

Initial Study Report Meeting

Study 11.7 Wetland Mapping Study in the Upper and Middle Susitna Basin

October 21, 2014

Prepared by

ABR, Inc.—Environmental
Research & Services



Study 11.7 Objectives

- Classify, delineate, and map existing wetlands in the Upper and Middle Susitna River Basin based on current aerial photos and satellite imagery—mapping is conducted for the Project dam site and reservoir area and along the possible transmission line/road corridors (areas that would be directly altered or disturbed by Project construction and operations)
- Determine and evaluate the ecological functions of the mapped wetland types to facilitate an assessment of the relative value of the mapped wetland types in the study area

Study 11.7 Components

- **Field surveys to collect ground-reference data for the wetlands mapping work** (ISR Part A, Section 4.2, p. 5)
- **Multivariate wetlands mapping incorporating wetland function—based on three classification systems** (ISR Part A, Section 4.1, p. 3)
- **Preparation of a wetland functional assessment for each mapped wetland type** (ISR Part A, Section 4.3, p. 7)
- The study is being conducted in close coordination with the Vegetation and Wildlife Habitat Mapping Study in the Upper and Middle Susitna Basin (Study 11.5); data are being collected for both studies at each sample plot in the field, and the mapping efforts for both studies are being performed concurrently

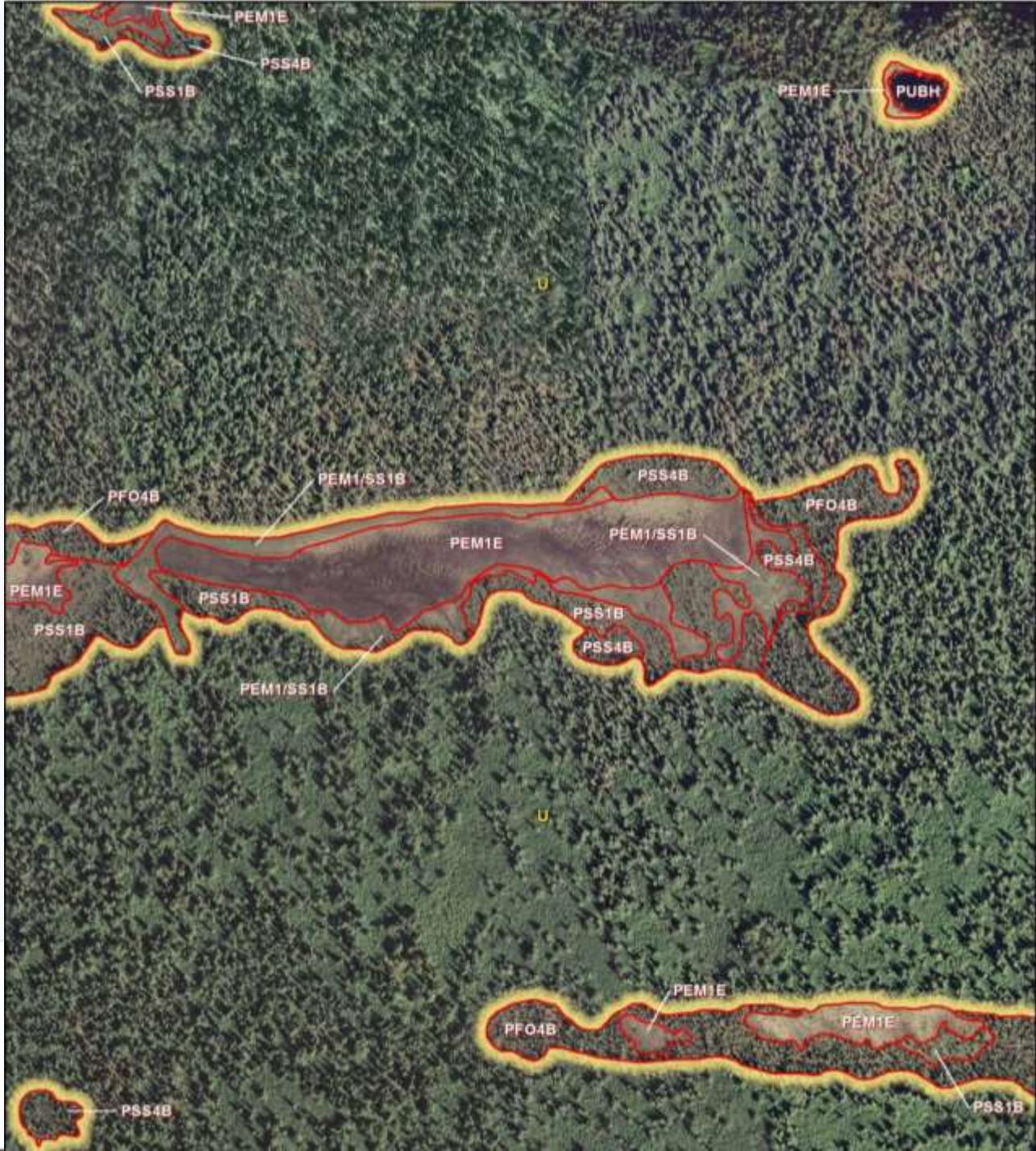
Study 11.7 Variances

There were no variances from the field survey, wetland classification and mapping, or the functional assessment methods described in the RSP (Section 11.7.4).

Study 11.7 Summary of Results in ISR (ISR Part A – Section 5)

- Field surveys conducted in early July and early August, 2013; a total of 916 plots were sampled (619 full plots and 297 rapid map verification plots on 77 transects)
- Formal wetland determinations and wetland functional assessment data were collected at the 619 full plots
- Wetlands mapping is ongoing and is expected to be completed in 2015; example mapping map areas presented in the ISR
- Attributes recorded for each map polygon include:
 - National Wetlands Inventory (NWI) wetland class
 - Hydrogeomorphic (HGM) wetland class
 - Alaska Vegetation Classification (AVC) Level IV vegetation class
 - Physiographic type
 - Surface form type
 - Disturbance type, when applicable

Study 11.7 Summary of Results in ISR (ISR Part A – Section 5)



Data Sources: See Map References
Imagery: MatSu 2011 NatColor

0 200 400 Feet

Projection: NAD State Plane Zone 4 NAD 1983
Date Created: 11/12/2013
Map Author: AER, Inc. - Niklas Zuel-Cott
File: Sulfite_ADR_SCT_NWInvasive_ISR_2013_v01.mxd

Map Area

NWI Code ¹	NWI Description	Wetland
Wetlands		
PUBH	Permanently Flooded Pond	
Wetlands		
PEM1E	Seasonally Flooded/Saturated Persistent Emergent	
PEM1/SS1B	Saturated Persistent Emergent/Broadleaf Deciduous Shrub-Scrub	
PSS1B	Saturated Broadleaf Deciduous Shrub-Scrub	
PSS4B	Saturated Needleleaf Evergreen Shrub-Scrub	
PFO4B	Saturated Needleleaf Evergreen Forest	
Uplands		
U	Upland	

¹ National Wetland Inventory annotation based on Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979).

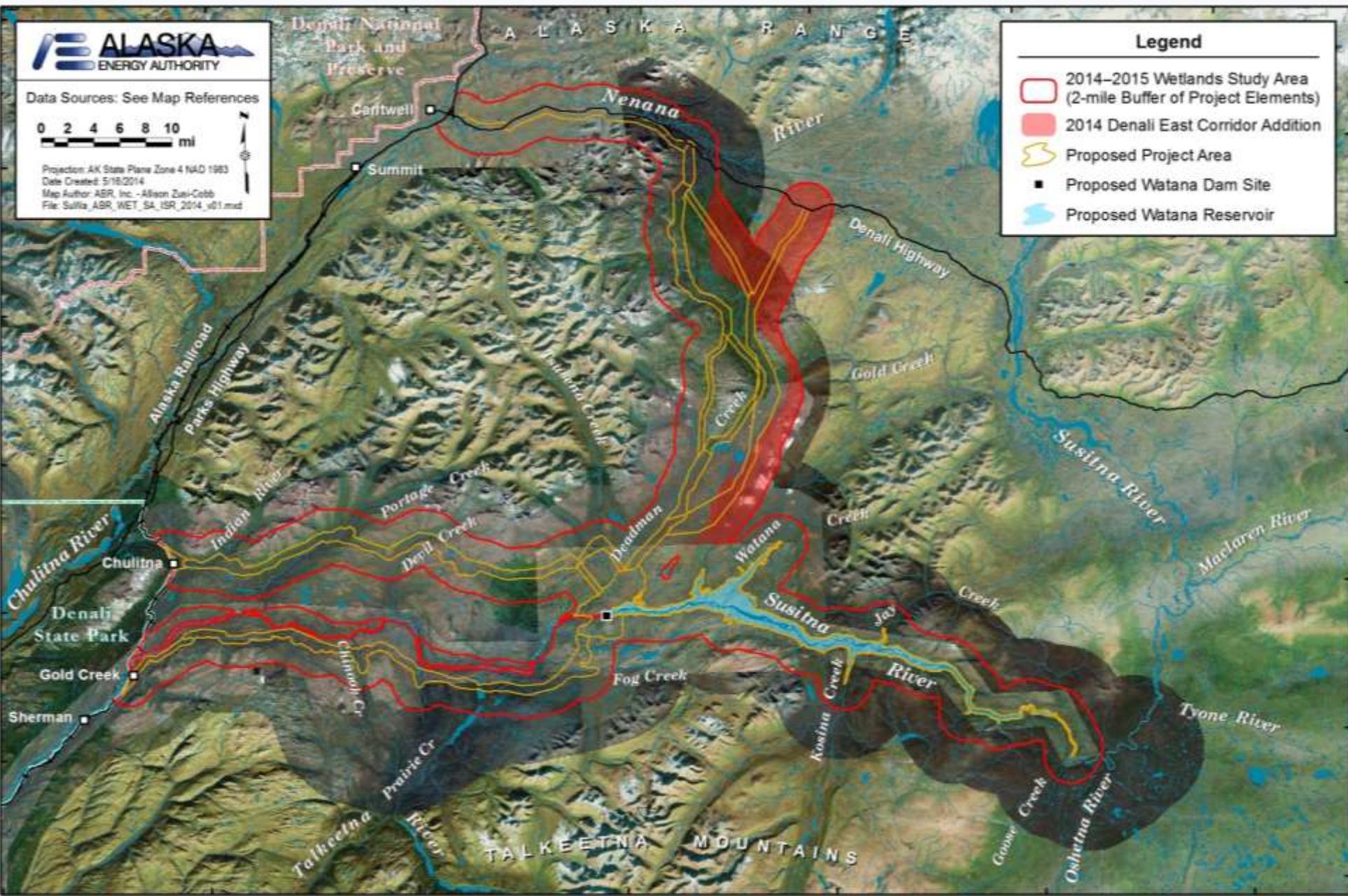
Study 11.7 Summary of Results since ISR

No additional field surveys or data analyses have been conducted since the release of the ISR; only wetlands mapping has occurred in 2014.

AEA Proposed Modifications to Study 11.7 in ISR (ISR Part C – Section 7.1.2)

- No modifications to the Study Plan methods are proposed to complete this study and meet the Study Plan objectives.
- However, the study area has changed from that described in the RSP (Section 11.7.3), with the addition of the alternative Denali Corridor East Option road and transmission line corridor. The addition of this new corridor to the study area includes a 2-mi buffer surrounding the road and transmission line alignments for the Denali Corridor East Option.

AEA Proposed Revision to Study Area (ISR Study 11.7, Part C – Section 7.1.2)



New Modifications to Study 11.7 since ISR

The Chulitna Corridor has been dropped from the study area.

Current Status Study 11.7

- In 2013, field surveys were completed as described in the RSP (Section 11.7.4.2) with no variances; no field surveys were conducted in 2014.
- In 2014, one modification to the study area, described above and in the ISR (Study 11.7, Part C, Section 7.1.2), was implemented for the ITU mapping work; the study area modification will be used also during the final field surveys in 2015.
- In 2013 and 2014, the mapping of wetlands, as described in the RSP (Section 11.7.4.1), was continued.

Steps to Complete Study 11.7 (ISR Part C – Section 7.1)

- Field wetland determination and wetland functional assessment data will be collected in 2015 on CIRWG lands, which have not yet been sampled.
- Additional field data also will be collected for wetland types not adequately sampled during 2012 and 2013.
- Completion, review, and finalization of the wetlands mapping in the revised study area to be completed in 2015.
- A final set of wetland types that apply Project-wide and that incorporate wetland-function information will be developed in 2015—to be conducted in coordination with the Riparian Vegetation Study Downstream of the Proposed Susitna-Watana Dam (Study 11.6).

Steps to Complete Study 11.7 (ISR Part C – Section 7.1)

- Revisions to the wetland functional assessment model to make the wetland functions assessed more representative of the largely undisturbed conditions in the study area.
- Incorporation of spatially specific information in the wetland functional assessment model for fish and wildlife occurrence, recreation, and subsistence use—data from the fish distribution and abundance and fish habitat studies (Studies 9.5, 9.6, and 9.9), the wildlife studies (Studies 10.5 through 10.18), the Recreation Resources Study (Study 12.5), and the Subsistence Baseline Documentation Study (Study 14.5).
- Development of a final set of wetland functional classes, which will represent groups of wetland types sharing similar wetland functions.
- Each of these tasks will be accomplished as described in the ISR.

Licensing Participants Proposed Modifications to Study 11.7?

- **Agencies**
- **CIRWG members and Ahtna**
- **Public**