

# DENBURY GREEN PIPELINE – NORTH DAKOTA, LLC AND DENBURY GREEN PIPELINE – MONTANA, LLC

## CEDAR HILLS SOUTH UNIT CARBON DIOXIDE PIPELINE PROJECT

### Tree and Shrub Mitigation Plan

#### Introduction

The North Dakota Public Service Commission (NDPSC) issued Certificate of Site Compatibility No. 215 and Route Permit No. 225, dated April 1, 2020, for the Cedar Hills South Unit (CHSU) Carbon Dioxide (CO<sub>2</sub>) Pipeline Project in Slope and Bowman Counties, North Dakota. As required by the Certification Relating to Order Provisions – Transmission Facility Siting, Denbury Green Pipeline – North Dakota, LLC and Denbury Green Pipeline – Montana, LLC (Denbury) have prepared and are submitting this Tree and Shrub Mitigation Plan to the NDPSC.

#### Tree and Shrub Enumeration

Field surveys of the 200-foot-wide pipeline Corridor were conducted on October 11 and 12, 2018, to confirm the presence or absence of woody vegetation and 18 tree and shrubland areas were geographically referenced within the survey corridor, and tree and shrub enumeration inventory surveys were conducted from February 17 through 28, 2020. The surveys utilized guidance provided by the NDPSC for two types of data collection:

- All trees one inch or greater in diameter at breast height (DBH) must be inventoried to record the location, number, and species.
- All shrubs and coniferous trees of any diameter must be inventoried to record the location, number, and species.

The surveys were conducted in two separate survey corridors: (1) a survey area that includes the 50-foot-wide permanent right-of-way (ROW) only; and (2) a survey area that includes the 25-foot-wide temporary workspace area that is adjacent to the permanent ROW as well as the additional temporary workspace areas interspersed along the pipeline route. In each survey area, SWCA vegetation biologists mapped the trees over one inch DBH, all shrubs, and all coniferous species using a Global Positioning Unit (GPS) with sub-meter accuracy. A GPS point for each tree over one-inch DBH was recorded and the tree species was identified. A GPS polygon of each contiguous population of shrubs was recorded and the species of shrub was identified, except for one currant species that was not identifiable. Where shrub populations were extensive, both direct and extrapolated counts of the trees and shrubs were completed for each mapped shrub polygon.

#### Results

Four trees over one-inch DBH were identified at two locations during the surveys. One tree was a single American elm (*Ulmus Americana*) near Milepost 12.3, while the three other trees were green ash (*Fraxinus pennsylvanica*) near Milepost 11.5. The American elm and one green ash were in the 50-foot-wide permanent ROW and the other two trees were in the 25-foot-wide temporary workspace area adjacent to the permanent ROW.

A total of 121 shrub polygons, totaling 18.69 acres and containing approximately 9,575 individual shrubs, were recorded in the permanent ROW survey area, while a total of 134 shrub polygons, totaling 9.72 acres and containing approximately 5,600 individual shrubs, were recorded in the temporary workspace survey area. No coniferous trees were observed in either survey area.

## **Tree and Shrub Mitigation Plan**

The NDPSC Order, dated April 1, 2020, modified the Tree and Shrub Mitigation Specification dated February 3, 2020, to allow shrubs to be cleared up to 75 feet in areas identified on the map set in Late-Filed Hearing Exhibit 8. With this modification, only the trees identified in the permanent ROW and the temporary workspace area will have to be replaced. The Commission requires 2:1 mitigation for all shrubs and all trees that are 1-inch diameter or greater at DBH that will be impacted during Project construction and thus, a total of 8 trees will be replaced at a location determined by the landowners. The three green ash trees are located on property of one landowner, while the lone American elm is on property of a separate landowner. Due to the modification to the Tree and Shrub Mitigation Specification, no shrubs will be replaced.

After completion of pipeline construction activities in September 2021, eight 2-year-old Green Ash (*Fraxinus pennsylvanica*) trees will be planted at the locations chosen by the landowners (six trees for the one landowner at Milepost 11.5 and two trees for the landowner at Milepost 12.3). Denbury will notify the NDPSC as to the actual planting date and locations.

Two years after planting the trees (September 2023), the location where the trees were planted will be inspected to assess the survival of the trees and to determine the benefits of the plantings to the landowner, wildlife, and the environment. Denbury will submit a report to the NDPSC that documents the findings of the site inspection.