## Alaska Department of Fish and Game Wildlife Restoration Grant

GRANT NUMBER:	AKW-27
PROJECT NUMBER:	4.0
<b>Project Title:</b>	Cottonwood Creek Wetlands Protection, Enhancement, and Hunter Access Assessment, Phase I
PERIOD OF PERFORMANCE:	January 1, 2018 – June 30, 2020 (extended to June 30, 2021)
PRINCIPAL INVESTIGATOR:	Joe Meehan, Lands & Refuges Program Coordinator
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Authorities: 2 CFR 200.328 2 CFR 200.301 50 CFR 80.90

## I. SUMMARY OF WORK COMPLETED ON PROJECT:

**Objective 1**: Produce a document assessing management options for wetland habitats in the Palmer Hay Flats State Game Refuge to maximize their value to water birds and to provide for public access.

**Job/Activity 1a:** Engage an engineering firm(s) with expertise in wetlands, soil stability, coastal and riverine erosion, and structural, civil and geotechnical engineering to produce an assessment of options (and costs) for slowing, stopping and/or reversing the loss of existing wetlands.

**Job/Activity 1b:** Engage an engineering firm(s) with expertise in wetlands, soil stability, coastal and riverine erosion, and structural, civil and geotechnical engineering to produce an assessment of options (and costs) for maintaining limited motorized vehicle access in the Cottonwood Creek wetlands.

Accomplishments Objective 1a and 1b: DOWL Engineering was hired as the contractor to produce these assessments and provide options for management of the Cottonwood Creek wetlands and trail. This work included vegetative, topographical and hydrological surveys; collection of water and soil samples; and deployment of pressure transducers and remote cameras. The results from this work were presented in a data and analysis report (citation in Section III below).

DOWL Engineering also finalized an alternatives analysis presenting and assessing nine options for wetland preservation and restoration, and five options for motorized trail routes with six options for motorized trail construction materials (citation in Section III below). Cost estimates for each option were also presented.

**Objective 2**: Promote public participation in determining appropriate actions to manage wetland habitats in the Palmer Hay Flats State Game Refuge.

**Job/Activity 2a:** Engage all interested partners, stakeholders and general public in determining best course of action to protect wetland habitats and provide for public use in the Palmer Hay Flats State Game Refuge.

Accomplishments: Select stakeholder were consulted and a preferred alternative of wetland and trail management were selected. Based on that preferred alternative, 95% design engineering plans and project specifications were developed for wetland restoration and trail construction (citation in Section III below).

**II. SIGNIFICANT DEVELOPMENT REPORTS AND/OR AMENDMENTS**: Due to project delays associated with the Covid-19 pandemic, this project was extended to June 30, 2021.

## **III. PUBLICATIONS:**

- a. Cottonwood Creek Engineering Assessment, Data Acquisition and Analysis Report; AKW-27-4.0, RFP IHPC 19-001. Prepared for Alaska Department of Fish and Game by DOWL Engineering. June 2020. 105 pages.
- b. Cottonwood Creek Engineering Assessment, Alternatives Analysis; AKW-27-4.0, RFP IHPC 19-001. Prepared for Alaska Department of Fish and Game by DOWL Engineering. December 2020. 83 pages.
- c. Cottonwood Creek Engineering Assessment Headcut and Tidal Channel Erosion;
  95% Design and control plan memorandum. Prepared for Alaska Department of Fish and Game by DOWL Engineering. December 2020. 15 pages.
- d. Cottonwood Creek Engineering Assessment Trail Design; 95% Design. Prepared for Alaska Department of Fish and Game by DOWL Engineering. December 2020. 10 pages

## IV. REVIEW OF PRIOR RESEARCH AND STUDIES IN PROGRESS ON THE PROBLEM OR NEED: none.

Prepared by: Joe Meehan

Date: December 15, 2021