APPENDIX A: HIGH-QUALITY AQUATIC RESOURCES

The following descriptions of high-quality aquatic resources apply to the Illinois portions of the Chicago District only. This list is to be used as a guideline for identifying high quality resources in the six-county region, and is not all-inclusive.

Advanced Identification (ADID) Sites: Aquatic sites that have been previously identified by the District and U.S. Environmental Protection Agency as areas generally unsuitable for disposal of dredged or fill material. ADID sites include various waters of the U.S., including wetlands, identified in Kane, Lake, and McHenry Counties. In Kane and McHenry Counties, this refers to high habitat value and high functioning value wetlands.

Bog: A low nutrient peatland, usually in a glacial depression, that is acidic in the surface stratum. Bogs can have non-flowing or very slow flowing water and their water levels fluctuate seasonally. Characteristic bog species include sphagnum (*Sphagnum spp.*), sundew (*Drosera spp.*), pitcher plant (*Sarracenia purpurea*), leatherleaf (*Chamaedaphne calyculata*), poison sumac (*Rhus vernix*), large cranberry (*Vaccinium macrocarpon*), dwarf birch (*Betula pumila*), and tamarack (*Larix laricina*).

Ephemeral Wetlands: A seasonally inundated depression within a forest, savannah, or prairie usually located on a moraine, glacial outwash plain, or in an area shallow to bedrock; also known locally as a "seasonal pond" or a "vernal pool." These areas may not be permanently vegetated.

Dune and Swale Complex: Areas usually oriented parallel to the Lake Michigan shoreline and typified by sandy, linear, upland ridges alternating with low-relief wetland created over time during changes in the Lake Michigan's water levels. Black oak (*Quercus velutina*), paper birch (*Betula papyrifera*), jack pine (*Pinus banksiana*), and prairie vegetation typically occur on the ridges and sedges, reeds, and marsh/aquatic vegetation are found in the swales. Dune and swale complexes are restricted to areas near Lake Michigan.

Fen: An alkaline or calcareous, ground water-fed wetland. Fens are often a mosaic of grassy areas, sedgy areas, graminoid-shrub areas, and tall shrub areas. Typical plant species found within these mosaics include fen star sedge (*Carex sterilis*), swamp thistle (*Cirsium muticum*), red-osier dogwood (*Cornus stolonifera*), brook lobelia (*Lobelia kalmii*), wild timothy (*Muhlenbergia glomerata*), grass of Parnassus (*Parnassia glauca*), shrubby cinquefoil (*Potentilla fruticosa*), and Ohio goldenrod (*Solidago ohioensis*). Fens can also be forested, with indicative tree species being eastern white cedar (*Thuja occidentalis*), yellow birch (*Betula alleghaniensis*), and black ash (*Fraxinus nigra*). Fens typically have a muck or peat substrate.

Forested Wetland: A wetland dominated by at least one of the following native trees: red maple (*Acer rubrum*), kingnut hickory (*Carya laciniosa*), black ash (*Fraxinus nigra*), red ash (*Fraxinus pennsylvanica*), black gum (*Nyssa sylvatica*), white oak (*Quercus alba*), swamp white oak (*Quercus bicolor*), bur oak (*Quercus macrocarpa*), pin oak (*Quercus palustris*), eastern white cedar (*Thuja occidentalis*), river birch (*Betula nigra*), yellow birch (*Betula alleghaniensis*), and slippery elm (*Ulmus rubra*).

Sedge Meadow: An herbaceous wetland typically dominated by one or more of the following graminoid genera, such as *Calamagrostis*, *Cladium*, *Cyperus*, *Deschampsia, Eleocharis*, *Eriophorum, Juncus*, *Rhynchospora*, *Scleria*, and *Carex*. Sedge meadows can be found along stream and lake margins or within river floodplains and upland depressions.

Seep: A spring- or groundwater-fed herbaceous or thinly wooded wetland with saturated soil or inundation resulting from the diffuse flow of groundwater to the surface stratum. Often times seep wetlands are situated on or near the base of a slope. Characteristic seep wetland species include, but are not limited to, marsh marigold (*Caltha palustris*) and skunk cabbage (*Symplocarpus foetidus*).

Streams rated A or B for Diversity or Integrity, or mapped as Biologically Significant: As described in the Integrating Multiple Taxa in a Biological Stream Rating System published by the Illinois Department of Natural Resources.

Wet Prairie: A wetland dominated by native graminoid species but with abundant forbs. Wet prairies often remain saturated throughout the growing season, which is sometimes due to a high water table. Species found in a high quality wet prairie are dominated by at least one of the following species: big shining aster (*Aster puniceus firmus*), bluejoint (*Calamagrostis canadensis*), tall coreopsis (*Coreopsis tripteris*), rattlesnake master (*Eryngium yuccifolium*), marsh blazing star (*Liatris spicata*), narrow-leaved loosestrife (*Lysimachia quadriflora*), small sundrops (*Oenothera perennis*), prairie sundrops (*Oenothera pilosella*), cowbane (*Oxpolis rigidior*), marsh phlox (*Phlox glaberrima* var. *interior*), and prairie cord grass (*Spartina pectinata*).

Wetlands Supporting Federal or Illinois Endangered or Threatened Species: For current State-listed species, reference Illinois Endangered Species Protection Board's "Checklist of Endangered and Threatened Animals and Plants of Illinois" (found at www.dnr.illinois.gov/ESPB/) and/or contact the Illinois Department of Natural Resources. For Federally-listed species, reference the U.S. Fish and Wildlife Service's "Endangered and Threatened Wildlife and Plants" list (latest edition, www.fws.gov/midwest/endangered/lists/illinois-cty.html) and/or contact the U.S. Fish and Wildlife Service.

Wetlands with a Native Floristic Quality Index of 20 or greater or a Mean C-Value of 3.5 or greater: Reference Plants of the Chicago Region (F. Swink and G. Wilhelm, 4th edition, Indianapolis: Indiana Academy of Science, 1994).

Further information on the areas described above can be found in the U.S. Environmental Protection Agency's Advanced Identification studies for Kane, Lake and McHenry Counties (www.lrc.usace.army.mil/Missions/Regulatory/Illinois/ADIDMaps.aspx), the Chicago Wilderness' Biodiversity Recovery Plan (www.chicagowilderness.org/resource/resmgr/Publications/biodiversity_recovery_plan.pdf), Swink and Wilhelm's Plants of the Chicago Region, and the Integrating Multiple Taxa in a Biological Stream Rating System published by IDNR (www.dnr.illinois.gov/conservation/BiologicalStreamratings/).