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TECHNICAL MEMORANDUM

Date: June 25, 2021
To: Kevin Solie – Basin Electric Power Cooperative
From: Clayton Derby and Alex Brazeal, Western EcoSystems Technology, Inc.
Subject: Dakota Carbon Pipeline – Wetland Technical Memo

INTRODUCTION

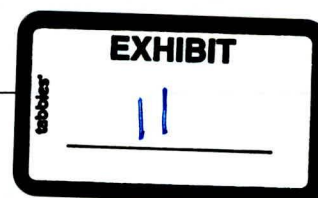
Dakota Gasification Company (DGC) is proposing a project to construct a carbon dioxide (CO₂) pipeline facility from the DGC Great Plains Synfuels Plant to six (6) CO₂ geologic sequestration well locations in central Mercer County, North Dakota (Project, Figure 1).

The Project will likely require a permit from the North Dakota Public Service Commission (PSC). DGC contracted Western EcoSystems Technology, Inc. (WEST), to conduct baseline biological resource surveys for the proposed site. This wetland mapping technical memo summarizes the methods and results used for mapping potential wetlands within the Project (Figure 1). The objective of the site visit was to confirm the presence and status of wetlands identified during the desktop review and to map any current wetland boundaries within the Project corridor.

METHODS

A desktop review of wetlands and waterbodies was conducted utilizing recent aerial photographs, National Wetland Inventory (NWI) spatial data, and other available sources to map and evaluate potential features within the Project to inform biologists for conducting a site visit to verify and map potential wetlands within the Project boundary. Field surveys were conducted by an experienced wetland delineator and a chaperone from DGC to meet Mine Safety & Health Administration (MSHA) safety standards.

The biologist used a two-parameter approach of indicators of hydrology and wetland vegetation to determine if an area obviously met the wetland criteria (e.g., standing water, 100% obligate vegetative coverage, and desktop mapping [NWI]). If the site was clearly a wetland, the current boundary of the wetland was mapped following wetland/upland vegetation breaks, slope, and other hydrology indicators. A formal delineation was not completed.



RESULTS

The site visit was conducted on May 6, 2021. During the desktop review, eleven potential wetlands were identified within the Project. The site visit resulted in two mapped wetlands, and nine areas where there were no obvious signs of wetland vegetation or wetland hydrology and were marked with a “no-point” waypoint indicating a non-wetland feature (Figure 1). Many wetlands that initially were identified during desktop efforts were found to no longer be a wetland likely due to past mining and reclamation activities.

LITEATURE CITED

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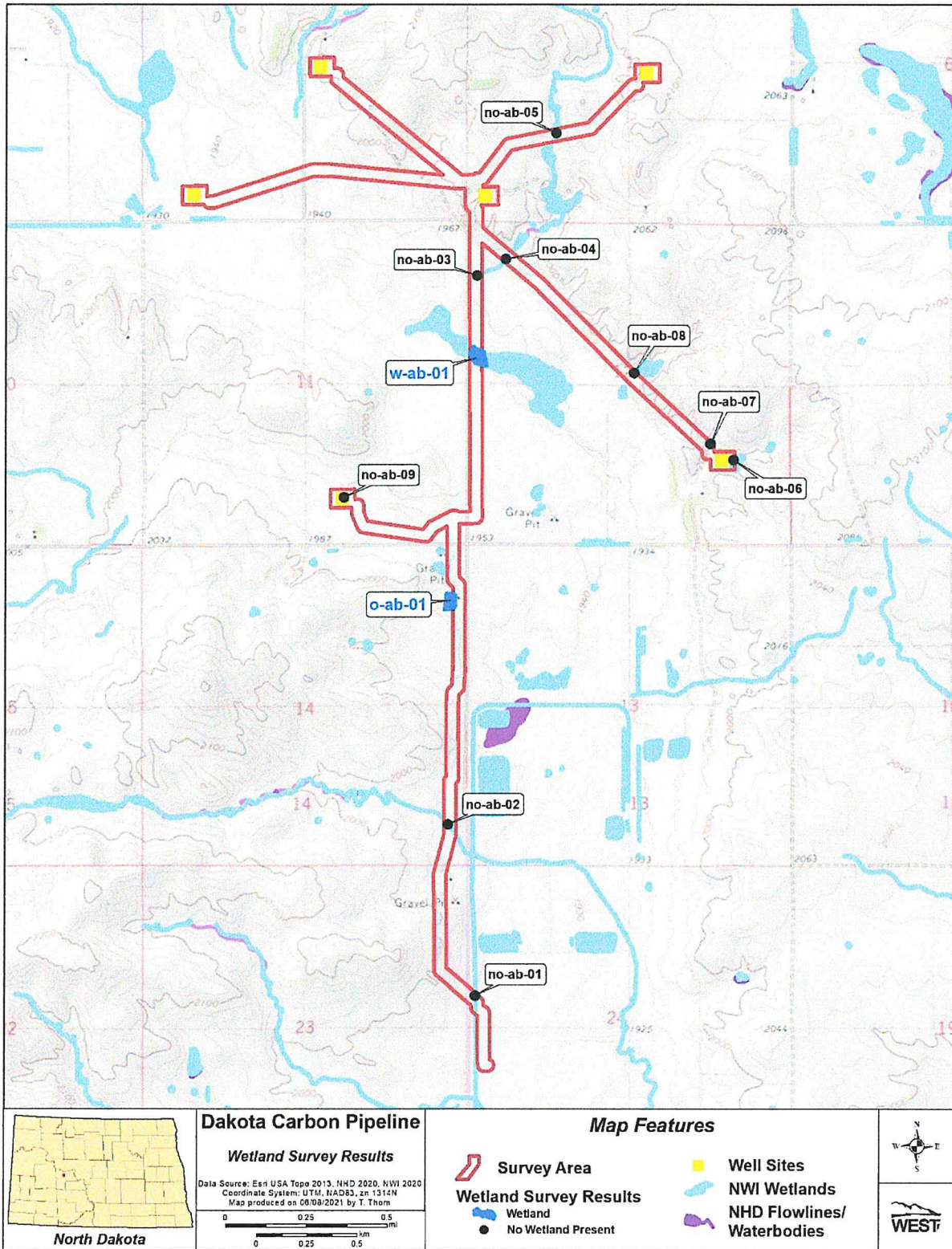


Figure 1. Results of the wetland survey conducted during the site visit on May 6th, 2021 to the Dakota Carbon Pipeline Project located in Mercer County, North Dakota.