. November 29.
- Handel, William C. of Illinois Natural History Survey (INHS). 2010. Eastern Prairie Fringed Orchid Survey Memorandum; Elgin O'Hare EIS – Addendum A and Addendum B.
  Prepared for the Illinois Department of Transportation. September 8.
- Illinois Department of Natural Resources (IDNR). 2011. Ecological Compliance Assessment Tool (EcoCAT) Natural Resource Review Results, Project Numbers: 1108370, 1108378, 1108384, 1108389, 1108393, 1108394, 1108396, 1108398, 1108402. February 11.
- Illinois Department of Natural Resources (IDNR). 2005. Illinois Comprehensive Wildlife Conservation Plan & Strategy (Version 1.0). July.
- Illinois Department of Natural Resources (IDNR) and Illinois Natural Heritage Database. 2011. Endangered and Threatened Species and Illinois Natural Areas Inventory data in Geographic Information Systems format for the Elgin O'Hare – West Bypass Project Corridor. March 21.
- Illinois Department of Transportation (IDOT). 2011. Bureau of Design and Environment (BDE) Manual.
- Illinois Department of Transportation (IDOT). 2002. *Bureau of Design and Environment Manual, Policy D&E-18, Preservation and Replacement of Trees.* Springfield, IL. January.
- Illinois Department of Transportation (IDOT). 2010. *Crash Database (2004-2008)*. Data received October/November.
- Illinois Tollway. 2012. Erosion and Sediment Control, Landscape Design Criteria. January.
- Kuhns, A. R., W.J. Banning, M.J. Dreslik, and C.A. Phillips. INHS. 2007. Ecology of the State Threatened Blanding's Turtle, <u>Emydoidea blandingii</u>, in the Chicago Wilderness Area. Illinois Natural History Survey Technical Report. 2007(23). 1-115+ii.
- Kuhns, Andrew R. 2009. *Eastern Massasauga Rattlesnake Review Memorandum; Elgin O'Hare EIS*. Prepared for the Illinois Department of Transportation. December 14.

- Kuhns, Andrew R. 2010b. *Eastern Massasauga Rattlesnake, Kirtland's Snake, and Blanding's Turtle Review Memorandum; Elgin O'Hare EIS – Addendum A and Addendum B.* Prepared for the Illinois Department of Transportation. August 31.
- Kuhns, Andrew R. 2010a. *Supplement to INHS Elgin O'Hare EIS Herpetology Memorandum dated December 2009.* Prepared for the Illinois Department of Transportation. November 4.
- Matthews, J., I. Draheim, and B. Zercher; Illinois Natural History Survey (INHS). 2009. Wetland Survey Report for Elgin O'Hare Expressway in Cook and DuPage Counties. Prepared for Illinois Department of Transportation. December 16.
- Meister, Scott/FPDDC. 2010. Personal communication with Peter Knysz/CBBEL. September 30.
- Minton, S.A. 1972. *Amphibians and Reptiles of Indiana*. Indiana Academy of Science Monograph. No. 3: i-v + 346 pp.
- Rogner, John D./USFWS. 2008. Personal communication with Peter Harmet/IDOT. February 5.
- Rogner, John D./USFWS. 2009. Personal communication with Peter Knysz/CBBEL. January 29.
- S.B. Friedman & Company. 2011. Elgin O'Hare West Bypass Build and No-Build Socioeconomic Analysis. June 1.
- Schwegman, J.E. 1973. *Comprehensive Plan for the Illinois Nature Preserves System. Part 2. The Natural Divisions of Illinois.* Prepared for the Illinois Nature Preserves Commission, Rockford, Illinois.
- Suloway, L., M. Joselyn, and P.W. Brown. 1996. *Inventory of Resource Rich Areas in Illinois: An Evaluation of Ecological Resources*. Prepared for the Illinois Department of Natural Resources.
- United States Department of Agriculture, Natural Resources Conservation Service (NRCS). 2010. *Illinois State-listed Noxious Weeds*. http://plants.usda.gov/java/noxious?rptType=State&statefips=17. Accessed on September 15, 2010.
- United States Department of Agriculture Animal and Plant Health Inspection Service, Wildlife Services. 2010. *Wildlife Hazard Management Plan, O'Hare International Airport*. Prepared for the City of Chicago, Department of Aviation, O'Hare International Airport. Revised September 3.
- United States Department of Agriculture National Agriculture Statistics Service, Illinois Department of Agriculture, and Illinois Department of Natural Resources. 2002. *Land Cover of Illinois* 1999–2000. Springfield, Illinois. Website: http://www.agr.state.il.us/gis/landcover99-00.html. Accessed on December 15, 2008.

- United States Fish and Wildlife Service Division of Bird Habitat Conservation. 2009. *Nea<u>r</u>ctic and Neotropical Migrant Bird List.* Website: http://www.fws.gov/birdhabitat/Grants/NMBCA/Birdlist.shtm. Accessed on September 13, 2010.
- University of Illinois Extension. 2010. Living with Wildlife in Illinois, Muskrat (Ondatra zibethicus). Website: http://web.extension.illinois.edu/wildlife/directory\_show.cfm?species=muskrat. Accessed November 3, 2010.

### 3.15 - Section 4(f)

Morakalis, Susan/MWRDGC. 2011. Personal communication with Aimee King/CH2MHILL. November 30.

#### 3.16 - Special Waste

- American Society for Testing and Materials (ASTM). 2005. Standard E1527-05, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process."
- CH2M HILL. 2012. Preliminary Environmental Site Assessment (PESA) for Elgin O'Hare West Bypass project: Volumes 1, 2, 2A, 3, 4, and 5. Elgin-O'Hare Expressway from Gary Avenue in the west to York Road/Elmhurst Road in the east; encircling O'Hare Airport on south, west, and north sides; including portions of Interstate 294, Interstate 290, and Interstate 90; Bensenville, Arlington Heights, Bensenville, Des Plaines, Elk Grove Village, Rosemont, Schaumburg and Wood Dale; Cook and DuPage counties. Unpublished CH2M HILL report to the Illinois Department of Transportation.
- CH2M HILL and Illinois Department of Transportation (IDOT). 2009. Preliminary Environmental Site Assessment (PESA) kickoff meeting at IDOT Springfield Central Office. Attendees collaborated to produce the Illinois State Geological Survey (ISGS) red-line guidance document for PESA investigation. August 5.
- Emergency Response Notification System (ERNS). Undated. Website: http://www.nrc.uscg.mil/apex/f?p=109:1:409463279704121.
- Erdmann, A.L., R.A. Bauer, P.L. Bannon, and N.P. Schneider. 1996. *Manual for Conducting Preliminary Environmental Site Assessments for Illinois Department of Transportation Highway Projects*. Illinois State Geological Survey Open File Series 1996-5.
- Illinois Emergency Management Agency (IEMA). Undated. Website: http://tier2.iema.state.il.us/FOIAHazmatSearch/.
- Illinois Environmental Protection Agency (IEPA). Undated. Brownfields. Website: http://epadata.epa.state.il.us/land/brownfields/.
- Illinois Environmental Protection Agency (IEPA), Bureau of Land (BOL). Undated. Website: http://epadata.epa.state.il.us/land/inventory/.
- Illinois Environmental Protection Agency (IEPA), Leaking Underground Storage Tank (LUST). Undated. Website: http://epadata.epa.state.il.us/land/ust/.

- Illinois Environmental Protection Agency (IEPA), Site Remediation Program (SRP). Undated. Website: http://epadata.epa.state.il.us/land/srp/.
- Illinois Environmental Protection Agency (IEPA), Underground Storage Tank (UST). Undated. Website: http://webapps.sfm.illinois.gov/ustsearch/.
- United States Environmental Protection Agency (USEPA). Undated. Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS). Website: http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm.
- United States Environmental Protection Agency (USEPA). Undated. Resource Conservation and Recovery Act (RCRA). Website: http://www.epa.gov/enviro/html/rcris/rcris\_query\_java.html.
- United States Environmental Protection Agency (USEPA). Undated. Toxic Release Inventory (TRI). Website: http://www.epa.gov/enviro/html/tris/tris\_query.html.
- United States Environmental Protection Agency (USEPA). 2011. *National Priorities List.* Website: http://www.epa.gov/superfund/sites/query/queryhtm/nplfin.htm#IL. Accessed on March 14, 2011.

## 3.17 – Visual Resources

CH2M HILL. 2009. Photographs taken along the Elgin-O'Hare and West Bypass corridors, including the West Bypass corridor within OMP limits, Elgin-O'Hare Expressway, Thorndale Avenue, Interstate 90, and Green Street/Franklin Avenue.

## 3.18 – Short-Term Use and Long-Term Productivity

None

3.19 - Irreversible and Irretrievable Commitment of Resources

None

## 3.20 – Permits and Approvals

None

## 3.21 – Environmental Commitments

- American Council of Engineering Companies of Illinois/ Illinois Department of Transportation (IDOT). 2006. Drainage Seminar in Willowbrook, Illinois. September 14.
- City of Chicago Department of Aviation (CDA). 2012. "Section 02905: Sustainable Airport Landscaping." O'Hare Modernization Program Master Specifications.
- CH2M HILL. 2012. Full Build Master Plan.
- Chicago Metropolitan Agency for Planning (CMAP). 2010. GO TO 2040 Comprehensive Regional Plan.
- Federal Aviation Administration (FAA). 2007. *Hazardous Wildlife Attractants on or near Airports*. Advisory Circular (AC) No. 150/5200-33B. August 28.

- Illinois Department of Agriculture (IDOA). 2006. Chapter 505, Paragraph 90/1 et seq., ILCS "The Insect Pest and Plant Disease Act." June 2, 1927, as amended. Emerald Ash Borer Interior Quarantine. July 19 (and subsequent amendments).
- Illinois Department of Transportation (IDOT). 2010. *I-LAST Illinois Livable and Sustainable Transportation Rating System and Guide V 1.01.* January 8.
- Illinois Department of Transportation (IDOT). 2004. Illinois Drainage Manual. June.
- Illinois Department of Transportation (IDOT), Bureau of Land Acquisition. 2011b. Land Acquisition Policies and Procedures Manual. April.
- Illinois Department of Transportation (IDOT). 2012a. "Standard Specifications for Road and Bridge Construction." January 1.
- Illinois Department of Transportation (IDOT). 2011a. *Statewide Transportation Improvement Program.* October.
- Illinois Department of Transportation (IDOT). 2012b. "Supplemental Specifications and Recurring Special Provisions." January 1.
- Illinois Tollway. 2011. Land Acquisition Policy. Website: http://www.illinoistollway.com/portal/page?\_dad=portal&\_schema=PORTAL&\_p ageid=133,1398293. Accessed October 20.

Illinois Tollway. 2012. Drainage Design Manual.

#### 3.22 – Summary of Environmental Consequences

None

# Section 4 – Agency Coordination and Public Involvement

Chicago Metropolitan Agency for Planning (CMAP). 2010. GO TO 2040 Comprehensive Regional Plan.

Illinois Tollway. 2011. Move Illinois: The Illinois Tollway Driving the Future. August.