BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

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HP 22-002

IN THE MATTER OF THE APPLICATION OF NAVIGATOR HEARTLAND GREENWAY, LLC FOR A PERMIT UNDER THE SOUTH DAKOTA ENERGY CONVERSION AND TRANSMISSION FACILITIES ACT TO CONSTRUCT THE HEARTLAND GREENWAY PIPELINE IN SOUTH DAKOTA,

DIRECT TESTIMONY OF BRANDI NAUGHTON

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1. Please state your name and address for the record.

Answer: My name is Brandi Naughton. My business address is 13333 California St., Suite 202, Omaha, NE 68154.

2. Please state your position with Navigator and provide a description of your responsibility with respect to the Heartland Greenway Project.

Answer: I am the Environmental and Regulatory Manager for NES II LLC, an affiliate company of Navigator Heartland Greenway LLC (NHG). I provide subject matter expertise and support the project in assessing and complying with regulatory requirements.

3. Please describe your educational and professional background.

Answer: I have over 18 years of experience as an environmental professional in the energy industry. My career experience includes obtaining necessary authorizations and securing regulatory approvals from Federal, State, and Local level authorities for construction and operation of pipeline projects within the U.S. I have a Bachelor of Science degree in Ocean and

Coastal Resources from Texas A&M University at Galveston. A copy of my curriculum vitae is attached as Exhibit A

4. Please describe your responsibilities with Navigator.

Answer: I am responsible for coordinating the efforts to obtain the state siting certificates, environmental permits, and any other necessary approvals for NHG to construct and operate an interstate carbon dioxide pipeline.

5. Have you previously submitted or prepared testimony in this proceeding in South Dakota?

Answer: No.

6. Please state for which sections of the application that Navigator has filed with the South Dakota Public Utilities Commission you are responsible.

Answer:

Section 1.8--Other Required Permits

Section 6.1—Topography

Section 6.3—Soil, Erosion, and Sedimentation

Section 6.4.1—Drainage Patterns

Section 6.4.2—Groundwater

Section 6.4.3—Groundwater Impacts and Mitigation

Section 6.4.4—Water Uses

Section 6.4.5—Discharge Waters

Section 6.4.6—Deep Well Injection

Section 6.5.1—Vegetation

Section 6.5.2—Impacts to Vegetation and Mitigation Measures

Section 6.5.3—Wildlife

Section 6.5.4—Impacts to Wildlife and Mitigation Measures

Section 6.6.1—Waterbodies

Section 6.6.2—Impacts and Mitigation Measures

Section 6.6.3—Wetlands

Section 6.6.4—Impacts to Waterbodies and Wetlands and Mitigation Measures

Section 6.6.5—Aquatic Wildlife

Section 6.6.6—Impacts to Aquatic Wildlife and Mitigation Measures

Section 6.7.1—Impacts to Threatened and Endangered Species and Mitigation Measures

Section 6.8.1—Land Use Maps

Section 6.8.2—Displaced Homes

Section 6.8.3—Effects on Surrounding Land Use

Section 6.8.4—Analysis on Land Use

Section 6.8.5—Impacts and Mitigation Measures

Section 6.8.6—Local Land Use Controls

Section 6.9—Cultural Resources

Section 6.10—Water Quality

Section 6.11—Air Quality

Section 7.6 – Recreation

Section 7.8 – Noise

7. Please describe the permits in addition to the siting permit sought from the Commission that will be required for construction and operation of the pipeline in South Dakota.

Answer: Applicable federal, state, and local level permits necessary for construction and operation of the pipeline are included in the application as Table 1.8-1.

8. Please describe how the pipeline will impact the land uses specified in ARSD 20:10:22:18.

Answer: The land uses are shown in the maps attached to the application as Exhibits A5 and A6, and are identified in Table 6.8-2.

Most of the Project right of way in South Dakota crosses agricultural land (95.7% of the Project), consisting of irrigated or non-irrigated land used for cultivated crops and pasture/hay. These lands are used primarily for production of food, fiber, livestock, and fuel crops. Developed land accounts for 2.6% of the Project. Grassland/herbaceous land, deciduous forest, open water, and wetlands each account for less than 1% of the Project. No persons or homes will be displaced by the Project. Aside from the launcher-receiver site and fractions of an acre for each MLV, there will be no permanent effects on surrounding land uses, and land uses within the right of way should not change from their current use. The Project does not cross any federal or state-owned parks, recreation areas, or wildlife management areas within South Dakota. The entirety of the land crossed by the proposed route is privately owned.

9. Please describe the effects of the Project on land uses.

Answer: Construction will cause temporary disturbances within the construction and permanent right of way. These areas will be restored to previous conditions and reseeded or returned to the same agricultural uses. Drainage ditches and drainage tile will be restored as required by permits and agreements with each affected landowner. NHG will protect land uses used for livestock production by coordinating with landowners to provide passage for livestock and temporary fencing or gates. After construction, fences and gates will be rebuilt to their

original condition. Most roadways will be bored underneath; indirect impacts include temporary road closures and traffic delays. Because there are no aboveground facilities in South Dakota other than one Launcher/Receiver facility described in Section 1.3 of the Application, there will be no permanent impacts or changes to land use.

10. Please describe how NHG will comply with local land use controls.

Answer: NHG will comply with applicable zoning and county permitting requirements, which includes requesting variances if appropriate. NHG reserves the right to ask the Commission under SDCL § 49-41B-28 to preempt any unduly restrictive local land use controls.

11. Please describe the soils found along the proposed right of way.

Answer: The soil types crossed by the Project are identified in Table 6.3-1. Soil maps are attached to the application as Exhibit A4. Approximately 81% of the soils crossed by the Pipeline are considered to be prime farmland as defined by the USDA. Approximately 11% of the route is identified as farmland of statewide importance. These soils will be protected during construction by stripping the topsoil layer to a maximum depth of 12 inches and segregating it from the subsoils. The stockpiled topsoil will be stabilized with mulch, temporary seed or tackifier as appropriate to prevent loss and minimize impacts from erosion. The trench will be backfilled in the opposite order it was excavated so that the parent material will be returned to its natural profile height first followed by subsoil and then topsoil to ensure preservation of topsoil within the construction area.

Approximately 10% of the soils crossed by the pipeline are hydric, meaning soils that are formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions. Approximately 99% of the soils crossed by the pipeline have a high soil rutting hazard. Thus, soil compaction and rutting will likely occur from the

operation of heavy equipment within the Project ROW and on access roads. NHG will minimize these impacts by the use of topsoil segregation, the use of timber mats and/or low ground-weight bearing equipment, limiting construction in wet weather conditions, and implementing wetland crossing techniques as outlined in Exhibit E—Environmental Construction Guidance.

12. Please describe whether erosion or sedimentation may result from construction of the pipeline and if so explain what measures will be taken to prevent erosion or sedimentation.

Answer: Soil erosion is caused by both wind and water. Exhibit, Table C-1 to the Application identifies the erosion potentials of each map unit within the Project area. The majority of soils within the Project have moderate to low erosion potential, while approximately 49% (43.88 miles) are considered highly erodible due to water. No soils crossed by the Pipeline are considered highly erodible due to wind. Clearing, grading, and equipment movement has the potential to accelerate erosion, so NHG will use the practices and erosion and sedimentation control devices identified in Exhibit E. NHG is also developing a Project Stormwater Pollution and Prevention Plan for approval in connection with its Section 402 permitting process with the SDDANR. NHG will retain third-party independent environmental and agricultural inspectors during construction to ensure compliance with these processes and plans. In addition, the effectiveness of revegetation and permanent erosion control devices will be monitoring during long-term operation and maintenance of the Pipeline.

13. Please describe the effects of the pipeline on surface water drainage patterns before and after construction.

Answer: Because the pipeline is located below ground and there are no major above-ground facilities in South Dakota, the pipeline will not affect existing surface water drainage in

the proposed right of way. Surface water maps are included in Exhibit A5 to the application. The aboveground capture facilities are being installed at the ethanol plants served by the Pipeline in South Dakota. The MLVs have small footprints of approximately 30-feet wide by 70-feet long (less than 0.5 acres each) and are not expected to affect drainage patterns. The three-acre launcher/receiver site is currently sited in an essentially flat, upland field and will be constructed so that it does not interfere with drainage patterns.

14. Are any aquifers located within the Project area?

Answer: Yes. As identified in Table 6.4-1 and explained in Section 6.4.2, one glacial aquifer, the Big Sioux, is crossed by the Aurora to Hartley and POET Chancellor pipelines. Two bedrock aquifers are crossed by the Pipeline ROW. The Dakota Aquifer is crossed by the Aurora to Harley, POET Chancellor, and POET Hudson pipelines. The Sioux Quartzite Aquifer is crossed by the Aurora to Hartley pipeline. The Big Sioux Aquifer is typically unconfined and is recharged by infiltration or precipitation through the overlying topsoil and slow seepage from lake deposits. Discharge is from irrigation, domestic, municipal, and stock wells, evapotranspiration, and ground leakage. The Dakota Aquifer is located primarily in northwestern Iowa and southwestern Minnesota but extends into South Dakota. It is classified as an artesian aquifer. Recharge is from underlying formations in western South Dakota and the overlying Missouri aquifer. Discharge is through withdrawals for irrigation, municipal, domestic, and stock wells, and probably by discharge to other aquifers. The Sioux Quartzite Aquifer overlies the Sioux Quartzite geologic formation at most locations. Recharge is from infiltration of precipitation and also probably from the Split Rock Creek in Palisades State Park. Discharge is to adjacent aquifers including the Big Sioux and to stock, domestic, and municipal wells.

15. Please describe the effects of construction on these aquifers and steps to mitigate adverse effects on other groundwater resources.

Answer: As explained in Section 6.4.3, construction has the potential to temporarily affect the overland flow and recharge of shallow aquifers. Clearing vegetation, trench excavation and dewatering, and soil compaction could hinder infiltration of water into the ground, but these impacts will be very localized and temporary with no permanent impacts anticipated on groundwater resources in the Project area. To minimize the impacts, vegetation will be cleared only where necessary and allowed to regenerate after construction. Trench excavation and dewatering are likely to cause only minor impacts to groundwater, but NHG will limit the amount of time trenches and bore pits remain open. Horizontal directional drilling (HDD) will be used for many waterbody crossings, as identified in Table 6.6-1. An inadvertent release of drilling fluids during HDD activities could temporarily and locally impact groundwater. The selected contractor will develop a site-specific HDD Contingency Plan which describes the typical prevention, detection, monitoring, notification, and corrective action procedures in the event of an inadvertent release. This plan will include measures outlined in Exhibit E. of the application. Soil mixing and soil compaction typically reduce the absorptive or retentive abilities of soils in aquifer recharge areas, so NHG will use topsoil, subsoil, and parent material (when present) segregation techniques to return soil horizons to near pre-construction conditions. Navigator will decompact the disturbed areas during rough grace and/or final grade as warranted to mitigate compaction from construction. To avoid impacts from inadvertent spills during fuel handling and storage, these activities will be prohibited within 200 feet of private wells and 400 feet or community or municipal wells. In the event of a spill, NHG will implement its Spill Prevention and Response Procedures as outlined in Exhibit E.

16. Please describe what current water uses may be affected by the Pipeline.

Answer: Water uses within the Project Area are identified in Exhibit A5. There are six rural water systems within the Project Area as identified in Table 6.4-1 in Section 6.4.4. In addition, the project crosses the Lewis & Clark regional water system. NHG will coordinate with these water systems on all crossings. There are wellhead protection areas in all five counties crossed by the Project as identified in Section 6.4.4. NHG will work with municipal and rural water systems to manage any conflicts with wellhead protection areas and will implement the best management practices outlined in Exhibit E.

17. Please describe any construction-related water discharges that will occur during construction and what steps will be taken to mitigate them.

Answer: Water discharges will occur from two construction activities, hydrostatic testing and trench dewatering. Hydrostatic testing is required by 49 C.F.R. Part 195 to verify the integrity of the pipeline before it is placed in service. Hydrotest water sources and locations for withdrawing any surface water will be determined by the contractor. Test water associated with hydrostatic testing will be discharged in a manner that minimizes erosion and sedimentation and is in accordance with applicable permit requirements. The released test water will be discharged through a dissipation device into a discharge structure, ideally situated in a well vegetated upland area, to minimize erosion and sedimentation and filter out various particulate matter or allow it to infiltrate through the soil. Water is anticipated to infiltrate the ground within close proximity to the selected discharge location, and no significant or long-term water quality impacts are anticipated. NHG will use earthen berms, hay bales, or silt fence to help direct and maintain discharged water on landowners' property. NHG will develop a hydrostatic test plan and will obtain permit or landowner permissions as needed for hydrostatic testing. Trench dewatering is

necessary when water accumulates in the trench or a bore pit. These locations will be dewatered using pump(s) and/or well pointing. Water will be discharged through a filtering device, such as a filter bag, hay bale containment structure, filter sock, or sediment trap. The trench will be dewatered in a manner that does not cause erosion and does not result in heavily silt laden water flowing into a wetland or waterbody. Best management practices are outlined in Exhibit E.

18. Will deep well injection be used for any effluent disposal?

Answer: No.

19. Describe the water quality permits you expect to obtain for the project.

Answer: NHG will permit the Project through the United States Army Corps of Engineers nationwide permit program under Section 404/01 of the Clean Water Act. This process is described in paragraph 6.10 of the Application. The SDDANR has previously issued Section 401 water quality certification for projects that qualify for nationwide permit coverage and outlined best management practices for similar projects. As reflected in Exhibit C, Table C-2, the SDDANR has classified surface waters in South Dakota by beneficial uses. All streams in South Dakota are assigned the beneficial uses of irrigation, fish and wildlife propagation, recreation, and stock watering. Under Section 402 of the Clean Water Act NHG will be required to obtain authorization to discharge wastewater or stormwater into a surface water. NHG will obtain permission from the SDDANR under the National Pollutant Discharge Elimination System (NPDES). NHG will develop a site-specific Stormwater Pollution Prevention Plan for approval during the permitting process with SDDANR. Under Section 303(d) of the Clean Water Act, states must identify waterbodies that are not attaining their designated uses and develop total maximum daily loads, which represent the maximum amount of a given pollutant that the waterbody can assimilate and still meet its designated uses. The Project will cross two

303(d)-listed waterbodies in South Dakota, as shown in Table 6.10-1 of the Application. These are the Big Sioux River in Lincoln County and in Moody County, and Beaver Creek in Minnehaha County. Both will be crossed by HDD, so no impacts on these waterbodies are anticipated.

20. Please describe the vegetation found along the project right of way.

Answer: Vegetation community types occurring along the Project route were identified using the U.S Geological Survey National Land Cover Database (NLCD). The Project route crosses six terrestrial vegetation community types in South Dakota, including pastureland/rangeland, native grassland, haylands, row-crop agriculture, residences and farmsteads, and ROW corridors. The relevant land use categories identified in SD Administrative Rule 20:10:22:18 is included within the various NLCD category descriptions and discussed in Section 6.8 of the application. These vegetative communities are listed in Table 6.5-1 including the mileage associated with each. Pasture includes lands that may have been plowed at some time and replanted to non-native pasture grasses which is primarily used for grazing by livestock. The haylands have been cropped for hay forage production, and hay is found throughout the Project area. The native grassland community is dominated by native mixed grass and tall grass species. Row-crop agriculture accounts for 88% of the Project route. The crops are primarily corn and soybeans. The Developed land community is mostly rural residences and farmsteads, and suburban residential land uses, including outbuildings, windbreaks and shelterbelts, and suburban residential yards. These areas are generally small in size and account for a small portion of the Project area. These areas have often been planted with a mixture of non-native grasses and forbs used for forage production. Common wetland vegetation includes eastern cottonwood, black willow, buckthorn, narrowleaf cottonwood, reed canary grass, prairie

cordgrass, narrowleaf cattail, and other grasses identified in the Application. Noxious weeds also have the potential to be present along the Project route. Table 6.5-2 lists the state and county-listed noxious weeds in South Dakota and Table 6.5-3 lists reported acreages of state-listed noxious weed infestation by county.

21. What are the impacts to vegetation from construction of the project, and what steps will be taken to mitigate them?

Answer: Both temporary and permanent impacts to vegetation may occur as a result of the Project. Row-crop and haylands will be temporarily disturbed and removed from production during construction, but agricultural production will resume during the growing season following completion of pipeline construction/restoration. NHG will restore row-crop agriculture and haylands to preconstruction conditions in accordance with its Environmental Construction Guidance (Exhibit E). The 50-foot permanent ROW is typically kept clear of trees to allow for maintenance and inspection; therefore, trees will not be replanted within the permanent ROW. Navigator does not anticipate replanting removed trees and/or shrubs cleared during construction as these trees are typically best reestablished via natural succession. Landowners will be compensated for loss of crops and merchantable timber. Non row-crop areas disturbed will be revegetated with a recommended seed-mix and natural succession will allow the vegetation to revert to preconstruction conditions. NHG will restore all pasture and grasslands as near as practicable to preconstruction conditions. There are no Wetland Reserve Program easements crossed by the Project. Where CRP or Conservation Reserve Enhancement Program contracts are in place, NHG will work with affected landowners and the Farm Service Agency for associated measures. NHG is developing weed management plans in coordination with the SDDANR Weed and Pest Control Commission and each county's weed department, SDDANR,

and local NRCS offices. Best management practices for controlling noxious weeds are identified in Exhibit E.

22. Please describe the wildlife located along the project right of way.

Answer: The Project area provides foraging and sheltering habitat for mammals, raptors, and songbirds, such as whitetail deer, thirteen-lined ground squirrel, white-tailed jackrabbit, and others identified in Section 6.5.3 of the Application. Some agricultural areas crossed by the Project also contain aquatic habitats such as wetlands or prairie potholes that provide habitat for migratory species and a few bird species found in the Project area are designed by the U.S. Fish and Wildlife Service Information for Planning and Consultation online system as Birds of Conservation Concern (BCC)as identified in Table 6.5-4, which shows their breeding period and probable presence in the Project area. The Project does not cross any Important Bird Areas in South Dakota as designated by BirdLife International. Big game species such as white-tailed deer and wild turkey may be found in the Project area. Small game species include ring-necked pheasant, greater prairie-chicken, and sharp-tailed grouse. Ring-necked pheasant occurrence in the Project area is few to locally fair and fair to locally good, while the greater prairie-chicken and sharp-tailed grouse occurrence in the Project area is rare.

23. What are the impacts to wildlife from construction of the project, and what steps will be taken to mitigate them?

Answer: Impacts to wildlife will be temporary and largely consist of displacement from the immediate construction area into vast adjacent similar habitats and are expected to return post-construction. Given the large percentage of agricultural development along the Project ROW, existing species are used to seasonal vegetation impacts. NHG will consult with the appropriate regulatory agencies to establish protective measures to avoid or mitigate wildlife

season, timing, or migration concerns. To ensure mobility and mitigate any impacts to the migration of terrestrial fauna across areas of active work, trench plugs will be installed at visible wildlife game trails, as identified by an environmental inspector or wildlife agency, and at livestock watering trails, as identified by the landowner, that intersect the trench line. Gaps will be left in spoil and topsoil stockpiles at all trench plugs to permit unimpeded movement of wildlife and livestock. NHG will coordinate with USFWS regarding bird nesting, migration, and impacts to BCCs. Construction during hunting season may result in some conflicts with hunters, but these will be short-term.

24. Please describe the waterbodies crossed by the project right of way.

Answer: NHG has identified 63 waterbody crossings located within the Project area by field surveys completed to date, supplemented by desktop analysis of areas not yet surveyed. NHG expects to complete delineation surveys in 2022. Based on available data, the milepost, waterbody name, state water classification, and flow regime for surface waters impacted by the Project are identified in Exhibit C, Table C-2 to the Application, and typical drawings showing ROW configurations and crossing methods are shown in Exhibit E to the Application.

25. Please describe the wetlands crossed by the project right of way.

Answer: Wetlands are limited to depression features (prairie potholes) and riparian areas. They are intermittently located along the Project ROW and are described as Palustrine forested (PFO), Palustrine scrub-shrub (PSS), or Palustrine emergent (PEM). PEM wetlands are the dominant wetland type through the Project area. A summary of wetlands crossed by the Project by county is provided in Table 6.6-1. NHG has designed the Project to avoid permanent fill in wetlands. Temporary impacts to wetlands will be limited to the construction phase, although

permanent conversion of some PFO and PSS to PEM will be necessary to allow for required pipeline inspections and pipeline integrity.

26. What are the impacts to waterbodies and wetlands and how will they be mitigated?

Answer: NHG will use HDD's to avoid direct impacts on sensitive resources, or to avoid areas in which constructability by conventional means is not feasible. The HDD method is described in more detail in Section 6.6.3 and Exhibit E of the Application. It installs the pipeline without the excavation of a trench by drilling a hole significantly below conventional pipeline depth and pulling the pipeline through the pre-drilled hole. Proposed waterbodies planned to be crossed via HDD are identified in Table 6.6-2. A majority of higher quality wetlands and large waterbodies within the Project will be crossed by HDD, thereby avoiding impacts. Measures to prevent or minimize impacts from an inadvertent return are discussed in Exhibit E Smaller waterbodies within the Project area will be crossed by open-cut method, which is described in more detail in Section 6.6.3 of the Application. Where impacts to wetlands or waterbodies do occur, NHG will implement best management practices as described in Section 6.6.3 and Exhibit E to ensure that the wetland is restored after construction.

27. Please describe the aquatic wildlife and ecosystems along the project right of way.

Answer: Palustrine emergent wetlands (PEM), which are defined in Section 6.6.2 of the Application provide habitat for a variety of migratory and resident shorebirds and waterfowl, which are listed in Section 6.6.5 of the Application. Amphibians and reptiles that may use PEM wetlands include the western chorus frog, wood frog, and Blanding's turtle. South Dakota classifies fisheries in five beneficial use categories, and these categories are classified as high-quality or low-quality. The Project does not cross any waterbodies categorized as high-quality fisheries in South Dakota. The low-quality fisheries that are affected are identified in Table 6.6-

3. To maintain aquatic resource quality, the SDGFP has developed management plans for different areas. The Project falls within the East River Fisheries Management Area. The majority of the waterbodies stocked within this region are lakes and ponds, of which the project does not cross any. The Project does not cross any lakes or ponds listed as stocked. The Big Sioux River is the only waterbody identified as having aquatic invasive species infested water, namely the bighead carp, grass carp, and silver carp.

28. What are the impacts to aquatic wildlife and ecosystems along the project right of way, and what steps will be taken to mitigate them?

Answer: Short-term impacts on fisheries associated with pipeline construction may be caused by temporary increased sedimentation and turbidity, temperature changes, the introduction of water pollutants, or entrainment of fish. No long-term effects on water temperature, dissolved oxygen, pH, benthic invertebrates, or fish communities are expected to occur as a result of the Project. When construction near waterbodies is complete, streambeds and banks will be restored to their pre-construction contours and conditions to the maximum extent practicable, which will aid in preventing erosion and minimize long-term impacts on fisheries. Because the Big Sioux River will be crossed by HDD, not impacts to or spreading of aquatic invasive species is expected.

29. Please describe the threatened and endangered species located along the project right of way.

Answer: Early coordination with USFWS and SDGFP was initiated in October and November 2021. Species occurrence records and designated critical habitat for listed species were obtained and updated as the scope changed, and the agency received new data. This process will continue throughout the pre-construction and construction periods. Six species that

are federally listed as either threatened or endangered and one candidate species under the Endangered Species Act have the potential to occur within the Project area. None of these species is listed by the State of South Dakota but another species, the line snake, has the potential to occur in the Project area and is listed as endangered by SDGFP. The bald eagle is protected under the Bald and Golden Eagle Protection Act and had the potential to occur in the area. The protected species are identified in Table 6.7-1 of the Application. Habitat surveys began in May 2021 and are ongoing to determine the presence of habitat suitable and/or determine the probable presence or absence of protected species are ongoing in coordination with the respective agencies. These species include the northern long-eared bat, bald eagle, red knot, Topeka shiner, lined snake, and monarch butterfly.

30. What are the impacts to threatened and endangered species and how will they be mitigated?

Answer: NHG will continue consulting with USFWS and SDGFP to obtain concurrence with determinations and warranted avoidance and/or minimization measures, including any necessary permits. The status of surveys, the nesting and migration periods, and potential impacts for each species are described in paragraph 6.7.1 of the Application.

31. Please describe the steps taken to address cultural resources that may be located along the project right of way.

Answer: Cultural resource surveys began in May 2022 and are ongoing in accordance with Section 106 of the National Historic Preservation Act and the South Dakota State Historical Society guidelines. The objective is to identify and record the extent and temporal affiliation of archaeological resources within the survey areas and to assess their potential for inclusion in the National Register of Historic Places (NHRP). Before beginning the surveys, NHG consulted

with the South Dakota State Historic Preservation Office (SHPO) and submitted a scope of work that detailed the Level III intensive survey plan for the Project. The survey plan is based on a tiered approach to survey federal jurisdictional area and high and moderate probability areas as delineated through research. GIS modeling was used to create a predictive model for locations of unidentified resources. Literature reviews were also conducted through the Archaeological Resources Management System. These reviews identified 81 previous surveys, 32 archaeological sites, 73 historical structures, 10 cemeteries and no NHRP listed sites within a one-mile radius of the Project route. None of these previously recorded sites is within or adjacent to the anticipated project impact area. Navigator has surveyed approximately half of the areas slated for cultural resource surveys; additional surveys are planned after harvest in 2022. Additional data is included in Section 6.9 of the Application. NHG will coordinate additional work with SHPO and will submit an Unanticipated Discovery Plan before construction to address measures to implement in the event resources are encountered during construction.

32. Please identify any sites along the project right of way that are eligible for inclusion in the NRHP.

Answer: As of July 2022, Navigator's surveys have identified a total of 15 cultural resources consisting of 14 archaeological sites and one isolated find in South Dakota. Of these 13 sites are recommended as not eligible for inclusion in the NRHP. These sites consist of historic and prehistoric artifact scatters and do not possess adequate data or integrity to meet NRHP criteria. One site, a historic railroad, is recommended as eligible for inclusion in the NRHP, and one prehistoric site has an undetermined NRHP eligibility status. Navigator intends to avoid both sites by using HDD at those locations.

33. Please describe any air quality impacts associated with construction or operation of the pipeline in South Dakota.

Answer: Air quality impacts from the Project are largely limited to emissions during construction. Mobile sources of emissions are tailpipe emissions from employee commuter vehicles and construction equipment. No permitting is required for mobile sources. Fugitive sources include particulate emissions from paved and unpaved roadways and the particulate emissions from soil disturbance during construction activities. Fugitive particulate emissions from roadways consist of heavier particles and tend to settle out of the atmosphere by gravity within a few hundred yards, so fugitive particulate emissions will be limited to the immediate vicinity of the Project. Fugitive dust emissions during construction will be restricted to the brief construction period along each segment. Dust impacts can be minimized by using dust minimization techniques, like minimizing exposed soil areas, reducing vehicle driving speeds, and watering the ROW as needed.

34. Are there any noise impacts from construction or operation of the Pipeline?

Answer: As discussed in Section 7.8 of the Application, because there are no pump stations or booster facilities in South Dakota that would omit noise, the only noise-related impacts associated with the Project are during construction and will be temporary. In general, construction will occur during daylight hours, between 7:00 a.m. and 7:00 p.m., seven days each week. Construction outside those hours may occasionally occur to avoid delays associated with weather or site conditions. HDD activities may also take place at other hours as necessary to maintain the integrity of the drilled pathway for safe and proper installation of the respective pipe section. The increase in noise during construction will not be noticeable more than a short distance from the Project area, and no impacts on residential or commercial areas are anticipated.

35. Does this conclude your direct testimony?

Answer: Yes.

Dated this 26th day of September, 2022.

/s/Brandi Naughton
Brandi Naughton