

PART III – SECTION J, ATTACHMENT F-5

SCOPE OF WORK FOR WASTREN ADVANTAGE, INC.
AND THE IDAHO OPERATIONS OFFICE
(DE-NE0008477)

Effective March 01, 2016 –September 30, 2021

PART I – THE SCHEDULE

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

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PART I - THE SCHEDULE

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

STATEMENT OF WORK

C.1 INTRODUCTION

The purpose of this contract is to perform independent environmental surveillance, natural resources management support and research, radioecological management support and research, and public education for the Department of Energy Idaho Site in the Environmental Surveillance, Education, and Research Program (ESER). The Idaho Site is under the purview of the U.S. Department of Energy, Office of Nuclear Energy, Idaho Operations Office (DOE-ID) and is comprised of the following:

- Idaho National Laboratory (INL), managed and operated by Battelle Energy Alliance - dedicated to nuclear research and development and national security missions and responsible for sitewide infrastructure;
- Idaho Cleanup Project (ICP), operated by CH2M-WG Idaho, LLC - dedicated to remediating contaminated areas, dispositioning waste and spent nuclear fuel, and decontaminating and decommissioning facilities that have no future use;
- Naval Reactors Facility (NRF), operated by Bechtel Marine Propulsion Corporation - focused on supporting the U.S. Navy's nuclear-powered fleet; and
- Advanced Mixed Waste Treatment Project (AMWTP), operated by Idaho Treatment Group - focused on processing approximately 65,000 cubic meters of stored mixed transuranic waste for shipment to the Waste Isolation Pilot Plant in Carlsbad, New Mexico.

The contractors referenced above are herein referred to as "Site Contractors." The tasks in this Statement of Work (SOW) support implementation of sound stewardship practices that are protective of the public, air, water, land, and other natural resources affected by Idaho Site operations; and compliance with applicable environmental, public health, and resource protection laws and regulations. Additional information on the Idaho Site may be accessed on the Internet at <http://www.id.doe.gov>.

C.2 GENERAL QUALIFICATIONS AND SCOPE

The Contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items and services necessary to perform the work as defined in this SOW except for those items specified as Government Furnished Property and services. The Contractor shall provide 100% of all services and deliverables identified in this SOW in a timely, complete, effective, and efficient manner. The Contractor shall demonstrate commitment to quality in preparation of all deliverables required by the SOW. The Contractor shall adhere to and follow all applicable statutes, regulations, and DOE Orders which pertain to the activities in this SOW. The Contractor shall ensure that personnel assigned to perform work in this SOW have the knowledge,

skills, and abilities to perform their assigned work. The Contractor's performance will be evaluated for completeness, quality of work, timeliness, accuracy, and customer satisfaction. Unacceptable work as determined by the Contracting Officer must be corrected by the Contractor at no additional cost to DOE.

- C.2.1 The Idaho Site environmental monitoring program is managed and conducted by several contractors, including the ESER Contractor. The ESER Contractor's activities mainly focus on collection of environmental samples offsite although some samples are collected on the Idaho Site. DOE-ID expects the individual parts that comprise the sitewide environmental monitoring program to function seamlessly, cooperatively, and in an integrated and consistent manner. The offsite environmental surveillance program is a well-established program. As such, the sample locations, procedures, sample analyses, reporting, and quality assurance/control functions are well-defined. However, the Contractor must ensure the surveillance program evolves as necessary as Idaho Site operations change and the basis for the program is maintained. Competent and conscientious technicians are required to collect and process the samples, highly accurate and reliable laboratory analyses are needed, and knowledgeable staff educated in health physics/environmental health physics and radioecology are required to interpret the results for reports and for verification that Idaho Site processes are operating properly. Review of the program assumptions and bases should be evaluated as Idaho Site operations change or new information on projected potential impacts becomes available.
- C.2.2 The Contractor must provide independent environmental surveillance data and analysis to satisfy the concerns of key stakeholders such as the state of Idaho, the U.S. Environmental Protection Agency, the Department of Energy Headquarters Office, American Indian Tribes, and the general public in Idaho. The importance of the Contractor building and maintaining trust among these stakeholders in evaluating the effects of the Idaho Site operations on the natural environment within and surrounding the Idaho Site cannot be overemphasized.
- C.2.3 DOE-ID requires ecological support on specific tasks related to ongoing and future site activities. DOE-ID programs require special expertise in areas such as natural resource regulations, site ecology, and site characterization. The work requires an in-depth knowledge of ecosystem science and, specifically, Idaho Site ecosystems. The personnel under this contract provide technical advice to DOE-ID on a wide variety of natural resource management issues including revegetation of disturbed areas, wildlife depredation, threatened and endangered species, invasive species, wildlife population dynamics, bio-contaminants, and ecosystem management. Good ecosystem management and ecological/radioecological research requires state-of-the-art scientific expertise, research management skills, and the ability to get the information published in peer-reviewed journals.

- C.2.4 The Contractor must maintain the Candidate Conservation Agreement for Greater Sage-grouse on the Idaho National Laboratory Site and natural resources data used in evaluating and mitigating impacts to Idaho Site resident species of concern, including those on the brink of a threatened or endangered classification. The Contractor must support implementation of the Candidate Conservation Agreement for Greater Sage-grouse on the Idaho National Laboratory Site.
- C.2.5 DOE-ID requires the Contractor to conduct a public education and outreach program. The Contractor should encourage interest in environmental science in K-12 students. Good information dissemination and transfer methods are important and will be aided by reporting of results in technical journals, press releases, presentations, displays, and routine reports.
- C.2.6 In addition to the technical tasks below, the Contractor may propose new research or program improvements/changes to the Contracting Officer's Representative (COR) that stem from this basic SOW. These proposals will be considered on a case-by-case basis as funds are available and subject to formal approval by the Contracting Officer (CO).
- C.2.7 DOE-ID encourages the development of students in academic disciplines of value to DOE-ID, through education and training of scientists and graduate students in environmental sciences. The Contractor shall encourage participation of regional universities located in the states of Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming in performing this SOW. Participation by universities within the state of Idaho is to be emphasized.
- C.2.8 The Contractor must maintain a fully-staffed office in Idaho Falls, Idaho, in order to provide ready access to the Idaho Site, DOE customers, and other associates who reside in southeast Idaho.
- C.2.9 This SOW may be periodically modified by mutual agreement of the parties to incorporate changes in programmatic needs and annual budget variations.
- C.2.10 At the heart of conducting the tasks identified in this SOW is the ability of the Contractor to develop, refine, and maintain cooperative and productive working relationships with DOE-ID, Site Contractors, regulators, and other stakeholders.

C.3 ESER TASKS

There are five major tasks in this SOW: environmental surveillance; land management; wildlife management; education and communication; and annual work planning. These tasks are described in detail in Sections C.4-C-8.

C.4 ENVIRONMENTAL SURVEILLANCE

The Contractor must conduct an environmental surveillance program. This program must include collection of samples of air, water, animal tissues, food, and soil. Ambient radiation levels must be measured with environmental dosimeters. The program is described in the Idaho National Laboratory Site Environmental Report for Calendar Year 2013, the INL Site Environmental Monitoring Plan, and the Technical Basis for Environmental Monitoring and Surveillance at the Idaho National Laboratory Site (see C.11, References).

Section C.4.1 “Routine Sample Collection” below shall be performed on a firm-fixed price basis.

C.4.1 Routine Sample Collection. The Contractor shall collect the environmental samples identified in C.4.1.1-C.4.1.8. The Contractor must arrange for the analysis of samples (except samples identified in C.4.1.8) by a qualified laboratory or laboratories with concurrence from the Contracting Officer. Routine verification of laboratory performance must be evaluated through quality control samples, including blanks, duplicates, and blind spikes. The sensitivity of the analyses must be sufficient to obtain the approximate minimum detectable concentrations stated in Table 3-1 of the Idaho National Laboratory Site Environmental Report for Calendar Year 2013. The Contractor is responsible for tabulating, analyzing, interpreting, and reporting the results. Investigations of anomalous results obtained from samples collected and analyzed under C.4.1 are managed under C.4.2.

C.4.1.1 Ambient Air.

- a. The Contractor must operate 13 offsite air samplers (including Jackson, WY), two replicate samplers, and three onsite air samplers. The Contractor must ensure leases are in place with landowners to site air samplers on private property, and pay leasing and utility costs for those samplers.
- b. Air filters must be changed at each station each week on Wednesday unless otherwise approved by DOE-ID. Air filters must be analyzed weekly for gross alpha activity, gross beta activity, and iodine-131 (charcoal cartridge). The filters from each station must be composited quarterly by location and the composites analyzed for gamma-emitting nuclides by gamma spectrometry. All composites must be weighed before and after use to determine the weight of suspended particulate on the filter. On a regular rotating schedule, a minimum of seven of the composites must be analyzed for strontium-90, plutonium-238, plutonium-239/240, and americium-241.

- c. Air moisture samples must be collected using columns of desiccant material (molecular sieve) and analyzed for tritium from four locations per calendar year quarter, depending on the amount of atmospheric moisture present.

C.4.1.2 Precipitation. Precipitation samples must be collected and analyzed for tritium weekly, as available, at the Experimental Field Station (EFS) and monthly at the Central Facilities Area.

C.4.1.3 Animal.

- a. Big game animals found dead on the Idaho Site must be sampled and analyzed (2-20 animals sampled annually from 2003-2013). Liver and muscle tissues must be analyzed for gamma-emitting nuclides and thyroids analyzed for iodine-131. Control samples are not routinely collected.
- b. Migratory waterfowl must be collected from Idaho Site liquid waste disposal ponds and analyzed for gamma-emitting nuclides and for strontium-90, plutonium-238, plutonium-239/240, and americium-241 (6-17 birds sampled annually from 2003-2013). The birds must be divided into three portions: external (skin and feathers), edible (muscle), and remainder. At least two control samples from offsite locations must be collected and analyzed also.
- c. Bat samples will be analyzed as per Section C.6.2.2.b.

C.4.1.4 Water. Drinking water samples must be collected semiannually at ten offsite locations, including two control locations. Surface water samples must be collected at four offsite locations semiannually (including one duplicate) and six onsite locations annually (if available and including one duplicate). The samples must be analyzed for gross alpha, gross beta, and tritium.

C.4.1.5 Food.

- a. Milk samples are collected weekly and monthly. The Contractor must obtain milk samples weekly from a local milk supplier whose cattle have grazed near the Idaho Site. The samples must be analyzed for iodine-131 and cesium-137. The Contractor must also collect up to nine other milk samples monthly from commercial dairies and/or single-family farms. The samples must be analyzed for iodine-131. One sample from each location from which the monthly samples are collected must also be analyzed semiannually for strontium-90 and for tritium. The Contractor must collect one annual sample of locally grown alfalfa that serves as forage for cows from which milk samples

are collected. The sample must be analyzed for gamma-emitting radionuclides and strontium-90.

- b. The Contractor must obtain from offsite locations samples of potatoes (8-10 locations), wheat/barley (10-12 locations), and lettuce (7-9 locations) annually, including at least one duplicate of each food type. One sample of lettuce must be collected at EFS. The samples must be analyzed for gamma-emitting nuclides and strontium-90. Five of the lettuce sample locations, including EFS, are portable planters that the Contractor must operate and harvest samples from if the growing season is successful.
- C.4.1.6 Soil. The Contractor must collect soil samples from each of twelve locations biennially in even-numbered calendar years. The samples, collected at two depths (0-5 cm and 5-10 cm), must be analyzed for gamma-emitting nuclides, strontium-90, plutonium-238, plutonium-239/240, and americium-241. Two duplicate samples are also collected.
- C.4.1.7 Environmental Radiation Measurement. Environmental dosimeters must be placed at 17 offsite locations. The dosimeters must be changed every six months and analyzed by a qualified laboratory. Each location has two dosimeters—one thermoluminescent dosimeter and one optically-stimulated luminescence dosimeter. Both types of dosimeters are being deployed to evaluate performance and comparability; one type of dosimeter is anticipated to be selected for long-term routine use. The Contractor will complete the performance evaluation during the first contract year and make a recommendation to DOE-ID. The evaluation should be completed and reported to DOE-ID with the Contractor's recommendation prior to placement of fall 2016 dosimeters.
- C.4.1.8 EPA RadNet Program. The Contractor must participate in the nationwide EPA RadNet program for monitoring environmental radioactivity in air, precipitation, and drinking water. The EPA supplies materials and sampling procedures. The Contractor must maintain and operate a high-volume air sampler in Idaho Falls. The sampler filter is changed twice a week. In Idaho Falls, precipitation and drinking water samples are collected monthly and quarterly, respectively. All samples are shipped to the EPA laboratory in Montgomery, Alabama for analysis. EPA does not charge analytical costs for these samples. These results are published by EPA and are therefore not included in any reporting under this SOW.
- C.4.1.9 Laboratory Audit. At least once during the term of the contract, the Contractor must perform an onsite audit of the laboratory(ies) and document the audit in a pre-audit plan and post-audit report to be shared with DOE-ID. If issues are noted during the audit, the Contractor shall require the laboratory to develop and implement corrective actions. If

performance issues cannot be resolved, the Contractor shall consult the COR to determine a course of action. The Contractor shall inform the COR timely of laboratory performance issues identified outside the formal audit. At any time, DOE-ID may request, and the Contractor shall provide at no additional cost, raw data received from analytical laboratories.

C.4.2 Non-Routine Sample Collection.

Additional samples must be collected as directed by DOE-ID after unusual events that may produce radioactivity in the atmosphere or at stakeholder or program request. The Contractor may be asked to accelerate collection of routine samples and/or accelerate laboratory analyses of the samples in order to respond to these events. In general, additional samples will be collected infrequently and for short durations. Collection of the samples may require travel to south central portions of Idaho or to neighboring states and coordination with state, Federal, Tribal, and other interested groups. The Contractor will provide advice to DOE-ID on special sampling events and follow DOE-ID's direction for collecting samples. Sampling of this nature has been needed in response to wildland fires, stakeholder concerns on potential contamination of food, international accidents (e.g. Fukushima, Japan), and to investigate anomalous sample results. The Contractor is responsible for informing DOE-ID of anomalous results as soon as they are known and working cooperatively with DOE-ID to determine a course of action for investigating anomalous results. The Contractor must ensure the laboratory or laboratories used to analyze routine environmental samples collected under C.4.1, Routine Sample Collection, will accommodate non-routine sample analysis (i.e. additional samples, additional analytes, repeat analyses, and/or accelerated schedules) and will accommodate analysis of bat carcasses collected under C.6.2.2, Bat Monitoring.

C.4.3 Plans and Reporting

C.4.3.1 Quarterly Reports. The Contractor must prepare calendar year quarterly reports on environmental surveillance that discuss trends and interpret results under DOE-ID direction. Important or unusual results must be highlighted and explained. The quarterly report is published electronically through posting on the Contractor's website. Quarterly reports must be posted within six months of the end of the quarter being reported. The Contractor must provide draft quarterly reports to the COR at least two weeks prior to the posting date for review, comment, revision, and approval according to DOE's process for external release. Quarterly reports will be used as a basis for developing the Annual Site Environmental Report required in C.4.3.2.

C.4.3.2 Annual Site Environmental Report.

a. The Contractor has lead responsibility for the preparation and

issuance of the Annual Site Environmental Report (ASER) under DOE-ID direction. The ASER must be prepared according to DOE Order 231.1B, Environment, Safety, and Health Reporting, and annual guidance issued by DOE Headquarters (see C.11, References). The Contractor is expected to deliver a high-quality report that is understandable by a broad cross-section of stakeholders; free of spelling, grammar, and formatting errors; and which is consistent, complete, accurate, and does not require technical editing by DOE-ID.

- b. The Contractor must perform annual planning associated with preparing the report, including developing a schedule for updating, reviewing, and finalizing various revisions of the ASER. The Contractor must summarize and analyze the data produced from environmental surveillance scope described in C.4.1-C.4.3 above as well as summarize other work performed under this contract. The Contractor must prepare and/or coordinate preparation of DOE-ID's Environmental Compliance Summary (Chapter 2), DOE-ID's Environmental Management System (Chapter 3), and population and biota dose assessments for inclusion in Dose to Public and Biota (Chapter 8); and obtain information supporting other parts of the ASER from other Site Contractors, DOE-ID, and other Federal agencies doing work at the Idaho Site.
- c. The Contractor must identify the information required to support ASER preparation by 15 January of each year and request this information from cognizant parties. The Contractor must prepare an instruction packet for each contributor identifying sections of the ASER they are responsible for updating and any specific information that will be needed to develop the report. The Contractor must develop lessons learned from the previous year and other Sites' ASERs and include that information in the individual contributor instruction packets as appropriate. The Contractor must hold an initial planning meeting with DOE-ID and report contributors to discuss expectations and schedules for preparing the ASER and hold additional meetings during the preparation process as needed to ensure contributors understand their responsibilities and to stay informed of progress. The Contractor will bring any issues related to contributor performance to DOE-ID's attention for resolution.
- d. The Contractor must coordinate assembly and review of the report among the various contributors and DOE-ID. Some data needed for the report are not available until July (e.g. annual radiological NESHAP report, specific radionuclide monitoring data). Therefore, the ASER is prepared through multiple revisions. The Contractor will typically manage up to five revisions to develop the ASER as follows:

- Revision 0: Prepare draft chapters and appendices in Microsoft Word.
 - Revision 1: Prepare tables, figures, and calculations with newly available data and incorporate into Revision 0 in Microsoft Word, then distribute for review and comment to DOE-ID and other contributors.
 - Revision 2: Incorporate comments from Revision 1 review and perform technical editing and formatting.
 - Revision 3: Prepare hardcopies to DOE-ID for final review and comment, including review by DOE-ID Security and Legal Counsel.
 - Revision 4 (final): Incorporate comments from Revision 3 review, convert to InDesign, and submit final report to DOE-ID for approval.
- e. The Contractor must control changes to report drafts so that comments are tracked and easily traceable to the source. The Contractor is expected to discuss and answer questions that are received from the contributors for their sections of the ASER that are being updated and refer questions as appropriate for further response as needed to DOE-ID. The Contractor will coordinate receipt and incorporation of reviewer comments for each revision and make available all revisions and all comments on a secure collaborative platform, such as ownCloud, accessible by DOE-ID and other contributors.
- f. The final ASER must be approved by DOE-ID according to DOE's process for external release and issued annually by 1 October. The report must be posted to a publicly-available website. The Contractor must distribute the ASER according to a standard distribution list to be approved by DOE-ID. Individuals on the distribution list receive a printed copy, compact disk, and/or are notified electronically that the report is available for download from the web. Approximately 50 printed copies and compact disks are produced.
- g. The Contractor must attend the annual environmental monitoring and ASER workshop conducted by DOE Headquarters. The workshop is rotated among DOE sites and is generally held in the fall each year. The Contractor may be asked to have more active participation in the annual workshop by giving presentations, participating in panel discussions, and offering ASER chapters for peer review with DOE-ID's approval. DOE-ID will host the workshop at the Idaho Site in calendar year 2016. The Contractor shall support DOE-ID's planning and conduct of the workshop.

C.4.3.3 Jackson Sampling Letter Report. Once per year, the Contractor must

send a letter report to the Teton County (Wyoming) Commissioners and the Wyoming Department of Environmental Quality summarizing the annual results from the Jackson, Wyoming, air surveillance station. The draft report must be provided to the COR annually on or before 1 July for review, comment, revision, and approval according to DOE's process for external release. The final report must be sent to the designated recipients annually on or before 1 August. The Contractor may be asked to visit with and make presentations to the Teton County Commissioners and other Jackson stakeholders on the sample results and other issues of concern upon request.

C.4.3.4 Publicly-Available Database. The Contractor must make available a user-friendly (i.e. non-technical) searchable database that contains the results of monitoring conducted under task C.4.

C.4.3.5 Sitewide Plans. The Contractor shall contribute to management and implementation of sitewide environmental surveillance documents. These documents are managed by the INL Contractor and contain ESER scope, including the *INL Site Environmental Monitoring Plan* and the *Technical Basis for Environmental Monitoring and Surveillance at the Idaho National Laboratory Site*. These documents are reviewed on an annual basis to determine if there is sufficient justification to issue a new revision. The Contractor shall participate in these reviews and provide updated information to the INL Contractor. Annual reviews must be completed prior to 30 April and revised documents, if needed, must be provided to the INL Contractor timely in order to meet DOE-ID's requirement for issuing revised plans by 31 October. The Contractor shall perform technical review and editing of sitewide plans for formatting, completeness, and accuracy.

C.4.3.6 Monitoring and Surveillance Committee. The Contractor must attend and participate in the Monitoring and Surveillance Committee bimonthly meetings. Organizations responsible for conducting environmental surveillance on and around the INL Site are part of the Committee and the Contractor is expected to report on surveillance activities and data to the Committee at the bimonthly meetings. The Contractor will take on the annual rotating chair responsibilities once during the term of the contract which entails planning the agenda, conducting the meeting, writing meeting minutes, and distributing agendas and meeting minutes prior to each meeting. The Contractor will make one presentation annually to the Committee. The Contractor shall support DOE-ID in chairing the Committee by arranging presentations, keeping meeting minutes, preparing meeting agendas, and distributing information to the Committee at DOE-ID's request.

C.4.3.7 Periodic Program Review. The Contractor shall periodically review the

ESER environmental surveillance scope to determine if there have been changes to mission, operational, environmental, regulatory, land use, technological, programmatic, or other conditions that may affect the adequacy, quality, responsiveness, or compliance of surveillance activities. DOE's *Handbook on Environmental Radiological Effluent Monitoring and Surveillance* serves as a resource for conducting these reviews (see C.11, References). DOE-ID may initiate these reviews and may require the Contractor to cooperate in externally-conducted reviews.

C.5 LAND MANAGEMENT

DOE-ID is responsible to ensure proper management of the Idaho Site land area and natural resources. DOE-ID requires specialized expertise in understanding and mitigating impacts of natural events and manmade activities. The Contractor must provide ecological and natural resources support to DOE-ID for land management issues. The Contractor must assess the impacts of natural phenomena (such as fire, drought, flood, and cyclical weather patterns) and DOE activities such as new infrastructure development on the Idaho Site and provide advice concerning possible mitigation and appropriate land management practices. Recommendations on how to manage and whether to revegetate disturbed areas must be provided. The Contractor must provide expertise and advice to DOE-ID, or to other entities as directed by the COR, for other land management issues, such as noxious weed surveys and control, threatened and endangered species protection, wetlands issues, grazing impacts to Idaho Site resources, and restoration of disturbed areas. The Contractor may also be requested to lead and/or support specific revegetation projects. In addition to the overarching scope identified in this section, specific supporting tasks are identified in C.5.1-C.5.8 below.

- C.5.1 Long-term Vegetation Transects. Long-term vegetation trends on the Idaho Site must be evaluated, including the invasion of fire-favored exotic grass on the Idaho Site. Two permanent vegetation transects must be surveyed for vegetative abundance once every five years. A survey is due to be conducted in calendar year 2016.
- C.5.2 Vegetation Map. The Contractor must maintain the Idaho Site vegetation map, and the associated documentation, *Vegetation Community Classification and Mapping of the Idaho National Laboratory Site* (see C.11, References). The map and document must be reviewed at least once during the contract period to assess the need for revision and update and after large disturbances such as wildland fires and infrastructure projects.
- C.5.3 Natural Resources Data. The ESER Program is the repository for sitewide natural resources data that are used in project planning and NEPA evaluations. The Idaho Site also has a long history of conducting ecological and radioecological research. A GIS tool that integrates natural resources data layers and a projects/document catalog containing documentation of research

projects have been developed under the ESER Program. The Contractor will maintain these tools, data sets, and data repositories and populate them as new data are collected and research projects are completed.

- C.5.4 National Environmental Policy Act (NEPA) Support. The Contractor must provide NEPA assistance for proposed Idaho Site activities that may affect natural resources through onsite surveys to assess the possible impacts on vegetation, wildlife, sensitive habitats, wetlands, and threatened and endangered species. The Contractor may be requested by Site Contractors to provide these services for potential actions requiring an environmental assessment or environmental impact statement. Funding for those projects will be provided by the requesting customer or, on a very limited basis, may be taken from the ESER base budget dependent upon the current spend rate and the COR's and CO's discretion. All other actions proposed for the Idaho Site that require a NEPA determination and have the potential to affect Idaho Site natural resources must be investigated and an evaluation provided to the requesting contractor (INL or ICP) and the DOE-ID NEPA Compliance Officer within, in most cases, ten working days. When requested, the Contractor must participate in project planning and development discussions; provide information; perform data analysis and interpretation; prepare impact summaries; advise the project on meeting biological/ecological resource protection needs; and/or perform document and literature reviews as requested for contemplated projects, environmental assessments, and environmental impact statements. The Contractor may be requested to review natural resource portions of environmental assessments or environmental impact statements and provide comments for DOE-ID. The number of field evaluations, not including those for specific environmental assessments or environmental impact statements, varies annually from 50-70. The INL Contractor provides cultural resources support to DOE-ID.
- C.5.5 National Environmental Research Park Coordination. The Idaho Site is one of seven National Environmental Research Parks (NERP) within the DOE complex and one of the largest remaining sagebrush steppe ecosystems. The Contractor must coordinate and administer NERP activities on the Idaho Site, including providing guidance, training, and access assistance to university personnel and other scientists requesting permission to conduct studies on the Idaho Site. The Contractor shall promote the NERP to external researchers to encourage greater use of the NERP as an outdoor environmental and ecological research laboratory and seek to increase collaborative research projects with external researchers to maximize use of DOE funds for this purpose.
- C.5.6 Contacts with Other Agencies. The Contractor must be the point-of-contact for the exchange of technical information with state and Federal land management and wildlife agencies. The Contractor must not engage in policy or other decision-making discussions with those entities. They include the U.S. Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Geological Survey, Idaho Department of Fish and Game, U.S. Forest Service, U.S. National Park

Service, Tribal authorities, and U.S. Animal Plant and Health Inspection Service. The Contractor must provide DOE-ID an opportunity to participate in the interactions with land management and wildlife agencies through the COR or other designated person.

C.5.7 Idaho Site Committees. The Contractor shall participate in and provide support to Idaho Site Contractor and DOE-ID committees. These include the Wildland Fire Committee and the Land Use Committees. The Contractor should plan to attend up to six meetings of each Committee annually. The Contractor may be asked to provide presentations to these Committees and to perform evaluations on request using data collected under this task.

C.5.8 Reporting and Deliverables.

C.5.8.1 The Contractor must publish a report on the Long-Term Vegetation Transects survey within 18 months of completing the survey, unless an extension to the due date is approved by DOE-ID.

C.5.8.2 The Contractor must publish a current Idaho Site vegetation map and associated documentation, if an update is determined to be needed by mutual agreement between the Contractor and DOE-ID, in order to keep this resource useful and relevant. At least one update is expected during the term of the contract.

C.5.8.3 The Contractor must provide NEPA evaluations described in C.5.4 electronically as requested. The Contractor must provide reports of surveys and reviews of ecological resources, impacts from proposed actions, and any proposed mitigation, as requested.

C.5.8.4 The Contractor must publish reports on NERP research it has conducted or substantively collaborated on with others.

C.5.8.5 The Contractor must summarize data and activities conducted under Section C.5 to be included in the ASER described in C.4.3.2.

C.6 WILDLIFE MANAGEMENT

The Contractor shall support DOE-ID in its responsibilities to avoid or minimize impacts to biological resources that may result from Idaho Site operations. The Idaho Site is located in a large, relatively undisturbed expanse of sagebrush steppe. Across western North America, sagebrush steppe has been degraded and, as a result, much of the flora and fauna that occur in this ecosystem have experienced declines in abundance and distribution. Several species are now classified as sensitive, while others, such as the greater sage-grouse, are being considered for listing as threatened or endangered under the Endangered Species Act (ESA).

- C.6.1 Sage-Grouse Protection. The Contractor shall perform scope identified in the *Candidate Conservation Agreement for Greater Sage-grouse on the Idaho National Laboratory Site* (CCA) that falls within the ESER contract purview. The CCA is a voluntary agreement between DOE-ID and the U.S. Fish and Wildlife Service. In the event the sage-grouse is listed under the ESA, the CCA gives DOE the flexibility to continue its missions while protecting sage-grouse and their habitat.
- C.6.1.1 The Contractor shall support DOE-ID in maintaining the document and all its associated source data and databases, as discussed in CCA Section 11.4, Amendments; in managing interactions with the U.S. Fish and Wildlife Service, Site Contractors, and other interested parties; and in developing approaches to new or changing events affecting sage-grouse.
- C.6.1.2 The Contractor shall be responsible for providing the specific requirements found in the CCA to all Idaho Site Contractors requesting a biological review of a proposed project. The Contractor shall also maintain awareness of conditions or activities that may affect whether the Idaho Site is nearing the population and biological trigger points.
- C.6.1.3 The Contractor shall perform the scope identified in CCA Section 11.1, Monitoring Strategy. The Contractor shall also prepare the report as identified in CCA Section 11.3 and support the schedule for DOE-ID to submit the final report to the U.S. Fish and Wildlife Service before 31 January of each year. The Contractor will perform a rabbit population survey in 2016 and may perform similar surveys in subsequent years if DOE-ID determines the need exists.
- C.6.1.4 The Contractor shall perform sagebrush habitat restoration in priority areas as identified in the CCA. This is planned as a recurring annual activity to be funded at \$25,000 per year. DOE-ID may authorize additional restoration if funds are available. The Contractor shall monitor the success of previous sagebrush habitat restoration efforts to determine if any supplemental action is needed to maintain the restored area(s) and determine what modifications, if any, need to be incorporated into future restoration efforts to achieve better outcomes.
- C.6.1.5 The Contractor shall perform ESER responsibilities identified in the CCA Conservation Measures. The Contractor will provide support as need to implement Conservation Measures, including, but not limited to, performing assessments; consulting with DOE-ID and Site Contractors; providing CCA requirements to contractors on potential projects as part of DOE's NEPA review; and supporting interagency coordination.
- C.6.2 Bat Protection.

C.6.2.1 Bat Protection Plan. A bat protection plan for the Idaho Site is currently under development and will be completed before December 2015. The plan will provide conservation measures and guidelines for mitigating the impacts to bats and their habitat that may result from Idaho Site operations. The plan is being prepared with advice and guidance from the U.S. Fish and Wildlife Service and the state of Idaho Department of Fish and Game. The plan will facilitate the biological assessment and biological opinion process with the U.S. Fish and Wildlife Service if a determination is made to list an Idaho Site resident or transient species. After the plan is issued, the Contractor shall maintain the plan, perform annual reviews, draft a revised document, and submit the draft revision to DOE for review and comment. The Contractor shall address DOE comments and issue a final revised plan annually or as needed after DOE's approval is received. The Contractor shall meet with DOE customers on annual as needed to review progress, including results of monitoring performed under C.6.2.2 of this SOW. The Contractor shall prepare an annual progress report as identified in the Plan.

C.6.2.2 Bat Monitoring.

- a. The Contractor shall conduct bat monitoring on the Idaho Site including: internal hibernacula surveys, cave environmental monitoring (internal temperature and humidity), biological sampling (swab sampling of biota on bats and cave soil sampling), passive acoustical monitoring at selected habitat features, active acoustical monitoring along drivable transects, and data analysis and interpretation. This monitoring will support maintenance of the Idaho Site Bat Protection Plan (Section C.6.2.1) and determine population numbers, distribution, trends and habitat use. The Contractor will comply with the DOE-ID Cave Resources Management Policy and Protocol and submit a cave access request to DOE-ID to obtain a permit for conducting this work; the Contractor will ensure the permit is renewed as required.
- b. The Contractor shall obtain bat carcasses collected by Site Contractors and have them analyzed by a qualified laboratory for gamma-emitting radionuclides, tritium, americium-241, plutonium-238, plutonium-239/240, and strontium-90. This monitoring will support maintenance of the Idaho Site Bat Protection Plan (Section C.6.2.1).

C.6.3 Migratory Birds.

C.6.3.1 Migratory Bird Treaty Act Compliance. The Contractor shall support DOE-ID's management and compliance activities with its Migratory Bird Special Purpose Permit. The Contractor shall provide training to DOE and Site Contractors; and provide advice to DOE-ID and Site Contractors

on minimizing impacts to migratory birds from Idaho Site operations, responding to inquiries, and meeting permit reporting requirements. The Contractor may on occasion be requested to coordinate transfer of eggs and young to a licensed rehabilitator in compliance with permit conditions. The Contractor shall collect migratory bird mortality data and prepare annual reports required by state and federal permits. The Contractor will assist DOE-ID in preparing state and federal collection permit applications and renewal documents.

C.6.3.2 Midwinter Raptor Counts. The Contractor shall conduct midwinter raptor counts annually in January on and around the Idaho Site in conjunction with the U.S. Geological Survey's Midwinter Bald Eagle Count as documented in the ASER.

C.6.3.3 Breeding Bird Surveys. The Contractor shall conduct breeding bird surveys annually in May/June in conjunction with the U.S. Geological Survey's North American Breeding Bird Survey program according to the routes and methods documented in the ASER.

C.6.4 Wildlife Management Support.

C.6.4.1 Ad Hoc Surveys. The Contractor must respond to ad-hoc requests for wildlife surveys from DOE-ID and Site Contractors. These surveys will be limited and finite in scope and duration unless emerging issues drive a larger, more involved effort.

C.6.4.2 Nuisance Wildlife. Site Contractors are responsible for managing situations where wildlife may be causing safety concerns at site facilities. The Contractor may be asked to provide advice, recommendations, and training to Site Contractors on wildlife management issues. The Contractor may also be asked on limited occasions to help with relocation of nuisance wildlife.

C.6.4.3 Field Worker Training. The Contractor shall provide training as requested to Idaho Site field workers on minimizing impacts to wildlife and potential hazards associated with field work activities, such as interactions with snakes, bats, and badgers.

C.6.4.4 Coordination. The Contractor shall participate in stakeholder and other meetings on wildlife issues, such as Sage-grouse Local Working Groups, State Advisory Committee on Sage-grouse, the Idaho Bat Working Group, and others as needed to stay informed and connected. The Contractor shall share data with stakeholders as requested.

C.6.5 Reporting and Deliverables.

- C.6.5.1 The Contractor shall provide products as requested by DOE-ID to support CCA implementation as per CCA Section 10 (Conservation Measures) and Section 11.4 (Amendments).
- C.6.5.2 The Contractor shall provide a report of CCA monitoring activities and results from the previous calendar year to DOE-ID by 15 January each year for issuance to the U.S. Fish and Wildlife Service. This report will include progress on sagebrush habitat restoration.
- C.6.5.3 The Contractor shall send the most current sage-grouse lek map to DOE-ID annually by 1 February for issuance to the Bureau of Land Management.
- C.6.5.4 The Contractor shall provide data from breeding bird surveys to the U.S. Geological Survey for inclusion in its database.
- C.6.5.5 The Contractor shall provide midwinter raptor count data to the Idaho State Midwinter Survey Coordinator.
- C.6.5.6 The Contractor shall provide data from sage-grouse lek surveys to the state of Idaho Fish and Game Department.
- C.6.5.7 The Contractor shall provide an annual progress report as identified in the Idaho Site Bat Protection Plan to DOE-ID by 31 December.
- C.6.5.8 The Contractor will submit a cave access request to DOE-ID at least 30 days prior to any proposed cave entries.
- C.6.5.9 The Contractor shall maintain the Idaho Site Bat Protection Plan and update the plan once per year or as needed.
- C.6.5.10 The Contractor shall provide summaries of Section C.6 activities for inclusion in the ASER described in Section C.4.3.2.
- C.6.5.11 The Contractor shall provide migratory bird mortality data reports in compliance with state and federal permits to DOE-ID to allow for submittal to designated regulatory authorities by January 15th annually.
- C.6.5.12 The Contractor shall prepare permit application and renewal documents for the state of Idaho and the U.S. Fish and Wildlife Service scientific collection permits by January 15th annually.

C.7 EDUCATION AND COMMUNICATION

The Contractor must provide communication and educational outreach relating to data and information gathered in the performance of the above tasks. Priority is placed on those

communities surrounding the Idaho Site, touching other parts of southeast Idaho as resources allow. Emphasis is placed on providing the public and stakeholders with valid, unbiased information on qualities and characteristics of the Idaho Site environment and impacts of Idaho Site operations on the environment and public. Involvement of students, especially K-12, should also be emphasized. Newsletters, tours, presentations, press releases, displays, brochures, planning/participating in conferences, and the Internet are all examples of methods for achieving outreach. The Contractor must support DOE-ID in responding to inquiries from the public, stakeholders, and DOE Headquarters, including Freedom of Information Act requests. In the conduct of this task, the Contractor will interface with American Indian Tribes, media, members of the U.S. Congress and their staffs, community leaders, and a wide variety of stakeholders and local governments. For this reason, it is essential that the Contractor understand DOE's processes and priorities for these interfaces. Therefore, the Contractor must receive DOE-ID approval prior to releasing externally any information related to the Idaho Site and the Contractor must coordinate external interfaces with DOE-ID.

The Contractor must maintain an Internet website to be used as a means of communicating ESER program information, status, and activities to stakeholders and the public. The website must have a user-friendly (i.e. non-technical) searchable database that contains the results of monitoring conducted under task C.4. Reports published under this contract may also be posted on the website.

C.8 ANNUAL WORK PLANNING

C.8.1 Annual Work Proposal. Proposed tasks and budget breakdown for the next option year must be submitted annually by 1 March. The proposal must include work scope descriptions to the subtask level, schedule, deliverables, and a spending plan at the same level of detail as the monthly progress report, including any proposed scope and plans for estimated carryover funds. The Contractor is not obligated to provide this information for Firm-Fixed-Price scope in Section C.4.1 unless directed by the Contracting Officer. The Contractor may propose additional research projects not specifically called out in this SOW but within its boundaries in each year of the contract in its annual work proposal that will be evaluated by the CO and COR against funding availability and programmatic needs.

C.8.2 Worker Safety and Health Program. The Contractor must have a worker safety and health program as per section H.12, Worker Safety and Health Program. A Worker Safety and Health Plan (WSHP) shall be submitted for approval at least 30 days prior to contract effective date. The WSHP must be approved by DOE-ID by the contract effective date. The approved WSHP shall be implemented prior to the start of work. The Contractor must annually submit to DOE-ID, no later than 30 days prior to the anniversary date of approval, either an updated WSHP for re-approval or a letter stating that no changes are necessary in the currently approved WSHP.

C.8.3 Other Projects. During the course of the contract, the Contractor may be asked to submit proposals to conduct monitoring and surveys, review reports, write technical white papers, participate on project teams, and otherwise support projects that are not specifically identified in this SOW but are within its boundaries. These projects are difficult to anticipate and plan for but may come at the request of the Nuclear Energy, Naval Reactors, and/or Environmental Management customers at the Idaho Site. Funding for these projects will be provided by the requesting customer and, on a very limited basis, may be taken from the ESER base budget dependent upon the current spend rate and the COR's and CO's discretion.

C.9 DELIVERABLES

C.9.1 Refer to Section J, Attachment J-A for specific deliverables requirements.

C.9.2 Reports and other deliverables as delineated in sections C.4-C.8.

C.9.3 Special reports on specific topics as requested with due dates negotiated.

C.9.4 Research reports as specified when new projects are proposed and approved.

C.9.5 Monthly progress reports are due electronically on the 20th of the month following end of the reporting month summarizing the progress and expenditures for each task and subtask, cost and schedule variance(s), and projections for the next month. The Contractor shall keep the COR informed as needed in between monthly reports.

C.10 SPECIAL CONSIDERATIONS

C.10.1 Environment, Safety, Health, Quality, and Security Compliance. The Contractor must follow the Federal, state, local, and DOE requirements for environment, safety health, quality, and security. The Contractor must observe certain necessary Idaho Site procedural requirements when operating on the Idaho Site such as badging, emergency training, field work, site communications and notification, radiation training, additional facility access requirements, security (including restrictions on foreign nationals), shipping, hazardous material training, hazardous waste, waste minimization, aviation safety, cultural resources, work planning and coordination, and NEPA documentation for projects. For unescorted access into Idaho Site facilities, the following training is required at minimum of the following: Radiation Control Training (General Employee Radiation Training, Radiation Worker I or II), Health and Safety Access Training (Environment, Safety and Health Training), and Site Access Training. For more information, refer to Section H.11, INL Access Safety.

C.10.2 Other Compliance Issues. DOE and Idaho Site requirements germane to the activities in this SOW are listed in C.11. Additionally, during the period of

performance, the Contractor may be requested to comply with other DOE Orders and requirements. Any requests for compliance will follow the processes outlined in either the "Technical Direction" or the "Changes" clause in the contract.

- C.10.3 Data Management. The Contractor must produce and maintain high-quality data in readily available and retrievable formats for all data inherited, collected, obtained, and/or managed under this contract. Backup systems or protocols should also be implemented to minimize potential losses of data. The Contractor is expected to bring necessary administrative, scientific, and technical expertise to fulfill this expectation.
- C.10.4 Equipment Maintenance. The Contractor shall maintain all equipment associated with conducting the activities in this SOW, including Government Furnished Equipment in accordance with the FAR property clause in Section I – FAR 52.245-1 "Government Property (Aug 2010)." The equipment must be kept in good repair, properly operating for its intended purpose, and calibrated per manufacturer specifications as applicable. The Contractor shall submit requests for replacement or new equipment to DOE-ID for review and approval.
- C.10.5 Quality Assurance Program. The Contractor must establish and maintain a quality assurance program consistent with DOE Order 414.1D, Quality Assurance. The Contractor must prepare a quality assurance plan that complies with the Order and submit it to the COR for approval within six months after contract award. On an annual basis, the Contractor must review the plan and update as necessary. If, during the annual review, the Contractor determines the plan requires update, the Contractor must submit the revised Plan to DOE-ID for review and approval. Alternatively, if the Contractor determines the plan does not require update, the Contractor must submit a summary of the annual review that explains why an update is not needed. The Contractor must submit either the updated plan or summary explanation by 1 April each year.
- C.10.6 Procedures. The Contractor must maintain operating procedures for work conducted in the ESER Program. These procedures must be provided to the COR in electronic format, with updates provided annually or as needed.
- C.10.7 Site Cooperation and Services. The Contractor must establish and maintain cooperative working relationships with Site Contractors and other site residents. The Contractor may be called upon periodically to provide data and other assistance to these groups as deemed necessary by DOE-ID. The Site Stabilization Agreement and other agreements between DOE and Site Contractors necessitate the Contractor to receive services from approved Site Contractors that will be needed to operate on the Idaho Site, including crafts, calibration, and dosimetry support. The Contractor should set up a mechanism to pay for these services directly to the service provider using contract funds.

The Contractor will negotiate tenant use agreements with Site Contractors for Idaho Site facility areas routinely used for ESER Program activities.

- C.10.8 Subcontractor Performance. The Contractor is responsible for ensuring subcontractors, including analytical laboratories, perform as per requirements and specifications and flow-down all applicable requirements to subcontracts. The Contractor must notify DOE-ID within ten working days of determining the existence of subcontractor performance and/or safety issues and propose remedies for resolving the issues.
- C.10.9 Contractor Self-Assessment. The Contractor is expected to perform oversight of its operations to provide reasonable assurance that contract requirements are fulfilled; that its activities are protective of workers, the public and the environment; and that contract activities are effectively run and continuously improved. The Contractor is expected to engage in at least one self-assessment activity for each year of contract activity in addition to the audits required in Section 4.1.9. The self-assessment plan and final report must be provided to the COR and the COR may choose to “shadow” the Contractor’s self-assessment activities.
- C.10.10 External Release Reviews. All documents and presentations planned for external release, including poster presentations and web postings, must be submitted to the COR for coordination of Security Classification and public release reviews. Such reviews may take from one to three weeks dependent upon workload, so this review should be incorporated into planning. Short turnaround reviews (less than one week) should be justified and limited in occurrence.
- C.10.11 Informing the COR. The Contractor must establish methods to keep the COR timely informed of unanticipated or unusual events or performance issues outside of the routine reporting requirements in sections C.4 through C.8 above. The Contractor must keep the COR informed of the results of the environmental surveillance program in advance of the quarterly report. The information should be timely, with important or unusual results reported within ten working days. The method of reporting (e-mail, telephone, fax, or other written communication) is at the discretion of the Contractor.
- C.10.12 Data Protection. The Contractor shall obtain written agreement of each employee permitted access to information and data collected under this contract not in the public domain which the employee agrees he/she will not discuss, divulge, or disclose any such information or data to any person or entity except those persons within the Contractor’s organization directly concerned with performance of this contract. The Contractor shall flow this requirement down to subcontracts. Refer to Section H.8 for additional confidentiality requirements.

C.10.13 Records Management. The Contractor will manage records generated in the execution of this contract and will work with DOE-ID to develop and implement a process for submitting and maintaining records in the DOE-ID records management system.

C.10.14 Naval Reactors Facility. When conducting work around and near the Naval Reactors Facility the Contractor must make timely notification to Facility personnel and follow NRF-specific requirements.

C.11 REFERENCES

References listed are limited to those having immediate applicability to the tasks discussed in this SOW.

- C.11.1 DOE Office of Aviation Management and Safety, 2011, DOE Order 440.2C, Aviation Management and Safety, June.
- C.11.2 DOE Office of Health, Safety, and Security, 2015, Guidance for Preparing the 2014 Annual Site Environmental Reports, June.
- C.11.3 DOE Office of Health, Safety, and Security, 2011, DOE Order 231.1B, Environment, Safety, and Health Reporting, June.
- C.11.4 DOE Office of Health, Safety, and Security, 2011, DOE Order 414.1D, Quality Assurance, April.
- C.11.5 DOE Office of Health, Safety, and Security, 2011, DOE Order 458.1, Radiation Protection of the Public and the Environment, January.
- C.11.6 DOE Office of Health, Safety, and Security, 2015, DOE-HDBK-1216-2015, Environmental Radiological Effluent Monitoring and Environmental Surveillance, March.
- C.11.7 DOE Office of Scientific and Technical Information, 2010, DOE Order 241.1B, Scientific and Technical Information Management, December.
- C.11.8 DOE Idaho Operations Office, 2014, DOE/ID-12082 (13), Idaho National Laboratory Site Environmental Report for Calendar Year 2013, October.
- C.11.9 DOE Idaho Operations Office, 2014, DOE/ID-11514, Candidate Conservation Agreement for Greater Sage-grouse on the Idaho National Laboratory Site, October.
- C.11.10 DOE Idaho Operations Office, 2014, DOE/ID-11485, Technical Basis for Environmental Monitoring and Surveillance at the Idaho National Laboratory Site, February.

- C.11.11 DOE Idaho Operations Office, 2014, DOE/ID-11088, Idaho National Laboratory Environmental Monitoring Plan, February.
- C.11.12 DOE Idaho Operations Office, 2011, INL Site Stabilization Agreement, October.
- C.11.13 DOE Idaho Operations Office, 2010, Site Construction Jurisdictional Procedural Agreement, March.
- C.11.14 DOE Idaho Operations Office, 2012, 04.OD.01, DOE-ID Cave Resource Management Policy and Protocol, August.
- C.11.15 Shive, J. P., A. D. Forman, K. Aho, J. R. Hafla, R. D. Blew, and K. T. Edwards, 2011, GSS-ESER-144, Vegetation Community Classification and Mapping of the Idaho National Laboratory Site, January.