Summary of Wetland Identification Tasks

I. Compilation of Wetland Inventory Database.
II. Wetland Impacts Analysis for Environmental Impact Statement (EIS) and Relocation Concepts.
III. Wetland Impacts Analysis for Environmental Assessments (EA) and Categorical Exclusion’s (CE).
IV. Wetland Impact Analysis and Permit Documentation

* See table for distinct study areas.

I. Compiling the Wetland Inventory Database

The map database for assessment of potential wetland impacts shall consist of the following sources, when available as public information:

i. U.S. Geological Survey (USGS) 7.5’ quadrangle maps for the study area.

ii. National Wetlands Inventory (NWI) maps for the study area. The NWI mapping shall be overlain on the USGS quadrangles in figures and exhibits.

iii. Soils maps from the Natural Resources Conservation Service (NRCS), identifying soil map units dominated by hydric soils and upland map units with hydric inclusions.

iv. Food Security Act (FSA) wetland inventory maps and or Crop Compliance photos from the NRCS, identifying potential wetland areas.

v. Data compilation shall be presented as follows:

   EIS:

   Draft Stage: All base map and preliminary field observations data for all alternatives.

   Final: All preliminary data shall be supplemented with complete field delineations, [using the methods outlined in the Army Corps of Engineers (COE), Wetlands Delineation Manual]
(1987) or its substitute] photo documentation and GPS digital mapping for the preferred alternative.

**EA & CE:**

**Draft Stage:**
All base maps and preliminary field observation wetlands shall be supported with complete field delineations [using the methods outlined in the Army Corps of Engineers, Wetlands Delineation Manual (1987) or its substitute], photo documentation, and GPS digital mapping.

**II. Wetland Impacts Analysis for EIS and Relocation Concepts**

**A. Draft Document**

i. Study area locations will be transposed to the minimum map database. Potential impacts to Waters of the U.S., for the EIS and Relocation Concepts shall be assessed from the map database and preliminary field observations.

ii. If mapped wetland areas are considered unlikely to be jurisdictional wetlands after the preliminary field observations, describe the rationale for this determination in the text of the document.

iii. For the purposes of analyzing potential wetland impacts at the draft document stage, assume areas mapped as vegetated wetlands on wetland inventory maps are regulated as special aquatic sites, unless on-site investigation shows otherwise.

iv. In the text of the document, use the term “wetlands” to refer only to the areas mapped as vegetated wetlands (e.g., ponds, typically mapped as palustrine unconsolidated bottom, are not to be described as “wetlands”).

v. If preliminary field observations or recent aerial photography reveal unmapped areas with characteristics that appear to meet wetland criteria (1987 COE Wetland Delineation Manual), add their location and approximate extent to the map database.

vi. **Do not use soils mapping as the sole criteria** for identifying a site as a potential wetland (e.g., if a site is mapped upland on NWI, non-wetland or prior-converted farmland on FSA maps and is in a soil map unit with hydric soils, do not treat it as a wetland in the environmental document text unless hydrophytic vegetation and/or adequate hydrology is observed during preliminary field observations). In the draft document text, distinguish between soil map units dominated by hydric soils and soil map units dominated by upland soils with hydric inclusions.
B. **Final Document:**

i. The map database information and preliminary field observations shall be supplemented with a field delineation which will include photo documentation and GPS digital mapping to verify wetland inventory mapping and preliminary field observations. Field delineation will include all areas identified in the draft document as potential wetlands.

ii. Exhibits and tables should show the size, location and classification, forested, scrub/shrub or emergent of delineated wetlands within each preferred corridor, as well as summary statistics. If areas mapped on NWI as wetlands are obviously regulated as other categories of waters of the United States (e.g. ponds, intermittent streams, river channels, lakes), this should be reflected in the text and summary statistics. Wetlands and other waters of the U.S. that are isolated should also be determined and identified as such in document text and summary tables.

iii. All streams represented as either intermittent or perennial (dotted blue line or solid blue line) on USGS topographical maps and other streams with established ordinary high water mark (OHW) found during field work within study corridors shall be listed as jurisdictional Waters of the U.S.

III. **Wetland Impact Analysis for EA and CE**

A. **Draft Document**

i. The area of the preferred alternative shall be transposed to the minimum map database. Impacts to Waters of the U.S. for EA’s and CE’s shall be assessed from the map database, preliminary field observations and field delineations of wetlands. See Section II. A. v. and vi and Section II. B. i., ii., iii. For further guidance on impact analysis for EA’s and CE’s. Unlike the EIS, EA’s and the CE will be delineated during the draft phase of documentation.

B. **Final Document**

i. Consider and incorporate any comments made by MoDOT on wetland delineation and document text.

ii. Determine impacts to wetlands and other waters of the U.S.
IV. **Wetland Impacts Analysis and Permit Documentation**

Criteria for conducting field investigations for wetlands and other waters of the U.S. within the preferred alternative are listed below in Sections A and B. On-site wetland delineations shall be limited to sites within the preferred alternative corridor that meet the criteria for wetlands listed below in Section B. U.S. Army Corps of Engineers preliminary jurisdictional wetland determination data forms, mapping, photographic documentation, descriptive narrative and summary tables shall be submitted as a preliminary jurisdictional wetland determination document ready for submission to the U.S. Army Corps of Engineers. Summary tables to be included in the delineation document, Draft EA’s, CE’s and Final EIS. EA and CE, shall include the following:

<table>
<thead>
<tr>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>NWI Classification</td>
</tr>
<tr>
<td>FSA Classification</td>
</tr>
<tr>
<td>Hydric Soil Mapping – Hydric, Non-Hydric, Hydric Inclusions</td>
</tr>
<tr>
<td>Field Observation – Wetland, non-wetland, other Waters of the U.S.</td>
</tr>
</tbody>
</table>

**Delineation Determination (EIS final, CE and EA draft) –**

- Forested, Scrub/Shrub, Emergent, Open Water or Combinations

**Waters of the U.S. – Isolated**

- Yes, No

**Impact Area of Wetland**

- Area in Acres (portion within preferred alternative corridor)

**Impact Length on Stream**

- Length in Feet (portion within preferred alternative corridor)

A. **Streams, Springs and other Waters of the U.S.–** Briefly describe the water of the U.S., and the adjacent upland community, explaining how boundaries were determined and why the area does not have wetlands; for adjacent wetlands, see below. Waters of the U.S. to be investigated shall include:

1. Streams and open-water areas identified on FSA wetland inventory maps, NWI maps and USGS 7.5’ quadrangles; and
2. Springs recorded by USGS or DNR.

B. **Wetlands–**

1. Areas of potential jurisdictional wetlands and with one of the following attributes:
   a) wetlands shown within the corridor on NWI or FSA maps (can include NRCS Crop Compliance photos); or
   b) hydric soil map units or soil map units with hydric inclusions and **evidence** of hydrology on aerial photographs or from personal observation within the corridor; or
c) other areas that exhibit evidence of saturation or ponding for sufficient duration or frequency to meet wetland hydrology standards (e.g., aerial photography, personal observation)

If you have questions about this protocol, or other questions about wetland delineation, regulation or mitigation on MoDOT projects, please contact Gayle Unruh, Wetland Coordinator at (573) 526-6676.