

BEFORE THE  
PUBLIC UTILITIES COMMISSION  
STATE OF SOUTH DAKOTA

**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**

DOCKET HP22-002

PREFILED TESTIMONY OF JENNA CARLSON DIETMEIER, PhD  
ON BEHALF OF THE COMMISSION STAFF  
May 25, 2023



1 **Q. State your name.**

2  
3 A. Jenna Carlson Dietmeier

4  
5 **Q. By whom are you employed?**

6  
7 A. State of South Dakota

8  
9 **Q. For what department or program do you work?**

10  
11 A. Department of Education, South Dakota State Historical Society, South Dakota State  
12 Historic Preservation Office (SHPO)

13  
14 **Q. Please explain the program goals and your role and duties within the State Historic  
15 Preservation Office.**

16  
17 A. The National Historic Preservation Act (NHPA) of 1966 created a State Historic  
18 Preservation Officer in each state and territory to administer each state's and territory's  
19 historic preservation program. Each State Historic Preservation Officer, with the support  
20 of qualified staff, is charged with:

- 21 • Conducting a comprehensive survey of historic properties
- 22 • Maintaining an inventory of historic properties
- 23 • Administering state programs of Federal assistance
- 24 • Identifying and nominating eligible properties to the National Register of Historic  
25 Places
- 26 • Advising and assisting Federal, State, and local governments in matters of historic  
27 preservation
- 28 • Preparing and implementing a statewide historic preservation plan
- 29 • Providing public information, education, training, and technical assistance
- 30 • Working with local governments in the development of local historic preservation  
31 programs and helping them become "certified local governments"
- 32 • Providing consultation for Federal undertakings under Section 106 of NHPA

33  
34 In South Dakota, the State Historic Preservation Office (SHPO) is a program of the South  
35 Dakota State Historical Society.

36 As Review and Compliance Coordinator, my role within SHPO is to oversee our office's  
37 review of over 1,400 projects annually within South Dakota for compliance with federal  
38 and state preservation laws. I consult with agencies on federally funded, licensed,  
39 permitted, or approved projects to ensure that the agency has taken the effect of the  
40 project on historic properties into account. I also comment on state and local projects to  
41 ensure that archaeological resources are taken into consideration under state law. Other  
42 duties I regularly perform within SHPO include providing training on and resources

1 pertaining to compliance with preservation laws, preparing or assisting in the preparation  
2 of nominations to the National Register of Historic Places, managing contracts, and  
3 providing technical and general assistance to agencies and the public in archaeological  
4 matters and matters of preservation law.

5  
6 **Q. On whose behalf was this testimony prepared?**

7  
8 A. This testimony was prepared on behalf of the Staff of the South Dakota Public Utilities  
9 Commission.

10  
11 **Q. State and explain the laws and regulations that protect archaeological and historic  
12 resources in South Dakota.**

13  
14 A. Section 106 of the National Historic Preservation Act of 1966, as amended, requires  
15 federal agencies to take into account the effects of their undertakings on historic  
16 properties. The implementing regulations of Section 106, found at 36 C.F.R. § 800,  
17 delineate the process federal agencies follow to comply with Section 106. At its most  
18 basic, Section 106 compliance is a four-step process:

19  
20 Step 1. Initiate the Process – The federal agency determines whether the proposed  
21 project is a federal undertaking. The implementing regulations of Section 106 define an  
22 undertaking as “a project, activity, or program funded in whole or in part under the direct  
23 or indirect jurisdiction of a Federal agency, including those carried out by or on behalf of  
24 a Federal agency; those carried out with Federal financial assistance; and those requiring  
25 a Federal permit, license, or approval.” The agency then must decide if their undertaking  
26 has the potential to affect historic properties. A historic property is a prehistoric or  
27 historic district, site, building, structure, or object included in, or eligible for inclusion in,  
28 the National Register of Historic Places. If the agency determines that their undertaking  
29 does not have the potential to affect historic properties given the nature of the proposed  
30 undertaking, they document this and exit the Section 106 process. If the agency  
31 determines that the undertaking has the potential to affect historic properties, they  
32 identify appropriate consulting parties and move on to the second step.

33  
34 Step 2. Identify Historic Properties – The federal agency is required to make a  
35 “reasonable and good faith effort” to identify historic properties which may be affected  
36 by the undertaking. The specific identification efforts employed depend upon the  
37 individual undertaking and the type(s) of properties which may be affected.  
38 Identification efforts may include background research such as a search of the National  
39 Register of Historic Places database or research at a local historical society, consultation  
40 with our Tribal Partners and members of the general public, oral history interviews,  
41 sample field investigations, and field survey. Agencies are specifically required to  
42 consult with Indian tribes to assist in identifying properties which may be of religious and  
43 cultural significance to them and may be eligible for listing in the National Register. If

1 no historic properties are identified within the undertaking’s Area of Potential Effects  
2 (APE), the agency consults with SHPO on that finding, and, if SHPO concurs, documents  
3 the results of consultation and exits the Section 106 process. If historic properties are  
4 identified within the APE, the agency moves on to the third step.

5  
6 Step 3. Assess Adverse Effects – If historic properties are identified within the APE, the  
7 agency must determine how the undertaking will affect those properties. An adverse  
8 effect occurs when the undertaking may alter, either directly or indirectly, any of the  
9 characteristics of a historic property that qualify it for inclusion in the National Register  
10 of Historic Places. If the undertaking can be modified or conditions imposed to avoid  
11 adversely affecting a historic property, the agency consults with SHPO on that finding,  
12 and if SHPO concurs, documents the results of consultation and exits the Section 106  
13 process. If it is found that the undertaking will have an adverse effect on one or more  
14 historic properties, the agency moves on to the fourth step.

15  
16 Step 4. Resolve Adverse Effects – If one or more historic properties will be adversely  
17 affected by the undertaking, the agency continues to consult with the appropriate parties  
18 and develops an agreement document, usually a Memorandum of Agreement, which  
19 defines the agreed upon stipulations to minimize or mitigate the adverse effect.  
20 Throughout the entire Section 106 process, the agency is required to consult with the  
21 appropriate consulting parties, as described throughout the regulations.

22  
23 South Dakota Codified Law (SDCL) 1-19A-11.1 requires the State, or any political  
24 subdivision of the state (cities, counties, etc.) to notify SHPO of any project that has the  
25 potential to encroach upon, damage, or destroy properties listed in the National or State  
26 Registers of Historic Places and allow SHPO the opportunity to investigate and comment  
27 on such projects. Unlike Section 106, SDCL 1-19A-11.1 does not require agencies to  
28 consider properties that may be eligible for listing in the National Register of Historic  
29 Places; SDCL 1-19A-11.1 only requires consideration of properties which are already  
30 listed. Additionally, Section 106 defines who are consulting parties in the Section 106  
31 process and specifically requires the agency to consult with American Indian Tribes;  
32 SDCL 1-19A-11.1 only requires comment from SHPO.

33  
34 Section 106 of the National Historic Preservation Act supersedes SDCL 1-19A-11.1.  
35 However, the Heartland Greenway has been segmented with only certain areas of the  
36 project requiring permits from a federal agency. As such, certain segments of the project  
37 will be reviewed under Section 106 and the remaining segments will be reviewed under  
38 SDCL 1-19A-11.1. Additionally, as the project is subject to the permitting requirements  
39 of the Public Utilities Commission, ARSD 20:10:22:23 requires the applicant to include  
40 “an identification and analysis of the effects the construction, operation, and maintenance  
41 of the proposed facility will have on the anticipated affected area including... a forecast  
42 of the impact on landmarks and cultural resources of historic, religious, archaeological,  
43 scenic, natural, or other cultural significance.”

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**Q. Describe the documents you have reviewed and commented upon pertaining to Navigator Heartland Greenway, LLC’s efforts to identify cultural resources.**

A. On March 21, 2022, SHPO received a letter and a scope of work describing the proposed cultural resources survey of high probability areas and potential United States Army Corps of Engineers permit areas within the Heartland Greenway System from Jennifer Cochran of Perennial Environmental Services. In a response dated March 28, 2022, SHPO acknowledged that a sample survey may be applicable for large-scale, linear undertakings to allow the agency to focus intensive survey efforts on areas that contain known properties or that have a high potential for containing previously unrecorded properties. SHPO also recommended additional methodologies for defining high probability areas and for identifying properties which could be affected by the project, including a specific recommendation to engage with Tribal Partners in the identification of cultural resources.

On February 10, 2023, SHPO received digital access to the report titled “A Level III Cultural Resources Survey of the Areas within the Heartland Greenway Pipeline System, South Dakota” by staff with Perennial Environmental Services, LLC. The report indicated that 1184.1 acres of land were surveyed, but additional areas still required survey. The report indicated the additional area requiring survey would be surveyed in 2023, and the results would be presented in an addendum report. SHPO responded to the information in the February 2023 report in a letter dated March 7, 2023 (see Exhibit\_JCD-2).

**Q. Has Navigator Heartland Greenway, LLC, to the best of your knowledge, complied with the state and federal rules and regulations you previously described?**

A. To the best of my knowledge, Navigator Heartland Greenway has complied with SDCL 1-19A-11.1, as there are no properties listed in the State or National Registers of Historic Places within one mile of the Heartland Greenway Pipeline System.

To the best of my knowledge, Navigator Heartland Greenway is in the process of identifying cultural resources and how they will be impacted by the project, pursuant to ARSD 20:10:22:23.

Compliance with Section 106 of the National Historic Preservation Act is the responsibility of the federal agency and will apply to those segments of the project with a federal nexus.

1 **Q. Are there any archaeological and/or historically sensitive areas which will be**  
2 **affected by Navigator Heartland Greenway, LLC?**

3  
4 A. It is unclear. The report SHPO received on February 10, 2023, indicates that ten  
5 archaeological sites were newly recorded and one archaeological site was updated during  
6 the survey efforts. However, the report also indicates that additional areas still required  
7 survey, and the results of the additional survey will be presented in a forthcoming  
8 addendum report. Additionally, the report indicates that Tribes have been afforded an  
9 opportunity to review the current route corridor and provide requests, comments, and/or  
10 concerns regarding the project, but there is no other information regarding Navigator  
11 Heartland Greenway's efforts to engage with our Tribal Partners regarding the  
12 identification of cultural resources. Under Section 106 of the National Historic  
13 Preservation Act, the federal agency is still responsible for government-to-government  
14 consultation with American Indian tribes regarding the identification of historic  
15 properties.

16  
17 **Q. Please describe the properties discussed in the February 2023 report.**

18  
19 A. 39MH0193 – prehistoric lithic scatter and historic artifact scatter  
20 39MH0194 – prehistoric lithic scatter  
21 39MH0195 – prehistoric lithic scatter and historic artifact scatter  
22 39MH0196 – prehistoric lithic scatter  
23 39MH0197 – historic artifact scatter  
24 39MH2013 – historic railroad grade  
25 39MO0033 – historic artifact scatter and prehistoric isolated find  
26 39MO0034 – historic artifact scatter and prehistoric isolated find  
27 39MO0035 – prehistoric lithic scatter  
28 39MO0036 – historic artifact scatter  
29 39MO0037 – historic artifact scatter

30  
31 The February 2023 report indicates that all of the above listed sites were identified in  
32 areas that will not require permitting from the United States Army Corps of Engineers.  
33 In a letter dated March 7, 2023, SHPO agreed that 39MH0193, 39MH0194, 39MH0195,  
34 39MH0197, 39MO0033, 39MO0034, 39MO0036, and 39MO0037 should be considered  
35 Not Eligible for listing in the National Register of Historic Places. In the same letter,  
36 SHPO agreed that 39MH2013 remains Eligible for listing in the National Register of  
37 Historic Places, and 39MH0196 and 39MO0035 have not been fully evaluated for  
38 eligibility to the National Register of Historic Places.

1 **Q. Can the Applicant mitigate the risks associated with crossing sensitive areas?**

2  
3 A. As the identification of historic properties and other cultural resources is still ongoing, it  
4 is unclear if or how Navigator Heartland Greenway can mitigate the risks associated with  
5 crossing all sensitive areas affected by Navigator Heartland Greenway, LLC.

6  
7 However, the February 2023 report indicated that 39MH2013 and 39MO0035 will be  
8 avoided entirely by the project due to workspace modifications. The report also indicated  
9 that Navigator plans to bore under 39MH0196. SHPO recommended that Navigator  
10 include adequate horizontal and vertical buffers around 39MH0196 when choosing bore  
11 pit locations and bore depths to ensure that impacts to 39MH0196 are avoided.

12  
13 **Q. Has Navigator adequately addressed SHPO’s comments or concerns on the**  
14 **information submitted to date?**

15  
16 A. It is unclear. SHPO provided comments on the proposed scope of work for cultural  
17 resources survey in a letter dated March 28, 2022, and Jennifer Cochran of Perennial  
18 Environmental Services, LLC indicated that the comments would be incorporated into the  
19 survey plan and reporting efforts. However, as survey efforts are still ongoing, it is  
20 unclear at this time if all comments have been taken into consideration.

21  
22 SHPO provided comments on the February 2023 survey report in a letter dated March 7,  
23 2023. In the letter, SHPO recommended that Navigator include adequate buffers around  
24 39MH0196, recommended edits to the Unanticipated Discovery Plan for Cultural  
25 Resources and Human Remains included as Appendix K of the February 2023 report, and  
26 continued to encourage the applicant to meaningfully engage with American Indian Tribes  
27 in the identification of cultural resources and impacts to those resources to assist in  
28 fulfilling the requirements of the PUC permitting application. In an April 2023 revision  
29 of the February 2023 report, no changes had been made to the report to reflect SHPO’s  
30 comments and recommendations, though Amy Butler with Perennial Environmental  
31 Services, LLC., indicated in email correspondence dated April 18, 2023, that the  
32 unanticipated discovery plan would be edited to incorporate SHPO comments.

33  
34 Additionally, SHPO has twice requested for information pertaining to the project,  
35 including the survey report, be submitted in hard copy to align with our tracking and  
36 retention requirements for the project. SHPO has not yet received a hard copy of the  
37 February 2023 survey report or the April 2023 revision to the February 2023 survey  
38 report.

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1 **Q. Please provide any additional information that may be helpful or necessary for us to**  
2 **investigate further.**

3  
4 A. SHPO is aware that certain portions of the proposed Heartland Greenway Pipeline  
5 System will require permits from the United States Army Corps of Engineers but has not  
6 yet received information clearly delineating the exact locations of the United States Army  
7 Corps of Engineers permit areas. The United States Army Corps of Engineers will be  
8 required to consult with SHPO on the undertaking pursuant to Section 106 of the  
9 National Historic Preservation Act. At this time, the United States Army Corps of  
10 Engineers has not consulted with SHPO on any portion of the undertaking.

11  
12 **Q. Does this conclude your testimony?**

13  
14 A. Yes

15  
16  
17



Curriculum Vitae

Jenna Kay Carlson Dietmeier

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900 Governors Drive  
Pierre, SD 57501

jenna.carlsondietmeier@state.sd.us  
(605)773-8370

**Education**

- Ph.D., May 2017** College of William and Mary Williamsburg, VA  
Anthropology major with concentration in historical archaeology  
“Beyond the Butcher’s Block: The Animal Landscapes of  
Eighteenth-Century Chesapeake and Lowcountry Plantations”  
(Advisor: Neil L. Norman Mentor: Joanne V. Bowen)
- M.A., May 2011** Illinois State University Normal, IL  
Archaeology major with concentration in historical archaeology  
“Culinary Creolization: Subsistence and Cultural Interaction at  
Fort Michilimackinac: 1730s-1761”  
(Advisor: Elizabeth M. Scott)
- B.A., May 2009** University of Minnesota Duluth Duluth, MN  
Graduated *summa cum laude*  
Anthropology Major, History Minor, Chemistry Minor

**Work Experience**

- 2020-Present **Review & Compliance Coordinator** Pierre, SD  
South Dakota State Historic Preservation Office  
Oversee review of 1400+ projects annually for compliance with federal  
and state laws  
Supervise review and compliance staff and assist with technical matters  
Consult with federal agencies on agreement documents under Section 106  
Provide training on and resources pertaining to Section 106 compliance  
Determine eligibility of archaeological sites and prepare National Register  
nominations  
Manage contracts to meet requirements of Historic Preservation Fund  
Coordinate electronic project database  
Organize staff and volunteers for kids’ archaeology camp
- 2021 **Faunal Analysis Consultant** Online  
Washington and Lee University  
Taught undergraduate senior the fundamentals of zooarchaeology  
Assisted with data interpretation for senior capstone project
- 2017-2020 **Review & Compliance Archaeologist** Pierre, SD  
South Dakota State Historic Preservation Office  
Reviewed projects for compliance with Section 106 of NHPA

- Consulted with federal agencies on agreement documents  
Assisted with annual children's archaeology camp  
Prepared National Register nominations for archaeological sites  
Served as liaison to South Dakota Department of Transportation
- 2016 - 2017 **Provost Dissertation Fellow** Williamsburg, VA  
College of William and Mary, Graduate Arts & Sciences  
Completed writing and defense of PhD dissertation
- 2015 - 2016 **Adjunct Instructor** Williamsburg, VA  
College of William and Mary, Department of Anthropology  
Taught undergraduate and graduate courses listed below  
Designed assessments and activities to gauge students' grasp of material
- 2011 - 2014 **Graduate Teaching Assistant** Williamsburg, VA  
College of William and Mary, Department of Anthropology  
Lectured on selected anthropological and archaeological topics  
Designed and graded in-class assessment
- 2011; 2014 **Field School Teaching Assistant** Sandys, Bermuda; Williamsburg, VA  
College of William and Mary, Department of Anthropology  
Oversaw undergraduate excavation of historic period sites  
Directed cleaning and cataloging of artifacts for field school in Bermuda
- 2010 **Archaeology Technician** Champaign, IL  
Illinois State Archaeological Survey  
Conducted survey and mitigation of prehistoric and historic sites  
Cleaned and catalogued prehistoric and historic artifacts
- 2009 - 2011 **Graduate Assistant** Normal, IL  
Illinois State University  
Cleaned and cataloged artifacts from historic site in Missouri  
Organized zooarchaeological reference collection
- 2008 - 2009 **Archaeology Lab Technician** Duluth, MN  
Duluth Archaeology Center  
Employed through CCRR Grant  
Cleaned and accessioned artifacts
- 2008 **Undergraduate Intern** Duluth MN  
Duluth Archaeology Center  
Completed faunal analysis to identify unknown specimen  
Cleaned and identified equine and bovine bones

## **Publications**

## **Monographs**

Carlson, Jenna

2012. *Culinary Creolization: Subsistence and Cultural Interaction at Fort Michilimackinac: 1730s-1761*. Archaeological Completion Report Series, No. 18. Mackinac State Historic Parks, Mackinac Island, Michigan.

## Refereed Journal Articles

Carlson Dietmeier, Jenna Kay

2020 Identifying and Evaluating Bison Kill Sites in South Dakota. *South Dakota Archaeology* 34:1-24.

Carlson Dietmeier, Jenna Kay

2018 The Oxen of Oxon Hill Manor: Pathological Analyses and Cattle Husbandry in Eighteenth-Century Maryland. *International Journal of Osteoarchaeology* 28(4):419-427.

Carlson Dietmeier, Jenna and Brent Fortenberry

2018 The Bovine Remains from 'Whitehall,' St. George's, Bermuda: A Case Study in 18<sup>th</sup> Century Epizootics, Environment, and Economy. *Bermuda Journal of Archaeology & Maritime History* 21:7-19.

Fortenberry, Brent, and Jenna Carlson

2015 Fare for Empire: Commensal Events in Colonial Bermuda. *International Journal of Historical Archaeology* 19(3):568-600.

## National Register of Historic Places (NRHP) Nominations

Nelson, Chris, Heather Mulliner, and Jenna Carlson Dietmeier

2022 Patterson Homestead. SG100008361, Listed 11/7/2022. South Dakota State Historic Preservation Office.

Carlson Dietmeier, Jenna Kay

2019 Bison Kill Sites in South Dakota, 9000 B.C. – A.D. 1875. MPS, MC100004190, Cover Documentation Approved 7/12/2019. South Dakota State Historic Preservation Office.

## Research Reports from Grant or Contract Work

Carlson Dietmeier, Jenna Kay

2016 *Secondary Report on the Faunal Remains from the Southampton Cottage, Bermuda.* Submitted to Bren Fortenberry, Clemson University, Clemson, South Carolina.

Bowen, Joanne, Susan Trevarthen Andrews, Stephen Atkins, Jenna Carlson, and Dessal Lightfoot

2016 *Faunal Analysis for Mount Vernon: South Grove Assemblages (44FX762/17), House for Families Assemblages (44FX762/470), Also Pit Associated with Lawrence Washington's Wash House (44FX762/35/1), Small Pit Behind Kitchen (44FX762/17).* Submitted to Mount Vernon Archaeology, Historic Preservation, and Collections Department, George Washington's Mount Vernon, Mount Vernon, Virginia.

Carlson Dietmeier, Jenna Kay

2015 *Analysis of Faunal Remains from the Pre-Drayton Assemblage, Drayton Hall, Charleston, South Carolina.* Submitted to Drayton Hall, Charleston, South Carolina.

Carlson Dietmeier, Jenna Kay

2015 *Preliminary Report: Analysis of the Horse Skeleton Recovered from Yorktown, Virginia.* Submitted to York County Historical Museum, Yorktown, Virginia.

Carlson, Jenna Kay

2014 *Analysis of Faunal Remains from the South Flanker Well, Drayton Hall, Charleston, South Carolina*. Submitted to Drayton Hall, Charleston, South Carolina.

Carlson, Jenna Kay

2014 *Preliminary Report: Analysis of the Horse Skeleton Recovered from Jamestown Island, Virginia*. Submitted to Jamestown Rediscovery Archaeological Project, Jamestown, Virginia.

Carlson, Jenna Kay

2012 *Analysis of Privy Faunal Remains: 2004 Excavation of State House, St. George's, Bermuda*. Submitted to Brent Fortenberry, Boston University.

Carlson, Jenna Kay

2012 *Analysis of Sheet Context Faunal Remains: 2004 Excavation of State House, St. George's, Bermuda*. Submitted to Brent Fortenberry, Boston University.

### **Newsletter Articles**

Carlson Dietmeier, Jenna, Megan Ernst, and Katherine Lamie

2021 At Fort Pierre II During Archaeology Camp 2021! *To the Point: the Newsletter of the South Dakota Archaeological Society* 51(3): 1-2.

### **Honors, Prizes, and Awards**

2015 Society for American Archaeology Student Poster Award Winner  
SAA 80<sup>th</sup> Annual Meeting, San Francisco, CA

2015 William & Mary Graduate Research Symposium Excellence in the Humanities and Social Sciences Honorable Mention  
W&M 14<sup>th</sup> Annual Graduate Research Symposium, Williamsburg, VA

2011 James L. Fisher Outstanding Thesis Competition University Runner-Up  
Illinois State University, Normal, IL

2008 UMD Honors Exemplary Leader Award  
University of Minnesota Duluth, Duluth, MN

2007 CRC Excellence in Chemistry Award  
University of Minnesota Duluth, Duluth, MN

### **Fellowships and Grants**

#### **Fellowships**

2016 Provost Dissertation Fellowship

William & Mary Graduate Arts & Sciences

Total Amount Awarded: \$25,000      Dates of Award: May 10, 2016-May 9, 2017

Gloria S. King Fellowship

Maryland Archaeological Conservation Lab

Total Amount Awarded: \$1,000      Dates of Award: May 5, 2014-May 16, 2014

Wood Family Fellowship

Drayton Hall, National Trust for Historic Preservation

Total Amount Awarded: \$3,500      Dates of Award: June 3, 2013-August 9, 2013

Morton Endowment Fellowship

College of William and Mary, Department of Anthropology

Total Amount Awarded: \$19,000      Dates of Award: August 2012-May 2013

Dr. William M. Kelso Fellowship in Early American Studies

College of William and Mary

Total Amount Awarded: \$9,000      Dates of Award: July 2011-June 2013

**Research Grants**

Osteometric and Pathological Analyses of Faunal Remains Held in the Collections of the Charleston Museum

Arts & Sciences Graduate Research Grant, College of William and Mary

Total Amount Awarded: \$300      Dates of Award: Sept. 1, 2015-Dec. 31, 2015

Identification of Faunal Remains from Drayton Hall Using the Collections Held in the Smithsonian Institution Department of Vertebrate Zoology

Arts & Sciences Graduate Research Grant, College of William and Mary

Total Amount Awarded: \$300      Dates of Award: June 1, 2015-August 31, 2015

Draught Oxen in the Upper Chesapeake, 1700-1760

Supplemental Summer Research Funding, Anthro. Dept., College of William & Mary

Total Amount Awarded: \$1405      Dates of Award: May 5, 2014-May 16, 2014

The Fauna of the Well Fill: Animal Remains from the Eighteenth-Century Occupation of Drayton Hall

Supplemental Summer Research Funding, Anthro. Dept., College of William & Mary

Total Amount Awarded: \$782      Dates of Award: May 1, 2013- August 31, 2013

Developing a Comparative Collection of Faunal Osteology

Supplemental Summer Research Funding, Anthro. Dept., College of William & Mary

Total Amount Awarded: \$654      Dates of Award: May 1, 2012- August 31, 2012

Developing a Comparative Collection of Faunal Osteology

Arts & Sciences Graduate Research Grant, College of William and Mary

Total Amount Awarded: \$300      Dates of Award: April 16, 2012- August 31, 2012

Film vs. Family: The Hollywood Image of Prohibition Contrasted with the Lived Experience of a Midwestern Family

Undergraduate Research Opportunity Program, University of Minnesota

Total Amount Awarded: \$1,700      Dates of Award: July 1, 2008- May 8, 2009

**Travel Grants**

2017 Society for Historical Archaeology 50<sup>th</sup> Annual Conference on Historical and Underwater Archaeology, Fort Worth, Texas

2016 Dean's Conference Travel Fund, College of William & Mary

Total Amount Awarded: \$1,650

- 2015 Society for American Archaeology 80<sup>th</sup> Annual Meeting, San Francisco, California  
Student Activities Conference Travel Funds, College of William & Mary  
Total Amount Awarded: \$150
- 2014 Society for Historical Archaeology Conference on Historical and Underwater Archaeology,  
Quebec City, Quebec, Canada  
Arts & Sciences OGSR/Grad Student Assoc. Conference Funds, College of William & Mary  
Total Amount Awarded: \$300
- 2013 Society for Historical Archaeology Conference on Historical and Underwater Archaeology,  
Leicester, United Kingdom  
Arts & Sciences OGSR/Grad Student Assoc. Conference Funds, College of William & Mary.  
Total Amount Awarded: \$200

### **Conference Participation**

#### **Symposia Organized**

- “Honoring Cowtown: Cattle Husbandry in Historical Zooarchaeology”  
Co-organized and co-chaired with Dessa E. Lightfoot, M.A.  
Society for Historical Archaeology Conference on Historical and Underwater  
Archaeology, 2017  
Fort Worth, Texas                      January 4-8
- “Across the Pond: New Ventures in a New World”  
Co-organized and co-chaired with Carl Carlson-Drexler, Ph.D.  
Society for Historical Archaeology Conference on Historical and Underwater  
Archaeology, 2013  
Leicester, United Kingdom    January 9-12, 2013

#### **Papers Presented**

- “Bison Kill Sites in South Dakota, 9,000 B.C. – A.D. 1875: A National Register of Historic  
Places Multiple Property Listing”  
Co-authored with Michael Fosha and Chris Nelson  
South Dakota Archaeological Society Annual Meeting  
Sioux Falls, South Dakota    September 7-8, 2018
- “The Animal Landscapes of Eighteenth-Century Chesapeake and Lowcountry Plantations”  
South Dakota Archaeological Society Annual Meeting  
Pierre, South Dakota    September 22-23, 2017
- “Lowcountry Livestock Production: Eighteenth-Century Cattle Husbandry at Drayton Hall”  
Society for Historical Archaeology Conference on Historical and Underwater  
Archaeology, 2017  
Fort Worth, Texas                      January 4-8, 2017
- “ ‘a very excellent race of animals’: George Washington and the American Mule”  
Graduate Research Symposium, College of William and Mary, 2016  
Williamsburg, Virginia              March 18-19

- “Eburation, Osteometrics, and Oxen: A Pilot Study on the Identification of Draught Oxen in the Archaeological Record”  
Graduate Research Symposium, College of William and Mary, 2014  
Williamsburg, Virginia March 21-22
- “Animal Landscapes of the Lowcountry: Evidence from Drayton Hall”  
Society for Historical Archaeology Conference on Historical and Underwater Archaeology, 2014  
Quebec City, Quebec January 8-12
- “Tastes on the “Tight Little Island:” The Faunal Assemblage from the State House, St. George’s, Bermuda”  
Graduate Research Symposium, College of William and Mary, 2013  
Williamsburg, Virginia March 22-23
- “Tastes on the “Tight Little Island:” Dietary Choices in St. George’s, Bermuda”  
Society for Historical Archaeology Conference on Historical and Underwater Archaeology, 2013  
Leicester, United Kingdom January 9-12, 2013
- “The Bovine Remains from Whitehall, Bermuda: A Case Study in Eighteenth-Century Epizootics, Environment, and Economy”  
Graduate Research Symposium, College of William and Mary, 2012  
Williamsburg, Virginia March 23-24
- “The Bermudian-Bovine Relationship: Evidence from Whitehall”  
Co-authored with Brent Fortenberry  
Society for Historical Archaeology Conference on Historical and Underwater Archaeology, 2012  
Baltimore Maryland January 4-8
- “ ‘A Luxurious Morsel’: The Creolized Diet at Fort Michilimackinac, 1730-1761”  
Society for Historical Archaeology Conference on Historical and Underwater Archaeology, 2012  
Baltimore Maryland January 4-8
- “Culinary Creolization: Subsistence and Cultural Interaction at Fort Michilimackinac, 1730-1761”  
Society for Historical Archaeology Conference on Historical and Underwater Archaeology, 2011  
Austin, Texas January 5-9
- “Film vs. Family: The Hollywood Image of Prohibition Contrasted with the Lived Experience of a Midwestern Family”  
National Conference of Undergraduate Research, 2009  
La Crosse, Wisconsin April 3-4  
14<sup>th</sup> Annual University of Minnesota Duluth Undergraduate Research and Artistic Showcase, 2009  
Duluth, Minnesota April 30
- “Building Bridges in the Honors Community: Development of a Student-Produced Honors Journal”  
Co-authored with Jeff Dezelske, Stephanie Hooker, and Lauren Peterson  
Annual Upper Midwest Honors Conference, 2008  
Menomonie, Wisconsin April 3-5

## **Posters Presented**

- “Bison Kill Sites in South Dakota, 9,000 B.C. – A.D. 1875: A National Register of Historic Places Multiple Property Listing” with Michael Fosha and Chris Nelson  
Society for American Archaeology 84<sup>th</sup> Annual Meeting, 2019  
Albuquerque, New Mexico April 10-14
- “Reimagining Methods in Historical Zooarchaeology: Applying the Pathological Index (PI) to Historical Assemblages in North America”  
Society for Historical Archaeology Conference on Historical and Underwater Archaeology, 2016  
Washington, D.C. January 6-9
- “Oxen at Oxon Hill Manor: Identifying Draught Cattle from the Archaeological Record of Colonial Maryland”  
Society for American Archaeology 80<sup>th</sup> Annual Meeting, 2015  
San Francisco, California April 14-18  
Graduate Research Symposium, College of William and Mary, 2015  
Williamsburg, Virginia. March 20-21

## **Invited Talks**

- 2023 Adverse Effects: What are They and How Do You Resolve Them?  
Federal Highway Administration / South Dakota Department of Transportation  
Programmatic Agreement Training, Pierre, SD  
February 16, 2023
- 2022 Section 106 Programmatic Agreement Training for EECBG, SEP, and WAP  
Undertakings  
US Department of Energy, Online  
November 30, 2022
- 2022 Section 106 of the National Historic Preservation Act and South Dakota’s Rural Electric Cooperatives  
South Dakota Rural Electric Staking and Engineering Conference, Pierre, South Dakota  
March 2, 2022.
- 2021 Section 106 and Program Alternatives  
Federal Highway Administration / South Dakota Department of Transportation  
Programmatic Agreement Training, Pierre, SD  
March 17, 2021
- 2018 Homesteading in South Dakota  
Natural Resources Conservation Service Cultural Resources Training, Huron, South Dakota  
April 9, 2018.
- 2016 Introduction to Zooarchaeology.  
Monticello Summer Field School, Monticello, Charlottesville, Virginia  
June 30, 2016.
- 2015 No Bones About It: Introduction to Zooarchaeology (with Dessa Lightfoot, M.A.)  
Monticello Summer Field School, Monticello, Charlottesville, Virginia



June 29, 2015.  
2014 Introduction to Zooarchaeology (with Dessa Lightfoot, M.A.)  
Monticello Summer Field School, Monticello, Charlottesville, Virginia  
June 28, 2014.

### **Departmental Talks**

Oxen at Oxon Hill Manor: Identifying Draught Cattle from the Archaeological Record of Colonial Maryland. Brown Bag Lecture given to Anthropology Department of College of William and Mary. February 18, 2015

### **Teaching Experience**

#### **Courses Taught**

Anth 201 – Introduction to Archaeology Undergraduate Enrollment Semesters Taught: Summer 2015	College of William & Mary
Anth 453/553 – Zooarchaeology Team taught with Dessa Lightfoot, M.A. Undergraduate and Graduate Enrollment Semesters Taught: Spring 2015, Spring 2016	College of William & Mary

#### **Courses as Teaching Assistant**

Anth 202 – Introduction to Cultural Anthropology Assistant under Dr. Ali Neff Assistant under Dr. Mythri Jegathesan	Fall 2014 Fall 2013	College of William & Mary
Anth 203 – Introduction to Biological Anthropology Assistant under Dr. Barbara King Assistant under Dr. Miriam Belmaker	Fall 2012 Fall 2011	College of William & Mary
Anth 426/526 – Foodways and the Archaeological Record Assistant under Dr. Joanne Bowen	Spring 2013	College of William & Mary
Anth 453/553 – Zooarchaeology Assistant under Dr. Joanne Bowen	Spring 2012, 2014	College of William & Mary

### **Service Activities**

2013-2017 **William & Mary Graduate Research Symposium Organizing Committee**  
College of William and Mary Williamsburg, VA  
Humanities Chair for the 2015-2016 and 2016-2017 academic years  
Humanities Co-Chair and Volunteer Coordinator for 2014-2015 academic year  
Volunteer Coordinator for 2013-2014 academic year

- 2015-2016 **Volunteer Lecturer at DUG! The Cleaner Side of Archaeology**  
Colonial Williamsburg Foundation Williamsburg, VA
- 2012-2016 **Environmental Archaeology Intern**  
Colonial Williamsburg Foundation Williamsburg, VA
- 2011-2014 **Anthropology Graduate Student Collective**  
College of William and Mary Williamsburg, VA  
Vice President for 2013-2014 academic year  
Vice President for 2012-2013 academic year  
Graduate Student Association representative for 2011-2012 academic year
- 2005-2009 **Honors Student Association**  
University of Minnesota Duluth Duluth, MN  
Treasurer for 2006-2007 academic year  
Vice President for 2007-2008 academic year  
Vice President for 2008-2009 academic year
- 2007-2009 **Aisthesis Honors Journal Editing Board**  
University of Minnesota Duluth Duluth, MN
- 2007-2008 **Anthropology Club**  
University of Minnesota Duluth Duluth, MN  
Vice President for 2007-2008 academic year

### **Technical Training**

- National Highway Institute "Introduction to NEPA and Transportation Decisionmaking- WEB-BASED" Course  
Completed April 2, 2020 Web-Based Course
- National Highway Institute "Applying Section 4(f): Putting Policy into Practice" Course  
Completed May 16-17, 2018 Shoreview, MN
- Advisory Council on Historic Preservation "The Section 106 Essentials" Course  
Completed August 8-9, 2017 Washington, D.C.

### **Languages**

- English native speaker  
Spanish good reading ability; fair speaking ability

### **Professional Memberships**

- Society for American Archaeology Member since January 2015  
Society for Historical Archaeology Member since December 2008  
Lambda Alpha National Anthropology Honor Society Member since February 2011



March 7, 2023

Jennifer Cochran  
 Perennial Environmental Services, LLC  
 5424 W Hwy 290, Suite 208  
 Austin, TX 78735

### **PRELIMINARY PROJECT CONSULTATION**

Project: 211123002S – Navigator Heartland Greenway System  
 Location: Brookings, Minnehaha, and Moody Counties

Dear Ms. Cochran:

Thank you for the opportunity to comment on the above-referenced project. The South Dakota Office of the State Historic Preservation Officer (SHPO) would like to provide the following comments.

On February 10, 2023, SHPO received an email from Amy Butler of Perennial Environmental Services, LLC, indicating that documents associated with the proposed Navigator Heartland Greenway were available for review and download from the online SharePoint site. In an email reply dated February 21, 2023, you clarified that Navigator would like SHPO to comment on the entire draft report and that a hard copy of the report and appendices would be provided. SHPO is still waiting for a hard copy of the report and appendices but reviewed the digital copy of the report titled “A Level III Cultural Resources Survey of the Areas within the Heartland Greenway Pipeline System, South Dakota” by Jennifer Cochran, Briana Smith, Abby Peyton, Wyatt Ellison, and Orla Elquist.

The report and previous correspondence regarding the proposed project indicate that the proposed project will require U.S. Army Corps of Engineers (USACE) permits pursuant to Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act and permits from the U.S. Fish and Wildlife Service (USFWS). Projects requiring a permit from a federal agency are considered federal undertakings and are subject to the requirements of 54 U.S.C. 306108, also known as Section 106 of the National Historic Preservation Act of 1966, as amended. The portions of the project which have no federal nexus will be subject to the permitting requirements of the South Dakota Public Utilities Commission (PUC) and South Dakota Codified Law 1-19A-11.1.

According to the report, 1184.1 acres of land were subject to intensive field survey. Areas surveyed included lands which will be subject to USACE permitting and lands identified as having a high potential for containing cultural resources, as identified in the Scope of Work submitted to

SHPO on March 21, 2022. The report clarifies that additional areas requiring survey will be surveyed in 2023, and the results will be presented in an addendum report.

During the survey efforts, ten sites were newly recorded, and a railroad site was updated to include a newly recorded segment. The report indicates that these eleven properties are all located in areas which will not require USACE permitting. Based upon the information provided, SHPO agrees with the recommendations in the report that newly recorded sites **39MH0193, 39MH0194, 39MH0195, 39MH0197, 39MO0033, 39MO0034, 39MO0036, and 39MO0037** should be considered **Not Eligible** for listing in the National Register of Historic Places. SHPO also agrees that 39MH2013 remains Eligible for listing in the National Register of Historic Places, and the newly recorded segment of 39MH2013 is integral to the site's overall eligibility. Finally, SHPO agrees that newly recorded sites **39MH0196** and **39MO0035** have not been fully evaluated for listing in the National Register of Historic Places and should be considered **Unevaluated**.

The report indicates that the pipeline will be bored under the newly recorded segment of 39MH2013 and that 39MO0035 will be avoided entirely by the project due to workspace modifications. SHPO has no concerns with these proposed avoidance measures. According to the report, Navigator also plans to bore under 39MH0196. As cultural deposits were found up to 92 centimeters below the surface, SHPO strongly recommends that Navigator include adequate horizontal and vertical buffers around 39MH0196 when choosing the bore pit locations and bore depths to ensure that impacts to 39MH0196 are avoided.

Appendix K of the report includes the Unanticipated Discovery Plan for Cultural Resources and Human Remains. It should be noted that, unless specified by the Tribe which assigns religious and cultural significance to the property, a professional archaeologist is not qualified to identify properties of religious and cultural significance to American Indian Tribes and may not be able to assess means to avoid or mitigate impacts to the property. Additionally, under Step 4 of the Procedure for the Discovery of Cultural Resources, the plan states "The THPO will be from the tribe whose jurisdiction where the discovery is found." It is very unclear what is meant by "jurisdiction," and Navigator should note that multiple Tribes may have ancestral ties or assign traditional religious and cultural significance to the same locations within South Dakota. Throughout the Procedures for the Discovery of Human Remains section, please note that the burial laws codified in South Dakota Codified Law 34-27 require notification of the Office of the State Archaeologist at the Archaeological Research Center. SHPO and the Archaeological Research Center are different offices in different locations. Dustin Lloyd is the Burial Coordinator at the Archaeological Research Center and serves as the point of contact for the unanticipated discovery of human remains on state and private lands. SHPO recommends adding his contact information ([Dustin.Lloyd@state.sd.us](mailto:Dustin.Lloyd@state.sd.us) / (605)391-2928) to the list of Project Contacts.


SHPO continues to encourage the applicant to meaningfully engage with our Tribal Partners in the identification of cultural resources and impacts to those resources to assist in fulfilling the requirements of the PUC permitting application. Additionally, any federal agencies involved in the project remain responsible for government-to-government consultation with American Indian Tribes regarding the identification of historic properties and the assessment of the undertaking's effects on historic properties, pursuant to 36 C.F.R. § 800(c)(2)(ii) of the implementing regulations of Section 106.

As additional fieldwork is completed, please submit the results to SHPO for additional comments. Please note that pursuant to 36 C.F.R. § 800, the federal agency is responsible for compliance with the requirements of Section 106, including all findings and determinations and government-to-government consultation with Tribes.

Should you require additional information, please contact Jenna Carlson Dietmeier at [Jenna.CarlsonDietmeier@state.sd.us](mailto:Jenna.CarlsonDietmeier@state.sd.us) or at (605)773-8370.

Sincerely,

Ted M. Spencer  
State Historic Preservation Officer



Jenna Carlson Dietmeier, PhD  
Review & Compliance Coordinator

CC: Abby Peyton - Perennial Environmental Services, LLC  
Amy Butler - Perennial Environmental Services, LLC  
Monica Howard - Navigator Heartland Greenway LLC  
Jennifer Winter - USACE  
Jon Thurber - South Dakota Public Utilities Commission  
Darren Kearney - South Dakota Public Utilities Commission  
Kristen Edwards - South Dakota Public Utilities Commission  
Megan Ostrenga - Archaeological Research Center, Rapid City  
Lynn Griffin - Archaeological Research Center, Rapid City  
Cassie Vogt - Archaeological Research Center, Rapid City