

Jennifer M. Ferris, RPA

Current Position

Senior Archaeologist/
Pacific Northwest
Cultural Resources
Practice Group Leader

Discipline Areas

- > Section 106 NHPA
- > NEPA/SEPA/CEQA
- > Cultural/Heritage Resource Management
- > Archaeology
- > Lithic Analysis
- > Technical Report Preparation/Review
- > Tribal/Traditional Owner Experience

Years' Experience

17

Joined Cardno

2009

Education

- > MA, Anthropology, Washington State University, 2008
- > BA, Anthropology, University of Washington, 2001

Affiliations

- > Register of Professional Archaeologists
- > Society for American Archaeology
- > Association of Washington Archaeologists
- > Lambda Alpha (Charter Member), National Anthropology Honors Society

Summary of Experience

Ms. Jennifer Ferris is a senior archaeologist and the Pacific Northwest Cultural Resources Practice Group leader. She is a registered professional archaeologist and exceeds the Secretary of Interior Standards for both Prehistoric and Historic Archaeology. She has 17 years of professional and technical experience in archaeology and cultural resource management. Her background includes inventory, testing, salvage, data recovery, monitoring, and consultation projects in the Pacific Northwest, Great Basin, California, Baja California, and Western Australia.

Frequently serving as a technical lead on wetland and habitat restoration, development, energy, mining, and transportation projects, Ms. Ferris has developed close working relationships with many agencies including the U.S. Bureau of Reclamation (Reclamation), U.S. Army Corps of Engineers (USACE), U.S. Bureau of Land Management (BLM), U.S. Forest Service (USFS), and numerous State Historic Preservation Officers (SHPOs) and Tribal Historic Preservation Officers (THPOs). She is very familiar with working under various laws and regulations including the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), Antiquities Act (AA), Archaeological Resources Protection Act (ARPA), Oregon Revised Statutes and Administrative Rules, Washington State Environmental Policy Act (SEPA), and Revised Code of Washington, among other state and local policies.

Ms. Ferris has extensive experience completing environmental impact statements (EIS) and environmental assessments (EAs). She has expertise in completing Section 106 of the NHPA reviews of cultural resources studies and analyses related to EIS and EA preparation; creating and maintaining databases and administrative records; Section 106 consultation and facilitation; and communicating with dozens of federal and state agencies and Indian tribes for the NEPA and NHPA process. She is experienced with reviewing project effects and impacts on historic properties, archaeological resources, tribal treaty resources, and properties of religious and cultural significance including Traditional Cultural Properties (TCPs). She frequently assists lead agencies in the development of mitigation agreement documents, including memorandum of agreement (MOA), programmatic agreement (PA), and historic property/cultural resource management plan (HP/CRMP). She has demonstrated expertise working with Indian tribes both on and off tribal lands to complete field studies and to mitigate adverse effects. She has taught archaeological field methods and artifact identification to Indian tribal members, Aboriginal Traditional Owners, university students, and members of the general public. Ms. Ferris frequently contributes at archaeological conferences and is actively engaged in public educational outreach.

Significant Projects

NEPA/SEPA/CEQA Environmental Assessments and Impact Statements

Senior Archaeologist – Mountain Valley Pipeline Project – Virginia and West Virginia

Cardno was retained by the Federal Energy Regulatory Commission (FERC) to assist with the preparation of a third-party EIS for the Mountain Valley Pipeline project. The EIS analyzes the construction and operation of a 294-mile natural gas pipeline project in Virginia and West Virginia. Ms. Ferris is the Cultural Resources Task Lead. Her responsibilities include technical research and writing, as well as supporting FERC with tribal coordination.

Project Manager/Subject Matter Expert – Ross In Situ Uranium Recovery Project – Crook County, Wyoming

Cardno was part of a team retained by the Nuclear Regulatory Commission (NRC) to support their implementation of the Ross In Situ Uranium Recovery Project PA. The NRC received an application by Strata Energy for a new source and byproduct materials license for the recovery of uranium at the Ross site. Issuance of the license was subject to the Atomic Energy Act, triggering federal compliance with Section 106 of the NHPA. As a subject matter expert (SME), Ms. Ferris supported the NRC in their compliance with Section 106 and the PA, which included consultation with federal and state agencies, Indian tribes, and the project proponent (Strata). She also assisted the NRC with determinations of project effects on historic properties (including TCPs and archaeological sites) and recommendations and development of minimization and mitigation measures for adverse effects to historic properties.

Senior Archaeologist – Tesoro Savage Energy Distribution Terminal SEPA EIS – Washington

Cardno prepared the Washington SEPA EIS under the direction of the Energy Facility Site Evaluation Council (EFSEC) for a proposed crude oil storage and distribution facility at the Port of Vancouver. The proposed facility would have a capacity to receive up to an average of 360,000 barrels of crude oil per day by rail, store the oil on site, and load the oil onto marine vessels primarily for delivery to refineries located on the west coast of the United States. The EIS effort included preparation of a rail and vessel transportation risk assessment, an evaluation of onsite and offsite seismic concerns, and a study of the Vancouver Fire Department's emergency response capabilities. Ms. Ferris conducted an independent review of cultural resources technical aspects of the proposed facility as documented in part of a 1,000-page Application for Site Certification (ASC). She was the lead author for the cultural resources sections of the SEPA EIS, which included archaeological and historic resources and TCPs. She was responsible for completing archival reviews and impact assessments for cultural resources along a 2 mile buffer of the entire route consisting of the rail and vessel corridors across Washington between Spokane and the mouth of the Columbia River and within Oregon counties that border the Columbia River.

Senior Archaeologist – Ocean Ranch PEA – San Diego County, California

Cardno was retained by San Diego Gas & Electric Company (SDG&E) to support their application for a Permit to Construct the Ocean Ranch Substation Project in northern San Diego County. SDG&E proposes to construct a new distribution substation and to reconductor the existing approximately 2.5-mile-long 69 kilovolt (kV) double circuit power line in the City of Oceanside. The 69 kV power line will be reconducted from SDG&E's San Luis Rey Substation to the new Ocean Ranch Substation. Cardno is developing the Proponent's Environmental Assessment (PEA) consistent with California Public Utilities Commission (CPUC) General Order 131-D. Ms. Ferris authored the cultural resources section of the PEA, which included archaeological, historic, and paleontological resources. She evaluated the proposed project's effects on cultural resources using the significance criteria set forth in Appendix G of the CEQA Guidelines.

Technical Lead – Golden Pass LNG Export Project EIS – Texas and Louisiana

Cardno was retained by the FERC to prepare an EIS for the application received by Golden Pass Products, LLC pursuant to Section 3 of the Natural Gas Act (NGA) requesting authorization to site, construct, and operate liquefaction and export facilities adjacent to and integrated with its existing liquefied natural gas (LNG) terminal in Jefferson County, Texas. Ms. Ferris was the technical lead for cultural resources and

authored the affected environment and environmental consequences for cultural resources sections of the EIS.

Senior Archaeologist – Haile Gold Mine EIS – Lancaster County, South Carolina

Cardno was retained by the US Army Corps of Engineers (USACE) Charleston District to prepare an EIS for the permitting of the proposed reactivation of the existing Haile Gold Mine near Kershaw, South Carolina. Reactivation included the development of gold resources, expansion of the area for open pit mining, and construction of associated facilities. Ms. Ferris supported the USACE's compliance with 33 CFR 325 Appendix C and Section 106. She also co-authored the cultural resources chapters of the EIS and the MOA, and reviewed and revised the CRMP on behalf of the USACE.

Technical Lead – Cedar Ridge I Exploration EA Project – Elko County, Nevada

Cardno was retained by the BLM to prepare an EA for the application received by EFT Nevada LLC requesting authorization to explore potential energy resources on federal mineral lease NVN-83420 in Elko County, Nevada. The gas exploration project would involve the drilling, testing, and monitoring of a single exploratory well on public lands managed by the BLM Elko District, Tuscarora Field Office. Ms. Ferris was the technical lead for cultural resources and authored the affected environment and environmental consequences for cultural resources sections of the EA.

Project Manager – Mount St. Helens (MSH) Sediment Retention Structure (SRS) Supplemental EIS, River Design Group – Cowlitz County, Washington

Cardno authored the draft cultural resources sections of the Supplemental EIS for the USACE Portland District's MSH SRS SEIS. The SEIS assesses impacts associated with an alternative analysis for the re-evaluation of the long-term management of elevated sediment loads in the MSH basin. The purpose of the long-term sediment management is to continue to provide flood damage reduction benefits to downstream communities along the Cowlitz River including Longview, Kelso, Castle Rock, and Lexington, Washington through the year 2035. This work is being completed under an Indefinite Delivery Indefinite Quantity (IDIQ) with River Design Group for the USACE Portland District. Ms. Ferris is the Project Manager and is the primary author for the cultural resources sections of the SEIS, which were completed using the data gathered during Cardno's inventory of the area of potential effect (APE).

Senior Archaeologist – Four Corners Power Plant and Navajo Mine Energy Project – New Mexico and Arizona

The OSMRE and the BIA retained Cardno to prepare an EIS for the Four Corners Power Plant and Navajo Mine Energy Project. The EIS analyzed the impacts of implementing four related actions including the approval of the Navajo Mine's application for a new Surface Mining Control and Reclamation Act (SMCRA) permit for the Pinabete Permit Area; renewal of Navajo Mine's existing SMCRA permit; approval of Arizona Public Service Company proposed Four Corners Power Plant (FCPP) lease amendment and right-of-way (ROW) renewal; and ROW renewals for four transmission lines associated with the FCPP. As part of the Cardno team, Ms. Ferris supported OSMRE's Section 106 compliance efforts including tribal consultation. She also co-authored the cultural resources chapters of the EIS and the two PAs that were developed for the Project.

Technical Lead – Bonneville Power Administration (BPA) Montana to Washington Transmission Line Project EIS – Montana, Idaho, and Washington

Cardno was retained by the BPA to author the EIS for its Montana-Washington Transmission System Upgrade Project. The project proposes to increase the electrical capacity of the BPA transmission system from BPA's Garrison Substation in western

Montana to consumers west of the Cascade Mountains. Project components include a new substation, electrical system upgrades and expansions of existing substations, transmission line reconductoring, and access roads improvements. Ms. Ferris is the technical lead for cultural resources and authored the affected environment and environmental consequences for cultural resources sections in the Draft EIS.

Technical Lead – BPA Grand Coulee-Creston Transmission Line Rebuild Project Environmental Assessment – Grant and Lincoln Counties, Washington

Cardno was retained by the BPA to author the EA for the 115 kilovolt (kV) Grand Coulee-Creston transmission line in Washington. The project proposed to rebuild the 28-mile-long transmission line, including replacement of its wood-pole structures and other line components and improvements to its access road system. Ms. Ferris is the technical lead for cultural resources and authored the affected environment and environmental consequences chapters for cultural resources.

Technical Lead – BPA Boyer-Tillamook Transmission Line No. 1 Access Road Maintenance Project Environmental Assessment – Yamhill and Tillamook Counties, Oregon Bonneville Power Administration

Cardno was retained by the BPA to author the EA for the 115-kilovolt (kV) Boyer-Tillamook transmission line in Oregon. The project proposed to improve access roads between structure 22/3 and structure 4/4. The improvements would primarily be done within the existing road easements, with the exception of a little over 0.1 mile of new access roads, a portion of which would be outside the existing right-of-way and require additional easement. Ms. Ferris is the technical lead for cultural resources and authored the affected environment and environmental consequences chapters for cultural resources.

Senior Archaeologist – Hanford Natural Gas Pipeline EIS at the Department of Energy's Hanford Site – Richland, Washington

Under a contract with JAD Environmental, LLC, Cardno provided cultural resources support for the EIS for the DOE's proposed 29 mile natural gas pipeline that will deliver natural gas to the Waste Treatment plant in the 200 East Area of the Hanford Site. Ms. Ferris was the lead archaeologist for providing the archaeological documentation and impact analysis of the effects of the pipeline upon the historic properties within the Project area of potential effect which crossed the Columbia River. Ms. Ferris reviewed the Applicant's cultural resources survey reports and identified data gaps in the reports and documentation. She also co-authored the cultural resources sections of the Draft EIS and the Final EIS.

Technical Specialist/Senior Archaeologist – Washington Department of Natural Resources Aquatic Lands Habitat Conservation Plan EIS – Washington

Cardno was a subconsultant for the Washington Department of Natural Resources (WDNR) Aquatic Lands Habitat Conservation Plan (HCP) EIS. Cardno provided expertise for the development of the draft and final EISs in the following sections: archaeological, historical, cultural, and Indian trust resources; social and economic environment; and environmental justice. Ms. Ferris was responsible for conducting the background data review, data analysis, and writing the affected environment and impacts chapters for archaeological, historical, cultural, and Indian trust resources.

Project Archaeologist – Mission Bay Transit Loop – San Francisco, California

Cardno provided San Francisco Metro Transit Authority (SFMTA) with cultural resources services related to the preparation of an EA for the proposed Mission Bay Transit Loop. The proposed project consists of the construction and operation of a transit loop to

provide turn-around capabilities for the T-Third Street light rail line via a connection of trackway from Third Street to Eighteenth, Illinois, and Nineteenth Streets in the City of San Francisco. In addition to preparing the cultural resources and Section 4(f) sections of the EA, Cardno assisted SFMTA with consultation with the Federal Transit Authority (FTA) and California SHPO. Ms. Ferris assisted with the background research and co-authored sections of the EA.

Technical Editor – Alaska Stand Along Pipeline Project – Alaska

Cardno was charged with the development of the Alaska Stand Alone Pipeline EIS for the USACE thereby assessing the environmental and sociological effects of a natural gas pipeline. Ms. Ferris completed technical editing for the Affected Environment chapter of the EIS.

Project Archaeologist – TransCanada Keystone XL Pipeline Project EIS, U.S. DOS – Montana, South Dakota, Nebraska, Kansas, Oklahoma, and Texas

Cardno served as the third-party prime contractor for the DOS for the permitting of the TransCanada Keystone XL Pipeline EIS Project. This project entailed the construction of a 1,380 mile interstate crude oil transportation pipeline from the U.S-Canada border near Morgan, Montana to existing terminals near Port Arthur and Moore Junction, Texas. Ms. Ferris was responsible for reviewing multiple draft cultural resource reports, testing reports, and multiple addendum reports for concurrence with federal regulations. She reviewed TCP reports for tribal concerns. She communicated with tribes, BLM, SHPOs, and National Park Service (NPS) regarding the use of public and private land. Ms. Ferris assisted in writing draft text for cultural sections in EIS documents and assisted in the coordination of over 99 Indian tribes, reviewed reports and correspondence with agencies, and identified data gaps.

Project Archaeologist – TransCanada Keystone Third-Party EIS, U.S. DOS – Illinois, Kansas, Missouri, Nebraska, North Dakota, Oklahoma, and South Dakota

Cardno was the prime contractor for a third-party EIS for the TransCanada Keystone Pipeline, LLC (Keystone), a 30-inch diameter 1,078-mile mainline crude oil pipeline delivering Western Canada Shale Basin (WCSB) tar sands syncrude from Hardisty (Alberta), Canada to existing terminals at Wood River and Patoka, Illinois, and extensions into Oklahoma (Cushing Extension). DOS was the lead agency for the EIS. Cardno staff authored the FERC style EIS. Ms. Ferris was responsible for reviewing multiple draft cultural resource reports, testing reports, and addendum reports for concurrence with federal regulations. Ms. Ferris also assisted the DOS in consultation with Indian tribes in compliance with Section 106 of the NHPA. Over 80 Indian tribes were included within the compliance effort. She also managed concurrence records, provided agency correspondence support, and developed and maintained databases for all consultation records of this three year- long project.

Staff Archaeologist – North Steens 230-KV Transmission Line Project – Eastern Oregon

Cardno was the third-party contractor for the BLM for the permitting of a 230-KV Transmission Line Project, located near the Steens Mountain just outside of Burns, Oregon. The project necessitated the preparation of an EIS to analyze the impacts of a transmission line that extends between 20-40 miles from the Echanis Wind Farm atop the Steens escarpment. Ms. Ferris assisted with the development of the cultural resources affected environment and impacts chapters.

Staff Archaeologist – Confidential Project, US Department of State (DOS) – North Dakota, Minnesota, and Wisconsin

Cardno was the third-party contractor for this confidential EIS Project. The Pipeline is a 326-mile interstate crude oil transportation pipeline from the US-Canada border near

Neché, North Dakota to a terminal near Superior, Wisconsin. As part of the Cardno team, Ms. Ferris assisted in preparing and finalizing the admin record for all correspondence related to cultural resources, helped in the coordination/facilitation of consultation with over 48 Indian tribes, provided agency correspondence support, and provided technical reviews of cultural resource reports.

Inventory

Principal Investigator – Longley Meadows River Restoration – La Grande, Oregon

Cardno is providing design and cultural resources support to the US Bureau of Reclamation (Reclamation) for the Longley Meadows River Restoration Project. The project will increase the quantity and quality of fish habitat along 2 miles of the Upper Grande Ronde River in northeast Oregon to partially meet the requirements of the 2008 Biological Opinion (and succeeding supplements). The project is a partnership between the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) (project sponsor), the US Forest Service (USFS), the Grande Ronde Model Watershed (GRMW), Reclamation, and BPA. Cardno is completing cultural resources surveys and site recordation within the APE pursuant to Section 106 of the NHPA. Ms. Ferris is responsible for all cultural resources deliverables including field progress reports, technical report, site forms, and USFS and SHPO permits, as well coordination with Reclamation, USFS, Oregon Department of Transportation (ODOT), and SHPO concerning cultural resources.

Task Lead/Principal Investigator – Bird Track Springs Revised Habitat Improvement Project Corral and Pipeline Replacement – Union County, Oregon

Cardno is providing design and cultural resources support to Reclamation for the corral and water pipeline replacement of the Bird Track Springs Revised Habitat Improvement Project. The lead agency for the project is the Natural Resources Conservation Service (NRCS), and cooperating agencies include Reclamation, USFS, BPA, CTUIR, and SHPO. Led by Ms. Ferris, our cultural team is completing an archaeological inventory of the APE, which includes the recordation of archaeological sites and development of a Section 106 technical report.

Project Manager/Principal Investigator – Terminal 7 Site Redevelopment and Stormwater Conveyance Improvements Project – Port Angeles, Washington

The Port of Port Angeles (Port) contracted with Cardno to conduct an archaeological survey in support of the Terminal 7 Site Redevelopment and Stormwater Conveyance Improvements Project (project) in Port Angeles, Washington. Proposed project activities will include the installation of a stormwater treatment system within the Port Log Yard. Ms. Ferris conducted a pedestrian and subsurface survey with backhoe excavated test pits to help identify and evaluate any cultural resources that may be encountered within the project area during project-related ground disturbing activities. She is the primary author on all project deliverables including a study plan, technical memorandum, and site forms. Ms. Ferris is also assisting the Port with DAHP coordination and any necessary DAHP permits. She is responsible for all client communication and task management.

Project Manager/ Principal Investigator – Archaeological Monitoring at the Port of Port Angeles Terminal 3, PoPA T-3 Permitting and DMMP Sediment Sampling

Cardno was retained as a subconsultant by Floyd|Snider to complete archaeological monitoring during DMMP sampling for the PoPA's Terminal 3 project, which was located in a culturally sensitive area. Ms. Ferris completed monitoring from within the proposed maintenance dredge materials and coordinated with the client to ensure timely delivery of the technical memorandum and compliance with USACE permitting requirements.

Project Manager/Principal Investigator – Archaeological Survey and Monitoring for the Marine Terminal and Cargo Surge Area Stormwater Conveyance and Treatment Improvements Project, Port Angeles, Washington

Cardno completed survey and construction monitoring for the PoPA in support of their Joint Aquatic Resources Permit Application that was submitted to the USACE. Ms. Ferris oversaw the survey and the monitoring. She coordinated with the client, USACE, and Section 106 consulting parties and provided weekly schedules and updates to the consulting parties, facilitated recordation and agency review of an inadvertent discovery, and is the senior author on the survey and monitoring reports.

Project Manager/Principal Investigator – Cultural Resources Assessment for the Issaquah Creek Mitigation Project – King County, Washington

King County Water and Land Resources Division (KCWLRD) proposed to enhance wetland habitat by removing fill material, creating backwaters and deeper pools or a flow-through channel option, and planting native vegetation on the north side of Issaquah Creek near Issaquah. Under our on-call contract and per the recommendation of the King County Historic Preservation Program's (KCHPP) as part of their review of the project in compliance with King County's Cultural Resources Procedures (Executive Policy LUD 16-1 [AEP]), Cardno conducted a surface and subsurface cultural resources survey of the APE and monitoring for geotechnical test pit excavations. To satisfy regulatory requirements for obtaining a Nationwide Permit from the USACE, this work was also conducted in compliance with Section 106 of the NHPA. To date, we have completed the survey and test pit monitoring, and have submitted the technical report to KCWLRD and the USACE. Cardno also prepared the MIDP for the project. Ms. Ferris is responsible for all project deliverables, client communication, and task management.

Project Manager/Principal Investigator – Cultural Resources Assessment for the Taylor Creek Mitigation Project – King County, Washington

The King County Department of Natural Resources and Parks (DNRP) developed a restoration plan for the Taylor Creek Mitigation Project near Maple Valley. The project will remove approximately 20,000 cubic yards of existing soil and install large woody debris and native vegetation to restore natural river and floodplain processes. Under our on-call contract and per the recommendation of the KCHPP's as part of their review of the project in compliance with King County's Cultural Resources Procedures (Executive Policy LUD 16-1 [AEP]), Cardno conducted a surface and subsurface cultural resources survey of the APE. To satisfy regulatory requirements for obtaining a Nationwide Permit from the USACE, this work was also conducted in compliance with Section 106 of the NHPA. Cardno has submitted the technical report and MIDP to KCWLRD and the USACE. Ms. Ferris is responsible for all project deliverables, client communication, and task management.

Project Manager/Principal Investigator – 5th and Virginia Project – Seattle, Washington

The 1921-27 Fifth Avenue Property Owner, LLC, is proposes to construct a 47-story, mixed-use tower consisting of a boutique hotel, restaurant, residential apartments, retail space, and six levels of below-grade parking on three adjacent properties in the Belltown neighborhood of downtown Seattle. Cardno was retained to conduct a desktop study for the project in order to assess the cultural significance of the project area and evaluate the potential effects of this project on cultural resources, including those that may be eligible for listing in the Washington Heritage Register (WHR) or NRHP. This archival study was required under Seattle Director's Rule 2-98 to comply with SEPA. Ms. Ferris was responsible for all project deliverables and client coordination.

Project Manager/Principal Investigator – Port of Port Angeles Historic Rail Spur Recordation – Port Angeles, Washington

The Port contracted with Cardno to record a rail spur in ruin that was discovered while the Port prepared for subsurface storm system installation. The rail spur was formerly associated with the historic Chicago, Milwaukee, St. Paul & Pacific Railroad and the Puget Sound Mills and Timber Company mill complex. Cardno recommended that it was not eligible for listing in the NRHP and submitted documentation to DAHP. Ms. Ferris was responsible for all project deliverables and client coordination.

Principal Investigator – Cultural Resources Survey for the Airport Solar Project – Lake County, Oregon

Airport Solar, LLC retained Cardno to assist with a fatal flaw and due diligence analysis for their proposed development of a utility-scale photovoltaic power station on property occupied by the Lakeview Airport in Lake County, Oregon. The project proposed photovoltaic modules aligned in arrays, electrical enclosures, interconnection equipment, and an underground 34-kilovolt (kV) powerline that would connect the project to an existing 115-kV PacifiCorp transmission line located approximately 2.0 miles (3.2 kilometers [km]) east of the Lakeview Airport. Cardno conducted a pedestrian and subsurface cultural resources investigation in advance of any regulatory requirements for the project; however, the survey was completed in compliance with Section 106 of the NHPA and Chapter 358 of the ORS, among others. Cardno also completed site testing under an Oregon SHPO archaeological permit. Ms. Ferris was responsible for all cultural resources deliverables including field progress updates, testing, technical reports, site forms, and curation of the cultural materials collected during testing.

Project Manager/Principal Investigator – 74 South Jackson Project – Seattle, Washington

UV 316 Alaskan, LLC is proposing to develop a new office building north of the intersection at South Jackson Street and the Alaskan Way Viaduct in downtown Seattle. Cardno was retained to conduct a desktop study for the project in order to assess the cultural significance of the project area and evaluate the potential effects of this project on cultural resources, including those that may be eligible for listing in the WHR or NRHP. This study was required under Seattle Director's Rule 2-98 to comply with SEPA. Ms. Ferris is responsible for all project deliverables and client coordination.

Project Manager/Principal Investigator – Newaukum Creek Revegetation Project – King County, Washington

Under our on-call with KCWLRD, Cardno prepared the Monitoring and Inadvertent Discovery Plan (MIDP) for the Newaukum Creek Revegetation Project. The project is located north of Enumclaw in unincorporated King County. The project proposes to revegetate riparian zones with trees and shrubs to reduce heat flux to Newaukum Creek and to improve fish and wildlife habitat as part of a seven-year effort to improve water quality and riparian habitat along this waterway. Previously conducted cultural resource surveys identified a precontact site adjacent to the proposed project, and archaeological monitoring during planting is required by the Washington State Department of Ecology (WSDOE). Cardno completed monitoring during planting activities and has submitted the monitoring report to KCWLRD, WSDOE, and DAHP. Ms. Ferris is responsible for all project deliverables, client coordination, and task management.

Project Manager/Principal Investigator – Cultural Resources Risk Assessment for the Sammamish Transition Zone Mitigation Site 3 Project – King County, Washington

The KCWLRD proposes to plant native vegetation along the northeastern bank of the Sammamish River in Marymoor Park near Redmond. The revegetation should reduce additional bank erosion. Under Cardno's on-call contract with KCWLRD, our team completed a pedestrian and subsurface archaeological survey, site recordation, and

preparation of a MIDP for the project. We also obtained an excavation permit from DAHP and completed archaeological testing and monitoring during planting activities at the newly identified site. We have submitted the survey and monitoring reports and have prepared the collection for curation at the Burke Museum. Ms. Ferris is responsible for all project deliverables and client coordination.

Principal Investigator – Archaeological Resources Survey for the Redmond UPS Facility Project – Redmond, Washington

Cardno is providing permitting and archaeological resources support to the United Parcel Service's (UPS) for their proposed project entailing construction of a paved parking lot surface and installation of an associated stormwater runoff system in Redmond. The project requires a site plan entitlement from the City of Redmond and is also subject to the Washington State Environmental Policy Act (SEPA). As part of the Pre Review Entitlement Process (PREP) for the City of Redmond and SEPA application, Cardno completed an archaeological survey within the project area, submitted a technical report with isolate form, and provided recommendations concerning additional work to protect identified resources. Ms. Ferris is responsible for all cultural resources deliverables including the technical report, form, and coordination with the City and DAHP.

Project Manager/Principal Investigator – Archaeological Survey for the Fortenberry and Jokela/Vandeen ADAP Project – King County, Washington

The KCWLRD's agricultural drainage assistance program proposed to remove accumulated sediments from two drainage ditches and plant native vegetation on each side of the ditch segments. The project was located at two work sites in King County including the Fortenberry project area near Auburn and the Jokela/Vandeen project area near Enumclaw. Under Cardno's on-call contract with KCWLRD, our team completed a pedestrian and subsurface archaeological survey for the project. Ms. Ferris was responsible for all project deliverables and client coordination.

Project Manager/Principal Investigator – Foothills Storm Demo Project – King County, Washington

The King County Department of Natural Resources and Parks, Parks and Recreation Division (KC Parks) and KCWLRD proposed to demolish existing structures and complete site restoration in a 6,100-square-foot (sq-ft) area on both sides of Boise Creek, which at a property near Enumclaw. The project included the demolition and removal of existing structures on the property, including a house (with basement, deck, and patio), a pool, a carriage house, a gazebo, and a green house. Cardno conducted a pedestrian and subsurface archaeological survey and a historic resources inventory for the project under our on-call contract with KC Parks. Cardno submitted a technical cultural resources short report and updated an archaeological site form. Cardno also completed site testing, prepared the MIDP, monitored during all ground disturbing activities, and prepared the collected archaeological assemblage for curation. Cardno has transferred the archaeological assemblage to the Muckleshoot Indian Tribe and a copy of the documents to the Burke Museum for curation. Ms. Ferris was responsible for all project deliverables, client communication, and task management.

Project Manager/Principal Investigator – Seattle Nissan Project – Seattle, Washington

Cardno was retained by Lance Mueller Associates / Architects (Lance Mueller) to conduct a desktop study for a project that proposes to construct a 25,000 square ft, single-story automotive sales and service facility in the Industrial District neighborhood of South Seattle. Because the proposed project is located within the U.S. Government Meander Line buffer, an area that extends 200 ft from Seattle's existing and former shoreline and has the potential for discovery of significant archaeological resources, Seattle Director's Rule 2-98 applies in order to comply with the SEPA. Cardno also developed the MIDP for

the project and is currently conducting monitoring during project-related ground disturbance in Holocene sediments. Ms. Ferris is responsible for all project deliverables, client communication, and task management.

Project Manager/Principal Investigator – Interbay Lofts Project – Seattle, Washington

Little Lot, LLC proposes to construct a five-story, mixed-use building with an approximate 9,000-square-foot (ft.) footprint on the two adjacent properties in Seattle. Additional site improvements include sidewalk, curb, and gutter installation; mass grading up to 12 ft. (3.7 meters [m]) below surface; and the construction of a partially underground parking lot. Cardno was retained to conduct an archival study for the project in order to assess the cultural significance of the project area and evaluate the potential effects of this project on cultural resources, including those that may be eligible for listing in the WHR or NRHP. Because the proposed project is located within the U.S. Government Meander Line buffer, an area that extends 200 feet (ft.) from Seattle's existing and former shoreline and has the potential for discovery of significant archaeological resources, Seattle Director's Rule 2-98 applies in order to comply with the SEPA. Ms. Ferris is responsible for all project deliverables, client communication, and task management.

Principal Investigator – Environmental Review Services for the Highway Safety Improvement Program (HSIP) 2016 Bike Pedestrian Improvements PA #31001042 – Portland, Oregon

Under our on-call contract with the Portland Bureau of Transportation (PBOT), Cardno is providing environmental review services for the HSIP 2016 Bike Pedestrian Improvements project. PBOT is proposing to design and build improvements at key intersections to make walking and biking safer on four major transportation corridors in East Portland and one major corridor in North Portland. Our cultural resources tasks included review of ODOT's Section 106 2011 PA, desktop literature review, field reconnaissance within the project's APE for historic resources, and the development of a PA memo that was submitted to PBOT, ODOT, and SHPO. Ms. Ferris was responsible for the cultural resources deliverables.

Project Manager/Principal Investigator – SIM-730EDR Project – Seattle, Washington

Cardno provided archaeological monitoring services to Floyd | Snider for their SIM-730EDR project located near the Duwamish River in Seattle. Cardno conducted field checks, monitored excavations within high-probability Holocene sediments, and responded to and documented two inadvertent discoveries. Ms. Ferris was responsible for all project deliverables, client and DAHP communication, and task management.

Project Manager/Principal Investigator – Interbay Self Storage Project – Seattle, Washington

Interbay Urban Investors, LLC proposed to construct a 95,000-square-foot, four-story self-storage commercial structure, with associated improvements for parking and utilities in the historical location of Smith Cove in Central Seattle, Washington. Cardno was retained to conduct a desktop study for the project in order to assess the cultural significance of the project area and evaluate the potential effects of this project on cultural resources, including those that may be eligible for listing in the WHR or NRHP. Because the proposed project is located within the U.S. Government Meander Line buffer, an area that extends 200 feet (ft.) from Seattle's existing and former shoreline and had the potential for discovery of significant archaeological resources, Seattle Director's Rule 2-98 applied in order to comply with the SEPA. Cardno also developed the MIDP for the project and completed monitoring during project-related ground disturbing activities in Holocene sediments. The monitoring report has been submitted to DAHP. Ms. Ferris was responsible for all project deliverables, client communication, and task management.

Principal Investigator – Deep Creek Pipeline Protection Design Project – Cumberland, Washington

City of Tacoma Department of Public Utilities, Water Division retained Cardno to complete a desktop study for their proposed channel migration of Deep Creek in Cumberland. The desktop study consisted of a literature review of existing cultural resource file data for previously recorded historic, ethnohistoric, and precontact archaeological and built environment resources; a review of local, state, and national register nomination forms; a review of previously conducted cultural resources investigations; and a review of any known or potential TCPs located within 1.0 mile of the project area. Ms. Ferris was responsible for the cultural resources tasks and deliverable.

Project Manager/Senior Archaeologist – Hazel Dell Brecht Property Predetermination and Monitoring Project – Clark County, Washington

Cardno completed a predetermination survey for the Hazel Dell Brecht commercial property in Clark County on behalf of CE John Company, Inc. The project included the construction of new retail buildings, removal of the existing asphalt parking surface, installation of new subsurface utility lines, and landscaping of the surrounding unpaved areas. The DAHP requested archaeological monitoring during ground disturbing activities due to the high potential of encountering archaeological resources. Cardno also completed the monitoring, the results of which were summarized in a technical letter report. Ms. Ferris was the project manager and was responsible for project deliverables.

Project Manager/Principal Investigator – Snow Goose Substation Cultural Monitoring Project – Klamath County, Oregon

Ms. Ferris was the Cardno Project Manager for the cultural resources monitoring that Cardno completed for the Snow Goose electrical substation site on behalf of PacifiCorp. Archaeological monitoring was required by the USACE who was permitting the project due to the potential of encountering archaeological resources that may be eligible for listing in the NRHP. Ms. Ferris oversaw Cardno and Klamath tribal monitors for the duration of the project.

Project Manager/Principal Investigator – Leque Island Estuary Restoration Project – Snohomish County, Washington

Ducks Unlimited, Inc. retained Cardno to conduct a cultural resources inventory for their proposed estuarine marsh restoration project on Leque Island. As a collaboration between the WDFW and Ducks Unlimited, the project plans included the removal of a perimeter earthen dike and creation of a tidal channel network within the interior of the perimeter dike prior to its removal. Additional interior work included the filling of existing ditches and borrow areas. The project was subject to review by the USACE and WDFW. As such, Cardno completed the inventory in compliance with CFR 33 CFR Part 325 Appendix C and Section 106 of the NHPA. Cardno also supported Ducks Unlimited with conducting archaeological monitoring during channel excavations and with THPO and agency coordination. Ms. Ferris was the Cardno project manager and responsible for the project deliverables and communication with the client.

Project Manager – WDFW 4-O Ranch Cultural Resources Field Survey – Asotin County, Washington

Cardno assisted the Washington Department of Fish and Wildlife Service (WDFW) with a 700-acre pedestrian survey in Asotin County, Washington. Under the direction of the WDFW, Washington State Department of Transportation (WSDOT) also assisted in the survey. The survey included the excavation of shovel probes in areas containing high potential for cultural materials. Cardno assisted with the recordation of archaeological

resources and completion of site forms. Ms. Ferris was the project manager and oversaw all project deliverables.

Senior Archaeologist – Solar Energy Project (Confidential Client) – Clackamas County, Oregon

Cardno completed a cultural resources desktop review and survey work plan for a proposed 10 MW AC/14.04 DC photovoltaic project on an 800 acre site in Clackamas County, Oregon. Desktop review included accessing existing cultural resources file data, including a literature review of all previously-recorded archaeological resources (pre-contact and historic), historic resources (e.g., built environment), and TCPs and other areas of tribal significance located within 1 mile of the proposed site. Ms. Ferris provided senior oversight on the desktop report and the survey work plan, and is assisting the client with Oregon SHPO and tribal coordination and consultation.

Principal Investigator –Swan Creek Pedestrian Bridge Replacement Project – Pierce County, Washington

Pierce County Parks and Recreation (Parks) proposed to replace the existing pedestrian bridge over Swan Creek with a new, similarly sized, prefabricated steel truss bridge. In addition, Parks proposed to replace and install a 70-foot-long log crib wall to stabilize the eroding western bank of the creek by installing soft armoring that consists of logs and boulders. Cardno was retained to conduct complete multiple tasks for the project including design, Phase I ESA consultation, and biological assessment, as well as a cultural resources survey of the APE in compliance with Section 106 of the NHPA to support the Joint Aquatic Resources Permit Application (JARPA). Ms. Ferris was responsible for the cultural resources project deliverables.

Project Manager/Principal Investigator – North Creek Forest Project – Bothell, Washington

Cardno was retained by the City of Bothell Parks and Recreation Department to assist with the completion of a cultural resources survey for their North Creek Forest project. The project entails the development of a 65-acre urban forest for public recreational use and park preservation. The project acquired land for the purpose of capital construction and intends to use capital funds from the Recreation and Conservation Office (RCO), and is also receiving monies from the National Park Service (NPS) Land and Water Conservation Fund. Cardno completed recordation of an archaeological site and a historic resource within the project area. The technical report was completed in compliance with GEO 05-05 and Section 106 of the NHPA. Ms. Ferris completed the fieldwork and was responsible for all project deliverables, client communication, and task management. She also assisted the client with coordination with the Snoqualmie THPO.

Project Manager/Principal Investigator – Cultural Resources Survey for the Methow Forest Rehabilitation Project – Okanogan County, Washington

Cardno completed a cultural resources survey for 128 acres of the Methow Wildlife Area in Okanogan County, Washington, on behalf of the WDFW. Cardno conducted the pedestrian survey with 100 percent coverage and excavated 15 shovel probes within areas containing high potential for cultural materials. Cardno assisted the WDFW with completing the site forms for the newly identified archaeological sites, as well as the previously recorded archaeological sites that were revisited during survey. Ms. Ferris was the project manager and oversaw all project deliverables.

Project Manager/Principal Investigator – Archaeological Survey for the T & L Nursery ADAP Project – King County, Washington

Under an on-call contract with KCWLRD, Cardno conducted an archaeological survey for the T & L Nursery Agricultural Drainage Assistance Program (ADAP) project. KCWLRD

proposes to remove accumulated sediments from a drainage ditch and plant native vegetation on each side of the ditch that lies immediately east of the Sammamish River near Redmond. Cardno completed the survey at the recommendation of the King County Historic Preservation Program (HPP) as part of its review of the project in compliance with King County's Cultural Resources Procedures (Executive Policy LUD 16-1 [AEP]). Ms. Ferris was responsible for the survey, project deliverables, and coordination with the client.

Project Manager/Principal Investigator – Archaeological Survey for the Carter ADAP Project – King County, Washington

Under an on-call contract with KCWLRD, Cardno conducted an archaeological survey for the Carter ADAP project. KCWLRD proposes to remove accumulated sediments from a drainage ditch and plant trees on each side of the ditch segment within the 43100 block of 236th Avenue SE, outside Enumclaw city limits. Cardno completed the survey at the recommendation of the King County HPP as part of its review of the project in compliance with King County's Cultural Resources Procedures (Executive Policy LUD 16-1 [AEP]). Ms. Ferris was responsible for the survey, project deliverables, and coordination with the client.

Project Manager/Principal Investigator – Red-Wood Road Channel Stabilization and Culvert Repair at NE 98th Street – Redmond, Washington

Cardno was retained by Osborn Consulting, Inc. to complete a cultural resources survey for the Red-Wood Road Channel Stabilization and Culvert repair project in Redmond. The survey was conducted support the City of Redmond's submittal of a JARPA to the USACE for the project. Cardno conducted a pedestrian and subsurface survey within the APE. The technical report was completed in compliance with Section 106 of the NHPA. Ms. Ferris completed the fieldwork and was responsible for all project deliverables, client communication, and task management. She also assisted the client with coordination with the Snoqualmie THPO.

Project Manager/Principal Investigator – Snoqualmie (Raging) River RV Park Cultural Resources Risk Assessment – King County, Washington

Under an on-call contract with KCWLRD, Cardno conducted a cultural resources risk assessment survey for the Snoqualmie (Raging) River RV Park project. WLRD proposes to demolish all site improvements on the property formerly known as the Snoqualmie River RV Park near Fall City in unincorporated King County, Washington. The project is subject to Washington SEPA and GEO 05-05. The King County HPP recommended an archaeological survey be completed as part of its review of the project in compliance with King County's Cultural Resources Procedures (Executive Policy LUD 16-1 [AEP]). Cardno completed the survey, during which a precontact isolated find was identified. Under Ms. Ferris' supervision, Cardno completed recordation of the archaeological resource and prepared the technical report, which was submitted to the DAHP.

Project Manager/Senior Archaeologist – Enloe Hydroelectric Project – North Central, Washington

In compliance with Section 106 of the NHPA and NEPA, Cardno provided cultural support to the Public Utility District (PUD) No. 1 of Okanogan County for the Enloe Hydroelectric project. Ms. Ferris was responsible for the 2014 archaeological survey, testing of Site 45OK570, and associated reports. She also assisted in updating the Historic Property Management Plan (HPMP) and coordinated activities for the confidential cultural resources workgroup (CRWG) consisting of the Confederated Tribes of the Colville Reservation, BLM, Washington SHPO, and PUD. She was also responsible for the

development of materials for the PUD's 2015 cultural resources awareness program and provided the training to PUD's staff.

Cultural Project Manager/Principal Investigator – zis a ba Estuary Restoration Project – Snohomish County, Washington

Cardno was retained by the Stillaguamish Tribe of Indians to conduct a cultural resources inventory consistent with the requirements of USACE regulations through CFR 33 CFR Part 325 Appendix C and Section 106 and its implementing regulations (36 CFR Part 800) for the issuance of a permit under the Section 404 of the Clean Water Act (CWA). A permit was required for the project as it entails the restoration of tidal wetlands and riparian areas through the removal of water control structures, which will improve Chinook salmon habitat. The inventory was also conducted consistent with the requirements of SEPA and implementing rules contained in Washington Administrative Code 197-11. Cardno worked closely with the Stillaguamish THPO to develop survey and monitoring methods. Our team completed a pedestrian and subsurface archaeological and historic resources survey, during which an archaeological site and historic resource were documented. Cardno also provided monitoring during geotechnical boring, channel excavation, and dike breaching, during which two inadvertent discoveries of historic origin were documented. The technical survey and monitoring reports were reviewed and approved by the Stillaguamish THPO and USACE. Ms. Ferris was responsible for all cultural resources deliverables and coordination with the Stillaguamish THPO and USACE regarding cultural resources.

Project Manager/Principal Investigator – Marysville Sonic PA Project Cultural Resources Technical Report – Snohomish County, Washington

Cardno was retained by SERJ Development Marysville, LLC to assist with a cultural resources survey as part of the SEPA permitting process for their proposed development project. Cardno completed pedestrian survey and excavated shovel probes within the project area to identify any cultural resources. Cardno prepared the technical report and an inadvertent discovery plan for the project. Ms. Ferris was responsible for the survey, project deliverables, and coordination with the client. She also assisted the client with coordination with the Stillaguamish THPO.

Project Manager/Principal Investigator – Desktop Study and Monitoring for the GSA Lease Project: New Regional Headquarters for FAA – Des Moines, Washington

On behalf of the General Services Administration (GSA), Des Moines Creek Business Park Phase II, LLC constructed the new headquarters office for the Federal Aviation Administration (FAA) in Des Moines. Cardno was retained by Des Moines Creek Business Park Phase II, LLC to conduct a cultural resources desktop study and construction monitoring for the project. Cardno also prepared a MIDP for the project. Ms. Ferris was responsible for all project deliverables, client and DAHP coordination, and task management.

Senior Reviewer – PG&E Managed Projects – California

Ms. Ferris served as a senior reviewer for Cardno's completion of cultural resources constraints reports (CRCRs) in support of utility operations throughout the PG&E service area. She reviewed CRCRs completed by six employees and subcontractors performing work from desktop review to Section 106 compliance.

Project Manager/Principal Investigator – 76 S. King St./ 450 Alaskan Way – Seattle

Cardno was retained by Hudson Pacific Properties to conduct an archival study for their project at 450 Alaskan Way (76 S. King Street) in Seattle. The purpose of the archival study was to provide an assessment of the archaeological significance of the project area

and an evaluation of the potential effects of this project on archaeological sites that may be eligible to the Washington Heritage Register (WHR) or NRHP. This archival study was required under Seattle Director's Rule 2-98 to comply with the SEPA. The project is located within the Pioneer Square-Skid Road National Historic District. The proposed project includes the construction of an eight-story commercial office; the demolition of an existing garage structure and interior courtyard; and excavation of two levels of below-grade parking to an approximate maximum depth of 20 feet below surface. The garage structure was built in 1985 and has been determined non-historic and non-contributing to the District. Cardno also developed a MIDP for the project and conducted monitoring during all ground disturbing activities within Holocene sediments. Ms. Ferris assisted the client with coordination with the DAHP.

Project Manager/Principal Investigator – Marymoor Park Properties Cultural Resources Survey – Redmond, Washington

Cardno was retained by Maple Multi-Family Land TX, LP to conduct a cultural resources inventory for archaeological resources within the proposed project area. The project entails the development of three privately owned properties within the City of Redmond adjacent to Marymoor Park. The proposed project requires a site plan entitlement from the City of Redmond. As part of the Pre Review Entitlement Process (PREP) for the City of Redmond, the Planning Department required a site study to determine the effect that any proposed action may have on any identified archeological site and to recommend necessary treatment and mitigation measures. The study was conducted in compliance with the REP and Article II, Title 21.30 of the Redmond Zoning Code (RZC 21.30). The survey was designed to identify and document cultural resources in the project survey area and to provide recommendations to Maple Multi-Family Land TX, LP concerning the significance of these resources. Cardno newly recorded an archaeological resource and conducted testing for site integrity under a DAHP excavation permit. Cardno also developed a MIDP for the project, as well as a treatment plan for a historic structure within the project area. Under the supervision of Ms. Ferris, Cardno archaeologists are monitoring for archaeological resources during construction-related ground disturbance. Ms. Ferris is also assisting the client with coordination with the City of Redmond, DAHP, and affected Indian tribes.

Project Manager/Principal Investigator – North Pine Creek Bridge – Bonneville County, Idaho

Cardno was retained by the Idaho Transportation Department (ITD) to conduct a cultural resources survey within the APE for archaeological and historical resources for the bridge replacement project. The North Pine Creek Bridge project involves funding by the Federal Highway Administration (FHWA), and as such, is complying with Section 106 of the NHPA. Cardno submitted the draft report with recommendations to ITD.

Project Manager/Principal Investigator – Lemhi River Bridge MP 116.35 – Bonneville County, Idaho

Cardno was retained by the ITD to conduct a cultural resources survey within the APE for archaeological and historical resources for the bridge replacement project. The project involves funding by the FHWA, and as such, is complying with Section 106 of the NHPA. Cardno submitted the draft report with recommendations to ITD.

Project Manager/Principal Investigator – Lemhi River Bridge MP 125.657 – Bonneville County, Idaho

Cardno was retained by the ITD to conduct a cultural resources survey within the APE for archaeological and historical resources for the bridge replacement project. The project

involves funding by the FHWA, and as such, is complying with Section 106 of the NHPA. Cardno submitted the draft report with recommendations to ITD.

Project Manager/Principal Investigator – US-20, Curr Canal Bridge – Freemont County, Idaho

Cardno was retained by the ITD to conduct a cultural resources survey within the APE for archaeological and historical resources for the bridge replacement project. The Curr Canal Bridge involves funding by the FHWA, and as such, is complying with Section 106 of the NHPA. Cardno submitted the final report with recommendations to ITD.

Project Manager/Principal Investigator – North Auburn Logistics Project – Auburn, Washington

Cardno was retained by SVF South 287th Auburn, LLC to conduct a cultural resources survey to satisfy regulatory requirements for obtaining a USACE Nationwide Permit (NWP) 39 (Commercial Development) under Section 404 of the CWA to discharge dredged or fill material into non-tidal waters for the construction of the project. NWP National Condition 20 requires compliance with 33 CFR Part 325 Appendix C. Additionally, reviewing permits under the CWA requires the USACE to comply with Section 106 of the NHPA. The project entailed the development of a 260,000 square-foot industrial warehouse on three adjacent, privately owned properties within the Auburn city limits. The inventory was designed to identify and document cultural resources within the APE and to provide recommendations to SVF South 287th Auburn, LLC and USACE concerning the eligibility of these resources for the NRHP. Ms. Ferris assisted the client with coordination with the USACE and with affected Indian tribes.

Principal Investigator – Confidential Project Permitting – Whatcom County, Washington

Cardno supported a confidential project at Cherry Point Washington. The project included the development of a terminal to provide facilities to receive dry bulk commodities by unit train, temporarily store the commodities, and then load them to sea going bulk carriers for international delivery. Cardno assisted in the development and implementation of permitting strategies for approval of the project by federal, state, and local permitting agencies and supervision of the permitting process and assisting the USACE with the Section 106 process. Ms. Ferris was the Principal Investigator for the completion of the archaeological inventory of the project area. She also assisted the applicant side cultural resource meetings and coordination with the USACE, DAHP, and ACHP for the project.

Cultural Project Manager/Principal Investigator – Archaeological Inventory for the Starkey Habitat Improvement Project – Union County, Oregon

Cardno was retained to assist Reclamation with a 60% design to meet the 2008 Biological Opinion for the Federal Columbia River Power System requirements for improving access to spawning and rearing habitat and improving habitat quantity and quality for native endangered fish species on the Upper Grand Ronde River including Spring Chinook salmon, Steelhead trout, and Bull trout. Under Ms. Ferris's supervision, Cardno archaeologists conducted an archaeological inventory, which consisted of pedestrian survey and subsurface shovel probes within the APE, and site recordation. Ms. Ferris was the primary author on the Section 106 technical report and archaeological site forms that have been submitted to Reclamation, USFS, and the Oregon SHPO. She was responsible for Cardno's project communications related to cultural resources.

Senior Archaeologist - Deschutes Valley Property – Tumwater, Washington

Cardno was retained by Brown and Caldwell to complete a cultural resources constraints analysis on behalf of the LOTT Clean Water Alliance for their proposed restoration project at their Deschutes Valley Property in Tumwater. Cardno conducted background research,

a site visit, and tribal outreach. Our team submitted a memorandum analyzing the potential development constraints related to cultural resources for the property. The analysis was completed in compliance with SEPA and Chapter 2.62 of the City of Tumwater Municipal Code. Ms. Ferris completed the fieldwork and was the primary author on the memorandum.

Senior Archaeologist – Class III Cultural Resources Inventory for the Hess Hawkeye Pipeline Project, Hess Corporation – McKenzie and Williams Counties, North Dakota

Cardno was retained by Hess Corporation to conduct a Class III Cultural Resources Inventory for their proposed Hawkeye Pipeline Project. The proposed project includes the construction of an approximately 26-mile-long pipeline system that would connect facilities within the Bakken Formation oil and gas production fields south of Lake Sakakawea to existing processing facilities north of the lake. Ms. Ferris was the primary author on the Class III technical report, which was submitted to the BLM (lead federal agency), USFS, USACE, and North Dakota SHPO, as well as numerous tribes. She also provided senior review of all archaeological site forms, authored the archaeological monitoring plan, and assisted with client and SHPO communications.

Senior Archaeologist – Class III Cultural Resources Inventory for the Hess NG/NGL Pipeline Conversion Project, Hess Corporation – McKenzie and Williams Counties, North Dakota

Cardno was retained by Hess Corporation to conduct a Class III Cultural Resources Inventory for their proposed natural gas (NG)/natural gas liquids (NGL) Conversion Pipeline Project. The proposed Project includes the conversion of 18.9 miles of existing 8- and 10-inch-diameter high pressure NG pipeline to an NGL pipeline that stretches between the Bakken Formation oil and gas production fields south of Lake Sakakawea to existing processing facilities north of the lake. Ms. Ferris was the primary author on the Class III technical report, which was submitted to the North Dakota SHPO. She also provided senior review of all site forms and assisted with client and SHPO communications.

Senior Reviewer – BPA's Ross-John Day Fiber Optic Replacement Project – Clark, Skamania, and Klickitat Counties, Washington, and Sherman and Wasco Counties, Oregon

Cardno was retained by BPA to conduct a cultural resources inventory for their line replacement project. Between the Ross and John Day substations is an existing 105 mile-long transmission facility that hosts a fiber optic cable (cable). BPA proposed to remove and replace the existing overhead cable. Cardno conducted a survey within 102 distinct disturbance areas within Oregon and Washington in compliance with Section 106 of the NHPA and NEPA. Ms. Ferris was the senior reviewer for both technical reports that Cardno prepared and submitted to BPA.

Project Manager/Principal Investigator – Mount St. Helens Cultural Resources Survey, River Design Group – Cowlitz County, Washington

Cardno conducted a cultural resources survey for the USACE Portland District's Mount St. Helens (MSH) Sediment Retention Structure (SRS) SEIS. This work was completed under an IDIQ with River Design Group for the USACE Portland District. Ms. Ferris was the Project Manager and led the field inventory, which consisted of pedestrian survey and subsurface shovel probes within the APE. She was the primary author on the Section 106 technical report, senior reviewer for all archaeological site forms, and responsible for all project communications.

Project Manager/Principal Investigator – Woodinville-Duvall Road – King County, Washington

King County Road Services Division (KCRSD) proposed improvements to the intersection of NE Woodinville-Duvall Road and West Snoqualmie Valley Road NE near Duvall, Washington. The improvements would include the addition of turning lanes and a traffic signal, as well as the replacement of two box culverts that convey Tuck Creek. Ms. Ferris was the PI and field director for the pedestrian and subsurface survey for the project under our on-call contract with KCRSD. She was the lead author on the Section 106 technical report.

Project Manager/Principal Investigator – Berrydale Road – King County, Washington

KCRSD proposed to replace an existing bridge and culvert on Kent-Black Diamond Road SE and SE 292nd St. Ms. Ferris is the project manager for this task order under our on-call contract with KCRSD. She was the PI and field director for the archaeological survey and subsurface testing within the APE for the project. Ms. Ferris was the lead author on the Section 106 technical report and completed two archaeological site forms.

Principal Investigator – West Snoqualmie Valley Road NE – King County, Washington

KCRSD proposed to reconstruct and rehabilitate 1.1 miles of West Snoqualmie Valley Road NE from just north of NE 80th Street to Ames Lake-Carnation Road NE, including drainage improvements near Carnation, Washington. Cardno conducted both an archaeological and architectural resources survey. Ms. Ferris was the PI and field director for the pedestrian and subsurface survey for the project under our on-call contract with KCRSD. She was also the lead author on the Section 106 technical report.

Senior Archaeologist – Questa Mine Structures Project – New Mexico

Ms. Ferris was the senior archaeologist for cultural resources services to Chevron Mining, Inc. (Chevron Mining) at their molybdenum mine in Questa, New Mexico. Her role included the management of the archaeological inventory and evaluation of the potential eligibility for the NRHP for archaeological sites. She was the senior archaeological reviewer for the technical report that was prepared to assist Chevron Mining in long-term planning for the buildings and structures that are part of the mine site and future permitting activities under Section 106 of the NHPA. The inventory included background research, field study, and preparation of a Section 106 technical report suitable for submittal to NM SHPO, USACE, and NM DOT.

Project Archaeologist – Wallowa Falls Hydroelectric Project – Wallowa County, Oregon

Under a contract with PacifiCorp, Cardno conducted cultural resources background and research and fieldwork, and will be writing the cultural section for the relicensing of the Wallowa Falls Hydroelectric Project. The license for the Project was issued on August 28, 1986 and expired on February 28, 2016. The principal objective of the cultural resources work was to identify the APE based upon potential direct and indirect effects from Project development and operations, identify any historic properties within the APE for the Project, identify and assess potential effects from Project development and operation to identified historic properties, and if any historic properties are identified, plan for their future management. The Project is located on private land owned by PacifiCorp and federal lands managed by the Wallowa-Whitman National Forest. Ms. Ferris edited and revised the final technical report to incorporate comments from PacifiCorp and Indian tribes. She also conducted geotechnical boring monitoring for archaeological resources.

Field Director – Midnight Point and Mahogany Point Project – Glass Buttes, Lake County, Oregon

Cardno was retained by ORMAT Nevada, Inc. to conduct a cultural resources inventory for well pad sites, access roads, and potential gravel quarries associated with geothermal exploration activities planned for Glass Buttes, Oregon. The project area is largely located on BLM lands in the Burns and Prineville Districts. The project included field survey, site recordation, and two Section 106 reports. As a lithic specialist, Ms. Ferris assisted in the development of the research design that satisfied the requirements of both BLM offices and the Oregon SHPO. Ms. Ferris was also responsible for site recordation, artifact assessment, and site photography. She completed the site forms, conducted the data compilation and all analysis, and was the primary author for the technical reports. As part of the Cardno team, Ms. Ferris maintained communications with the client and assisted in offering strategic advice concerning cultural resource avoidance strategies and tribal outreach. Ms. Ferris authored cultural sections of the EA.

Field Director – Crump Geyser Geothermal Exploration Project, Crump Geothermal Company (CGC), LLC – Lake County, Oregon

The Crump Geyser Geothermal Development Project entailed proposed geothermal exploration related activities on private lands leased for geothermal development near Crump and Pelican Lakes in Lake County, Oregon. A cultural resources inventory was conducted at a possible plant location and ancillary facilities, including potential pipeline locations and a 4-mile transmission line route. Ms. Ferris acted as the field director for the inventory, supervised the compilation of the site and isolate forms, and was the lead author on the Section 106 technical report. The inventory was completed in anticipation of the Project requiring a CWA Section 404 permit from the USACE as the transmission line route will likely cross wetlands that under the jurisdiction of the USACE Portland District Eugene Field Office. The issuance of a CWA Section 404 permit requires compliance with Federal and State regulations, including NEPA, the NHPA, the Oregon Revised Statutes (97.740–97.760; 358.905–358.955; 390.805–390.925; 271.715–271.795; 390.235; 358.605–358.622), and the Oregon Administrative Rules (736-051-0080 through 0090; 660-023-0200). In order to comply with these regulations and rules, Cardno completed the cultural resources inventory and provided recommendations to the USACE concerning the eligibility of these resources for the NRHP on behalf of CGC.

Project Archaeologist – 15 Mile Creek Bridge #1384b Replacement Project – King County, Washington

KCRSD proposed to replace an existing deficient bridge with a new bridge and reconstruct the approaches near 15 Mile Creek in unincorporated King County near Issaquah. The existing bridge was damaged in a 2009 storm event that caused 15 Mile Creek to erode and scour its banks, which damaged the bridge piles and destabilized the western half of the two-lane bridge. To allow for residential access during bridge replacement, KCRSD proposed the construction of a 315-foot long temporary bypass road 30 feet east from the existing bridge. Ms. Ferris conducted the field survey and subsurface testing for the project under our on-call contract with KCRSD. She was the lead author on the Section 106 technical report and completed the isolate form for the newly discovered precontact archaeological isolate.

Field Director – Newberry Temperature Gradient Wells Project – Oregon

Cardno was retained by ORMAT Nevada, Inc. to conduct a cultural resources inventory for the proposed Newberry Temperature Gradient Wells Project. The Temperature Gradient Wells Project seeks to permit up to six core holes in the Deschutes National Forest for the collection of temperature and geologic data to determine the feasibility of further geothermal resource exploration. Ms. Ferris was the Field Director for the inventory, which was conducted under a USFS Permit for Archaeological Investigations. Ms. Ferris was also the primary author on the Section 106 of the NHPA Technical Report.

Lead Archaeologist – Linden Levee Cultural Resources Review – Puyallup, Washington

Cardno was retained by the City of Puyallup to conduct the feasibility study and provide 30% preliminary design for the Linden Golf Course Oxbow Setback Levee Feasibility and Design Project. The project required a cultural resources screening level analysis that was completed by Ms. Ferris. The review consisted of a field visit to assess the current landscape and conditions of the Project area, an assessment of any previously recorded cultural resources within or adjacent to the Project area, and an examination of previous cultural resources investigations near the Project vicinity. She authored the Cultural Resources Review Report that was submitted to the client. Ms. Ferris also conducted monitoring for the geotechnical investigations within the project area, and authored the monitoring report.

Lead Archaeologist – Clear Creek Cultural Resources Review – Washington

Cardno was retained by Natural Systems Design for Kitsap County's Clear Creek Floodplain Restoration Project. Ms. Ferris conducted a screening level analysis of cultural resources conducted for the project. This review entailed a field visit to assess the current landscape and conditions of the Project area, an assessment of any previously recorded cultural resources within or adjacent to the Project area, and an examination of previous cultural resources investigations near the Project vicinity. A Cultural Resources Review Report was submitted to the client. The Kitsap County Department of Public Works Surface and Stormwater Management Program is planning to restore the floodplain of Clear Creek to reduce the impacts of downstream flooding, to improve stream and riparian habitats, and to enhance the floodplain function.

Project Archaeologist – Novelty Hill Wildlife Corridor – Redmond, Washington

Under an on-call contract with KCRSD, Cardno archaeologists conducted an inventory within the Project APE. Ms. Ferris completed the requisite forms for the newly discovered precontact archaeological site, the artifact descriptions, and reviewed the technical report. She was a contributing author on the technical report.

Lead Archaeologist – Eastern State Hospital Cultural Resource Assessment – Medical Lake, Washington

Cardno was retained by BLRB Architects to complete the archaeological resources probability assessment component of the historic significance study of the Eastern State Hospital (ESH) campus for the Washington Department of Social and Health Services (DSHS). Cardno cultural resources specialists, including Ms. Ferris, produced a report that detailed the probability for extant precontact and historic archaeological resources within the campus to aid DSHS with developing treatment plans associated with future preservation, stabilization, and restoration measures for the buildings on campus. The focus of the archaeological resources assessment followed that of the historical buildings assessments conducted by BRLB architects, which included 22 building, in addition to two granite quarry locations, one borrow pit, two cemeteries, and the foundations of four cottages.

Project Archaeologist – Blue Dog and Corbin Properties Short Subdivisions – Redmond, Washington

Murray Franklyn Family of Companies proposed to short plat two parcels in Redmond, Washington. The Project divides the current King County tax parcels for development of a single family home community. The two parcels comprise approximately 80 acres. The King County Department of Development and Environmental Services is the lead agency responsible for the Project's review. Cardno was contracted to conduct a cultural resource survey following standards set forth in Section 106 of the NHPA, the NEPA, and the

SEPA. Ms. Ferris conducted the field study and was the primary author on the two technical reports.

Project Archaeologist – Clackamas County Broadband Innovation Initiative Project – Clackamas County, Oregon

The Cardno team drafted an EA for the Clackamas Broadband Innovation Initiative Project. This 183-mile long fiber optic cable project features a hybrid installation of aerial and underground segments of cable that links 180 community anchor sites that include schools, government institutions, libraries, and community colleges to a high speed internet cable infrastructure. Cardno conducted all environmental analysis for the project consistent with NEPA and Section 106 of the NHPA. Work also included the completion of a cultural resources report, consultation with the SHPO, and two federal land right-of-way applications. The project received a FONSI from the U.S. Department of Commerce within three months of project initiation and was completed under budget. Recently, Cardno was retained by the county to conduct post-FONSI compliance work that includes Oregon SHPO consultation, archaeological survey, and construction monitoring at specific fiber optic cable installation and tie-in locations. Ms. Ferris has conducted field visits, co-authored interim cultural resources reports, and aided in coordinating with the SHPO. To date, six interim cultural resources reports have been prepared and submitted to the SHPO during this post-FONSI work.

Project Archaeologist – Bend Broadband Fiber Optic Project – Deschutes, Jefferson, and Crook Counties, Oregon

Bend Broadband (BBB) is Central Oregon's high speed internet, cable television and digital phone service provider and received a grant from the National Telecommunications and Information Administration's (NTIA) Broadband Technology Opportunities Program (BTOP) to install middle mile fiber optic cable infrastructure in Crook, Jefferson, and Deschutes counties, Oregon. The project included 181.4 miles of high capacity fiber optic cable network to be installed on existing transmission line structures and in existing transmission line rights of way. Ms. Ferris participated in the cultural resources inventory, which was conducted throughout Crook, Jefferson, and Deschutes counties, in rural and urban areas to identify historic properties and potential project effects. Field surveys also included the evaluation of potential effects to previously recorded resources that were identified during background research. The project crossed through lands managed by the United States BLM, USFS, and Reclamation. The grant funding was considered an undertaking by the NTIA thus requiring compliance with Section 106 of the NHPA. In compliance with Section 106 of the NHPA, Cardno staff prepared a Section 106 Report that discussed the results of the survey, project effects, and proposed mitigation.

Staff Archaeologist – Brewer Farm Wetland – Walla Walla, Washington

Tri-State Steelheaders retained Cardno to conduct the cultural resources inventory for their proposed wetland creation project in existing agricultural land southeast of Walla Walla. The project consisted of a 23 acre wetland mitigation easement including three ponds with surrounding topographic relief mounds, native grasses, and woody and aquatic vegetation. As part of the Cardno team, Ms. Ferris conducted the cultural resources inventory and was the primary author for the cultural resources technical report.

Staff Archaeologist – Sunbrook Development, PDI, Inc. – Brier, Washington

Phoenix Development, Inc. proposed infrastructure improvements for the Sunbrook Development in the City of Brier. The Project entailed the replacement of an existing culvert, installation of a storm water outfall, and installation of a sewer connector. This project required permitting by the USACE, so Cardno was asked to assist in defining the project APE and to complete a Section 106 Technical Report. Cardno's role included

agency consultation, archaeological resource inventory, a determination of project effects and a recommendation for mitigation measures. Ms. Ferris conducted the field inventory, which included subsurface survey.

Staff Archaeologist – Carnation Water Transmission Main and Storage – City of Carnation, Washington

As a staff archaeologist, Ms. Ferris conducted a pedestrian and subsurface survey of the proposed route of the new waterlines for this project. The City of Carnation proposed a project to replace approximately 2,400 lineal feet of 8 inch 50+ year old transmission main from the City's primary water source (spring) to 344th Avenue in an unpaved area and the construction of two storage reservoirs. Additionally, two new storage tanks were planned to meet International Fire Code (IFC) and Washington State Department of Health requirements. The City designed a new steel storage tank (approximately 600,000 gallons) on the same property as the existing tank to provide additional fire water flow and standby storage for the City's north pressure zone. A second storage tank (estimated at 100,000 gallons) was planned to provide storage for a portion of the south pressure zone. At the request of Roth Hill Engineers, a cultural resources survey was conducted by the Cardno team of cultural resource specialists for the proposed project. Some of the features associated with the springs and transmission main are over fifty years old and were evaluated as historic structures.

Lead Archaeologist – WDFWS Large Wood Projects, Skokomish River – Mason County, Washington

Cardno was retained by the Washington State Department of Fish and Wildlife Service (WDFWS) Landowner Incentive Program to conduct archaeological surveys in two project areas along the Skokomish River in Mason County. The WDFWS proposed large wood placement along the river bank to eliminate erosion and sediment delivery, to stabilize spawning grounds, and to provide habitat complexity for juvenile salmonids. Ms. Ferris conducted the background and field research, photographed the project area, and was the primary author on the technical report.

Staff Archaeologist – Camp Colman YMCA – Key Peninsula, Washington

Cardno was retained by Lance Mueller and Associates to conduct an inventory within Camp Colman at the request of the YMCA and the Pierce County Department of Planning and Land Services. Cardno archaeologists, including Ms. Ferris, conducted the archaeological survey for a YMCA facilities renovation project at the camp. Ms. Ferris also was the primary author on the technical report in accordance with SEPA. The YMCA proposed improvements to three areas on the approximately 100 acre Camp Colman property. The YMCA's proposed project includes building an addition to the western side of the existing main lodge, rebuilding a staff cabin on an existing foundation, and constructing new cabins at the existing tennis court.

Staff Archaeologist – Magnum Pipeline Project – Utah

Cardno was retained by Magnum Energy to conduct cultural resources investigation for a natural gas storage facility and pipeline that is planned for construction in Millard and Juab counties, Utah. Cardno cultural resources specialists, including Ms. Ferris, conducted pedestrian surveys, subsurface investigations, and site recording. A technical report was submitted to the client.

Consultant Archaeologist – Cloudbreak, Pilbara – Western Australia

Ms. Ferris conducted heritage resource surveys and archaeological site salvage at an operating iron-ore mine in the Pilbara pursuant to the Aboriginal Heritage Act and the EPBC. The mine is owned by Fortescue Metals Group, Ltd. Ms. Ferris worked closely

with the Traditional Owners to conduct surveys and site salvage, teaching artifact identification, survey methods, site recording, and salvage methods. She was responsible for identifying archaeological materials, geologic materials, recording archaeological sites, mapping with GPS, and photographing artifacts and sites. Ms. Ferris also co-authored report sections and digitized site maps with AutoCAD. As part of her work, Ms. Ferris completed 4-wheel drive and mine safety courses. This project was completed prior to joining Cardno.

Consultant Archaeologist – Beverly Burke Road – Beverly, Washington

Ms. Ferris conducted a pedestrian and subsurface survey for a road improvement project. She was responsible for identifying archaeological materials and project photography. This project was completed prior to joining Cardno.

Consultant Archaeologist – Umatilla National Forest – Washington and Oregon

Ms. Ferris was responsible for conducting archaeological field surveys, identifying and recording precontact and historic sites, and photographing sites and artifacts within the Umatilla National Forest for the USFS after two forest burns. This project was completed prior to joining Cardno.

Consultant Archaeologist – Coeur d'Alene Reservation – Plummer, Idaho

Ms. Ferris was responsible for conducting archaeological field surveys, identifying and recording prehistoric and historic sites, and photographing sites and artifacts for the Coeur d'Alene Tribe. She also authored numerous reports for Section 106 compliance for timber sales on Indian allotments. This project was completed prior to joining Cardno.

Archeologist GS-07 – Lake Roosevelt National Recreation Area, National Park Service (NPS) – Kettle Falls, Washington

As a NPS employee at the Lake Roosevelt National Recreation Area on the Columbia River, Ms. Ferris was responsible for conducting archaeological surveys, testing, background archaeological and traditional cultural property research, consultation, and writing reports for Section 106 and 110 of NHPA compliance. She also authored a determination of eligibility on a historic canal for listing in the NRHP. This work was completed prior to joining Cardno.

Consultant Archaeologist – BPA Thompson Falls-Burke 115-kV Transmission Line Survey – Thompson Falls, Montana

Ms. Ferris was responsible for conducting an archaeological field survey within areas of the ROW for the transmission line, and identifying and recording archaeological sites. This project was completed prior to joining Cardno.

Consultant Archaeologist – Jarbridge Wilderness – Jackpot, Nevada

Ms. Ferris conducted archaeological field surveys, identifying and recording precontact and historic sites, and photographing sites and artifacts within the Jarbridge Wilderness for the USFS after a forest burn. This project was completed prior to joining Cardno.

Consultant Archaeologist – Desert Claim Wind Power – Ellensburg, Washington

Ms. Ferris conducted pedestrian surveys within the Reecer Canyon area of Ellensburg in compliance with Section 106 for proposed wind farm locations. Her responsibilities included identifying cultural materials, recording sites, mapping and photography. This project was completed prior to joining Cardno.

Consultant Archaeologist – Banks Lake Draw Down – Nespelem, Washington

Ms. Ferris acted as a crew chief for a pedestrian survey of the five foot draw down zone in Banks Lake on the Columbia River in both Douglas and Grant Counties for the Confederated Tribes of the Colville Reservation. Her responsibilities included logistical planning, organizing equipment, conducting surveys, site recordation, mapping, and photography. This project was completed prior to joining Cardno.

Testing

Project Manager/Principal Investigator – Boise Creek Van Wieringen Project –King County, Washington

Under our on-call, Cardno assisted King County with completing an evaluation of NRHP eligibility for precontact site 45KI1266. This site is located within the APE for the proposed Middle Boise Creek Van Wieringen Project, which is on Boise Creek near Enumclaw in unincorporated King County. In compliance with Section 106 of the NHPA, Cardno conducted the test excavations and submitted a technical report to the KCWLRD, KCHPP, and the USACE. Cardno will be completing monitoring during project-related ground disturbing activities. Ms. Ferris is responsible for all project deliverables, client communication, and task management.

Project Manager/Principal Investigator – Testing at the Boise Creek Site, 45KI170, Enumclaw, King County, Washington

Cardno completed testing at site 45KI170, which was identified within the project area for KC Parks and KCWLRD's proposed Foothills Storm Demo project near Enumclaw. Cardno obtained an excavation permit from DAHP in conjunction with KC Parks for the testing and the restoration activities. Cardno also conducted monitoring during project-related ground disturbing activities. Upon DAHP's approval of the testing and monitoring reports, Cardno will transfer the archaeological assemblage to the Muckleshoot Indian Tribe for curation. Ms. Ferris was responsible for all project deliverables, client communication, and task management.

Project Manager/Principal Investigator – Site 45KI1261 Testing – Redmond, Washington

Cardno was retained by Maple Multi-Family Land TX, LP to complete archaeological testing within precontact site 45KI1261, which was identified during the cultural resources inventory for the Marymoor Park Properties project. The project entails the development of three privately owned properties within the City of Redmond adjacent to Marymoor Park. Cardno conducted testing for site integrity under a DAHP excavation permit. The DAHP excavation permit also covered construction monitoring, which Cardno is currently conducting. Ms. Ferris is also assisting the client with coordination with the City of Redmond, DAHP, and affected Indian tribes.

Consultant Archaeologist – Phase II and III, Yosemite National Park – California

Phase II and III testing and data recovery were conducted in compliance with Section 110 for Yosemite National Park. Ms. Ferris conducted controlled excavations at multiple sites in Yosemite Valley, and was also responsible for the recovery and recordation of cultural materials, and collection of materials for thermoluminescence dating. This project was completed prior to joining Cardno.

Principal Investigator/Field Director – Site 45OK570 Testing – Okanogan County, Washington

In compliance with Section 106 of the NHPA, Cardno conducted testing at historic archaeological site 45OK570 for the Enloe Dam Relicensing project. Ms. Ferris is the PI and Field Director on the ARPA permit from the BLM Spokane District and she was responsible for the testing plan, site excavation, artifact analysis, and authoring the

technical cultural resources report. She was also responsible for updating sections of the historic property management plan (HPMP) based on the testing results.

Staff Archaeologist – Olson Farm Testing, White River Valley Museum – Auburn, Washington

In compliance with Section 106 of NHPA, Cardno conducted a cultural resources study for the Olson Farm rehabilitation project. Cardno archaeologists, including Ms. Ferris, conducted background research and intensive survey and shovel probing to locate cultural resources within the APE. Ms. Ferris was the lead author on the technical Section 106 report that was submitted to the DAHP and the King County Landmarks Board (KCLB). The Mary Olson Farm (45KI655) is a historic farmstead that was designated a King County Landmark in 2000 and listed in the NRHP in 2001 under Criterion A. The significance of the property is relative to the above-ground components of the site which embody the historical role of agrarian life ways in the broader regional context of western American settlement. An archaeological component was identified in the designation, but the site was not previously tested. Cardno conducted cultural resources testing at the farm where subsurface disturbance will occur as part of rehabilitation for the purposes of developing a living history museum. Cardno received a testing permit from DAHP and a Certificate of Appropriateness from the KCLB prior to fieldwork. Cardno archaeologists used metal detectors to located clusters of historic debris, as well as modern refuse and utilities. Cardno also prepared a Cultural Resources Management Plan for the farm and has monitored ground disturbing activities in sensitive areas.

Consultant Archaeologist – Paschal Sherman Indian School New Facilities – Omak, Washington

Ms. Ferris was employed as an archaeologist for the Confederated Tribes of the Colville Reservation to conduct a cultural resources survey at the school. The investigation included subsurface survey and testing with shovel probes and test units. She was responsible for artifact identification, soil description, and mapping. This project was completed prior to joining Cardno.

Consultant Archaeologist – Chief Joseph Reservoir 50 Site Evaluations – Nespelem, Washington

In compliance with Section 106, Ms. Ferris conducted archaeological evaluations of 50 previously recorded sites in Douglas and Okanogan Counties along the Chief Joseph Reservoir of the Columbia River for the Confederated Tribes of the Colville Reservation. These evaluations included pedestrian and subsurface surveys and testing. She was responsible for the identification of cultural materials, determining site boundaries and integrity, mapping, and completing site forms. This project was completed prior to joining Cardno.

Data Recovery

Assistant Field Director – Site 45KI834 Novelty Hill Data Recovery Excavations, INCA Engineers – Redmond, Washington

INCA Engineers retained Cardno to assist in mitigating the adverse effects to precontact site 45KI834 caused by the construction of a new roadway between 196th Avenue NE and 95th in Redmond. Ms. Ferris acted as the assistant field director for the data recovery excavations and was responsible for managing the crew, organizing equipment, conducting excavations, and artifact collection. As a lithic specialist, she conducted all artifact analyses and was the primary author for the Section 106 technical report that included chapters in archaeology, background, methodology, results, analysis, summary and discussion, and recommendations.

Field Director – Birch Creek Archaeological Project, WSU Archaeological Field School – Owyhee River, Oregon

Ms. Ferris was the Field Director for the 2010 Washington State University (WSU) archaeological field school at site 35ML181 on the Owyhee River, Oregon. The field school is part of the long standing Birch Creek Archaeological Project that is funded and managed by the BLM Vale District. Ms. Ferris was responsible for the planning and implementation of all field school activities, site excavation, site management, site records, and student and crew safety.

Consultant Archaeologist – Omak Pond Data Recovery – Omak, Washington

In compliance with Section 106, Ms. Ferris conducted data recovery investigations at an archaeological site to mitigate adverse effects from proposed salmon hatchery ponds for the Confederated Tribes of the Colville Reservation. Ms. Ferris's responsibilities included the excavation of archaeological deposits, identification of artifacts and features, profiling and photographing stratigraphy, and artifact photography. This project was completed prior to joining Cardno.

Lithic Analyst – Site J69E, Espíritu Santo Island – Baja California Sur, Mexico

In conjunction with her Master's research, Ms. Ferris and others from various universities excavated a late Pleistocene/early Holocene residential shell midden site on Espíritu Santo Island in Baja Sur. Ms. Ferris was responsible for the complete descriptive and metric analyses of the lithic artifacts. These materials were then further analyzed quantitatively to provide the data for her Master's thesis. This project was completed prior to joining Cardno.

Consultant Archaeologist – WSDOT Graving Dock – Port Angeles, Washington

The Washington State Department of Transportation (WSDOT) retained firms to assist in the mitigation of adverse effects caused by the construction of the Hood Canal Bridge graving dock. Ms. Ferris participated in the data recovery portion of this project as a field archaeologist. Her duties included stratigraphic block and feature excavation, and artifact identification and analysis. This project was completed prior to joining Cardno.

Consultant Archaeologist – Howard Hansen Reservoir – Black Diamond, Washington

In response to Section 106 compliance, Ms. Ferris participated as a subconsultant for site testing and data recovery for two sites in the Howard Hansen reservoir for the USACE. She was responsible for controlled excavations, artifact identification, profile illustration, and site deposition history. This project was completed prior to joining Cardno.

Consultant Archaeologist – Priest Point Data Recovery – Marysville, Washington

In response to inadvertent discoveries on private property, Ms. Ferris excavated a post-contact archaeological site containing numerous burials. She also screened sediments that had been previously disturbed in efforts to recover any cultural materials and human remains that had been inadvertently relocated. This project was completed prior to joining Cardno.

- > First Aid/CPR, current
- > FERC Environmental Review and Compliance for Natural Gas Facilities, Seattle, April 29 – May 1, 2014

- > USACE Permits and Associated Water Quality Certifications: Regulatory Changes Pursuant to Sections 401 and 404 of the Federal Clean Water Act, National Association of Environmental Professionals, September 19, 2012
- > Section 106 Advanced Seminar, Advisory Council on Historic Preservation, Portland, Oregon, April 3, 2012

Publications

Master's Thesis

- > Lithic Technological Organization of Site J69E, Espíritu Santo Island, Baja California Sur. Master's thesis, Department of Anthropology, Washington State University, Pullman, 2008.

Professional Publications

- > Ferris, Jennifer M., Loren G. Davis, and Luanne R. Ferrell, "Lithic Technology." In *Results of Archaeological Excavations at Site J69E, Espíritu Santo Island*, edited by Loren G. Davis. Report in preparation for the Archaeological Council of Mexico. Expected completion 2019.
- > Ferris, Jennifer M., 2015, "Procurement Costs and Tool Performance Requirements: Determining Constraints on Lithic Toolstone Selection in Baja California Sur." In *Lithic Technological Systems and Evolutionary Theory*, edited by N. Goodale and W. Andrefsky, Jr. Cambridge University Press.
- > Ferris, Jennifer M., and William Andrefsky, Jr., 2011, "New Insights into the Effects of Transport on Lithic Artifacts." In *Keeping your Edge: Recent Approaches to the Organization of Stone Artefact Technology*, edited by B. Marwick and A. Mackay. British Archaeological Reports.

Presentations and Published Abstracts

- > Ferris, Jennifer M., and Kerry Lyste, 2019. Come Together Over Olcott: Recent Collaborative Investigations. Accepted poster for invited symposium, New Research into the Old Cordilleran. 84th Annual Society for American Archaeology 84th Annual Conference, April 10-14, Albuquerque, New Mexico.
- > Ferris, Jennifer M., 2018. Invited panelist, Valuing, and Evaluating, Archaeological Sites – Under Criterion A. Washington Department of Archaeology and Historic Preservation Federal, State, Tribal and Consultant Summit. September 18, Olympia, Washington.
- > Ferris, Jennifer M., 2018. Invited panelist, Why Scope Matters. Washington Recreation and Conservation Office Grant Manager Cultural Resources Training. January 16, Olympia, Washington.
- > Ferris, Jennifer M., and Kerry Lyste, 2018. Come Together...Over Olcott: An Update on Recent Collaborative Work at a Local Olcott Site. 11th Annual Cultural Resources Protection Summit, May 22-23, Suquamish, Washington.
- > Ferris, Jennifer M., 2017. Session Organizer, Cultural Resource Management Plans (CRMPs) for Cities: The Process From "Ask" to Code. 10th Annual Cultural Resources Protection Summit, May 22-23, Suquamish, Washington.
- > Ferris, Jennifer M., and William Andrefsky, Jr., 2012. An Assessment of Hafted Biface Morphometric Characters and the Information They Convey. 77th Annual Society of American Archaeology Conference, April 18-22, Memphis, Tennessee.
- > Ferris, Jennifer M., and William Andrefsky, Jr., 2011. Chert Toolstone Provenance, Availability, and Social Geographic Systems in the Owyhee Uplands. 76th Annual Society of American Archaeology Conference, April 30-May 3, Sacramento, California.

- > Andrefsky, Jr., William, Jennifer M. Ferris, Justin Williams, Nathan Goodale, and George T. Jones, 2010. Geologic Context and Diagnostic Provenance of Chert. 75th Annual Society of American Archaeology Conference, April 14-18, St. Louis, Missouri.
- > Ferris, Jennifer M., 2009. Central Place Foraging Theory and Toolstone Procurement Costs: Determining Source Distance from Lithic Debitage Reduction Techniques on Espiritu Santo Island, Baja California Sur. 74th Annual Society of American Archaeology Conference, April 22-26, Atlanta, Georgia.
- > Ferris, Jennifer M., 2008. Procurement Costs and Tool Functional Requirements: Determining Constraints on Lithic Toolstone Selection on Espiritu Santo Island, Baja California Sur. Australian Archaeological Association Conference, December 3-6, Noosaville, Queensland.
- > Ferris, Jennifer M., and William Andrefsky, Jr., 2007. Transport Damage and Lithic Analysis: New Insights. New Ground Australasian Archaeology Conference, September 21-26, Sydney, New South Wales.
- > Ferris, Jennifer M., William Andrefsky, Jr., and Cheryl K. Pouley, 2007. Transport Damage and Inferred Stone Tool Functions. 72nd Annual Society of American Archaeology Conference, April 26-28, Austin, Texas.
- > Ferris, Jennifer M., 2007. All Bagged Up: Human Transport as an Agent of Lithic Flake Edge Damage. 60th Annual Northwest Anthropological Conference, March 15-17, Pullman, Washington.
- > Ferris, Jennifer M., 2006. Lithic Technological Changes during the Cascade Phase. 59th Annual Northwest Anthropological Conference, March 30-April 1, Seattle, Washington.

Technical Reports

- > Ms. Ferris has authored and co-authored a couple hundred technical reports. A list is available upon request.

Awards and Service

Cultural Resources Protection Summit

- > Advance Planning Committee, 2016 – current

Society for American Archaeology

- > Nominations Committee, 2016

Washington State University

- > Rainshadow Archaeology Award, 2011
- > Janet L. Friedman Memorial Scholarship in Archaeology, 2010
- > Teaching Assistantship, 2005-2007, 2009-2011
- > Research Assistantship, 2010
- > Nicholas Michael Scoales Scholarship in Archaeology, 2008

Educational Outreach

- > STEM Career Day Archaeology Booth/Presenter. Washington Middle School, Seattle, Washington. June 1, 2018
- > Northwest Studies Class Presenter, “What is Archaeology?” Liberty High School, Renton, Washington. J. Ferris and E. Scott. May 15, 2018.

- > Archaeology at Night! Lithics Presenter, Edmonds Historical Museum, Edmonds, Washington. May 4, 2018.
- > University of Washington Anthropology Alumni Mentoring Network Mentor. 2018.