# Comprehensive Data Delivery README FILE

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| **Study Section** | Study 11.5: Vegetation and Wildlife Habitat Mapping Study in the Upper and Middle Susitna Basin |
| **Study Component** | (not applicable) |
| **Prepared By** | ABR, Inc.—Environmental Research & Services |
| **Data Collection and Processing By** | Wendy Davis and Sue Ives, ABR, Inc.—Environmental Research & Services |
| **Field Date Range** | June 19, 2012–August 30, 2015 |

**Introduction:** The overall goal of this effort was to prepare a map of existing vegetation and wildlife habitats in areas with the potential to be affected by construction and operation of the proposed Susitna-Watana Hydroelectric Project (Project) in Alaska.

The study area for the Vegetation and Wildlife Habitat Mapping Study in the Upper and Middle Susitna Basin (hereafter Habitat Mapping Study) consists of a 2-mi buffer zone surrounding the proposed reservoir (at projected maximum pool elevation), the dam and camp facilities area, and the three alternative transportation/access road corridors. This multi-year study was initiated in 2012 and the mapping of vegetation and wildlife habitats was completed in 2016. The Study Completion Report (SCR) for the study was finalized in 2017.

**Data Summary:** Data for the Habitat Mapping Study consist of field ground-reference data and GIS data layers created in the process of mapping vegetation and wildlife habitats. All field data for the study were collected electronically on hand-held computers. All data for the study have undergone at least a QC3 level of review.

*Field Data*—In 2012, 2013, and 2015, field data were collected concurrently with Study 11.7 (Wetland Mapping Study in the Upper and Middle Susitna Basin, Wetland Mapping Study for short). Wetland determinations in the study area were made using the three-parameter approach required for wetland permitting in Alaska by the U.S. Corps of Engineers (USACE); this includes collecting data on vegetation, soils, and hydrology. These data were collected using the *Wetform* database and are displayed for each field plot in data sheets formatted per USACE specifications (see Data Organization below). Additional classification data also were recorded at each wetland determination plot. Rapid map-verification plots were sampled to provide further documentation of aerial image signatures and to aid the wetland mapping effort. The data on vegetation and landscape characteristics recorded at each field plot were used to assist in the mapping of Integrated Terrain Units (ITUs) and the development of wildlife habitat classes (see Map Data below).

*Map Data*—The mapping of vegetation and wildlife habitats was conducted concurrently with Study 11.7 using recent, high-resolution aerial imagery. In the mapping effort, six landscape attributes or ITUs were assigned to each map polygon. After completion of the mapping, the ITUs vegetation type and physiography were aggregated into wildlife habitats.

**Data Organization:** Field data collection and mapping for Study 11.5 were conducted concurrently with Wetland Mapping in the Upper and Middle Susitna Basin (Study 11.7). Because the two studies share most field data and mapping files, all data for both Study 11.5 and Study 11.7 are archived under Study 11.7. The prefix “wetlnd” indicates a file pertains to Study 11.7, and the prefix “vwhab” indicates a file pertains to Study 11.5.

Field data for the study are archived in the subfolder /11-BOT/11.07-WETLND/Field\_Data/. The folder contains one access database (11\_7\_WETLND\_20170630.accdb) and two subfolders in which all the field data are contained. The tabular data include:

* wetlnd\_vwhab\_determination\_plots: contains hyperlinks to the USACE formatted datasheet for each wetland determination plot
* wetlnad\_vwhab\_photos: contains hyperlinks to photographs for each field plot
* wetlnd\_vwhab\_verification\_plots\_id: rapid map-verification plot data
* wetlnd\_vwhab\_verification\_plots\_cover: cover data associated with rapid map-verification plots

The subfolders noted below (nested under the Field\_Data subfolder) contain additional data for each field plot. The field photos and USACE wetland data forms are linked to field plot locations in the feature classes noted below:

* Photos: contains landscape, vegetation, and soil photos for each wetland determination plot and landscape and vegetation photos for each map-verification plot; the photos are housed in separate subfolders identified by the field plot number and are accessible through hyperlinks in the feature class WETLND\_VWHAB\_Field\_Plot\_Photos
* Wetland\_Determination\_Forms: contains the wetland determination data in the USACE data-sheet format for each field plot. Individual determination forms are accessible through hyperlinks in the feature class WETLND\_VWHAB\_Field\_Plots.

The GIS data are archived in the GIS subfolder /11-BOT/11.07-WETLND/GIS, which contains one geodatabase (SuWa\_11\_7\_GIS\_20170630.gdb) containing:

* Study Areas (multiple feature classes from different phases/years of the Project)
* WETLND\_VWHAB\_StudyArea\_Corridors: wildlife habitat mapping study area, by project component
* WETLND\_VWHAB\_Mapping: wildlife habitat and wetland map polygon file
* WETLND\_VWHAB\_Field\_Plots: point file of field plot locations, with hyperlinks to wetland determination forms
* WETLND\_VWHAB\_Field\_Plot\_Anno: geodatabase annotation for point file of field plot locations
* WETLND\_VWHAB\_Plot\_Photos: contains hyperlinks to plot photographs
* VWHAB\_HIST\_1980s\_VegRecode: historical vegetation mapping from the 1980s

The classification data are archived in the /11-BOT/11.07-WETLND/Classification\_WFAM subfolder in an Access database (11\_7\_WFAM\_20170630.accdb). These data include:

* vwhab\_wildlife\_habitat\_itu\_aggregation: contains the aggregated ITU fields physiography and vegetation with their corresponding wildlife habitat type.

**Online Data Link:** <http://gis.suhydro.org/SuWa/11-BOT/11.07-WETLND/>

**Online Report Link:** 11.05 Vegetation and Wildlife Habitat Mapping Study in the Upper and Middle Susitna Basin – Study Completion Report under 2017; Study Completion and Implementation Reports at <http://www.susitna-watanahydro.org/type/documents>

[[1]](#endnote-1)

1. **Data Distributor Contact Information:**

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