This Statement of Qualifications document for Bionomics Environmental contains the company profile, areas of expertise, pertinent contracts, environmental project examples, and personnel qualifications.

**Company Profile**
Bionomics Environmental has provided services in environmental and cultural resource consulting for 25 years in the Intermountain West. We retain specialized, highly trained staff who are dedicated to fulfilling each client’s project requirements. Bionomics Environmental is registered as a Disadvantaged Business Enterprise (DBE) and a Minority Business Enterprise (MBE) in Idaho.

**Areas of Expertise**
Bionomics Environmental provides analyses of the natural and human environment, including wetlands identification, assessment, impact determination, and mitigation; waterways and water quality analyses; cultural, historical, architectural and archaeological site significance classification; biological species and habitat survey and assessment, including Endangered Species Act (ESA) compliance; transportation noise and land use analyses; socioeconomic and community impacts; prime and important farmland categorization; Department of Transportation Act of 1966, Section 4(f) and 6(f) resources; and hazardous waste and materials site compliance and assessment and public involvement. These areas of expertise are discussed in more detail below.

**Environmental/NEPA Process and Documentation**
Bionomics Environmental has expertise in National Environmental Policy Act (NEPA) compliance and we have experience in all aspects of data collection, research, field surveys, field crew management and agency coordination in the development of NEPA documents. Bionomics Environmental has applied multiple federal guidelines to Federal, State, and local agency coordination, development of interagency technical teams for environmental compliance. Bionomics Environmental has a solid background in developing the following documents:

- Categorical Exclusion (CE)
- Environmental Assessment (EA)/Finding of No Significant Impact (FONSI)
- Environmental Impact Statement (EIS)/Record of Decision (ROD)
- Environmental Compliance
- Environmental Due Diligence Audit (Phase One site assessments)
- Environmental Evaluation and Reevaluation
Information developed through these environmental analyses is used during preliminary and final decision processes to assess environmental elements in an attempt to avoid and/or mitigate impacts to affected areas.

**Archaeology and Architectural History**

Bionomics Environmental cultural resource specialists complete project tasks on time and within budget, and comply with cultural resource laws, regulations, and guidelines for federally funded projects. Our cultural resource specialists are qualified in both archaeology and architectural history. We perform cultural resource, archaeological, architectural history and historical surveys crucial to environmental assessment. We perform archival background searches through agencies, such as the State Historic Preservation Office (SHPO) and Tribal Historic Preservation Office (THPO) to determine locations of previously recorded cultural, historical, and archaeological sites in and around project areas. Bionomics Environmental also conducts intensive pedestrian surveys (archaeological and architectural) of project areas to identify previously undocumented cultural resources and have performed multiple subsurface excavations. We prepare *Archaeological and Historical Survey Reports (AHSR)*, which include maps, photos, and site forms in compliance with Section 106 of the National Historic Preservation Act of 1966 (NHPA). Bionomics Environmental provides additional services to address project impacts to cultural resources, which includes the following documents:

- Determination of Adverse Effect (DOAE)
- Memorandum of Agreement (MOA)

Bionomics Environmental cultural resource specialists conduct background research, assist in tribal consultation, perform pedestrian surveys and excavations, and develop documents and monitor document chain of command for project legal compliance. Our staff records prehistoric and historic sites, which includes documentation pertaining to language features, farms, homesteads, railroads, bridges, canals, and artifacts.

**U.S. Department of Transportation Act of 1966, Section 4(f)**

If property is to be impacted by the project in question, Bionomics Environmental conducts additional research in accordance with Section 4(f). The following resources are considered under the jurisdiction of Section 4(f) of the Department of Transportation Act of 1966:

- Wild or Scenic Rivers
- Historic Sites
- Public Parks, Recreation Areas, and Wildlife and Waterfowl Refuges

**Threatened and Endangered Species**

Bionomics Environmental prepares Biological Assessments (BAs) and Biological Evaluations (BEs) in compliance with Section 7 of the ESA of 1973, as well as State and local requirements. Bionomics Environmental coordinates with the U.S. Fish and Wildlife Service (USFWS) to identify threatened or endangered species within project areas, and coordinates with action agencies to balance project impacts and actions. We conduct field surveys, research, and statistical analyses to determine presence of habitat and impacts to threatened and endangered (threatened and endangered) species. Findings are then submitted to the USFWS and/or the National Oceanic and Atmospheric Administration Fisheries for consultations and determinations.
**Wildlife, Vegetation, and Fisheries Resource Studies**
Bionomics Environmental conducts wildlife, vegetation, and fishery resource studies in compliance with NEPA regulations for transportation and energy development projects. We perform extensive consultation with resource agencies and implement fieldwork, which provides a foundation for accurate descriptions of the environmental baseline in project areas. We take appropriate measures upon study completion and provide recommendations on actions designed to avoid or mitigate adverse effects.

**Avian and Bat Use Studies**
Bionomics Environmental conducts both pre- and post-construction assessment surveys to successfully site, plan and monitor wind energy facilities in every stage of a project. This includes estimation of spatial and temporal land use by birds and bats. Bionomics has available AnaBat detectors for field deployment with the appropriate software to both identify and quantify bat populations. We also conduct post-construction use and mortality surveys to quantify the impacts of wind energy facilities to local and migratory wildlife. We reduce bias commonly associated with these studies by conducting scavenger removal and searcher efficiency trials, which facilitate more accurate calculations of mortality estimates for wind facilities. We also work with developers and agencies to develop Bird and Bat Conservation Strategies, and Eagle Conservation Plans.

**Wetlands**
Bionomics Environmental personnel are proficient in identification, delineation, and classification of wetlands within impacted areas. We assess wetland impacts and develop wetland mitigation concepts, in cooperation with local, State, and Federal agencies, to avoid, minimize or compensate for loss of wetlands. We coordinate with the U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (EPA) during our initial processes and throughout the issuance of the Section 404 Permit of the Clean Water Act (CWA).

**Water Quality**
Bionomics Environmental addresses water quality and wetland issues during initial phases and finalizes determinations as part of environmental documentation. We review existing data to determine if water quality impacts are present, additional documentation is required, National Pollutant Discharge Elimination System (NPDES) permits are necessary, and/or State water quality certification permits are necessary. Bionomics Environmental provides stormwater pollution prevention plans, if needed.

**Noise Studies and Abatement**
Bionomics Environmental models and reports noise attributable to proposed activities for both industrial, construction and road design projects. For road design projects, Bionomics uses the Traffic Noise Model (TNM 2.5) approved by the Federal Highway Administration (FHWA). The TNM 2.5 includes barrier analysis and has a range of applications, which include noise effects and remedial activities. We measure ambient noise levels in the field using a Bruel & Kjaer Hand-held Analyzer Type 2270 Sound Level Meter. We have also performed preliminary design work on noise barriers and provided expert witness testimony in the noise field.
**Hazardous Waste and Materials**
Bionomics Environmental conducts site evaluations, which include site history research, data collection, and report compilation to determine hazardous waste concerns, underground or aboveground storage tank issues, and ground water contamination in or near project areas. The EPA and the State Department of Environmental Quality (DEQ) provide us additional regulatory information concerning project sites and vicinities. Bionomics Environmental recommendations are based on project impacts, and we prepare contingency plans as needed. We provide both remedial consulting and waste management services to save clients’ resources in waste management, remediation, and hazardous and non-hazardous waste disposal.

**Public and Agency Involvement**
Public and agency involvement is essential to proposed projects. Bionomics Environmental proficiently manages involvement processes, which include public and agency meetings, public hearings, newsletter distribution, and continued coordination with affected agencies throughout project durations. Bionomics Environmental can plan, coordinate and facilitate the public participation activities in accordance with Federal, State and local agency requirements. Bionomics Environmental can also facilitate internal problem solving sessions and provide agency conflict communication training.

**Environmental Compliance and Due Diligence Audits**
Bionomics Environmental specializes in environmental regulatory compliance studies concerning: cultural resources, natural resources, environmental impacts, environmental programs, noise, pollution, air emissions, hazardous materials, hazardous waste, pesticides, petroleum products, solid waste, storage tanks, toxic substances, wastewater, and water quality.

**Technical Writing**
Bionomics Environmental excels in effective communication between subject matter experts and target audiences. Our technical science writers consider the abilities and needs of the audience while preparing accurate, clear, and concise documents. Bionomics Environmental writers edit and standardize project specific documents, often prepared by multiple writers, following strict accuracy and format requirements. Our skilled writers edit, proofread, verify information, enforce rules of composition and grammar, and organize information and structure deliverables in accordance with proper agency requirements.
Pertinent Contracts

**Project Name: A2 Highway**  
**Description of Work:** For this ongoing project, Bionomics Environmental is preparing an Environmental Evaluation for the reconstruction and paving of seven miles of the A2 Highway in Clark County, Idaho. **Responsibilities Included:** This environmental analysis includes a cultural resource survey and report, a cultural resource Determination of Adverse Effect (to the National Register eligible highway), No Effect for threatened and endangered species, Idaho Species of Concern Memorandum, hazardous materials review, a Waters of the U.S. and Wetland Delineation Report, and Clean Water Act Joint Permit for impacts to waters and wetlands. **Project Completed: Ongoing**

**Alscott Bridge Design**  
**Description of Work:** For this ongoing project, Bionomics Environmental is preparing an Environmental Assessment and supporting environmental documentation for the replacement and reconstruction of two bridges that cross the Snake River along the Idaho and Oregon State borders. **Responsibilities Included:** This environmental analysis includes an Environmental Assessment with supporting environmental documentation, which includes a cultural resource survey and report, a Waters of the U.S. and Wetland Delineation Report, a Clean Water Act Joint Permit, a Biological Assessment for the Snake River physa snail, navigable waters Bridge Permit with the U.S. Coast Guard, hazardous materials assessment, and floodplain encroachment analysis. **Project Completed: Ongoing**

**Project Names: Cassia Gulch, Cassia Wind, Tuana Springs and High Mesa Wind Facilities**  
**Description of Work:** Bionomics Environmental preformed post-construction mortality monitoring (PCMM) and associated statistical analyses to produce fatality estimates for four wind facilities near Hagerman, Idaho. Bionomics Environmental is implementing an incidental find protocol at the facilities, to collect, identify, and store incidental find fatalities in compliance with U.S. Fish and Wildlife Service (USFWS) and Idaho Department of Fish and Game (IDFG) permits. **Responsibilities Included:** This analysis includes post-construction mortality monitoring (PCMM) efforts, which required permitting from and close coordination with the USFWS and the IDFG. This monitoring effort includes two years of standardized carcass searches at randomly selected wind turbines, searcher efficiency trials, and scavenger removal trials. Bionomics Environmental analyzed PCMM data to produce mortality estimates for each of the wind facilities, which will be incorporated with mortality estimates into a final project report. Additional responsibilities include the development of a Bird and Bat Conservation Strategy, including mitigation measures; inspection and treatment of noxious weeds within the facilities; design and implement measures to successfully deter nesting ravens, including deterrent selection, raven nest relocation, and raven nest platform construction, installation, and monitoring. **Project Completed: Ongoing**
Project Names: Mountain Home Wind Facility (Bennett Creek and Hot Springs)

Description of Work: For this ongoing project, Bionomics Environmental developed and is conducting background studies to support an Eagle Conservation Plan and Eagle Take Permit for a 20-turbine wind facility near Mountain Home, Idaho. Bionomics Environmental is implementing an incidental find protocol at the facilities to collect, identify, and store incidental find fatalities in compliance with U.S. Fish and Wildlife Service (USFWS) and Idaho Department of Fish and Game (IDFG) permits. Responsibilities Included: These studies include post-construction mortality monitoring (PCMM), which required permitting from and close coordination with the USFWS and the IDFG. This monitoring effort includes two years of standardized carcass searches at randomly selected wind turbines, searcher efficiency trials, and scavenger removal trials. Bionomics Environmental analyzed PCMM data to produce bird and bat mortality estimates for the wind facility which will be incorporated with mortality estimates into a final project report. Additional responsibilities included the development of a Bird and Bat Conservation Strategy, conducting eagle point counts to estimate eagle collision exposure, incorporation of site-specific eagle use data into a Bayesian statistical model to produce mortality estimates for bald and golden eagles, and conducting avian point counts and bat acoustic surveys to determine bird and bat diversity measurements within the project area. Project Completed: Ongoing

Project Names: Beaver Creek Wind Facility

Description of Work: For this ongoing project, Bionomics Environmental conducted fall and spring avian point counts, sharp-tailed grouse surveys, and raptor nest searching for a 134-turbine wind facility near Rapelje, Montana. Responsibilities Included: These studies include systematic avian point counts for songbirds and raptors, aerial surveys for sharp-tailed grouse leks using a JetRanger Bell helicopter, designing and implementing a lek route protocol for the site, and monitoring sharp-tailed grouse leks within the site. Avian point counts were conducted in the fall and spring at sites distributed across the proposed facility. A final pre-construction survey report will be completed that will include lek search, lek monitoring, avian point count, and raptor nest searching data and analysis. Project Completed: Ongoing

Project Name: South Jerome Interchange

Description of Contract Work: For this ongoing project, Bionomics Environmental completed an Environmental Scan and supporting technical reports for the proposed replacement and redesign of the Interstate 84 South Jerome Interchange (Exit 168) in Jerome County, Idaho. Responsibilities Included: This analysis includes technical discipline reports for the project consisting of a Traffic Noise Analysis, Waters of the U.S. and Wetland Delineation Report, a Section 106 cultural resource survey and report, and hazardous materials assessment. Project Completed: Ongoing

Garden Creek Road

Description of Work: For this ongoing project, Bionomics Environmental is preparing technical studies for the proposed full reconstruction of Garden Creek Road from the crossing of Garden Creek to the Challis City Limits, in Custer County, Idaho. Responsibilities Included: This environmental analysis includes a cultural resource survey and report, a Biological Assessment for Chinook salmon and steelhead, an Idaho Species of Concern Memorandum, a Waters of the U.S. and Wetland Delineation and Assessment, and the development of a conceptual and final wetland mitigation plan. Project Completed: Ongoing
I84, Declo POE EB, Cassia County and I84, Declo POE WB, Cassia County

**Description of Work:** For this ongoing project, Bionomics Environmental is preparing an Environmental Evaluation for the proposed demolition and relocation of the Cotterel Port of Entry in Cassia County, Idaho. **Responsibilities Included:** This environmental analysis includes a cultural resource survey and report, sole source aquifer consultation with the Environmental Protection Agency, prime farmland conversion documentation and coordination with the Natural Resources Conservation Service, and hazardous materials assessment. **Project Completed:** Ongoing

**Project Name:** Old Highway 30

**Description of Work:** For this ongoing project, Bionomics Environmental is preparing an Environmental Assessment for the replacement of the Old Highway 30/West Plymouth Street Bridge in Caldwell, Idaho. **Responsibilities Included:** This environmental analysis includes: a cultural resource investigation, Waters of the U.S. and Wetland Delineation, Section 4(f) Evaluation, traffic noise analysis, socioeconomic analysis, No Effects Statement for threatened and endangered species and an Idaho Species of Concern Memorandum, hazardous materials assessment, and water quality assessment. **Project Completed:** Ongoing

**Project Names:** Mountain Home Wind Facility (Bennett Creek and Hot Springs)

**Description of Work:** For this ongoing project, Bionomics Environmental developed and is conducting background studies to produce an Eagle Conservation Plan and to support and Eagle Take Permit for a 20-turbine wind facility near Mountain Home, Idaho. **Responsibilities Included:** These studies included post-construction mortality monitoring (PCMM), which required permitting from and close coordination with the U.S. Fish and Wildlife Service (USFWS) and the Idaho Department of Fish and Game (IDFG). This monitoring effort included two years of standardized carcass searches at randomly selected wind turbines, searcher efficiency trials, and scavenger removal trials. We will analyze PCMM data to produce bird and bat mortality estimates for the wind facility. We will incorporate mortality estimates into a final project report, and submit the report to the client, USFWS and IDFG. Additional Responsibilities Included: conducting eagle point counts to estimate eagle collision exposure; incorporation site-specific eagle use data into a Bayesian statistical model to produce mortality estimates for bald and golden eagles; conducting avian point counts and bat acoustic surveys to determine bird and bat diversity measurements within the project area. **Project Completed:** Ongoing

**Project Name:** SH-55 Payette River Bridge, Horseshoe Bend

**Description of Work:** For this project, Bionomics Environmental prepared an Environmental Evaluation for the replacement of the SH-55 Payette River Bridge in Boise County, Idaho. **Responsibilities Included:** This environmental analysis includes a cultural resource investigation to identify and formally record the historic bridge, a finding of Adverse Effect, Memorandum of Agreement to document mitigation for impacts to the bridge and a Section 4(f) Evaluation to consider alternatives to the proposed
action. Bionomics Environmental produced a No Effect Statement for threatened and endangered species and an Idaho Species of Concern Memorandum. We also conducted Waters of the U.S. and Wetland Delineation, as well as a Clean Water Act Section 404 Permit for work occurring below the ordinary high water mark. **Project Completed: 2018**

**Project Names: Arco Wind Facility**
**Description of Work:** Bionomics Environmental developed and conducted pre-construction studies on greater sage grouse to aid in citing and risk analysis for a wind energy facility near Idaho Falls, Idaho. **Responsibilities Included:** This project included designing and implementing aerial surveys for greater sage-grouse leks using a LongRanger Bell helicopter, followed by on the ground lek surveys, with coordination with the Idaho Department of Fish and Game. Data from the surveys was compiled, and a report was prepared on the status of monitored leks within the project as compared with nearby leks outside the project. **Project Completed: 2018**

**Project Name: SH-75, Four Mile Bridge over Big Wood River, Blaine County, Idaho**
**Description of Contract Work:** Bionomics Environmental completed a wetland delineation and wetland assessment and a cultural resource survey and report for the proposed bridge replacement project of the Four Mile Bridge over the Big Wood River in Blaine County. **Responsibilities Included:** The environmental analysis included a cultural resource investigation to identify and formally record the historic bridge, a U.S. Department of Agriculture – Forest Service Cultural Resource Use Permit, a finding of Adverse Effect to the historic bridge, and a bridge mitigation document for impacts to the bridge. Bionomics also conducted a Waters of the U.S. and Wetland Delineation Report, and wetland assessment. **Project Completed: 2018**

**Project Name: Little Rainbow Bridge**
**Description of Work:** For this project, Bionomics Environmental is prepared an Environmental Evaluation for the replacement of the Little Rainbow Bridge in Adams and Idaho Counties, Idaho. **Responsibilities Included:** This project required a cultural resource investigation to identify and formally record the historic bridge, a finding of Adverse Effect, Memorandum of Agreement to document mitigation for impacts to the bridge, and a Section 4(f) Evaluation to consider alternatives to the proposed action. Bionomics conducted a Waters of the U.S. and Wetland Delineation, as well as a Clean Water Act Section 404 Permit for work occurring below the ordinary high water mark. Bionomics also prepared a BA for impacts to threatened and endangered species, which required consultation and coordination with National Oceanic and Atmospheric Administration Fisheries and U.S. Fish and Wildlife Service due to the “May Affect, Likely to Adversely Affect” determination for: impacts to bull trout, designated critical habitat and essential fish habitat; spring/summer Chinook salmon and designated critical habitat; as well as steelhead and designated critical habitat. This project also required a hazardous material assessment including addressing removal of the existing bridge guardrail due to the potential presences of lead based paint. **Project Completed: 2017**
**Project Name:** SH-75 Galena Summit Slide, Blaine County  
**Description of Contract Work:** Bionomics Environmental performed a cultural resource inventory and survey for the proposed correction of a historical earthen slide affecting State Highway 75, (as well as portions of the Sawtooth Park Highway/Old Highway 93) outside of Stanley, Idaho. **Responsibilities included:** This analysis included the production of a cultural resource report in accordance with Section 106 of the National Historic Preservation Act of 1966, which required SHPO research, intensive pedestrian survey, and agency coordination. In total, 14 cultural resources were recorded, which consisted of historic linear resources and historic and pre-contact archaeological sites. Additionally, this project required Bionomics Environmental cultural resource staff to obtain a U.S. Department of Agriculture – Forest Service Cultural Resource Use Permit. **Project Completed: 2017**

**Project Name:** FY16 D6 Asset Management Planning  
**Description of Work:** Bionomics Environmental performed a cultural resource inventory and survey for the proposed replacement of 24 bridges in Bannock, Clark, Gooding, and Lemhi Counties. **Responsibilities included:** This analysis included the production of 17 cultural resource reports in accordance with Section 106 of the National Historic Preservation Act of 1966, which required SHPO research, intensive pedestrian survey, archaeological shovel tests, and agency coordination. In total 31 cultural resources were recorded (19 historic bridges and 12 linear resources) and 29 shovel tests were completed. Additionally, this project required Bionomics Environmental cultural resource staff to obtain a U.S. Department of Agriculture – Forest Service Cultural Resource Use Permit and a Bureau of Land Management Cultural Resource Use Permit. **Project Completed: 2017**

**Project Name:** Snake River Bridge, Marsing Idaho  
**Description of Work:** For this project, Bionomics Environmental produced a Biological Assessment for aquatic Snake River physa snails, and assisted Idaho Transportation Department (ITD) Headquarters cultural resource staff with portions of the Section 106 of the National Historic Preservation Act of 1966 cultural resource report, and conducted a Programmatic Section 4(f) Evaluation for the adverse effect due to the removal of the National Register of Historic Places (NRHP)-eligible Marsing Bridge in Canyon and Owyhee Counties, Idaho. **Responsibilities Included:** Environmental analysis includes a cultural resource investigation and a Programmatic Section 4(f) Evaluation, as well as presence/absence surveys and Biological Assessment for aquatic Snake River physa, an endangered snail species. This project requires close coordination with U.S. Fish and Wildlife Service biologists and ITD bridge engineers to avoid/minimize and quantify impacts to snails. **Project Completed: 2017**

**Project Name:** Cascade Airport Master Plan  
**Description of Work:** Bionomics Environmental assisted the Cascade Airport in an update to their master plan for the airport located in Valley County, Idaho. **Responsibilities Included:** The update to the master plan included a Waters of the U.S. and Wetland Delineation and cultural resources survey and report in accordance with Section 106 of the National Historic Preservation Act of 1966. **Project Completed: 2017**
Project Name: Clear Creek Bridge
Description of Work: For this project, Bionomics conducted Wetland Delineation and assessment for potential impacted wetlands, as well as a cultural resources investigation for a proposed bridge replacement project at Clear Creek, outside Kooskia, Idaho, and within the Nez Perce Reservation.
Responsibilities Included: This project required a Waters of the U.S. and Wetland Delineation, as well as a Clean Water Act Section 404 Permit for work occurring below the ordinary high water mark. Additional responsibilities included production of a cultural resource report in accordance with Section 106 of the National Historic Preservation Act of 1966, which required all SHPO/THPO research, fieldwork, subsurface shovel testing, and agency coordination. Additionally, this project required Bionomics cultural resource staff to obtain a U.S. Fish and Wildlife Service Cultural Resource Permit. Project Completed: 2017

Project Name: Little Salmon River Bridge
Description of Work: Bionomics Environmental prepared an Environmental Evaluation for the replacement of the Little Salmon River Bridge in Adams and Idaho Counties, Idaho. Responsibilities Included: The environmental analysis included: a cultural resource investigation to identify and formally record the historic bridge, a finding of Adverse Effect, Memorandum of Agreement to document mitigation for impacts to the bridge and a Section 4(f) Evaluation to consider alternatives to the proposed action. Bionomics conducted Waters of the U.S. and Wetland Delineation, as well as a Clean Water Act Section 404 Permit for work occurring below the ordinary high water mark. Bionomics also prepared a BA for impacts to threatened and endangered species, which required consultation and coordination with National Oceanic and Atmospheric Administration Fisheries and U.S. Fish and Wildlife Service due to the “May Affect, Likely to Adversely Affect” determination for: impacts to bull trout, designated critical habitat and essential fish habitat; spring/summer Chinook salmon and designated critical habitat; as well as steelhead and designated critical habitat. This project also required a hazardous material assessment including addressing removal of the existing bridge guardrail due to the potential presences of lead based paint. Project Completed: 2016

Project Name: Tumble Creek to Lochsa Ranger Station
Description of Work: Bionomics Environmental performed a cultural resource inventory and survey along U.S. Highway 12, between milepost 113.800 to 121.419. This project consisted of a shoulder notch and an overlay of the existing asphalt pavement.
Responsibilities Included: This project required the completion of a cultural resource investigation to identify and formally record historic resources and complete cultural resource report in accordance with Section 106 of the National Historic Preservation Act of 1966. Completed: 2016

Project Name: SH-55 North Fork Payette
Description of Work: Bionomics Environmental prepared an Environmental Evaluation and associated technical studies for the SH-55 North Fork Payette River bridge replacement project in McCall, Idaho.
Responsibilities Included: This environmental analysis included a No Effect Statement for threatened and endangered species and an Idaho Species of Concern Memorandum. In addition, we conducted a cultural resource investigation which identified and formally recorded three historic architectural sites and one
The cultural resource investigation resulted in a finding of Adverse Effect to the historic bridge. We prepared a Determination of Adverse Effect, Section 4(f) of the U.S. Department of Transportation Act of 1966 Evaluation, and Memorandum of Agreement as a result of impacts associated to the historic bridge. We maintained close coordination with Idaho Transportation Department (ITD) District 3 and ITD Headquarters cultural resource staff throughout each step of these processes to insure timely and accurate documentation and findings.

**Project Completed: 2016**

**Project Name: Grandview Bridge, Grandview, Idaho**

**Description of Work:** Bionomics Environmental produced a Biological Assessment regarding impacts of a bridge replacement project to the endangered Snake River physa snail in Elmore County, Idaho. **Responsibilities Included:** This BA required close coordination with project engineers and U.S. Fish and Wildlife Service biologists to develop a project description, and develop effort minimization efforts and best management practices to minimize, quantify, and analyze impacts to threatened and endangered species. This involved formal consultation with USFWS biologists. **Project Completed: 2016**

**Project Name: Walters Ferry Bridge, Canyon and Owyhee Counties, Idaho**

**Description of Work:** Bionomics Environmental worked directly with Idaho Transportation Department staff to identify snail habitat and determine snail presence within the project area. **Responsibilities Included:** This project required implementation of presence/absence surveys and habitat surveys for the endangered Snake River physa snail, utilizing a dive team with suction dredge equipment. We also produced a summary report documenting the results of our survey efforts. **Project Completed: 2016**

**Project Name: Middleton Ustick Roundabout**

**Description of Work:** For this project, Bionomics Environmental prepared an Environmental Evaluation for a proposed roundabout at the intersection of Middleton and Ustick Avenue in Caldwell, Idaho. **Responsibilities Included:** This environmental analysis includes: cultural resource survey, No Effect Statement for threatened and endangered species, Idaho Species of Concern Memorandum, hazardous materials review, Waters of the U.S. and Wetland Delineation, and Clean Water Act Section 404 permitting. **Project Completed: 2016**

**Project Name: I-84 I-86 Salt Lake System Interchange**

**Description of Work:** Bionomics Environmental completed a cultural resource survey and produced a final report for proposed I-84/I-86 Interchange improvements in Cassia County, Idaho. **Responsibilities Included:** This project required a Section 106 of the National Historic Preservation Act of 1966 cultural resource study including, cultural resources, architectural and archaeological survey, as well as all SHPO research, an intensive field survey of 2,700 acres, and agency coordination. **Project Completed: 2016**
Project Name: Smith Ferry to Round Valley  
Description of Work: Bionomics Environmental conducted an environmental scan to evaluate potential safety improvements to SH-55 from Smiths Ferry to Round Valley in Valley County, Idaho. Recommended improvements will be advanced in an Environmental Evaluation. Responsibilities Included: Environmental analysis including a cultural resource investigation (which necessitated obtaining a Bureau of Land Management Cultural Resource Permit), Waters of the U.S. and Wetland Delineation, Section 4(f) Evaluation, traffic noise analysis, socioeconomic analysis, biological study, hazardous materials assessment, and water quality assessment. Project Completed: 2016

Project Name: Groveland Road  

Project Name: US 20/26 Corridor Preservation Project  
Description of Work: Bionomics Environmental performed cultural resource assessments of a 15 mile portion of the US 20/26 corridor for the Idaho Transportation Department, Community Planning Association of Southwest Idaho, and the Federal Highway Administration in Ada and Canyon Counties, Idaho. Responsibilities Included: This project involved conducting a Section 106 of the National Historic Preservation Act of 1966 cultural resources, architectural and archaeological study. Project effects included adverse effects to two eligible resources. Project Completed: 2016

Project Name: SH-44 Corridor Preservation Study  
Description of Work: Bionomics Environmental performed noise and cultural resource assessments of the SH-44 Corridor Preservation Study for the Idaho Transportation Department, Community Planning Association of Southwest Idaho, and the Federal Highway Administration in Ada and Canyon Counties, Idaho. Responsibilities Included: This project required an extensive noise analysis, as well as a Section 106 of the National Historic Preservation Act of 1966 cultural resources, architectural and archaeological study. Project Completed: 2016

Project Name: Shepherds Flat Wind Park  
Description of Work: Bionomics Environmental performed a Section 106 of the National Historic Preservation Act of 1966 cultural resource survey, as well as post-construction avian and bat mortality monitoring for the 338-turbine Shepherds Flat Wind Facility near Arlington, Oregon. Responsibilities Included: These analyses involved cultural resource assessments in accordance with the Oregon State Historic Preservation Office, Oregon Department of Energy, and the Shepherds Flat Site Certificate. Post-
construction mortality monitoring (PCMM) efforts required permitting from and close coordination with the U.S. Fish and Wildlife Service (USFWS) and the Oregon Department of Fish and Wildlife (ODFW). This monitoring effort included two years of standardized carcass searches at randomly selected wind turbines, searcher efficiency trials, and scavenger removal trials. We analyzed PCMM data to produce mortality estimates for each phase of the wind facility. We incorporated mortality estimates into a final project report, and submitted the report to the client, USFWS and ODFW. **Project Completed: 2015**

**Project Names: Cassia Gulch, Cassia Wind, Tuana Springs and High Mesa Wind Facilities**

**Description of Work:** Bionomics Environmental preformed post-construction mortality monitoring (PCMM) and associated statistical analyses to produce fatality estimates for four wind facilities near Hagerman, Idaho. **Responsibilities Included:** Post-construction mortality monitoring (PCMM) efforts required permitting from and closed coordination with the U.S. Fish and Wildlife Service (USFWS) and the Idaho Department of Fish and Game (IDFG). This monitoring effort included two years of standardized carcass searches at randomly selected wind turbines, searcher efficiency trials, and scavenger removal trials. We analyzed PCMM data to produce mortality estimates for each of the wind facilities. We incorporated mortality estimates into a final project report, and submitted the report to the client, USFWS and IDFG. Additional Responsibilities Included: development of a Bird and Bat Conservation Strategy, including mitigation measures; inspection and treatment of noxious weeds within the facilities; design and implement measures to successfully deter nesting ravens, including deterrent selection, raven nest relocation, and raven nest platform construction, installation, and monitoring. **Project Completed: 2015**

**Project Name: Bear River Bridge**

**Description of Work:** Bionomics Environmental conducted cultural resource investigations for a proposed bridge replacement project over the Bear River in Franklin County, Idaho. **Responsibilities Included:** This project involved a Section 106 of the National Historic Preservation Act of 1966 study including, cultural resources, architectural and archaeological survey, as well as all SHPO research, fieldwork, recordation of an NRHP-eligible bridge, subsurface shovel testing, and agency coordination. **Project Completed: 2015**

**Project Name: Idaho 55 Central Environmental Scan**

**Description of Work:** Bionomics Environmental performed an environmental scan in development of a Corridor Management Plan (CMP) for Idaho SH-55 in Ada and Boise Counties, Idaho. As part of a required component of the CMP, we completed an environmental scan of the Idaho 55 Central Corridor to identify existing environmental condition, potential fatal flaws and environmental permits that may be required during future design. **Responsibilities Included:** The environmental scan included windshield survey of the project corridor, as well as review of existing data sources from local, State, and Federal regulatory agencies. The environmental scan included a review of the natural and built environment along the project corridor. **Project Completed: 2015**
Project Name: Deep Creek to Hollister  
Description of Work: Bionomics Environmental completed a cultural resource study and produced a final report for a road rehabilitation project along a nine mile stretch of Highway 93, near Hollister, Idaho.  
Responsibilities Included: This project required a Section 106 of the National Historic Preservation Act of 1966 study including, cultural resources, architectural and archaeological survey, as well as all SHPO research, intensive field survey of 460 acres, and agency coordination. Additionally, this project required Bionomics cultural resource staff to obtain a Bureau of Land Management Cultural Resource Permit. Project Completed: 2015

Project Name: Big Wood River Bridge Elkhorn  
Description of Work: Bionomics Environmental conducted a Wetland Delineation and assessment for potential impacted wetlands for a proposed bridge replacement project along the Big Wood River south of Ketchum, Idaho.  
Responsibilities Included: This project required field survey and Wetland Delineation in accordance with the USACE Wetland Delineation Manual and Western Mountains, Valleys, and Coast Region supplement to the manual. In addition, we assessed the delineated wetlands for functions and values using the Montana Wetland Assessment Method. Project Completed: 2015

Project Name: Solar Thermal Projects SEGS I&II  
Description of Work: Bionomics Environmental was part of an acquisition team for the purchase of a solar thermal project in the Southwest U.S.  
Responsibilities Included: This project required environmental due diligence and coordination of cleanup strategies for the site, as well as assessment of environmental risks and risk management after acquisition. Project Completed: 2015

Project Name: U.S. 95 North Environmental Scan  
Description of Work: Bionomics Environmental performed an environmental scan in development of a Corridor Management Plan (CMP) for U.S. 95 in Washington and Adams Counties, Idaho.  
Responsibilities Included: The environmental scan included windshield survey of the project corridor, as well as review of existing data sources from local, State, and Federal regulatory agencies. The environmental scan included a review of the natural and built environment along the project corridor and identified existing environmental condition, potential fatal flaws and environmental permits that may be required during future design. Project Completed: 2015

Project Name: W. Main St; 12th W. St. to Bridge St., St. Anthony  
Description of Work: Bionomics Environmental prepared a fully documented Environmental Evaluation of a 12 block road reconstruction project in St. Anthony, Idaho.  
Responsibilities Included: This project required environmental analyses which included: assessing impacts to water quality, wildlife and fisheries habitat, and prime farmland; hazardous waste and materials assessments; and archaeological and cultural surveys. Project Completed: 2015
Project Name: Prairie Avenue, Meyer to Huetter
Description of Work: Bionomics Environmental prepared an Environmental Evaluation for a road widening project in Post Falls, Idaho. Project actions included installation of traffic signals at the Meyer and Huetter intersections. Responsibilities Included: This project required technical studies including: assessing potential impacts to threatened and endangered species and an Idaho Species of Concern Memorandum; a Section 106 of the National Historic Preservation Act of 1966 cultural resources study; Wetlands and Waters of the U.S. Delineation and Wetland Inventory; noise analysis; and hazardous materials review. Project Completed: 2014

Project Name: I-84, Karcher Interchange to Five Mile Environmental Study
Description of Work: Bionomics Environmental performed an Environmental Assessment (EA) of the I-84, Karcher Interchange to Five Mile Environmental Study for the Idaho Transportation Department and Connecting Idaho Partners in southwest Idaho. Responsibilities Included: This project required extensive NEPA and SAFETEA-LU 6002 compliance including: project management; development of interagency team, including consultation; Wetlands and Waters of the U.S. Delineation, report production, planning and mitigation; hydrology and floodplains assessment and encroachment coordination; socioeconomics and community impact assessment; land use and prime farmlands investigation and agency coordination; Section 106 of the National Historic Preservation Act of 1966 cultural resources, architectural and archaeological study; Section 4(f) of the U.S. Department of Transportation Act of 1966 evaluation; Biological Assessment and threatened and endangered species analysis; hazardous materials and waste assessment; noise analysis; secondary/indirect and cumulative impacts analysis. We completed all discipline reports and the EA resulted in a “Finding of No Significant Impact”. Project Completed: 2014

Project Name: Webb Road
Description of Work: Bionomics Environmental prepared a fully documented Environmental Evaluation of a six mile road widening project near Lewiston, Idaho, which included reconstruction of two intersections. Responsibilities Included: This project required environmental analyses which included: assessing impacts to water quality, wildlife and fisheries habitat, and prime farmland; hazardous waste and materials assessments; and archaeological and cultural surveys. This project also required close coordination with the Nez Perce Tribe. Project Completed: 2014

Project Name: US-93, 400 South Road
Description of Work: Bionomics Environmental prepared technical reports for the road widening of US-93 in Jerome County, Idaho from the I-84 junction to East 100 South Road. Responsibilities Included: These environmental studies included Wetlands and Waters of the U.S. Delineation, and function and values assessment, as well as a noise analysis, field testing, computer modeling using TNM 2.0 traffic model and report preparation. We also completed a Section 106 of the National Historic Preservation Act of 1966 archaeological and cultural
resource survey, a Section 4(f) of the U.S. Department of Transportation Act of 1966 de minimis evaluation, and produced a final report for the project. **Project Completed: 2014**

**Project Name: Thornton Interchange, Rigby Idaho**  
**Description of Work:** Bionomics Environmental performed a noise study for the proposed interchange at Thornton, Idaho in support of an environmental analysis. **Responsibilities Included:** This analysis required field data collection of noise levels, computer modeling with TNM 2.5, mitigation analysis, and production of a final report. **Project Completed: 2014**

**Project Name: US-95, Thorn Creek to Moscow**  
**Description of Work:** Bionomics Environmental performed a noise study for the Idaho Transportation Department in Moscow, Idaho, in support of an Environmental Impact Statement. **Responsibilities Included:** This analysis required field tests to determine potential noise impacts; computer modeling with TNM 2.5; report compilation and a mitigation analysis. Bionomics staff also attended a public hearing as a noise expert, and responded to comments on the Environmental Impact Statement. **Project Completed: 2014**

**Project Name: SH-45 JCT SH-78 to Nampa, Corridor Plan**  
**Description of Work:** Bionomics Environmental performed an environmental scan in development of a Corridor Management Plan (CMP) for SH-45 in Canyon and Owyhee Counties, Idaho. As part of a required component of the CMP, Bionomics Environmental completed an environmental scan of the SH-45 Corridor to identify existing environmental condition, potential fatal flaws and environmental permits that may be required during future design. **Responsibilities Included:** The environmental scan included windshield survey of the project corridor, a review of existing data sources from local, State, and Federal regulatory agencies, as well as a review of the natural and built environment along the project corridor. **Project Completed: 2013**

**Project Name: Pancheri Bridge Over East Lateral Canal**  
**Description of Work:** Bionomics Environmental prepared a fully documented Environmental Evaluation of a proposed bridge replacement project over the East Lateral Canal in Idaho Falls, Idaho. **Responsibilities Included:** This project required environmental analyses which included: assessing impacts to water quality, wildlife and fisheries habitat, and prime farmland; hazardous waste and materials assessments; and archaeological and cultural surveys. **Project Completed: 2013**

**Project Name: Bob Barton Road, 1950 E to 2200 E, Wendell**  
**Description of Work:** Bionomics Environmental prepared a fully documented Environmental Evaluation of a two and a half mile road widening project near Wendell, Idaho. **Responsibilities Included:** This project required environmental analyses which included: assessing impacts to water quality, wildlife and fisheries habitat, and prime farmland; hazardous waste and materials assessments; and archaeological and cultural surveys. **Project Completed: 2013**
Project Name: North Government Way, Hanley Ave. to Prairie Ave., Kootenai County, Idaho  
Description of Work: Bionomics Environmental conducted an Environmental Evaluation and associated technical studies for the widening of North Government Way from Hanley Avenue to Prairie Avenue in Kootenai County, Idaho. Responsibilities Included: This project required a traffic noise analysis, threatened and endangered species analysis, Idaho Species of Concern Memorandum, cultural resource survey and report preparation, as well as a hazardous materials review. Project Completed: 2013

Project Name: Grangemont Road MP4 Slide Mitigation  
Description of Work: Bionomics Environmental prepared technical reports for repairs to unstable slopes on Grangemont Road between MP 4.6 and 4.9 in Clearwater County, Idaho. The project proposed to stabilize a landslide area to prevent future failure of the road due to ongoing activity at the site. Responsibilities Included: This environmental analysis involved preparing technical studies including a complete Section 106 of the National Historic Preservation Act of 1966 cultural resource investigation and report; biological evaluation including No Effect Statement and an Idaho Species of Concern Memorandum; as well as a Waters of the U.S. and Wetland Delineation, impacts analysis and preparation of wetland mitigation plan. Project Completed: 2013

Project Name: Declo and Declo Bridge  
Description of Work: Bionomics Environmental preformed environmental studies for the replacement of the eastbound and westbound Snake River bridges on I-84 in Minidoka and Cassia Counties, Idaho. Responsibilities Included: These environmental analyses included a noise analysis; a full Biological Assessment that analyzed, quantified, and minimized project impacts to wildlife and fisheries habitat; and a Section 106 of the National Historic Preservation Act of 1966 cultural resource investigation and report. Project Completed: 2012

Project Name: State St ITS, SH 16 to 16th Street, Boise  
Description of Work: Bionomics Environmental prepared an Environmental Evaluation for various Intelligent Transportation System (ITS) components, including conduit with fiber optic cable, ITS cabinets, speed detection systems and CCTV cameras for a project on State Street between 16th Street and State Highway 16 (SH 16) in Boise, Idaho. Responsibilities Included: This project required technical studies including Wetland Inventory, a hazardous materials review, as well as assessing impacts to threatened and endangered species. Project Completed: 2012

Project Name: 5000 South US 20 to Archer Lyman Highway  
Description of Work: Bionomics Environmental performed a noise study and cultural resource investigation for a project involving construction of a new connecting roadway between the future US 20 Thornton Interchange and the Archer Lyman Highway in Madison County, Idaho. Responsibilities Included: These analyses included a noise analysis including fieldwork and computer modeling using TNM 2.0 traffic model, as well as a Section 106 of the National Historic Preservation Act of 1966 cultural resources, architectural and archaeological study, which included all SHPO research, fieldwork and agency coordination. Project Completed: 2012
Project Name: Dent Road and Dent Road Bridge
Description of Work: Bionomics Environmental completed an Environmental Evaluation, environmental re-evaluation and technical studies for the reconstruction of a roadway due to a landslide in Clearwater County, Idaho. Responsibilities Included: These environmental analyses included impacts on wetlands, water quality, wildlife and fisheries habitat, prime farmland, a complete Section 106 of the National Historic Preservation Act of 1966 cultural resource investigation and report, as well as hazardous waste and materials assessments. Project Completed: 2012

Project Name: Amity Avenue, Chestnut to Robinson Road, Nampa
Description of Work: Bionomics Environmental prepared an Environmental Evaluation for a project involving widening of a two lane section of Amity Road between Chestnut Street and Kings Road/Southside Blvd to four lanes with the addition of a signalized intersection in Nampa, Idaho. Responsibilities Included: This Environmental Assessment included: right-of-way acquisition; archaeological and historical survey in accordance with Section 106 of the National Historic Preservation Act of 1966, and a Section 4(f) of the U.S. Department of Transportation Act of 1966 de minimis evaluation on an eligible home; survey for threatened and endangered species in accordance with Section 7 of the Endangered Species Act; noise analysis; hazardous materials assessment; Wetlands and Waters of the U.S. Delineation, as well as Clean Water Act Section 404 Permit application and mitigation. Project Completed: 2011

Project Names: Bell Rapids, Golden Triangle, Notch Butte and Lave Bed Wind Facilities
Description of Work: Bionomics Environmental prepared an Environmental Assessment, including pre-construction environmental surveys and studies for the development of 13 wind parks in southern Idaho. Responsibilities Included: These assessments included, conducting Wetlands and Waters of the U.S. Delineation and reporting; Phase I Site Assessments; socioeconomics and community impact assessment; land-use and prime farmlands investigation; Section 106 of the National Historic Preservation Act of 1966 cultural resources, architectural and archaeological study; Biological Assessment and threatened and endangered species analysis; noise analysis; and secondary/indirect and cumulative impacts analysis. We also performed pre-construction avian and bat acoustic surveys to determine the spatial and temporal use and potential impacts to resident and migratory wildlife at the proposed wind facilities. These studies required close coordination with the U.S. Fish and Wildlife Service and the Idaho Fish & Game Department. Project Completed: 2011

Project Name: Rogerson, Idaho Alternative Energy Project
Description of Work: Bionomics Environmental performed environmental studies for an alternative energy development project in Rogerson, Idaho. Responsibilities Included: These preliminary environmental studies included assessments of impacts to water quality, wildlife and fisheries habitat, hazardous waste and materials, as well as archaeological and cultural surveys. Project Completed: 2011
Project Name: Red Bridge, White Bird Highway District
Description of Work: Bionomics Environmental performed an Environmental Evaluation for replacement of the Red Bridge in Idaho County, Idaho. Responsibilities Included: This project required Wetlands and Waters of the U.S. Delineation, Wetland Assessment, Wetland Impact Analysis, conceptual wetland mitigation, and a Clean Water Act Section 404 Permit. We completed a Biological Assessment for potential impacts to bull trout, spring/summer Chinook salmon, fall Chinook salmon, steelhead and sockeye salmon. Our cultural resource also completed a Section 106 of the National Historic Preservation Act of 1966 cultural resources study and a Section 4(f) of the U.S. Department of Transportation Act of 1966 evaluation for the historic bridge. Project Completed: 2010

Project Name: St. Maries Municipal Airport Taxiway Extension
Description of Work: Bionomics Environmental performed technical studies and project coordination for preparation of an Environmental Evaluation for construction of a new parallel taxiway at the St. Maries Airport in St. Maries, Idaho. Responsibilities Included: Technical studies required for this project included: Wetlands and Waters of the U.S. Delineation and report; Biological Assessment and threatened and endangered species analysis; hazardous materials and waste assessment; socioeconomics and community impact assessment; water quality assessment; Section 106 of the National Historic Preservation Act of 1966 cultural resources, architectural and archaeological study; construction impact assessment; and secondary and cumulative impact analysis. We assisted FAA in coordination and consultation with Coeur d’Alene Tribe on potential project implementation and effects. Our cultural resource staff conducted subsurface shovel tests to examine potential for prehistoric artifacts along proposed taxiway location. Our technical studies and analyses resulted in a finding of Categorical Exclusion. Project Completed: 2010

Project Name: Boundary County Airport
Description of Work: Bionomics Environmental performed technical studies and project coordination for preparation of an Environmental Assessment for the purchase of approximately 50 acres of land within the Runway Protection Zones and the Approach and Transitional zones for Runway 2/20 in Bonner’s Ferry, Idaho. Responsibilities Included: Preparation of the Environmental Assessment included Wetlands and Waters of the U.S. Delineation and report; Biological Evaluation and threatened and endangered species analysis; hazardous materials and waste assessment; socioeconomics and community impact assessment; water quality assessment; Section 106 of the National Historic Preservation Act of 1966 cultural resources study, including architectural and archaeological survey; prime farmland conversion assessment; construction impact assessment; and secondary and cumulative impact analysis. Project Completed: 2010

Project Name: Ten Mile Interchange
Description of Work: Bionomics Environmental performed technical studies and project coordination for a new interchange on I-84 at Ten Mile Road in Meridian, Idaho. Responsibilities Included: Technical studies included Wetlands and Waters of the U.S. Delineation, report, planning and mitigation; hydrology and floodplains assessment and encroachment coordination; socioeconomics and community impact assessment; land use and prime farmlands investigation and agency
coordination; Section 106 of the National Historic Preservation Act of 1966 cultural resources, architectural and archaeological study; Section 4(f) of the U.S. Department of Transportation Act of 1966 evaluation; Biological Assessment and threatened and endangered species analysis (Woodhouse's Toad); hazardous materials and waste assessment; noise analysis; secondary/indirect and cumulative impacts analysis. Our analysis resulted in a “Finding of No Significant Impact” for the Environmental Assessment.

Project Completed: 2010

**Project Name: Council Cuprum Road**

**Description of Work:** Bionomics Environmental performed environmental studies for the installation of a fiber optic line and copper telephone lines at four separate road segments near Council, Idaho. **Responsibilities Included:** This project required wildlife studies, including preparation of a Biological Assessment; Wetlands and Waters of the U.S. Delineation and report; and a Clean Water Act Section 404 permit application. **Project Completed: 2010**

**Project Name: Intersection Star and Franklin Roads**

**Description of Work:** Bionomics Environmental completed an Environmental Evaluation for the construction of a roundabout in Nampa, Idaho. **Responsibilities Included:** Environmental analyses for this project included assessing impacts on wetlands, water quality, wildlife and fisheries habitat, and prime farmland. We also conducted hazardous waste and materials assessments, as well as archaeological and cultural surveys. **Project Completed: 2009**

**Project Name: Council to Mesa Route, Adams County**

**Description of Work:** Bionomics Environmental performed environmental studies for the installation of a fiber optic line along corridors in Adams County, Idaho. **Responsibilities Included:** This project required preparation of a Biological Assessment on the northern Idaho ground squirrel, Canada lynx and bull trout, as well as bull trout critical habitat for the Cuprum to Landore portion. The analysis, which required consultation and coordination with National Oceanic and Atmospheric Administration Fisheries and U.S. Fish and Wildlife Service, resulted in a “May Affect, Not Likely to Adversely Affect” determination with appropriate minimization and mitigation measures for all three species and a “No Adverse Modification” determination for bull trout critical habitat. We also conducted Wetlands and Waters of the U.S. Delineation and produced reports for all segments. **Project Completed: 2009**

**Project Name: I-90 Access Improvements**

**Description of Work:** Bionomics Environmental provided environmental services for an Idaho Transportation Department project located in Post Falls, Idaho. **Responsibilities Included:** This project required Section 106 of the National Historic Preservation Act of 1966 cultural resource and archaeological study; hazardous waste assessment; noise analysis; and alternative alignment studies. **Project Completed: 2007**
**Project Name: I-84, Orchard to Gowen**

**Description of Work:** Bionomics Environmental performed a cultural resource and noise analysis for the I-84, Orchard to Gowen Project, with the Idaho Transportation Department, in Boise, Idaho. **Responsibilities Included:** This project required a Section 106 of the National Historic Preservation Act of 1966 cultural resource study, including fieldwork, report production, and agency coordination for inclusion into final environmental documentation. The noise study included multiple noise barrier analyses and resulted in the design and construction of barriers along I-84. **Project Completed: 2007**

![Image](image1.jpg)

**Project Name: North Fork Payette River Bridge, Milepost (MP) 114, Cascade, Idaho**

**Description of Work:** Bionomics Environmental prepared a fully documented Environmental Evaluation of a bridge replacement over the North Fork of the Payette River, on SH-55 near Cascade, Idaho. **Responsibilities Included:** Environmental analyses for this project included assessing impacts on water quality, wildlife and fisheries habitat, prime farmland, as well as hazardous waste and materials assessments, and archaeological and cultural surveys. The project also required compliance with Section 4(f) of the Department of Transportation Act of 1966, and issuance of a National Pollutant Discharge Elimination System (NPDES) permit. **Project Completed: 2007**

![Image](image2.jpg)

**Project Name: Ontario Municipal Airport Runway Extension, Ontario, Oregon**

**Description of Work:** Bionomics Environmental performed technical studies and project coordination for preparation of an Environmental Evaluation for the construction of a 690 foot runway extension at the Ontario Municipal Airport in Ontario, Oregon. In addition to the runway extension, the project proposed installation of underground storm drains, additional required lighting, relocation of the runway end identifier lights, installation of precision approach path indicator and installation of fencing and required markings. **Responsibilities Included:** Technical studies for this project included: Wetlands and Waters of the U.S. Delineation and report; Biological Assessment and threatened and endangered species analysis; hazardous materials and waste assessment; socioeconomics and community impact assessment; water quality assessment; Section 106 of the National Historic Preservation Act of 1966 cultural resources, architectural and archaeological study; prime farmland conversion assessment; construction impact assessment; and secondary and cumulative impact analysis. Our technical studies and analyses resulted in a finding of Categorical Exclusion. **Project Completed: 2007**

![Image](image3.jpg)

**Project Name: Colorado Springs Airport Instrument Landing System, Colorado Springs Colorado**

**Description of Work:** Bionomics Environmental performed an Environmental Assessment (EA) for installation and operation of an Instrument Landing System and associated equipment at the Colorado Springs Airport in Colorado Springs, Colorado. **Responsibilities Included:** Resources evaluated for this project included: air quality; compatible land use; Biological Assessment and threatened and endangered species analysis; hazardous materials and waste assessment; socioeconomics and community impact assessment; prime farmland conversion assessment; water quality assessment; construction impact assessment; and secondary and cumulative impact analysis. The EA resulted in a “Finding of No Significant Impact”. **Project Completed: 2006**

![Image](image4.jpg)
Project Name: Caldwell Industrial Airport East Side Development  
Description of Work: Bionomics Environmental completed Environmental Assessment for expansion of the Caldwell Industrial Airport in Caldwell, Idaho. Responsibilities Included: Public involvement; agency coordination; Section 106 of the National Historic Preservation Act of 1966 cultural resource investigation and report; Wetlands and Waters of the U.S. Delineation and report; and biological study. Project Completed: 2006

Project Name: Three Cities River Crossing  
Description of Work: Bionomics Environmental contributed to an Environmental Impact Statement (EIS) for the Idaho Transportation Department and the Ada County Highway District that address the environmental effects of a new Boise River crossing between Eagle and Boise, Idaho. Responsibilities Included: This EIS involved Wetlands and Waters of the U.S. Delineation and report; Section 106 of the National Historic Preservation Act of 1966 cultural resource and archaeological study; and noise analysis. Additional responsibilities included the preparation of the EIS sections associated with our technical studies and public involvement support. Project Completed: 2006

Project Name: Moose-Gypsum Environmental Impact Statement  
Description of Work: Bionomics Environmental prepared an Environmental Impact Statement (EIS) for the Bridger-Teton National Forest for a forest, range, and recreation management project in the Pinedale Ranger District, Teton and Sublette Counties, Wyoming. The EIS included studies for aspen regeneration plans, timber sales, road construction, road closures and wildlife management. Responsibilities Included: This project involved project management; fieldwork, technical studies and analyses; public involvement; and document production, including the project record. Project Completed: 2006

Project Name: Broadway Laundry Site Investigation  
Description of Work: Bionomics Environmental performed subsurface testing for a perchloroethylene spill in Boise, Idaho to determine extent and direction of plume. Responsibilities Included: This project involved employment of a GeoProbe subsurface test in numerous locations to delineate limits of the chemical plume and determine the direction it was traveling. Our analyses included on-site sample analysis for real time mapping, as well as report analysis and remediation negotiation with the Idaho Department of Environmental Quality. Project Completed: 2004

Project Name: Mountain Home Air Force Base, Stormwater Pollution Prevention Plan (SWPPP) Update, Landfill Study  
Description of Work: Bionomics Environmental performed environmental services for the Mountain Home Air Force Base landfill in Mountain Home, Idaho. Responsibilities Included: This project involved researching the existing SWPPP and performing a geotechnical study for the Mountain Home Air Force Base landfill. Project Completed: 2003
Short Profiles of Key Personnel

Environmental

David Aizpitarte has over 30 years of experience in environmental services and specializes in program management, NEPA consultation, noise consultation, and hazardous waste and material assessment. He is the owner and president of Bionomics Environmental, Inc., a Disadvantaged Business Enterprise (DBE) registered in Idaho, and serves on local and regional government advisory groups in Idaho.

Nicole Parks has been in the working in the environmental and natural resources field since 2002 with emphasis in program and project management. She specializes in field survey, sampling, and report preparation in accordance with state and federal environmental regulations. She has experience and expertise in NEPA compliance regulations and environmental permitting for transportation projects (highways and airports), land development, and infrastructure projects. In addition, she is proficient with Section 4(f) of the U.S. Department of Transportation Act of 1966 documentation, coordination, and evaluation; Waters of the U.S. and Wetland Delineation, mitigation, and Section 404 permitting; traffic noise analysis, modeling, and report preparation; socioeconomic analysis; hazardous materials assessment; and biological survey and report preparation. She has prepared NEPA categorical exclusions and Environmental Evaluations and Assessments. As part of the permitting and assessment process, she performs extensive coordination and consultation with federal, state, and local agencies. Ms. Parks manages the environmental program for Bionomics which includes project management, team development, project and budget tracking, contract negotiations, and human resources. She ensures each project completed is on schedule and within budget.

Ashley Tarter has been employed with Bionomics since 2008. She has experience in project management for environmental investigation and assessment and specializes in field survey, sampling, and report preparation in accordance with NEPA. She is proficient with environmental compliance audits, wetland delineation and mitigation, Section 404 of the Clean Water Act permitting, water quality analysis, traffic noise analysis, GIS mapping, GPS operations, technical writing, and conducting field surveys including research, sampling, photography and documentation. Ms. Tarter performs essential coordination responsibilities with local, state, and federal agencies. Her project experience in public infrastructure includes Federal Highway Administration, Idaho Transportation Department and local highway districts, as well as private enterprise.
**Cultural**

**Jillian Martin** has been conducting cultural resource and architectural history investigations throughout Idaho, Oregon, and Washington since 2004. This experience includes overall administration and management of cultural resource projects, and compilation of cultural resource reports according to Section 106 of the National Historic Preservation Act of 1966. Her experience also includes Section 4(f) evaluations, background and pre-field research with several agencies, prehistoric and historic site excavations, artifact recordation and preservation, GIS mapping, supervision of intensive and reconnaissance pedestrian field surveys, and archaeological construction monitoring in culturally sensitive areas.

**Niki Nickoloff** has been conducting cultural resource and architectural history investigations throughout Idaho and Oregon since 2007. This experience includes intensive and reconnaissance field surveys for cultural resource investigations, prehistoric and historic site excavation, site recordation that includes mapping and photography, and artifact recordation and preservation. Her experience also includes preparation of site forms for historical sites, background/pre-field research with several agencies including the Idaho SHPO and county offices, and preparation of cultural resource reports according to Section 106 of the National Historic Preservation Act of 1966.

Since 2016, **Scott May** has had professional experience conducting cultural resource investigations throughout Idaho and Washington. This experience includes intensive and reconnaissance field surveys for cultural resource investigations, prehistoric and historic site excavation, site recordation that includes mapping, photography, and artifact recordation, curation, and preservation. His experience also includes preparation of site forms for historical sites, background/pre-field research with several agencies including the Idaho SHPO and county offices, and preparation of cultural resource reports according to Section 106 of the National Historic Preservation Act of 1966.

**Biological**

Since 2000, **Steven Alsup** has gained professional experience in natural resource inventory, study design, statistical analysis, and technical writing. He has conducted biological research in the Northwestern, Southwestern, and Southeastern United States. He has experience implementing and conducting surveys for birds, small mammals, amphibians, aquatic invertebrates, as well as exotic/invasive plant species. Mr. Alsup also has over seven years of experience in applications of global positioning systems (GPS), Geographic Information Systems.
GIS), and Remote Sensing for a wide range of natural and cultural resources projects.

**Eve Thomason** has been conducting natural resources inventories, ecology research, and wildlife and botany surveys since 2014. Her field experience includes carnivore surveys, trapping, radio-collaring and radio-tracking birds, vegetation surveys, avian surveys on wind energy sites, and avian risk assessment surveys and evaluation of avian-safe modifications along powerlines. Eve also has experience in applications of global positioning systems (GPS), Geographic Information Systems (GIS), and wildlife acoustics systems. She has worked in government and private sectors throughout the state of Idaho. In the office, she has experience with NEPA compliance, writing technical reports (i.e. biological evaluations and assessments), statistical analysis, and GIS mapping.

**Public Involvement**

Since 2008, **Rebecca Coulter** has been providing services in the design and implementation of communication methods and strategies. This experience in the strategic communications arena includes identifying appropriate outreach opportunities with key stakeholders and monitoring outreach efforts to ensure pertinent information reaches appropriate parties, organizing and providing for coordination with local agencies and stakeholders. She is proficient in statewide communication planning, direct stakeholder interaction, organizing large-scale public hearings, key message development, and public involvement process. Her experience includes public involvement in the design and construction phases of transportation projects. Rebecca has been involved in a wide variety of projects for state and local government agencies, often working within guidelines set by the federal government, and provided public involvement services and communication strategy for rural community long-range transportation plans, statewide strategic safety plans, and local start-up companies.

**Administration**

**Joanna Aizpitarte** has over 20 years of experience as Bionomics’ chief accountant and has developed a range of expertise during her tenure at Bionomics Environmental. She specializes in accounting, personnel management, tax accounting and financial reporting. Her expertise includes Bionomics Environmental accounting functions oversight, setting up accounting for projects in multiple states, tax reporting and Human Resources.
Resumes of Key Personnel
David Aizpitarte
Principal

INTRODUCTION
Mr. Aizpitarte has over 30 years of experience in the environmental industry. For the past 22 years, he has been the President of Bionomics Environmental, Inc. which has provided environmental and consulting services to private industry and government clients. His background includes senior program management and client consultation for NEPA issues, noise studies, waste management, regulatory compliance, and remediation.

EXPERIENCE
Program Management
- Program Management - Manage programs for employees and subcontractors, which include team development, proposal production, and both project and budget tracking.
- Relationship Management - Develop and maintain employee and subcontract relationships, which include negotiations, contract maintenance, human resource administration, and project time management.
- Accounting - Develop and maintain Federal Acquisition Regulations (FAR) - compliant overhead rates, which include accounting review process supervision and fee negotiation. Responsible for the development and maintenance of all government requirements for project tracking and reporting.
- Quality Assurance/Quality Control - Maintain document and deliverable quality assurance and quality control.

Environmental Management
- Environmental Services - Oversee the development and preparation of Environmental Evaluations, (EE) Environmental Assessments (EA) and Environmental Impact Statements (EIS).
  - Develop and oversee the NEPA process for projects including level of study (EE, EA or EIS), interfacing with regulatory agencies for compliance and level of effort for studies.
  - Oversee and develop discipline reports including fieldwork, report preparation, review and comment response from regulatory agencies.
  - Compile discipline reports into the major document (EE, EA, and EIS) including compilation, editing and production.
  - Development of mitigation plans and representing the client during negotiations with regulatory agencies.

Noise and Acoustical Analysis
- Mr. Aizpitarte has a background in determining noise impacts for health and safety, road construction, and industrial facilities. He has attended and been a guest lecturer for graduate level classes in acoustical analysis and classes in noise analysis for roadway design and barrier construction. He has attended seminars presented by nationally respected Bowlby and Associates and HMMH (developers of TNM 1.1 and 2.0). Mr. Aizpitarte served on an advisory group for the upgrade of the Traffic Noise Model (TNM) from 1.1 to 2.0 and served on an advisory team to review the Idaho Transportation Departments noise policy.
  - Environmental Noise Study - Conducted and supervised noise studies for proposed wind turbine farms as part of the permitting process, proposed gravel pit operations, proposed natural gas turbine facilities for a major utility and many roadway design projects. For roadway design projects the studies are performed in accordance with the Federal Highway Administration’s procedures for sampling and quality control. Performed field readings and
computer modeling using TNM 2.5 for present and future noise impacts. Supervised all tasks for the construction of the noise walls on Interstate 84 from Broadway Avenue to Orchard Street and walls on Chinden Boulevard from Five Mile to Eagle Road.

- **Noise Expert Witness** - Mr. Aizpitarte has given litigation support and testimony as an on-call noise expert for both the Ada County Highway District and Idaho Transportation Department for noise impacts on new road construction. He has also given litigation support and testimony for permitting of gravel pit facilities, proposed gas turbine plant for a major utility and geothermal plant.

- **Acoustical, Noise Health and Safety Consulting** - Mr. Aizpitarte has performed health and safety analysis at the Air National Guard facility at Gowen field for 22 maintenance shops. He has performed acoustic analysis and noise mitigation recommendations to reduce noise in middle school gymnasiaums and industrial shops where noise is above the Occupational Safety and Health Administration (OSHA) standards.

- **Environmental Property Assessment** - Perform property assessments for public and private-industry clients, which include engineering companies, property investment firms, and private-industry clients.

**Hazardous Waste Management**

- **Administration** - Advised and developed waste tracking, storage, profiling, and manifestaton at the client’s facility. Informed customer on waste minimization through process changes and chemical management.

- **Toxic Substances Control Act (TSCA), Polychlorinated Biphenyl (PCB) and Resource Conservation and Recovery Act (RCRA) Hazardous Waste** - Consulted in all phases of PCB treatment and disposal, including retrofill of PCB transformers, transportation and disposal of PCB items, and chemical detoxification or incineration of PCB oils. Participated in all phases of RCRA hazardous waste treatment and disposal, which included on-site treatment (stabilization and neutralization), transportation, and disposal (incineration methods, supplemental fuel uses, and landfill management).

**Public Relations**

- **Environmental Projects** - Managed and supported the public involvement process for the completion of environmental studies that included outreach to both individuals and stakeholder groups, public meetings and public hearings.

- **Hazardous Waste Landfill** - Mitigated public reaction toward fines and managed public relations with local community for Envirosafe Services’ hazardous waste landfill in Grandview, Idaho. Prepared documents and press releases for public dissemination. Managed advertising agency efforts and developed a Small Quantity Generator Program as a public service and as part of the overall public relations strategy.

- **Industrial Waste Landfill** - Managed advertising agency efforts regarding environmental information development for industrial landfill located in Denver, Colorado. Assisted information and multimedia package design for dispersal to concerned citizens and potential landfill clients.

**Business Consulting**


**EDUCATION**


BIONOMICS ENVIRONMENTAL, INC.

Nicole Parks
Environmental Program Manager

INTRODUCTION
Ms. Parks has been in the working in the environmental and natural resources field since 2002 with emphasis in program and project management. She specializes in field survey, sampling, and report preparation in accordance with state and federal environmental regulations. She has experience and expertise in NEPA compliance regulations and environmental permitting for transportation projects (highways and airports), land development, and infrastructure projects. In addition, she is proficient with Section 4(f) of the U.S. Department of Transportation Act of 1966 documentation, coordination, and evaluation; Waters of the U.S. and Wetland Delineation, mitigation, and Section 404 permitting; traffic noise analysis, modeling, and report preparation; socioeconomic analysis; hazardous materials assessment; and biological survey and report preparation. She has prepared NEPA categorical exclusions and Environmental Evaluations and Assessments. As part of the permitting and assessment process, she performs extensive coordination and consultation with federal, state, and local agencies. Ms. Parks manages the environmental program for Bionomics which includes project management, team development, project and budget tracking, contract negotiations, and human resources. She ensures each project completed is on schedule and within budget.

EXPERIENCE
Environmental Program and Project Management

- **Project Management** - Responsibilities for environmental programming and project management, including:
  - Proposal and budget preparation; project timeline, deliverables and budget tracking.
  - Coordinate interdisciplinary personnel, conduct staff meetings, and delegate responsibilities.
  - Coordinate with State and Federal agency program managers and personnel.
  - Develop and maintain relationships with employers and subcontractors.
  - Oversee and conduct fieldwork.
  - Oversee, review, and prepare NEPA documentation (Environmental Impact Statements, Environmental Assessments, and Categorical Exclusions).

NEPA Compliance

- **Environmental Due Diligence** - Conduct research and gather property information through client, regulatory agency data, and individual interviews. Conduct field investigation and develop conclusive analysis report.
- **Evaluations and Assessments** - Perform data collection, research, field surveys, and agency coordination and consultation. Includes Wetland Delineation, land use and prime farmland identification, hazardous material investigations, socio-economic, hydrologic, and noise analyses. Recommend management practices and mitigation based upon site conditions and potential project impacts to the environment.
- **Project Management** - Developed project proposals and estimates, oversaw technical staff, tracked project budgets, and supervised field crew.

Wetlands

- **Wetland Identification and Delineation** - Perform soils, vegetative and hydrologic analyses and delineation of impacted jurisdictional and non-jurisdictional wetlands.
- **Section 404 Permitting** - Perform all necessary documentation and consultation requirements for Clean Water Act Section 404 Permitting.
- **Wetland Mitigation** - Evaluate establishment, rehabilitation, and restoration opportunities to mitigate wetland impacts. Design and coordinate conceptual mitigation plans.

**Noise**
- **Sampling** - Field sample ambient noise levels using a Brüel & Kjaer Hand-held Analyzer Type 2270 Sound Level Meter.
- **Modeling** - Model noise using the Federal Highway Administration Traffic Noise Model (TNM) 2.5.

**Water Quality**
- Contributed to the sediment assessment of the South Fork Payette Subbasin for development of a water quality development plan. The project identified the major sources of sediment contributions within the basin based on field surveys of the road system and associated drainages. Performed field surveys, supervised and managed field crew, and provided quality control on data collected. Inventory utilized Trimble Pro XRS receiver to collect data and ArcView 3.0 to present data collected.

**Floodplain/Floodway**
- Performed all work necessary in development and coordination of a floodplain technical report. Evaluated encroachments to floodplains and floodways to determine level of significance and mitigation measures to reduce impacts.

**Geographic Information Systems (GIS)**
- Prepare figures utilizing aerial photography and topographic maps for use in projects such as wildlife habitat enhancements, stream restoration, Wetland Delineations, noise studies, cultural resource surveys and development recommendations.
- Utilize software such as ArcGIS, GPS Pathfinder Office, Terrasync and AutoCAD, in conjunction with survey data from a Trimble GeoXT GPS unit.

**Technical Editing**
- **Computer Program Expertise** - Proficient in the use and application of Microsoft Office, Excel, and PowerPoint, Adobe Photoshop.

**EDUCATION**

**TRAINING AND CERTIFICATION**
NEPA Purpose and Need: Alternatives Screening and Development Workshop, FHWA, February 2009.
Wetland Mitigation, Construction and Installation, Portland State University, February 2007.
ArcView GIS 9.0 training, Boise State University, 2006.
Wetland Delineation Certification Training Course, Portland State University, August 2005.
ArcView GIS 3.0 training, University of Idaho, 2000.
INTRODUCTION
Ms. Tarter has been employed with Bionomics since 2008. She has experience in project management for environmental investigation and assessment and specializes in field survey, sampling, and report preparation in accordance with NEPA. She is proficient with environmental compliance audits, wetland delineation and mitigation, Section 404 of the Clean Water Act permitting, water quality analysis, traffic noise analysis, GIS mapping, GPS operations, technical writing, and conducting field surveys including research, sampling, photography and documentation. Ms. Tarter performs essential coordination responsibilities with local, state, and federal agencies. Her project experience in public infrastructure includes Federal Highway Administration, Idaho Transportation Department and local highway districts, as well as private enterprise.

EXPERIENCE
NEPA Compliance
- **Environmental Due Diligence** – Conduct research and gather property information through client, regulatory agency data, and individual interviews. Conduct field investigation and develop conclusive analysis report.
- **Environmental Evaluations and Assessments** – Responsibilities include data collection, research, field surveys, and agency coordination. Assessment areas include noise analysis, environmental justice, land use and prime farmland identification, hazardous materials investigation, threatened and endangered species, air quality analysis and Wetland Delineation.

Geographic Information Systems (GIS)
- Prepare figures utilizing aerial photography and topographic maps for use in projects such as Wetland Delineations, noise studies to develop recommendations.
- Utilize software such as ArcGIS and AutoCAD, in conjunction with survey data from a Trimble GeoXH GPS unit.
- Utilize geo-reference data and ArcGIS to evaluate and analyze impacts to resources.

Hazardous Materials
- Conduct site evaluations, which include site history research, data collection, and report compilation to determine hazardous waste concerns, underground or aboveground storage tank issues, and ground water contamination in or near project areas.

Noise
- **Sampling** - Field sample ambient noise levels using a Brüel & Kjaer Hand-held Analyzer Type 2270 Sound Level Meter.
- **Modeling** – Model noise using the Federal Highway Administration Traffic Noise Model (TNM) 2.5.

Technical Editing
- **Computer Program Expertise** – Proficient in the use and application of Microsoft Office including Excel and PowerPoint, Adobe Photoshop, GPS Pathfinder Office, and Terrasync.
- **Technical Writing** – Edit and standardize project specific documents following strict accuracy and format requirements.
EDUCATION

TRAINING AND CERTIFICATION
Basic Wetland Delineation, Portland State University, 2012
NEPA Purpose and Need: Alternatives Screening and Development Workshop, 2009.
Jillian Martin  
Principal Investigator

INTRODUCTION
Ms. Martin has been conducting cultural resource and architectural history investigations throughout Idaho, Oregon, and Washington since 2004. This experience includes overall administration and management of cultural resource projects, and compilation of cultural resource reports according to Section 106 of the National Historic Preservation Act of 1966. Her experience also includes Section 4(f) evaluations, background and pre-field research with several agencies, prehistoric and historic site excavations, artifact recordation and preservation, GIS mapping, supervision of intensive and reconnaissance pedestrian field surveys, and archaeological construction monitoring in culturally sensitive areas.

EXPERIENCE
Administration and Management
- **Administration** - Administration and preparation of cultural resource projects and field surveys, which include overseeing field crew in the proper techniques for a safe, efficient, and complete field survey.
- **Management** - Provide advice, guidance, and instructions to team members regarding policies, requirements, and guidelines for the completion of cultural resource documents. Oversee the hiring and training of large field crews.
- **Review** - Write, review, and edit cultural resource documents, such as Section 106 Survey.
- **Client Interaction** - Initiate contact with potential clients.
- **Scoping** - Create scopes of work and budgets for cultural resource projects.

Cultural Resource Reports
- **Documentation** - Interpret and apply guidelines from Section 106 of the National Historic Preservation Act of 1966. This includes composing, reviewing, editing, and issuing professional reports of cultural resource investigations and studies. These documents present research, field methods, findings, prehistoric and historic site recordation (archaeological and architectural), eligibility recommendations, project effect determinations, and treatment recommendations of eligible sites.

Section 4(f) of the Department of Transportation (DOT) Act of 1966
- **Section 4(f) Evaluation** - Evaluation of affected properties that are impacted by a US DOT project. These properties include public parks, recreation areas, and historic sites that are eligible for the National Register of Historic Places.
- **Agreements** - Administration and preparation of Section 4(f) documents, including full 4(f) evaluations, *de minimis* evaluations, and programmatic agreements.

Background and Pre-Field Research
- **Research** - Perform project background research at several state and county offices, including the Idaho, Oregon, and Washington State Historic Preservation Offices, and several county assessor offices and historical societies.
**Excavation**
- **Excavation** - Excavated research pits near the Snake River in southwestern Idaho. Utilized standard professional excavation techniques, and identified and cataloged artifacts recovered from the archaeological sites.
- **Sub-Surface Shovel Tests** - Perform sub-surface shovel tests to examine the potential for prehistoric or historic artifacts.
- **Construction Monitoring** – Construction monitoring and inspections of excavations in archaeologically sensitive areas.

**Lab**
- **Recordation and Preservation** - Conduct artifact recordation and preservation, compile artifact inventories, and interpret findings.

**Geographic Information Systems (GIS)**
- **Data Collection** - Use of Trimble and Garmin Global Position Systems for field documentation.
- **Mapping** - Prepare figures utilizing aerial photography and topographic maps for use in site and report documentation.

**Survey**
- **Surveys** - Completed intensive and reconnaissance surveys for areas throughout Idaho, Oregon, and Washington. Served as either Crew Chief or Field Director for numerous survey projects including both large and small-scale intensive surveys. Experience includes completion of transect surveys, identification, recordation, and evaluation of prehistoric and historic sites (archaeological and architectural), and the use of Trimble and Garmin Global Positioning Systems.

**EDUCATION**

**TRAINING AND CERTIFICATION**
Cultural Resource Consultant Training. Oregon Department of Transportation Department, June 2018.
Modernism in the Northwest Workshop, Idaho Transportation Department, August 2008.
Introduction to ArcGIS I, Boise State University, June 2006.
Niki Nickoloff
Archaeologist

INTRODUCTION
Ms. Nickoloff has been conducting cultural resource and architectural history investigations throughout Idaho and Oregon since 2007. This experience includes intensive and reconnaissance field surveys for cultural resource investigations, prehistoric and historic site excavation, site recordation that includes mapping and photography, and artifact recordation and preservation. Her experience also includes preparation of site forms for historical sites, background/pre-field research with several agencies including the Idaho SHPO and county offices, and preparation of cultural resource reports according to Section 106 of the National Historic Preservation Act of 1966.

EXPERIENCE
Background and Pre-Field Research
- **Research** - Project background research at the Idaho State Historical Office using USGS sites atlas maps, site form database, and report database. Background research of original construction dates, and parcel numbers and sizes at the Canyon County Assessor’s Office and online at the Ada County Assessor’s Office website.

Cultural Resource Reports
- **Documentation** - Preparation of cultural resource reports according to Section 106, which includes the preparation of archaeological and architectural site forms, cultural site photos, and Archaeological and Historical Site Reports.

Excavation
- **Excavation** - Excavated research pits near the Snake River in southwestern Idaho. Utilized excavation techniques, and identified and cataloged artifacts recovered from the archaeological sites.
- **Graduate Assistant/Crew Chief** – Oversaw excavations on the Snake River Plain in Southwestern Idaho for Boise State University’s 2011 Archaeological Field School.
- **Sub-Surface Shovel Tests** - Perform sub-surface shovel tests to examine the potential for prehistoric or historic artifacts.

Lab
- **Recordation and Preservation** - Conduct artifact recordation and preservation, compile artifact inventories, and interpret findings.

Geographic Information Systems (GIS)
- **Data Collection** - Use of Trimble and Garmin Global Position Systems for field documentation.
- **Mapping** - Creation of Global Information Systems maps for compliance with site and report documentation.

Survey
- **Surveys** - Completed intensive and reconnaissance surveys for areas throughout Idaho and Oregon. Served as either Crew Chief or Field Director for numerous survey projects including both large and small-scale intensive surveys. Experience includes completion of transect surveys, identification, recordation, and evaluation of prehistoric and historic sites (archaeological and architectural), and the use of Trimble and Garmin Global Positioning Systems.
EDUCATION

TRAINING AND CERTIFICATION
INTRODUCTION
Mr. May has been conducting cultural resource investigations throughout Idaho and Washington since 2016. This experience includes intensive and reconnaissance field surveys for cultural resource investigations, prehistoric and historic site excavation, site recordation that includes mapping, photography, and artifact recordation, curation, and preservation. His experience also includes preparation of site forms for historical sites, background/pre-field research with several agencies including the Idaho SHPO and county offices, and preparation of cultural resource reports according to Section 106 of the National Historic Preservation Act of 1966.

EXPERIENCE

Background and Pre-Field Research
- Research - Project background research at the Idaho State Historical Office, several county assessor offices, and various Idaho State operated historical archives.

Cultural Resource Reports
- Documentation - Preparation of cultural resource reports according to Section 106, which includes the preparation of archaeological and architectural site forms, cultural site photos, and Archaeological and Historical Site Reports.

Excavation
- Excavation - Excavated pits for the James Castle House Project for the University of Idaho. Utilized excavation techniques, and identified and cataloged artifacts recovered from the archaeological sites.
- Public Relations and Volunteer Manager – Led public tours of the excavation site for the James Castle House Project for the University of Idaho and managed volunteer workers on the site.
- Sub-Surface Shovel Tests - Perform sub-surface shovel tests to examine the potential for prehistoric or historic artifacts.

Lab
- Recordation and Preservation - Conduct artifact recordation, preservation, and curation, compile artifact inventories, and interpret findings. Cataloging collections, acquisitions, projects, and site archives, along with database management and artifact monitoring

Geographic Information Systems (GIS)
- Data Collection - Use of Trimble and Garmin Global Position Systems for field documentation.

Survey
- Surveys - Completed intensive and reconnaissance surveys for areas throughout Idaho and Washington. Experience includes completion of transect surveys, identification, recordation, and evaluation of prehistoric and historic sites (archaeological and architectural), and the use of Trimble and Garmin Global Positioning Systems.
EDUCATION

TRAINING AND CERTIFICATION
Citi Training in Biomedical, Social and Behavioral Research, 2016.
INTRODUCTION
Mr. Alsup has professional experience in natural resource inventory, statistical analysis, study design, and technical writing since 2000. He has conducted biological research in the Northwestern, Southwestern, and Southeastern United States. He has experience implementing and conducting surveys for birds, small mammals, amphibians, aquatic invertebrates, as well as exotic/invasive plant species. Mr. Alsup also has over seven years of experience in applications of global positioning systems (GPS), Geographic Information Systems (GIS), and Remote Sensing for a wide range of natural and cultural resources projects.

EXPERIENCE
Wildlife Surveys
• **Birds and Bats** - Designed and performed post-construction avian and bat mortality monitoring studies at wind-energy facilities in Idaho and Oregon. These studies include: standardized carcass searches, searcher efficiency trials, carcass persistence trials, avian point counts, eagle point counts, and bat acoustical monitoring.
• **Raptors** – Excellent raptor identification skills. Nesting survey and monitoring for numerous raptor species. Certified raptor bander by the North American Banding Council. Extensive experience with target trapping individuals, as well as migration trapping station operations in Idaho, Oregon, New Mexico, South Carolina, and Florida. Safe handling and processing of adult and nesting raptors, including taking blood and feather samples, as well as outfitting raptor species with VHF, satellite, and GPS telemetry units. Nest climbing/rappelling.
• **Wading Birds** – Trapped and tagged great egrets with GPS and VHF transmitters along the Gulf and Atlantic Coasts, and conducted aerial and ground telemetry, as part of the Deep Water Horizon Natural Resource Disaster Assessment team.
• **Reptiles and Amphibians** – Survey and egg mass collection for California red-legged frogs as part of a translocation project. Nocturnal road surveys for reptiles and amphibians in central California.
• **Aquatic Invertebrates** – Aquatic invertebrate sampling in streams and reservoirs in central California.
• **Vegetation** – Exotic/Noxious weed survey in central California and Utah.
• **Small Mammals** – Small mammal trapping and PIT tagging great basin ground squirrels in southwest Idaho as part of a predator-prey relationship study.
• **Threatened and Endangered Species** – Nesting survey, trapping/tagging, and/or behavioral observations of bald eagles, northern goshawks, Audubon’s crested caracaras, and snail kites.

Writing Experience
• **Technical Writing** – Writes, reviews, and edits technical reports, Biological Assessments, and Environmental Assessments for agencies, non-profit groups, as well as manuscripts for peer-reviewed publication.

Data Analysis
• **Computer Programs** - Proficient in the use of MS Word, Excel, PowerPoint, Access; Program Locate; ArcGIS, and DNRGPS.
• **Statistical Analysis** - Univariate and multivariate analysis using SAS, JMP, and “R”.

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Bionomics Environmental, Inc.  1045 E. Winding Creek Dr. Eagle, Idaho 83616
Geographic Information Systems (GIS)

- **Data Collection** – Utilization of various types of global positioning system (GPS) units to record location data.
- **Data Management** – Experience managing large GIS databases for natural resource and cultural resource surveys, including downloading, correcting, importing, and verification of data collected on Trimble® survey grade equipment.
- **Mapping** – Creation of professional quality maps and map books for numerous natural resource, cultural resource, and energy development projects.
- **Analysis** – Provided geoprocessing and spatial analysis support for resource specialists working on Resource Management Plans, Transportation Management Plans, and third party EISs. Validated and incorporated transportation data into a schema developed by the Idaho BML for a state-wide road layer. Analysis of forestry management practices in relation to reproductive performance of state sensitive species. Viewshed analysis for siting of meteorological towers, wind turbines, and transmission lines to avoid impacts to greater sage-grouse and visual resources.

**EDUCATION**

**TRAINING ANDCERTIFICATION**
“R” Workshop, Idaho Department of Fish and Game/Idaho Chapter of the Wildlife Society, 2016
Graduate Certificate, Geographic Information Analysis, Boise State University, 2009

**PUBLICATIONS**
Eve Thomason  
Wildlife Biologist

INTRODUCTION
Ms. Thomason has been conducting natural resources inventories, ecology research, and wildlife and botany surveys since 2014. Her field experience includes carnivore surveys, trapping, radio-collaring and radio-tracking birds, vegetation surveys, avian surveys on wind energy sites, and avian risk assessment surveys and evaluation of avian-safe modifications along powerlines. Eve also has experience in applications of global positioning systems (GPS), Geographic Information Systems (GIS), and wildlife acoustics systems. She has worked in government and private sectors throughout the state of Idaho. In the office, she has experience with NEPA compliance, writing technical reports (i.e. biological evaluations and assessments), statistical analysis, and GIS mapping.

EXPERIENCE

Wildlife Surveys
- **Birds and Bats** - Performed post-construction avian and bat mortality monitoring studies at wind-energy facilities in Idaho. These studies include: standardized carcass searches, searcher efficiency trials, carcass persistence trials, avian point counts, eagle point counts, and bat acoustical monitoring.
- **Raptors** – Excellent raptor identification skills. Performed necropsies to determine time and cause of death of numerous raptor species. Experience trapping, handling, and tagging of Cooper’s and Sharp-shinned Hawks.
- **Carnivores** – Conducted black bear den surveys to determine depth, length, nest composition, and surrounding habitat type. Radio-tracked gray wolves in Idaho. Analyzed and recorded mountain lion kill sites in western Wyoming.
- **Greater sage-grouse and sharp-tailed grouse** – Study design and implementation of grouse lek monitoring for pre-construction at wind energy facilities. Conducted helicopter surveys for greater sage-grouse and sharp-tailed grouse leks. Conducted lek counts for both species from the ground.
- **Aquatic Invertebrates** – Columbia spotted frog sampling in streams and reservoirs in Idaho.
- **Vegetation** – Conducted nest microsite vegetation analyses for sharp-tailed grouse leks. Site reconnaissance surveys to assess current condition.
- **Small Mammals** – Southern Idaho Ground Squirrel population monitoring.

Writing Experience
- **Technical Writing** – Writes, reviews, and edits technical reports, Biological Assessments, and Environmental Assessments for agencies.

Data Analysis
- **Computer Programs** - Proficient in the use of MS Word, Excel, PowerPoint, ArcGIS, and DNRGPS.
- **Statistical Analysis** - Univariate and multivariate analysis using SAS, JMP, and “R”.

Geographic Information Systems (GIS)
- **Data Collection** – Utilization of various types of global positioning system (GPS) units to record location data.
- **Data Management** – Experience managing large GIS databases for natural resource surveys, including downloading, correcting, importing, and verification of data collected on various GPS devices.
• **Mapping** – Creation of professional quality maps for numerous natural resource and energy development projects.

**EDUCATION**
Bachelor of Science, Major: Biology. Boise State University. August 2014.

**TRAINING AND CERTIFICATION**
Idaho Wolf Trapper Certification, 2014
Idaho Hunter’s Education Certification, 2014
BIONOMICS ENVIRONMENTAL, INC.

Rebecca Coulter
Project Manager

INTRODUCTION
Ms. Coulter has been providing services in the design and implementation of communication methods and strategies since 2008. This experience in the strategic communications arena includes identifying appropriate outreach opportunities with key stakeholders and monitoring outreach efforts to ensure pertinent information reaches appropriate parties, organizing and providing for coordination with local agencies and stakeholders. She is proficient in statewide communication planning, direct stakeholder interaction, organizing large-scale public hearings, key message development, and public involvement process. Her experience includes public involvement in the design and construction phases of transportation projects. Rebecca has been involved in a wide variety of projects for state and local government agencies, often working within guidelines set by the federal government, and provided public involvement services and communication strategy for rural community long-range transportation plans, statewide strategic safety plans, and local start-up companies.

EXPERIENCE

Public Involvement Planning & Stakeholder Outreach

- Provides project management, design and implementation of communication methods and strategies on public involvement projects for the state and local government agencies, specifically in the design and construction phases of transportation projects.
- Supports project teams in an efficient process for development, production and timely coordination of stakeholder outreach.
- Develops a clear, concise scope of work, and provides ongoing communication with project team; including agency and stakeholder coordination, providing accessibility to stakeholders through ongoing feedback at all stages of the project, meeting project deadlines and objectives, generating accurate and meaningful content, providing expertise in communication and outreach planning, and conducting strategic communication with stakeholders.
- Identifies and engages target audiences through ongoing, meaningful and collaborative engagement in an effort to obtain relevant information from local agencies and stakeholders on project impacts.
- Determines relevant information necessary for project team consideration, and identify appropriate level of information to be exchanged between agencies and the public.
- Maintains documentation of public comment and responses, legitimizing public concern, allowing project team to analyze data and deliver substance to outreach activities.
- Specializes in comprehensive strategic plan development, outlining outreach efforts and results, assessing the effectiveness of public participation. including process design, data examination, and gap analysis.
- Provides project oversight, process design and implementation for the development of comprehensive stakeholder outreach plans, communication plans, statewide strategic planning efforts, development of task force chartering efforts, and production and implementation of public involvement planning efforts.

Meeting Facilitation & Public Comment Coordination
• Coordinates and facilitates public meetings, task forces, advisory and focus groups, designing strategic communication strategies to create systems for supporting efficient teamwork, and process design for decision-making and identifying project priorities.

• Designs qualitative and/or quantitative surveys tailored to capture maximum information related to each project with statistical validity.

• Defines target audiences and potential secondary audiences, focusing on potential differences among target sectors and allowing data collection from a series of focus groups.

• Develops and maintains contact databases throughout the life of each project, including mailing and e-mailing information for the purpose of surveying and data collection.

• Composes summaries and provides reports or presentations, including executive summaries, detailed discussion of findings, tabulations, graphs and figures, and public opinion key findings and research.

Key Message Development, Content Generation & Public Relations

• Produces key messages, script development and speaking points for project teams to use for consistency in outreach materials, so the project team is speaking with one voice, building credibility, reliability and trust among the public.

• Designs and develops brochures, newsletters, fliers, presentations and miscellaneous marketing collateral to support distribution of project information.

• Conducts research to provide the foundation of a solid public relations strategy and is paramount in identifying public opinion, social, economic and legal climate in which public relations activities are implemented.

• Provides media relations through contacting news media, social media channels, radio, and television; includes news releases, newsletters, press releases and media packets to reach local communities surrounding project sites.

• Generates content for project partners and stakeholders to provide information regarding, timeframe, impacts, major project milestones and frequently asked questions and answers.

• Provides a proactive process of anticipating, identifying, evaluating and responding to public concerns that may affect project implementation.

• Builds and maintain mutually beneficial relationships with local media, stakeholders and the public at large to maintain clear and open communication channels.

• Determines relevant information necessary for project team consideration, and identify appropriate level of information to be exchanged between agencies and the public

EDUCATION
Bachelor of Arts, Major: Communication, Boise State University. 2007.