

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA

0-0

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, :  
:  
:

**REBUTTAL TESTIMONY OF  
MONICA HOWARD**

0-0

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

Answer: My name is Monica Howard. My business address is 13333 California Street, Suite 202, Omaha, Nebraska.

**2. Have you previously provided testimony in this proceeding?**

Answer: No. I am adopting the testimony of Brandi Naughton submitted with the Application on September 26, 2022, as well as Naughton’s Supplemental Testimony on May 25, 2023.

**3. What is your position with Navigator?**

Answer: I am Vice President, Environmental and Regulatory of Navigator CO2 Ventures, LLC where I am responsible for overseeing the effort to obtain the state siting certificates, environmental permits, and other approvals necessary to construct the Heartland Greenway pipeline. I have over 23 years of experience as an environmental professional in the energy industry. The majority of my career pertains to securing environmental and regulatory

permits for large scale pipeline projects throughout much of the U.S. under various lead agencies. My CV is attached as Exhibit A.

**4. Are you qualified and able to adopt all of Brandi Naughton’s previous testimony?**

Answer: Yes. Brandi works for me in the Environmental and Regulatory Department, and I am familiar with and qualified to address all of the same issues. I will be able to answer questions about these subjects at the evidentiary hearing.

**5. Please address the several comments from Staff witnesses about an Inadvertent Return Contingency Plan.**

Answer: In response to comments raised by a few witnesses Navigator is providing a Draft Inadvertent Return Contingency Plan (Exhibit B). To minimize the potential for an inadvertent return, the Contractor will develop site specific protocols to be implemented for the protection of sensitive cultural and biological resources. The Contractor will be required to provide a project specific Inadvertent Return Contingency Plans prior to the start of respective HDD activities.

**6. To whose testimony are you responding in rebuttal?**

Answer: I am responding to the testimony of Jon Thurber, Jaclyn McGuire, Hilary Morey, Tim Cowman, Jenna Carlson Dietmeier, Adam DiAntonio, Amy Cottrell, Herbert Pirela, Brian Sterner, Sara Thronson, and Alissa Ingham.

**Testimony of Jon Thurber**

**7. What are your comments concerning Mr. Thurber’s testimony regarding surveys and route modifications?**

Answer: Mr. Thurber raised concerns regarding results from survey work completed to date. The following reports are being provided in response to his request and discovery requests as indicated below.

- Wetland delineation report submitted to the U.S. Army Corps of Engineers (USACE) on February 10, 2023, as part of the Pre-Construction Notification package (Staff DR 1-25). A supplemental report will be submitted to the USACE that will reflect survey results from the 2023 surveys; however, it is not expected to be available prior to the evidentiary hearing as a result of the timing of the report.
- Lined Snake Survey Report submitted to SDGP (Staff DR 1-29(d)).
- Memorandum regarding project impacts to protected bats in South Dakota. The project wide bat survey report was provided to and concurred with by the USFWS (Staff DR 1-29(a)).
- Dakota Skipper Survey Report (Staff DR 1-29(e)) provided to USFWS, which concurred with the findings.

Mr. Thurber also raises concerns regarding route modifications. Navigator provided updated mapping exhibits with supplemental testimony filed on May 25, 2023. These updated exhibits depicted the centerline filed with the initial application in September 2022 and an updated May 2023 centerline, which I believe addresses his request we clearly identify each shift in the route. None of the route modifications implemented impact new Landowners who did not previously receive notice of the project pursuant to SDCL § 49-41B-5-2.

### **Testimony of Jaclyn McGuire**

**8. Do you agree with the testimony of Jaclyn McGuire regarding the type of remediation activities and the notification requirements if there were to be a release of CO2?**

Answer: Yes, I agree that in the unlikely event of a CO2 release that mitigation activities for impacted soil, groundwater, and/or surface water would depend on several factors, and, like Ms. McGuire, I am not aware of any long-term environmental impacts from a release. Additionally, Navigator recognizes that under ARSD 74:34:01:05 suspected discharges must be reported to DANR within 24 hours after the discharge is suspected when certain conditions exist. Required notifications will be included in the emergency response notification list.

### **Testimony of Amy Cotrell**

**9. Do you have comments on Amy Cotrell's testimony where she states Navigator did not adequately address sections of the ARSD?**

Answer: Yes. Ms. Cotrell states that the Application did not adequately address 20:10:22:17 (effects on aquatic ecosystems) based on Navigator not having provided survey data for wetlands and waterbodies, or federal and state species. Surveys are still ongoing and reports only serve to validate information provided in the Application and are not material to the overall conclusion Navigator made, that effects on aquatic ecosystems will be minimal and short term based on quantitative impacts as well as the avoidance, minimization and mitigation measures discussed throughout the Application. In my twenty three years of experience evaluating environmental impacts on lines infrastructure projects, the desktop data and surveys provided in the application data adequately represent the order of magnitude of impacts from linear projects that only have a temporary impact to these resources resulting from construction based on the

“action plan to avoid, minimize, and/or mitigate negative impacts to flora, fauna, and habitats” that she states is lacking on page 4 lines 93-96 of her testimony, but is found throughout the Application and plans provided.

Ms. Cottrell also states that potential impacts to wetlands and waterbodies were not defined. Sufficient quantitative impacts are discussed in respective sections of the Application, and impacts from construction activities were generally discussed, but perhaps a more qualitative statement regarding impacts could be made. *Construction activities within the Project area, including the installation of the new pipeline and the refueling of machinery could result in impacts to surface waterbodies and wetlands. Potential impacts to aquatic resources include removal of vegetation, increased sedimentation and turbidity from in-stream/in-wetland and adjacent construction activities, decreased dissolved oxygen concentrations, compaction of soils, disruption of beds and banks, inadvertent release of chemical and nutrient pollutants from sediments, and introduction of contaminants such as fuels or lubricants.* Implementing the route development process described, obtaining respective permits for impacts, implementation of BMPs and project plans including ECG, SWPPP, SPCC, and IR all clearly demonstrate our avoidance, minimization, and mitigation measures. Compliance with all rules, regulations, permits and conditions further supports the fact that the project will not have a material impact on these resources.

While surveys and agency consultations are still ongoing, Navigator provided the following reports, plans, and memorandums in supplemental discovery responses based on surveys and agency coordination performed to date:

- The Wetland Delineation Report from the 2022 survey effort, which was provided to the USACE, which has jurisdiction over those features. This will be supplemented with the results of the 2023 survey effort.
- The reports Navigator coordinated with the USFWS and SDGF&P regarding federal and state listed species, including aquatic species. They also explain avoidance, minimization, and mitigation measures. However, a quantitative analysis of impacts to Wetlands and Waterbodies was provided as Tables 6.6-1 as well as identifying waterbodies in Tables 6.6-2, 6.6-3. Section 2.2. discusses that environmental features, including wetlands and waterbodies, were also factored into routing in an effort to avoid and minimize crossing or impacting these features. Avoidance and minimization measures were further addressed in Section 6.6.3, including affirmative statements that no high-quality fisheries are crossed and larger water resources that are crossed won't be impacted due to the implementation of Horizontal Direction Drill pipeline installation method. This information has been shared with respective state and federal regulatory agencies.

**10. Do you agree with Ms. Cottrell's testimony on p. 4 lines 122 that Navigator's mitigation measures for aquatic resources is deficient relative to construction?**

Answer: No. She states that she disagrees with the mitigation measures, which align with industry standards and are discussed in the Application (including Sections 6.5 and 6.6), and ECG (Section 5.2, 5.3, and 5.4), but only offers that instream ECDs should be deployed at HDD and open cut crossings, which appears to be a recommendation to add a mitigation measure to the existing mitigation measures discussed. Specific to HDDs, she neglects to recognize that Section 5.4.2 states that the HDD contractor will develop project specific HDD plans describing

prevention, detection, monitoring, notification, and corrective actions in the event of a release. The potential for inadvertent returns is evaluated based on the geology and surficial geology at respective HDD locations; a blanket recommendation to disturb wetland and waterbodies being crossed by or near HDDs that would otherwise not be disturbed by installing in-stream ECDs may not be warranted based on the site-specific conditions. Appropriate preventative measures will be implemented at each HDD location based on the factors at those locations. Proactive instream ECDs may be implemented as well at open cut crossings as appropriate, the ECD will be updated to reflect this.

**11. Do you have a comment on Amy Cottrell’s recommendations for additional mitigation measures for wetlands and waterbodies?**

Answer: Ms. Cottrell’s recommendations appear to be preferences on how the Application is formatted as many of her recommendations are addressed in the Application and plans provided. She suggests that a wetland crossing table 6.6-1 should include impacts to hydrology and soil compaction; however, these are addressed in respective sections of the Application Section 6.3 and 6.4. Also, she recommends Navigator ‘better describe wetland crossing methods’ in the Application; however additional information is provided on three pages of the ECG in Section 5.2 “Wetland Crossings”. She states that Navigator did not include aquatic impacts resulting from above ground facilities, but Section 6.6.2 confirms that these will be placed in upland areas and Section 6.4.1 states they will not affect hydrology.

I disagree that Navigator has not adequately addressed impacts to aquatic flora or fauna. Her statements that “an assessment of survey results will need to be performed to determine the completeness of potential impacts to aquatic fauna” and “no species-specific baseline data are provided; these are necessary to fully identify potential impacts and thus mitigation measures for

aquatic fauna.” suggests that a detailed inventory of all species in the project footprint is necessary to identify potential impacts and mitigation measures. However, species-specific assessments are done to assess sensitive species or species identified by regulatory agencies, which Navigator is doing and as she acknowledges with respect to consulting with the respective state and federal agencies for those species. To be clear, our impacts to aquatic resources, including aquatic flora and fauna, will be temporary during construction. Vegetation and aquatic animals will reestablish post-construction based on the minimization, mitigation and restoration measures discussed throughout the application; we have committed to addressing the concerns of the regulatory authorities with jurisdiction over aquatic resources and obtaining all necessary permits and abide by all permit conditions.

#### **Testimony of Sara Thronson**

**12. Sara Thronson recommends that the PUC review the results of Navigator’s geohazard analysis (Thronson testimony at p. 3-4). Do you agree?**

Answer: Yes. Navigator provided its geohazard assessment “Geological and Geohazard Desktop Study” report on April 14, 2023 and stated that a Phase II study including field verification and additional due diligence activities will be performed. The Phase II activities are planned for later this year and will not be available for review prior to the statutory deadline for a PUC decision on the docket. Navigator witness Stephen Lee discusses more details related to Navigator’s geohazard analysis in respective testimony.

**13. Do you have any comments related to the erosion concerns raised by Sara Thronson (Thronson testimony p. 4)?**

Answer: Yes. Ms. Thronson recommends that the PUC require site specific pre-construction erosion control plans and acknowledges that the SWPPP is under development and



Navigator committed to obtaining this necessary permit for construction. This SWPPP will include site specific map requirements as it is a requirement specified in Section 5 the DANR General Permit for Stormwater Construction Activities “ ... a Stormwater Pollution Prevention Plan shall include .... Site map that includes - pre-construction site conditions, site topography and drainage patterns before and after major grading activities, discharge locations, natural buffer boundaries and widths, description of all Best Management Practices to be used.” Thus, in my opinion a PUC condition specific to a compliant SWPPP would be duplicative and unnecessary.

**14. Is there any additional information Navigator can provide related to saline soils potentially crossed by the Project in response to Sara Thronson’s testimony (Thronson testimony p. 6 line 203)?**

Answer: Yes. There is one soil map unit classified as saline, Salmo silty clay, very wet (Sa), for 0.15 mile at MP 17.3 on the POET Hudson Lateral. Soils in the Salmo series are very deep, moderately permeable, poorly drained soils with slopes of less than one percent. Salmo soils are typically used for pasture and hay, with native grasses including cordgrass, switchgrass, western wheatgrass, and sedges. Navigator will have an Agricultural Inspector delineate any saline soils in and around the mapped soil unit prior to construction so that if present, this soil type can be properly managed during construction and restoration, such as stockpiling and managing saline soils in a manner in which they will not mix with non-saline and replace in the same location during backfill and adding soil amendments post-construction (like Gypsum) to mitigate compaction and promote revegetation. Also if saline shallow groundwater is present, manage the discharge so that it does not reach non-saline areas, which may include pit-to-pit dewatering or the use of frac tanks. .

**15. Do agree with Sara Thronson’s testimony advising Navigator to include references for inspectors by mile post identifying potential problem areas (p. 5 lines 158-162, p.6 lines 187-191, p. 6 lines 216-220)?**

Answer: Yes, Navigator agrees with this practice and includes such references in its agricultural/environmental inspection manuals for construction.

**Testimony of Alissa Ingham**

**16. Do you agree with Alissa Ingham that Navigator did not properly analyze the compatibility of the proposed facility regarding its effect on row and non-row crops, irrigated lands, rural life, and farming; and that no mitigation measures for impacts to these land uses are included in the application (Ingham testimony pp. 4-5)?**

Answer. No. She states that addressing row and non-row crops and irrigated lands collectively as cultivated lands or agricultural lands is deficient and neglects to address farming. However, in addition to the impacts and mitigation measures discussed for ‘cultivated crops’ in Section 6.8 Land Use, Section 6.5.2 Vegetation includes impacts and mitigation of crops, pasture, rural residences and farms. Additionally, Section 7.10 Agriculture further addresses impacts and mitigation relative to agricultural lands, farmsteads, and rural residences. The Application acknowledges the short-term disturbance from construction on all affected lands including rural residences and agricultural practices. Mitigation, restoration and compensation measures are discussed throughout the application and supplemental plans (Agricultural Protection Plan, Weed Management Plans, and Environmental Construction Guidance). Based on the siting, design, construction methods, and operations measures detailed in the Application and submitted plans, the pipeline is compatible with all land uses crossed; all affected areas can revert to pre-construction land uses outside of the nominal acreage needed for above ground

facilities and the only notable impact to potential future land use along the project would be the restriction for permanent structures over the 50-foot permanent easement.

**17. Do you have any comments on Alissa Ingham’s testimony regarding noise sensitive land uses (Ingham’s testimony p. 5)?**

Answer: Yes. Noise impacts from pipeline construction are temporary and largely mobile, and as she acknowledges we have committed to mitigate by compensation and/or accommodations when needed, which is in line with industry practices. Ms. Ingham’s recommendation to identify each rural residence and business building along the route in Navigator’s Application Exhibit As, which are clearly depicted in the aerial imagery provided in Exhibit A to the Application, is not warranted in my opinion.

**Testimony of Hebert Pirela**

**18. Do you have any comments on Mr. Pirela’s testimony regarding Navigator’s Agricultural Protection Plan, Weed Mitigation Plan, or Inadvertent return plan (Pirela’s testimony pp. 4-5)?**

Answer. Yes, these plans were provided with Navigator’s supplemental testimony and thus not available prior to his testimony. I want to add that we provided the Agricultural Protection Plan to Brenda Sievers, Plant Industry Program Manager with the South Dakota Department of Agriculture and Natural Resources for review and comment and addressed comments prior to submittal to the PUC. Further we coordinated with the DANR and county weed managers on development of the Weed Mitigation Plan.

**Testimony of Hilary Morey.**

**19. Do you have any comments on the recommendations provided in Hilary Morey’s testimony?**

Navigator completed another season of line snake surveys for which a survey report is being provided for Game, Fish & Parks to review. Navigator agrees to adhere to the recommendations to minimize potential impacts to the line snake where its presence is known or assumed and confirm that there are no, and will not be, any above ground facilities in habitat known or assumed to be occupied by the line snake.

Navigator completed bat surveys on accessible parcels per the approved 2022 bat survey plan and provided a survey report to USFWS that USFWS concurred with. Navigator is assuming presence of protected bats at unsurveyed locations for purposes of consultation and is accounted for in the Biological Opinion. A memo addressing bat impacts in South Dakota was provided through supplemental discovery (Staff DR 1-29(a)).

Navigator did not submit a survey plan for the Topeka Shiner because we did not perform any presence/absence surveys for the species. We are assuming it is present at all locations identified as known or potential habitat by the DANR and USFWS and will use the HDD pipeline installation method at each of those locations to avoid direct impacts to the species.

We acknowledge and will honor the request for 60-days' notice prior to construction to coordinate public access to any walk-in areas that may be temporarily disrupted due to construction activities.

Lastly, we will continue to consult with the DANR in the event there are any additional route changes that may affect different resources or habitat areas.

### **Testimony of Jenna Carlson**

**20. Do you have any comments regarding concerns and recommendations in Jenna Carlson's testimony?**

In response to addressing the comments provided to Navigator in the March 2023 letter from the SHPO office, the updated report included the requested revisions to the Unanticipated Discovery Plan (UDP), specifically adding Dustin Lloyd and the point of contact for the Archeological Research Center (ARC), and the ARC was added throughout the document regarding a party to be contacted. Also, language was revised in Step 4 to clarify her question related to tribes; as this is a draft UDP awaiting comments from the USACE Archeologist and interested tribes, the contact list for tribes has not been populated as the tribes are still reviewing and commenting. We acknowledge the recommendation to include adequate buffers beneath 39MH0196 based on materials at 92 centimeters, and the pipeline will be installed via HDD at this location as depicted in the project electronic mapping. The pipeline will be no less than 10 feet deep in the area, which we feel is adequate, but are awaiting the final HDD design to confirm or modify the design appropriately.

In response to the request for a hard copy of the report, we misunderstood and sent the report to the ARC; we have since corrected the error and mailed a copy directly to the SHPO office.

As discussed in our meeting in November 2022, Navigator has made and is continuing to make efforts to meaningfully engage with interested tribes, which to date has included offers for tribal participation in surveys (or performing independent surveys), including a Tribal workforce development plan in our agreement with the unions, hosting monthly project status update meetings, providing the draft 2022 cultural resource survey reports for review and comment, and communicating sensitive sites identified during survey for their review and feedback on avoidance measures.

### Testimony of Adam DiAntonio

**21. Do you agree with the recommendations in Adam DiAntonio’s testimony at p. 3, lines 80-90?**

Answer: We agree with these recommendations and will update the ECG to add:

- Check that all construction equipment is properly tuned and maintained.
- Minimize idling of construction equipment and vehicles.
- Covers should be utilized on equipment (e.g., dump trucks, roll-off boxes, etc.) when transporting materials with significant dust content for the project.

### Testimony of Brian Sterner

**22. Mr. Sterner states that Navigator’s Application is deficient because it does not address the capture facilities (Sterner Testimony at p. 4). Do you agree?**

Answer: No. As stated in section 1.3 of our Application “The carbon capture facilities are not part of the HGPS CO<sub>2</sub> pipeline for which a permit is being requested in this proceeding.” For these reasons, we did not include respective information in our application for our pipeline system.

**23. Please respond to Mr. Sterner’s testimony that Navigator has not adequately addressed certain sections of South Dakota’s administrative rules (Sterner Testimony at pp. 5-6).**

Answer: Mr. Sterner states that we did not adequately address hydrology in part based on lack of pre- and post-drainage patterns on maps, but this issue is addressed in Section 6.4.1 of the Application, “*The pipeline is a below ground facility and therefore is not expected to interrupt drainage patterns within the Project area. The above ground capture facilities are being installed at developed industrial facilities, and the MLVs represent individually minor footprints*

*of 30-feet wide by 70-feet long (less than 0.05 acres each) and are not expected to have an impact on drainage patterns. The approximately 2 to 4-acre L/R site is currently sited in an essentially flat, upland field and will be constructed as to not interfere with drainage patterns.”*

With respect to the effects of construction on drainage patterns, the Application states that lands disturbed during construction will be restored to preconstruction contours and conditions, and will revert to existing land uses. Temporary impacts to hydrology from construction are also addressed in our discussion of best management practices (including in the ECG), through permitting under the jurisdiction of the U.S. Army Corps of Engineers where we are required to restore wetland and waterbody hydrology, and through NPDES permitting with the DANR.

Mr. Sterner also states that we did not adequately address ARSD 20:10:22:20 (Water Quality) (Sterner Testimony at p. 6) because we did not provide a Stormwater Pollution Prevention Plan (SWPPP) as an exhibit in the Application. The regulation states: “The applicant shall provide evidence that the proposed facility will comply with all water quality standards and regulations of any federal or state agency having jurisdiction and any variances permitted.” The Application does identify the need for, and commits to obtaining, the Construction Stormwater Permit from the DANR, for which a SWPPP must be completed prior to submitting a Notice of Intent (i.e. the application for a Construction Stormwater Permit). As stated in the updated permitting table filed with supplemental testimony, we anticipate applying for that permit in the fourth quarter of 2024 and the SWPPP will be finalized accordingly and made available to the DANR for review as required.

Mr. Sterner states that we did not adequately address ARSD: 20:10:22:16 (effect on Terrestrial Ecosystems) (Sterner Testimony at p. 8) because we did not cite the ecosystem classification system we addressed and should have used the EPA's ecosystem classification

system. We used the USDA's classification system as cited in Section 6.5 (USDA, 2022) and a link was provided in the reference section ([https://www.fs.usda.gov/land/ecosysmgmt/colorimagemap/ecoreg1\\_provinces.html](https://www.fs.usda.gov/land/ecosysmgmt/colorimagemap/ecoreg1_provinces.html)). I am not aware of a requirement to use one ecoregion system classification over another. Navigator's consultants have routinely used the USDA's ecosystem system in assessing environmental impacts in other NEPA and state level environmental analyses. This was not a concerns raised in discovery. Regardless of the classification system we used, the Application does identify and discuss biotic and abiotic factors in the project area as well as potential impacts including avoidance, minimization, and mitigation measures to address ARSD: 20:10:22:16.

**24. Mr. Sterner suggests a potential inconsistency in Table 1.8-1 regarding the NPDES permits Navigator intends to secure for construction (Sterner Testimony at p 4). Please respond.**

Answer: The stated inconsistency in Table 1.8-1 is about the NPDES permits we intend to secure for construction. Upon review, I noted a typographical error in a reference to "waters of the U.S" that should have read "waters of the State." We have updated the language in the Agency Action column to offer more clarity to avoid a perceived discrepancy. A copy is attached as Exhibit C. We understand that an applicant can add a request for coverage of Temporary Discharge Activities to a Construction Stormwater Permit (after the Construction Stormwater Permit has been issued) thus possibly avoiding the need to obtain separate permits. Navigator will coordinate with the DANR for necessary approvals and obtain the necessary authorization prior to any discharges taking place, whether under a construction stormwater permit or a separate temporary discharge activities permit.



**25. Mr. Sterner states that in Section 6.4.3, there should be an active vegetation restoration process to stabilize soils (Sterner Testimony at p. 5). Please respond.**

Answer: The Application addresses reseeding practices in sections 6.5.2 and 6.8.5, in our Weed Management Plans (which were provided in discovery after the date of Mr. Sterner's testimony), and in sections 4.9 and 5.3.8 of the ECG. Further the ECG addresses post-construction monitoring for revegetation success, which is also a requirement of the DANR construction stormwater permit.

**26. Mr. Sterner states that neither the Application nor the ECG discuss the potential impacts of operating heavy equipment on wet soils and does not address mitigation measures (Sterner Testimony at pp. 5-6). Please respond.**

Answer: Operating heavy equipment on wet soils can cause rutting, surface and/or subsoil compaction negatively affecting soil structure. Sections 6.7 and 6.8 of the ECG discuss methods for avoiding and minimizing impacts (i.e. mitigation) to soils when soils are wet and Section 4.7.1 discusses decompaction practices.

**27. Mr. Sterner states that we did not mention whether jurisdictional and non-jurisdictional wetlands were delineated. Please respond.**

Answer: On page 39 of the Application this issue is addressed in Table 6.6.1 and the statement that "*Table 6.6-1 summarizes all wetlands within the Project area; this includes USACE jurisdictional wetlands and non-jurisdictional wetlands.*" In addition, we provided the wetland delineation report that was submitted to the USACE with our Pre-Construction Notification in February 2022 that captures features delineated during 2022 survey activities. A copy was provided in a supplemental discovery response (Staff DR 1-25). An updated report will also be provided to the USACE after completion of the 2023 survey season.

### Testimony of Tim Cowan

**28. Do you have comments on Tim Cowman’s testimony that Sections 6.2 and 6.4 of the Application do not properly summarize the geologic formations crossed by the project (Cowman Testimony at p. 2)?**

Answer: Mr. Cowman states that we did not adequately address geologic formations because the map we provided depicting geologic hazards show geology at a substantial depth, not the surface geology, but he also states that there are no geologic formations that may pose a risk to the pipeline. In Section 2.2 of the Application, Navigator addresses geology as a factor used in the Pivvot routing tool, including surficial geological conditions such as slope, topography, landslide potential, and peak ground acceleration. Also, a description of surficial deposits is discussed in Section 6.2. Navigator also discussed its geohazard assessments, provided the initial assessment report, and included a discussion of (Section 6.2.1) and table (Table 6.2-2) detailing geohazards. Navigator also created two additional maps, Bedrock Geology Map and State Geologic Map provided in a supplemental response to DR 1-17. Navigator witness Stephen Lee further addresses Navigator’s geohazard assessments.

Mr. Cowman also states that hydrology was not adequately addressed in the Application because surface water resources were not addressed in Section 6.4 (Cowman Testimony at 2-3). However, surface water resources are addressed in Section 6.6 “Aquatic Wildlife and Ecosystems” and Table C-2. In addition, impacts and mitigation measures to surface waters are addressed in Section 6.6.3. Navigator also identified the agencies with jurisdiction over surface waters in permit table 1.8-1 and committed to obtaining all permits necessary for construction and operation of the project. Section 6.6.2 of the Application states that there will be no loss of

wetlands as a result of the project, and Section 6.6.5 states that all streams crossed will be restored; thus, there is no long term or permanent impact to surface waters.

**Testimony of Loren Staroba**

**29. What are your comments regarding Mr. Staroba’s testimony regarding the impacts to his fields from pipelines installed in 1975 and 1998?**

Answer: I acknowledge the long-term yield losses he explains and supports with the yield maps. I am also aware that pipeline construction practices have evolved and improved over time and especially since the 2-4 decades when those pipelines were installed. This is supported by the Ohio State Study he provided as Attachment 3. Best management practices regarding construction in agricultural areas are commonly accepted and Navigator’s commitment to implementing those as demonstrated in the Agricultural Protection Plan that was submitted to the PUC after being reviewed and comments addressed by SD DANR.

**30. Do you have any other comments on the article summarizing the Ohio State University Study he included as Attachment 3?**

Answer: Yes. Mr. Staroba highlighted the statement that the study’s subject pipeline projects implemented best management practices, but the study didn’t have any information on what those practices were or if they were monitored and enforced on the subject parcels. Navigator has a robust monitoring plan that includes Agricultural Inspectors to ensure that our plans are properly implemented. The study stated that compaction was higher in the affected area post-construction. In our Agricultural Protection Plan, Navigator addresses decompaction regarding ways to avoid, minimize, and remediate compaction.

The study shows that crop yields may be reduced for several years on agricultural properties where pipeline installation work has occurred. It is widely recognized that property

on which pipeline construction is performed experiences crop yield losses for some period of time after the pipeline is installed and the land is restored. This is why Navigator, like other developers of linear infrastructure (pipelines and transmission lines), offers compensation for crop losses and yield reductions as part of our overall easement compensation package. While Mr. Staroba also highlighted that “three underground pipelines were evaluated within 5 years of installation in Ohio” in the study, construction of all the study’s subject pipelines was completed in 2018, so the crop yields measured in 2020 and 2021 represent losses at 2- and 3-years post-construction.

The Ohio State Study acknowledges this compensation and suggests that it is insufficient because industry pays for losses for only 3-4 years post-construction. However, the study doesn’t explain that the respective percentages paid for those years are well above what is experienced in the field. Specifically, Navigator is offering payments for crop losses of 250%, which is being calculated for compensation purposes at 100% in the first year (year of installation when construction activity is present and harvest is not likely practical), 70% in the second year (first year post-restoration), 40% in the third year (second year post-construction), 25% in the fourth year (third year post-construction), and 15% in the fifth year. These payments total 250% of crop yields over a five-year period. The five-year period is used to calculate values for compensation and does not directly correlate to expected yield loss in each respective year and the calculation is conservative in that crop loss compensation calculations are expected to exceed actual experienced losses. Payment for year 1 losses is 100% based on active construction taking place. Actual yield losses in years 2, 3, 4, 5 collectively do not add up to another 150% as is supported by both the Ohio State and Tekeste studies that showed crop losses declined in subsequent years. The Ohio State Study states corn losses were 23.8% and 19.5% for

years 2 and 3 and soybean losses were 7.4% and 12.6% for years 2 and 3; the respective crop loss payment from by Navigator if correlated directly would be 40% and 25%, well above experienced crop losses. Thus, if yields take another year or two to fully recover, the concept is that the landowner is at least made whole.

### **Testimony Regarding County Ordinances**

**31. In his direct testimony, Jon Thurber states that Navigator has not yet provided the Commission with any information necessary to make a finding under SDCL § 49-41B-28 that local land use regulation is unreasonably restrictive. Have any counties affected by the proposed route taken legislative action since the deadline for Staff’s testimony and Navigator’s supplemental testimony?**

Answer: Yes. Both Minnehaha County and Moody County have acted since the deadline. On June 6, 2023, Minnehaha County approved Ordinance MC16-179-23. A copy is attached as Exhibit D. The Ordinance requires that any person who has filed an application with the Public Utilities Commission must submit written notice to Minnehaha County of the PUC filing; must provide certain information to Minnehaha County, including route information, a copy of the permit application filed with the PUC, a map identifying entry into the County’s right of way and affected county road crossings, a map and list of all affected property owners in the County, a set of plans and specifications for the pipeline, and copies of the emergency response and hazard mitigation plans as required by PHMSA. The Ordinance provides that the applicant will be notified of a determination of its project as a special permitted use or the need to apply for a conditional use permit as soon as practicable, but in no event more than 30 days after receiving approval of its permit by the PUC. The Ordinance also sets forth minimum separation criteria, including 330 feet for dwellings, churches, and businesses, measured “from

the center line of the proposed pipeline to the closest parcel boundary of a use.” The Ordinance provides that a property owner may grant a waiver of the minimum setback distance. If the County requires the applicant to seek a conditional use permit, the applicant must submit a fee of \$25,000. If a conditional use is granted, the applicant must pay an annual fee to the county of \$300 per linear mile of pipeline within the County.

At its meeting on June 12, 2023, the Moody County Commission had a first reading of Ordinance No. 2023-01. A copy of the Ordinance is attached as Exhibit E. The Ordinance was amended for further consideration by the County Commission at its meeting on June 26, 2023. As amended, the Ordinance requires any pipeline facility requiring a permit from the Public Utilities Commission to obtain a conditional use permit from Moody County. A conditional use permit cannot be granted unless the pipeline meets a number of standards, including a minimum setback of 1,500 feet from cautionary uses, including schools, daycares, churches, dwellings, manufactured homes, and all permitted Concentrated Animal Feeding Operations. The separation distance is the minimum horizontal distance measured from the wall line of the neighboring cautionary use to the centerline of the proposed pipeline. Affected property owners may grant a waiver, which provides the County Board of Adjustment discretion to allow the separation distance to be less than that established by the Ordinance. The Ordinance also requires that an applicant provide information to the Board of Adjustment before it can act on an application for a conditional use permit, including an affidavit attesting that necessary easement agreements with landowners have been obtained, proof of notice by certified mail to all landowners within one mile of the proposed pipeline, and a set of plans and specification for the pipeline. The Ordinance requires that a pipeline must be bored under all existing tile line or

utility lines it crosses. Moody County passed its Ordinance with one amendment at its meeting on June 26, 2023.

**32. Can Navigator comply with the setback distances in the Minnehaha County Ordinance?**

Answer: Navigator understands the provision that the separation distance is to be “measured from the center line of the proposed pipeline to the closest parcel boundary of a use” to mean that the pipeline cannot cross within 330 feet any parcel on which there is a dwelling, church, or business. Navigator’s current route through Minnehaha County would violate this provision. Navigator further understands that based on its route violating this provision, it would need to seek waivers from as many or more landowners that it seeks easements on in the county. Additionally, a re-route through the County to satisfy the minimum setbacks is not possible based on the abundance of overlapping exclusion zones. Minnehaha County produced a map detailing the exclusion zones in blue and Navigator added its current pipeline route to it and it is provided as Exhibit F. Based on our customer being located in Brookings County and needing to route the pipeline south-southwest to Iowa, there is no available route that avoids the exclusion zones. Navigator explained in Section 2.0 of its Application the number of factors taken into account in routing the pipeline. Navigator has regulatory obligations to avoid and minimize impacts on a number of factors, which it must demonstrate to obtain other state and federal permits. I am confident that our proposed route effectively and responsibly balances those criteria.

**33. Do you think that the setback distances are unreasonably restrictive within the meaning of SDCL § 49-41B-28?**

Answer: Yes. When developing a pipeline project, we identify risks and appropriate measures to avoid, minimize, and mitigate those risks. This is also a requirement for pipeline companies under PHMSAs regulations and Navigator is subject to 44 C.F.R. Part 195 and has taken extensive and conservative measures to comply with and exceed those regulations.

**34. Are there other provisions of Minnehaha County’s Ordinance that you think are unreasonably restrictive?**

Answer: Yes, Navigator believes there are multiple provisions of the Minnehaha County Ordinance that are unreasonably restrictive, including the following: The Ordinance requires that Navigator submit some of the same information to the County that it must submit to the Public Utilities Commission, which is unnecessary given that the PUC filings are a matter of public record and the County is entitled to party status before the Commission and the applicant is required by SDCLL § 49-41B-5.2 to provide a hard copy of its PUC application to the County Auditor in each county affected. In addition, the Ordinance fails to specify when Navigator must obtain a conditional use permit or what the criteria are for the County to determine whether a conditional use permit is appropriate. The requirement that Navigator pay a fee of \$25,000 in connection with its application for a conditional use permit is arbitrary and not reasonably related to any costs that Minnehaha County may incur in connection with an application for a conditional use permit. Further, an annual fee based on mileage is arbitrary as other linear infrastructure in the county is not subject to a similar requirement and I understand that the project, once installed will be subject to taxes that are centrally assessed and portions remitted back to the local taxing authorities, which should address the matters for which the annual assessment would be used. The timing of this ordinance is unreasonably restrictive due to the



burdensome routing requirements imposed after years of project development, planning, routing, surveys, engineering, and permitting.

**35. Can Navigator comply with the setback distances in the Moody County Zoning Ordinance?**

Answer: No. Based on a 1,500-foot separation distance, Navigator's current route would violate the proposed ordinance. Navigator could not find a feasible route through Moody County based on a 1,500-foot separation distance.

**36. Do you think that setback provisions of the Moody County Ordinance are unreasonably restrictive?**

Answer: Yes. Based on Navigator's pipeline design, plume dispersion modeling, and integrity management plan a setback of 1,500 feet from any occupied structure is not warranted. Moody County did not discuss adopting that separation distance with Navigator despite repeated requests and offers Navigator made to meet with the County and discuss their concerns. Navigator was allowed three minutes to provide public comment at one public meeting on May 23, 2023, but no public comment was allowed at the meeting on June 12, 2023, and we understand none is planned for the meeting on June 26, 2023. Navigator is unaware of any research supporting a setback of 1,500 feet as reasonably necessary to protect public health, safety, and welfare. It appears that Moody County increased the setback to 1,500 feet because that is the setback adopted by Brown County. Navigator has served written discovery on Moody County to determine the basis for the setback and may provide additional evidence at the hearing based on the discovery answers, but a response has not been provided as of the date of this testimony.

**37. Are there other provisions of Moody County's Ordinance that you think are unreasonably restrictive?**

Answer: Yes, there are multiple provisions of the Moody County Ordinance that are unreasonably restrictive, including the following: The Ordinance requires that Navigator submit some of the same information to the County that it must submit to the Public Utilities Commission, which is unnecessary given that the PUC filings are a matter of public record and the County has party status before the Commission, and applicants are required by SDCL § 49-41B-5.2 to send a copy of the Application to the County Auditor's office. The requirement that a conditional use permit can be issued only after Navigator has filed an affidavit attesting that necessary easement agreements with landowners have been obtained is not reasonably related to public health, safety, and welfare. The requirement that a pipeline must be bored under all existing tile lines and utility lines it crosses is not reasonably related to public health, safety, and welfare, and is not based on sound engineering and construction practice. The requirement that Navigator abandon the pipeline in place may be contrary to federal regulation on abandonment at the time and is not reasonably related to public health, safety, and welfare. The requirement that Navigator pay a fee of \$25,000 in connection with its application for a conditional use permit appears to be based on Minnehaha County's proposed ordinance, is arbitrary, and is not reasonably related to any costs that Moody County may incur in connection with an application for a conditional use permit. The fact that the county *may* allow for a lesser setback option *if* Navigator obtains a waiver from a landowner is unclear as there are no stated criteria the county will use to approve the reduced setback. Additionally, these waivers will inherently include landowners that are not otherwise affected by the pipeline posing an undue burden on Navigator to identify, contact, negotiate a waiver when a permit application with these waivers may not

ultimately be approved. The transferability section is unreasonably restrictive as it requires a new owner to apply for a new permit with no explanation of criteria the county will use to approve or deny the permit and no timeline for a county decision to approve or deny. This effectively gives the county authority over pipeline operations for which PHMSA has exclusive jurisdiction. The timing of this ordinance is unreasonably restrictive due to the burdensome routing requirements imposed after years of project development, planning, routing, surveys, engineering, and permitting has been performed.

**38. Is Navigator requesting that the PUC declare that these Ordinances as applied to Navigator’s proposed pipeline are unreasonably restrictive under SDCL § 49-41B-28 and therefore preempted by the PUC’s order and decision in this proceeding?**

Answer: Yes. Navigator has separately filed a motion with the Commission to address this issue based on evidence to be heard at the hearing beginning on July 25, 2023, and based on briefing to be submitted after the hearing as ordered by the Commission.

**39. Do you have any comments on Jon Thurber’s testimony referencing local government participation and the applicant’s burden or proof under SDCL § 49-41B-22(4) to establish the facility will not unduly interfere with the orderly development of the region?**

Answer: Yes. The Heartland Greenway pipeline was routed to avoid developed and developing areas as described in Section 2.2 of the Application. And like other linear, belowground pipeline infrastructure, this pipeline does not inherently interfere with orderly development of any region because the only development precluded, which is documented in its easements, is permanent structures over the 50-foot permanent easement we are seeking.

**40. Does this conclude your testimony?**

Answer: Yes.

Dated this 26th day of June, 2023.

/s/ Monica Howard  
Monica Howard