FINAL

OMB Approval No. 9000-0008

SOLICITATION, OFFER AND AWARD

1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) ▶ RATING

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TRACT NO.	3. SOLICITATION NO.	4. TYPE OF SOLICITATION	5. DATE ISSUED	6. REQUISITION/PURCHASE NO.
DE-AC07-06ID14680	DE-RP07-05ID14680	NEGOTIATED (RFP)	11/18/05	07-05ID14680.000

7. ISSUED BY CODE
U. S. Department of Energy
Idaho Operations Office (DOE-ID), Attn: T. Wade Hillebrant, Contracting Officer
1955 Fremont Avenue, Idaho Falls, ID 83415-1221

8. ADDRESS OFFER TO *(If other than Item 7)*
U. S. Department of Energy
Idaho Operations Office (DOE-ID), Attn: Suzette M. Olson, Contract Specialist
1955 Fremont Avenue, Idaho Falls, ID 83415-1221

NOTE: In sealed bid solicitations, "offer" and "offeror" mean "bid" and "bidder."

SOLICITATION

9. Sealed offers in original and See L.2 copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if hand carried, in the depository located in See L.21 until 3:30 p.m. (Hour) local time July 20, 2005 (Date)

CAUTION — LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL: ▶	A. NAME	B. TELEPHONE NO. *(NO COLLECT CALLS)*			C. E-MAIL ADDRESS
	Suzette M. Olson, Contract Specialist	AREA CODE 208	NUMBER 526-7385	EXT.	Suzette.olson@nuclear.energy.gov

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OFFER *(Must be fully completed by offeror)*

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within 220 calendar days *(180 calendar days unless a different period is inserted by the offeror)* from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT ▶	10 CALENDAR DAYS	20 CALENDAR DAYS	30 CALENDAR DAYS	CALENDAR DAYS
	NA %	NA %	NA %	NA %

14. ACKNOWLEDGMENT OF AMENDMENTS *(The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated:*

AMENDMENT NO.	DATE	AMENDMENT NO.	DATE
1	7-11-05		
2	7-11-05		

15A. NAME AND ADDRESS OF OFFEROR — CODE ____ FACILITY ____
S. M. Stoller Corporation
1780 First Street
Idaho Falls, ID 83401

16. OFFER *(Type or print)* Douglas U. Gail
Vice President North West Operations Director

15B. TELEPHONE NUMBER			15C. ☒ CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE	17. SIGNATURE	18. OFFER DATE
AREA CODE 208	NUMBER 525-9358	EXT.		Douglas Gail	July 27, 2005

AWARD *(To be completed by Government)*

19. ACCEPTED AS TO ITEMS NUMBERED

20. AMOUNT

21. ACCOUNTING AND APPROPRIATION

22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION:
☐ 10 U.S.C. 2304(c) ( ) ☐ 41 U.S.C. 253(c) ( )

23. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 copies unless otherwise specified)* ▶

ITEM G.5

ADMINISTERED BY *(If other than Item 7)* CODE

25 PAYMENT WILL BE MADE BY CODE

26. NAME OF CONTRACTING OFFICER *(Type or print)*
T. Wade Hillebrant

27. UNITED STATES OF AMERICA
T. Wade Hillebrant
(Signature of Contracting Officer)

28. AWARD DATE
18 Nov 2005

IMPORTANT — Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

PART I - SECTION B

SUPPLIES OR SERVICES AND PRICES/COST

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PART I - SECTION B

SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 LOCAL 999.B01 TYPE OF CONTRACT - ITEMS BEING ACQUIRED

This is a cost plus fixed-fee, or, in the case of a non-profit entity, a cost plus no-fee contract. The Contractor shall furnish all personnel, facilities, equipment, material, supplies, and services (except as may be expressly set forth in this contract as furnished by the Government) and otherwise do all things necessary for, or incident to, the performance and providing the following items of work:

Item 1 – Statement of Work in Section C. Authorization to proceed to additional contract years is subject to the requirements of clause B.2 below and the option clause(s) in the contract.

Item 2 – Reports as required in accordance with "Reporting Requirements Checklist" Attachment J-A in Section J and Section C.

B.2 LOCAL 999.B03 ESTIMATED COST AND FIXED FEE (IF APPLICABLE) – BASE CONTRACT AND OPTION WORK

a. The estimated cost and fixed fee (if applicable) for the base contract year is as follows:

Base Contract Term – January 1, 2006, to December 31, 2006.

Estimated Cost	[redacted]	Thru 4002	[redacted]
Fixed Fee	[redacted]	"	[redacted]
Total	$ 1,579,803	"	2,042,936

b. The contract may be extended, at the unilateral option of the Government in accordance with FAR 52.217-9 set forth in Section F. Further, the Contractor agrees that the options, if exercised, shall be accomplished within the following estimated cost and fixed fee (if applicable).

Option for Contract Year 2 – January 1, 2007, to December 31, 2007.

Estimated Cost	[redacted]
Fixed Fee	[redacted]
Total	$ 1,597,421

Option for Contract Year 3 - January 1, 2008, to December 31, 2008.

Estimated Cost	[redacted]
Fixed Fee	[redacted]
Total	$ 1,646,693

Option for Contract Year 4 - January 1, 2009, to December 31, 2009.

Estimated Cost	[redacted]
Fixed Fee	[redacted]
Total	$ 1,647,750

Option for Contract Year 5 - January 1, 2010, to December 31, 2010.

Estimated Cost	[redacted]
Fixed Fee	[redacted]
Total	$ 1,724,518

Total Estimated Cost and Fee (if applicable) for base contract year plus option years:

$ 8,196,185

c. In addition to the above option years, and as encouraged in the SOW, DOE-ID and the Contractor may, by mutual agreement, modify the SOW and estimated cost and fee (if applicable) to add additional, innovative research proposed by the Contractor considered to be within the work scope of the contract.

Mod. A003

B.3 LIMITATION OF FUNDS

$2,187,009

Pursuant to FAR 52.232-22, entitled "Limitation of Funds," total funds in the amount of ~~$500,000~~ are obligated herewith and made available for payment of allowable costs and fixed fee (if applicable) to be incurred from the effective date of this contract through the period estimated to end ~~December 31, 2006.~~ Feb. 15, 2007 A003

For DOE-ID purposes, the accounting and appropriation data for the initial increment of funds is as follows:

Program: 2720310; Object Class: 25200; XID: 35145; B&R: AFOLOL000

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, and public education for the Idaho Site in the Environmental Surveillance, Education, and Research Program (ESER). The Idaho Site (IS) is under the purview of the U.S. Department of Energy, Office of Nuclear Energy, Science, and Technology, 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;
- 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 owned by the DOE Office of Environmental Management;
- Naval Reactors Facility (NRF), operated by Bechtel Bettis - owned by the National Nuclear Security Administration and focused on supporting the U.S. Navy's nuclear-powered fleet; and
- Advanced Mixed Waste Treatment Project (AMWTP), operated by Bechtel BWXT Idaho, LLC, 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 air, water, land, and other natural resources impacted by IS operations and compliance with applicable environmental, public health, and resource protection laws, and regulations. Additional information on the IS may be accessed on the Internet at http://www.id.doe.gov.

C.2 GENERAL QUALIFICATIONS AND SCOPE

2.1 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, competent and conscientious technicians are required to collect and process the samples, highly accurate and reliable laboratory analyses are needed, and knowledgeable staff are required to interpret the results for reports and for verification that IS processes are operating properly.

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 IS operations on the natural environment within and surrounding the IS cannot be overemphasized. It is important that the Contractor maintains independence from the Site Contractors with regard to environmental surveillance activities for comparability and verification integrity.

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 wildlife management and IS ecosystems. The personnel under this contract provide technical advice to DOE-ID on a wide variety of land management issues including revegetation of disturbed areas, wildlife depredation, threatened and endangered species, noxious weeds, wildlife population dynamics, bio-contaminants, and ecosystem management. Good ecological research requires biological expertise, research management skills, and the ability to get the information published in peer-reviewed journals.

2.4 The Contractor must develop a conservation management plan for mitigating impacts to IS resident species of concern, including those on the brink of a threatened or endangered classification.

2.5 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).

2.6 DOE-ID also 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 methods transfer are important and will be aided by reporting of results in technical journals, press releases, presentations, displays, and routine reports.

2.7 DOE-ID also 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 will encourage participation of regional universities located in the states of Colorado, Idaho, Montana, Oregon, Utah, Washington, and Wyoming in performing this SOW. Participation of universities within the state of Idaho is to be emphasized.

2.8 The Contractor must maintain an adequately staffed office in Idaho Falls, Idaho, in order to provide ready access to the IS, DOE customers, and other associates who reside in southeast Idaho.

2.9 Documents referenced in this SOW can be accessed on the ESER Procurement website at http://www.id.doe.gov/eser/.

2.10 This SOW may be periodically modified by mutual agreement of the parties to incorporate changes in programmatic needs and annual budget variations.

C.3 ESER TASKS

There are five major tasks in this SOW: environmental surveillance; land management support; conservation management planning; other research; and education and communication. These tasks are described in detail in Sections C.4-C-8. Sampling locations are discussed in reports listed in C.11 of this SOW. These references can be accessed on the ESER Procurement References web page (http://www.id.doe.gov/eser/).

C.4 ENVIRONMENTAL SURVEILLANCE

The Contractor must conduct an offsite environmental surveillance program. This program must include collection of samples of air, water, animal tissues, precipitation, food, and soil. Ambient radiation levels must be measured with thermoluminescent dosimeters. The program is described in the *Idaho National Engineering and Environmental Laboratory Site Environmental Report for Calendar Year 2003* and the *INEEL Environmental Monitoring Plan*. A sitewide multi-agency, multi-contractor organization exists, as chartered under the *INEEL Monitoring and Surveillance Committee Charter and Objectives*, for purposes of information exchange. The Contractor must send at least one representative to attend the Monitoring and Surveillance Committee bimonthly meetings. The Contractor may be asked to take on the rotating chair responsibilities and to make presentations to the Committee.

4.1 Air.

(a) The Contractor must operate 11 offsite air samplers, two replicate samplers, two community monitoring stations, and three onsite air samplers (to provide overlap with the INL contractor onsite air sampling program). The Contractor must ensure leases are in place with landowners to site air samplers on private property. The Contractor will be reimbursed by DOE-ID for leasing and utility costs for those samplers, approximately $3,000 total per year.

(b) Air filters must be changed at each station each week. Air filters must be analyzed weekly for gross alpha, gross beta, 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 with a sensitive balance, before and after use, to determine the weight of suspended particulate on the filter. On a regular rotating schedule, a minimum of five of the composites must be analyzed for strontium-90 and for plutonium-238, plutonium-239/240, and americium-241. Air moisture samples must be collected and analyzed for tritium one to four times per calendar year quarter, depending on the amount of atmospheric moisture present.

(c) The Contractor must operate three high-volume air samplers that collect particles smaller than ten microns in diameter. The filters must be run every sixth day and weighed on a special laboratory balance to determine the mass of the particles collected.

4.2 Precipitation. Precipitation samples must be collected and analyzed for tritium weekly, if available, at the Experimental Field Station, monthly at the Central Facilities Area and in Idaho Falls.

4.3 Water. Drinking water samples must be collected semiannually at fourteen offsite locations. Surface water samples must be collected at five offsite locations. The samples must be analyzed for gross alpha, gross beta, and tritium.

4.4 Animal.

(a) Samples of liver, muscle, and thyroid from six sheep, four that have spent time grazing on the IS and two control sheep, must be collected and analyzed annually. Liver and muscle tissues must be analyzed for gamma-emitting nuclides and thyroids analyzed for iodine-131.

(b) Big game animals accidentally killed on IS roads must be sampled and analyzed (9-21 animals sampled annually from 1998-2003). Liver and muscle tissues must be analyzed for gamma-emitting nuclides and thyroids analyzed for iodine-131.

(c) Waterfowl from IS liquid waste disposal ponds must be collected and analyzed for gamma-emitting nuclides and a smaller subset of the samples must be analyzed for strontium-90 and transuranic radionuclides (7-14 birds sampled annually between 1998-2003). 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.

4.5 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 IS. The samples must be analyzed for iodine-131. The Contractor must also collect eight other milk samples monthly from commercial dairies and/or single-family cows. The samples must be analyzed for iodine-131. One sample from each location must be analyzed annually for strontium-90 and one sample from each location for tritium.

(b) The Contractor must obtain samples annually of potatoes (7), wheat (12), and lettuce (9) each year. The samples must be analyzed for gamma-emitting nuclides and strontium-90. At least one duplicate of each food type must also be analyzed.

4.6 Soil. The Contractor must collect soil samples from each of twelve locations

annually in even numbered calendar years only. 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.

4.7 Environmental Radiation Measurement. Thermoluminescent dosimeters must be placed at 16 offsite locations. The dosimeters must be changed every six months and analyzed by the INL Contractor Dosimetry Unit. The Contractor will be reimbursed by DOE-ID for the analysis costs.

4.8 Sample Analysis. The Contractor must arrange for the analysis of the samples by a qualified laboratory or laboratories with concurrence from the COR. A blind quality assurance program using blanks and spiked samples must be maintained with the laboratory. The sensitivity of the analyses must be sufficient to obtain the approximate minimum detectable concentrations stated in Table 3-2 of the *Idaho National Engineering and Environmental Laboratory Site Environmental Report for Calendar Year 2003*. The Contractor must be responsible for tabulating, analyzing, and reporting the results. At least once during the term of the contract, the Contractor must perform an onsite audit of the laboratory(ies). The Contractor must participate in the sitewide Monitoring and Surveillance Committee round-robin laboratory comparison program by submitting one sample each of spiked air, water, and soil per year (or every other year for soil) to its laboratory(ies). Round-robin spiked samples are supplied by a DOE laboratory.

4.9 Other Sampling.

(a) Additional samples must be collected as directed by DOE after unusual events that may produce radioactivity in the atmosphere or at stakeholder or program request. 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.

(b) The Contractor must participate in the nationwide EPA Environmental Radiation Ambient Monitoring System program for monitoring environmental radioactivity in air, precipitation, and drinking water. The Contractor must maintain and operate a high-volume air sampler in Idaho Falls. The sampler filter is changed twice a week. Precipitation and drinking water samples are collected monthly from Idaho Falls. All samples are shipped to the EPA laboratory in Montgomery, Alabama for analysis. EPA does not charge analytical costs for these samples.

4.10 Community Monitoring Stations. The surveillance network includes two Community Monitoring Stations that are part of the Idaho Environmental Monitoring Program which is a cooperative effort between DOE-ID, the state of Idaho, the National Oceanic and Atmospheric Administration (NOAA), the Shoshone-Bannock Tribes, and the ESER Contractor. The Contractor must continue to operate the two stations, located at schools in Blackfoot and Rexburg. The Stations have low-volume air samplers and thermoluminescent dosimeters that are operated on the same schedule as other similar equipment in the ESER network and meteorological monitoring equipment that is maintained by NOAA.

They also have electronic data displays showing the data collected at the Stations. The Contractor must work with a teacher at each school to be trained and paid as the station operator. The teacher and the Contractor must cooperate in exploring ways the Station and its data can be included in the school's curriculum.

4.11 Reporting and Deliverables.

(a) ESER Internet Website. The Contractor must maintain an Internet website to be used as a means of communicating the surveillance program and results to stakeholders and the public. The website must have a user-friendly (i.e. non-technical) searchable surveillance database.

(b) Quarterly Reports. The Contractor must prepare calendar year quarterly reports on the results of the offsite surveillance program that discuss trends and interpret the results. Important or unusual results must be highlighted and explained. The quarterly report is not printed in hardcopy. It is published electronically through posting on the Contractor's website and an electronic mail notification of the posting is sent to a standard distribution list. Quarterly reports must be posted according to the following schedule: January-March posted by 1 July; April-June posted by 1 October; July-September posted by 1 January; October-December posted by 1 April. Drafts of the quarterly reports must be provided to the COR at least one week prior to the posting date. Quarterly reports will be used as a basis for developing the Annual Site Environmental Report required in 4.11(c).

(c) Annual Site Environmental Report.

(1) The Contractor must have the primary responsibility for the preparation of the Annual Site Environmental Report (ASER) under DOE-ID direction. The ASER must be prepared according to DOE Order 231.1A, *Environment, Safety, and Health Reporting*, and annual *Guidance* issued by DOE Headquarters early in the calendar year. The Contractor must summarize and analyze the data produced from the offsite environmental surveillance program described above as well as summarize all other work performed under this contract. Information supporting other parts of the ASER is obtained from Site contractors, DOE-ID, and other Federal agencies doing work at the IS. The Contractor must identify the information required to support ASER preparation by 15 February of each year and DOE-ID will request this information from cognizant parties. The Contractor must prepare individual, population, and biota dose assessments for inclusion in the ASER.

(2) A printed draft of the ASER must be provided for DOE-ID review by 1 July of each year as well as an electronic Word draft that is capable of track changes editing. The final ASER must be ready for distribution by 15 September of each year. The Contractor must distribute the ASER according to a standard pre-approved distribution list. Approximately 300 recipients receive either a compact disk or a

printed copy. Additional copies are needed to accommodate other requests after the initial distribution is completed. Approximately 150 printed copies and 250 compact disks will be needed. The Contractor's attendance at the annual environmental monitoring and ASER workshop conducted by DOE Headquarters is required. The workshop is rotated among DOE sites. The Contractor may be asked to host the workshop at least once during the term of this contract.

(d) 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 monitoring station. A draft of the letter must be provided to the COR by 30 January of each year. The final letter must be sent to the designated recipients by 1 March each year.

(e) Informing the COR. The Contractor must establish methods to 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.5 LAND MANAGEMENT SUPPORT

DOE-ID is responsible to ensure proper management of the IS land area and natural resources. DOE-ID requires specialized expertise in understanding and mitigating impacts of natural 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) on the IS 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 personnel or as directed by the COR for other land management issues, such as animal damage control and depredation prevention, noxious weed surveys and control, threatened and endangered species protection, wetlands issues, grazing impacts to IS activities, and reclamation of disturbed areas

5.1 Long-term Vegetation Transects. Long-term vegetation trends on the IS must be evaluated, including the invasion of fire-favored exotic grass on the IS. Two permanent vegetation transects must be surveyed for vegetative abundance once every five years. A survey is due to be conducted in calendar year 2006.

5.2 Wildlife Surveys.

Wildlife population levels and trends must be monitored as follows:

(a) Semiannual aerial big game surveys must be conducted in January and June to estimate wintering and summering populations of elk, deer, and pronghorn using an DOE-ID approved vendor.

(b) Midwinter raptor counts must be conducted annually in January on and around the IS in conjunction with the U.S. Geological Survey's Midwinter Bald Eagle Count.

(c) Breeding bird surveys must be conducted annually in conjunction with the U.S. Geological Survey's North American Breeding Bird Survey program according to the routes and methods discussed in the *INEEL 2004 Breeding Bird Surveys*.

(d) Rabbit populations must be surveyed annually in May along the T-9 road from Lincoln Boulevard to T-4, then south on T-4 to US highway 20.

(e) Snake populations must be monitored at three den sites (Cinder Butte, Crater Butte, and Rattlesnake Cave) in the fall and lizard populations monitored at Circular Butte, Antelope Butte, and the three snake den areas. This work has been accomplished by Idaho State University. The Contractor is strongly encouraged to continue this relationship.

(f) Known IS sage grouse leks must be surveyed during the breeding season. Attempts will be made to identify new leks and add them to the survey schedule.

5.3 National Environmental Policy Act (NEPA) Support. The Contractor must provide NEPA assistance through onsite surveys of proposed surface-disturbing activities on the IS and possible impacts on vegetation, wildlife, critical habitat, wetlands, and threatened and endangered species. Environmental checklists that identify those impacts 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. The INL contractor provides cultural resources support to DOE-ID. The number of field evaluations may vary from year to year (20 to 45). The Contractor must provide information and reviews as requested for environmental assessments and environmental impact statements related to IS projects.

5.4 National Environmental Research Park Coordination. The IS 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 IS, including providing guidance, training, and access assistance to university personnel and other scientists requesting permission to conduct studies on the IS. The Contractor will 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.

5.5 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.

5.6 Training. The Contractor will provide training as requested to field workers on minimizing impacts to wildlife and potential hazards associated with field work activities, such as interactions with snakes, badgers, etc.

5.7 Reporting and Deliverables. The Contractor must publish annually the results of the breeding bird surveys. The Contractor must publish brief letter reports for each of the following survey activities: raptor counts, big game surveys (one report summarizing January and June counts), rabbit counts, snake/lizard monitoring, and sage grouse surveys. Data from breeding bird surveys and raptor counts must also be provided to the U.S. Geological Survey for inclusion in national databases. The Contractor must provide NEPA Environmental Checklist evaluations electronically as requested.

C.6 CONSERVATION MANAGEMENT PLANNING

The Contractor must develop a Conservation Management Plan (CMP) for the IS. The CMP is intended, through considered and deliberate management of sensitive, threatened, and endangered species and associated habitat, to minimize disruption to routine site operations, cleanup, and research activities as well as improve the position of the IS as an attractive site for new projects. The CMP will be based on the IS's current and planned activities, understanding that a majority of these activities will take place within areas of the site that have already experienced some level of disturbance (i.e. the development corridor described in the Comprehensive Facilities and Land Use Plan). Limiting the focus to this area equates to approximately 123 square miles to be analyzed for the CMP. The Contractor is encouraged to use similar plans developed for the DOE Hanford and Los Alamos sites as models for the IS CMP (see C.11).

The CMP will be completed in two major phases: information gathering and plan construction. The information gathering phase involves developing a repository of baseline data related to IS ecology by cataloging and validating existing data ("data mining") and pursuing lines of investigation to fill identified data gaps. An in-depth analysis of resident species of concern and associated habitat, such as sage grouse and pygmy rabbits, is required and a general understanding of other IS resident species and habitats are also needed. The plan construction phase involves the actual writing of the plan. Once published and implemented, the CMP will also require periodic review and update as necessary and continued management of related data systems.

6.1 Existing Subcontract. An existing subcontractor is tasked with performing biota and habitat surveys and writing the IS CMP (see Attachment L-A). The Contractor must provide oversight and project management of this subcontract as well as continue with other tasks to develop the IS CMP.

6.2 Reporting and Deliverables. The Contractor must deliver a CMP that meets DOE-

ID's needs, complies with U.S. Fish and Wildlife Service and state of Idaho Fish and Game requirements, and provides a feasible and technically sound framework to govern IS planning and management with respect to the species of concern. DOE-ID intends to have the CMP completed prior to the listing of a resident IS species, or within the next three to five years. This schedule is dependent upon an adequate annual fund source for this task.

C.7 OTHER RESEARCH

7.1 Protective Cap/Biobarrier Experiment. The Protective Cap/Biobarrier Experiment (PCBE) was started in 1993 to determine the effectiveness of different waste cap designs which use natural materials in preventing water intrusion, erosion, and bio-intrusion, including small mammals, ants, and vegetation. The PCBE consists of experimental plots that are subjected to various intensities and frequencies of simulated precipitation (supplemental irrigation) and are monitored for performance. The Contractor must continue to maintain the PCBE, including irrigating the experimental plots and controlling weeds. The plots must be irrigated biweekly June through August and once in each spring and fall. The Contractor must monitor the experimental plots for soil moisture using a neutron probing biweekly from March through October. The Contractor must also assess plant cover throughout the month of July.

7.2 Annual Research Proposal. Additional funding may be available on an annual basis for other research projects not specifically called out in this SOW but within its scope. The Contractor may propose additional research projects 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. Examples of previous projects can be found in the Ecological Research chapter of the *2002 and 2003 Site Environmental Reports.*

7.3 Reports. The Contractor must publish a brief annual report summarizing PCBE activities and results. Final reports of progress for projects funded under 7.2 will be due upon completion of the research project(s).

C.8 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 IS, 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 IS environment and impacts of IS 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.

C.9 DELIVERABLES

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

9.1 Reports and other deliverables as delineated in C.3-C.8.

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

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

9.4 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 will keep the COR informed as needed in between monthly reports.

9.5 Annual Work Proposal. Proposed work scope and costs must be submitted annually by 1 October. The proposal must include short work scope descriptions and anticipated costs by month, by cost category (salaries, benefits, overhead, supplies, subcontracts equipment, etc.), for each task, including proposed new research projects or improvements to other parts of the ESER Program.

C.10 SPECIAL CONSIDERATIONS

10.1 Environment, Safety, and Health and Security Compliance.

(a) The Contractor must follow the Federal, state, local, and DOE requirements for environment, safety and health. The Contractor must observe certain necessary IS procedural requirements when operating on the IS 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 IS facilities, the following training is required at minimum of the following: RadCon Training (General Employee Radiation Training, Radiation Worker I or II), Health and Safety Access Training (Environment, Safety and Health Training), and Site Access Training (varies by facility). The Contractor must develop an interface agreement with the appropriate site contractor, subject to DOE-ID approval. For more information, refer to Section H.12, INL Access Safety.

(b) The Contractor must use the guidance in the *Environmental Regulatory Guide for Radiological Effluent Monitoring and Environmental Surveillance, DOE/EH-0173T*, and general industry standards for the environmental surveillance program.

(c) The Contractor must comply with the *INEEL Cultural Resources*

Management Plan, DOE/ID-10997.

10.2 Other Compliance Issues. DOE and IS requirements germane to the activities in this SOW are listed in C.11 and the "References" section of the ESER Procurement website (http://www.id.doe.gov/eser/). 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.

10.3 Equipment Maintenance. The Contractor must be responsible to maintain all equipment associated with conducting the activities in this SOW, including Government Furnished Equipment.

10.4 Quality Assurance Plan. The Contractor must prepare a quality assurance plan and submit it to the COR for approval within one month after contract award and update thereafter as necessary. The quality assurance program must be consistent *with DOE Order 414.1B, Quality Assurance.*

10.5 Health and Safety Plan. The Contractor must prepare a health and safety plan and submit it to the COR for approval within one month after contract award and update thereafter as necessary.

10.6 Procedures. The Contractor must maintain operating procedures for work conducted in the ESER Program.

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 (SSA) 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 IS, 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 SSA may be accessed on the Internet at http://www.id.doe.gov/eser/.

10.8 Subcontractor Performance. The Contractor is responsible for ensuring subcontractors, including analytical laboratories, perform as per requirements and specifications. 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.11 REFERENCES

References listed are limited to those having immediate applicability to the tasks discussed in this SOW. Other references that may also be useful can be accessed on

the ESER Procurement website (http://www.id.doe.gov/eser/).

Anderson, J.E. and A. D. Forman, 2002, *The Protective Cap/Biobarrier Experiment: A Study of Alternative Evapotranspiration Caps for the Idaho National Engineering and Environmental Laboratory*, STOLLER-ESER-46, March.

DOE Idaho Operations Office, 2004, *Idaho National Engineering and Environmental Laboratory Cultural Resource Management Plan*, August.

DOE Idaho Operations Office, 2004, *Idaho National Engineering and Environmental Laboratory Environmental Monitoring Plan*, April.

DOE Idaho Operations Office, 2003, *Idaho National Engineering and Environmental Laboratory Site Environmental Report for Calendar Year 2003*, DOE/ID-12082 (03), October.

DOE Idaho Operations Office, 2002, *Idaho National Engineering and Environmental Laboratory Site Environmental Report for Calendar Year 2002*, DOE/ID-12082 (02), September.

DOE Idaho Operations Office, 1991, *INEL Site Stabilization Agreement*, October.

DOE Idaho Operations Office, 1983, *Site Construction Jurisdictional Procedural Agreement*, November.

DOE Office of Environment, Safety, and Health, 2005, *Guidance for Preparation of Department of Energy (DOE) Annual Site Environmental Reports (ASERs) for Calendar Year 2004*, March.

DOE Office of Environment, Safety, and Health, 2005, *DOE Order 450.1, Environmental Protection Program*, January.

DOE Office of Environment, Safety, and Health, 2004, *DOE Order 231.1A, Environmental Protection Program*, June.

DOE Office of Environment, Safety, and Health, 2004, *DOE Order 414.1B Quality Assurance*, April.

DOE Office of Environment, Safety, and Health, 1993, *DOE Order 5400.5 Radiation Protection of the Public and the Environment*, January.

DOE Richland Operations Office, 2001, *Hanford Site Biological Resources Management Plan*, August.

DOE Office of Environment, Safety, and Health, 1991, *Environmental Regulatory Guide for Radiological Effluent Monitoring and Environmental Surveillance*, DOE/EH-0173T, January.

ESER (S.M. Stoller Corporation), 2005, *Second Quarter 2004 INEEL Quarterly Site*

Environmental Report, April.

INEEL Monitoring and Surveillance Committee, 1997, *Monitoring and Surveillance Committee Charter and Objectives*, March.

Los Alamos National Laboratory, 1998, *Threatened and Endangered Species Habitat Management Plan Overview*, October.

The Nature Conservancy, 1999, *Biodiversity Inventory and Analysis of the Hanford Site Final Report: 1994-1999*, October.

Vilord, S.J., 2004, *Idaho National Engineering and Environmental Laboratory Breeding Bird Surveys*, December.

DOE Office of ES&H, 2002, DOE Order 440.2B, *Aviation Management and Safety*, November.

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SECTION D - PACKAGING AND MARKING

D.1 PACKAGING

Preservation, packaging, and packing for shipment or mailing of all work deliverables hereunder shall be in accordance with good commercial practices and shall be adequate to insure acceptance by common carrier and safe transportation at the most economical rates.

D.2 MARKING

a. Each package, report or other deliverable shall be accompanied by a letter or other document which:

(1) Identifies the contract number under which the item is being delivered.

(2) Identifies the deliverable item number or report requirement, which requires the delivered item(s).

(3) Indicates whether the Contractor considers the delivered item to be a partial or full satisfaction of the requirement.

b. For any package, report or other deliverable being delivered to a party other than the Contracting Officer, a copy of the document required in (a) above shall be simultaneously provided to the Contracting Officer.

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PART I - THE SCHEDULE

SECTION E - INSPECTION AND ACCEPTANCE

E.1 FAR 52.246-5 INSPECTION OF SERVICES - COST-REIMBURSEMENT (APR 1984)

(a) *Definition.* "Services," as used in this clause, includes services performed, workmanship, and material furnished or used in performing services.

(b) The contractor shall provide and maintain an inspection system acceptable to the Government covering the services under this contract. Complete records of all inspection work performed by the contractor shall be maintained and made available to the Government during contract performance and for as long afterwards as the contract requires.

(c) The Government has the right to inspect and test all services called for by the contract, to the extent practicable at all places and times during the term of the contract. The Government shall perform inspections and tests in a manner that will not unduly delay the work.

(d) If any of the services performed do not conform with contract requirements, the Government may require the contractor to perform the services again in conformity with contract requirements, for no additional fee. When the defects in services cannot be corrected by reperformance, the Government may –

(1) Require the contractor to take necessary action to ensure that future performance conforms to contract requirements; and
(2) Reduce any fee payable under the contract to reflect the reduced value of the services performed.

(e) If the contractor fails to promptly perform the services again or take the action necessary to ensure future performance in conformity with contract requirements, the Government may –

(1) By contract or otherwise, perform the services and reduce any fee payable by an amount that is equitable under the circumstances; or
(2) Terminate the contract for default.

E.2 INSPECTION

Inspection of all items under this contract shall be accomplished by the DOE-ID Contracting Officer's Representative (COR) identified by the Contracting Officer (CO) as responsible for the product, report, or service being delivered, or any duly authorized DOE-ID representative as designated from time to time by the CO in writing in accordance with
Section G of this contract.

Inspection will be conducted in accordance with FAR Clause 52.246-5, "Inspection of Services-Cost Reimbursement" (APR 1984).

E.3 ACCEPTANCE

Acceptance of all work and effort under this contract, including those in Part III, Section J, Attachment J-A, Reporting Requirements Checklist, shall be accomplished by the CO, or any representative designated by the CO.

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PART I - THE SCHEDULE

SECTION F - DELIVERIES OR PERFORMANCE

F.1 TERM OF CONTRACT

The term of the contract is from January 1, 2006, through December 31, 2006. Should all options be exercised, the contract will extend through December 31, 2010.

F.2 PRINCIPAL PLACE OF PERFORMANCE

The work under this Contract is to be carried out in a variety of locations, but the principal place of performance will be in the vicinity of Idaho Falls, ID.

F.3 DELIVERIES

All products, reports, and deliverables under this contract shall be delivered to the addressees as required in Part III, Section J, Attachment J-A, Reporting Requirements Checklist.

F.4 FAR 52.242-15 STOP-WORK ORDER - ALTERNATE I (APR 1984)

(a) The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this contract for a or any part, of the work called for by this contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop-work is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Contracting Officer shall either –

(1) Cancel the stop-work order; or
(2) Terminate the work covered by the order as provided in the Termination clause of this contract.

(b) If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if–

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to the adjustment within 30 days after the end of the period of work stop-page; provided, that, if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon the claim submitted at anytime before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government,. the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

F.5 FAR 52.217-9 OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 2000)

(a) The Government may extend the term of this contract by written notice to the Contractor within 5 days of contract expiration; provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 30 days before the contract expires. The preliminary notice does not commit the Government to an extension.

(b) If the Government exercises this option, the extended contract shall be considered to include this option clause.

(c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed five years.

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PART I - THE SCHEDULE

SECTION G - CONTRACT ADMINISTRATION DATA

G.1 CORRESPONDENCE PROCEDURES

To promote timely and effective administration, all correspondence, reports and other documents submitted under this contract shall be subject to the following procedures:

(a) Technical Correspondence. Technical correspondence concerning performance of this contract shall be addressed to the DOE-ID Contracting Officer's Representative (COR) with an information copy to the Contracting Officer (CO). The COR will be designated by separate letter and will be the primary point of contact on technical matters, subject to the restrictions of DEAR Clause 952.242-70, "Technical Direction" contained in Section H. The COR is not authorized to change any of the terms and conditions of this contract. Only the CO can make changes to the scope, term, schedule, and cost of the work.

(b) Patents/Technical Data Correspondence. The Chicago Operations Office, acting through the Intellectual Property Law Division of the Office of Assistant Manager for Legal Support/Chief Counsel, DOE, 9800 South Cass Avenue, Argonne, Illinois, 60439, is hereby designated to represent the CO in administering the Patent Clauses in this contract. Correspondence concerning patent and technical data issues shall be addressed to the Chicago Operations Office with a copy to the Idaho Operations Office Chief Counsel's Office, the CO and the COR.

(c) Non-technical Administrative Correspondence. All correspondence, other than technical correspondence, shall be addressed to the Contract Specialist identified in G.3, with information copies of the correspondence to the COR.

(d) Subject Line(s). All correspondence shall contain a subject line commencing with the contract number as illustrated below:

"SUBJECT: Contract No. DE-AC07-06ID14680 Environmental Surveillance, Education and Research"

(Insert subject topic after contract number, e.g., "Request for Subcontract Consent").

G.2 SUBMISSION OF VOUCHERS/INVOICES

The Financial Services Team of the Idaho Operations Office (DOE-ID) is the cognizant finance office for this contract. However, the DOE Oak Ridge Operations Office shall make contract payments. Payments shall be made through the Automated Clearing House (ACH) electronic payment system. In lieu of receiving payment by check, payments shall be sent via ACH and automatically credited to the designated account at the financial institution.

Voucher Form

In requesting reimbursements, the Contractor shall use Standard Form 1034, Public Voucher for Purchases and Services Other than Personal, accompanied by supporting statement of cost documentation. A computerized version of the 1034 may be used

(see <http://www.gsa.gov/Portal/gsa/ep/formslibrary.do).

An alternative to the voucher form is the Vendor Inquiry Payment Electronic Reporting System (VIPERS). This voluntary system enables the contractor to submit invoices electronically, after being registered at <https://finweb.oro.doe.gov/VIPERS.htm> and having received your personnel identification number (PIN). The contractor will need to have their Data Universal Numbering System (DUNS) number available to complete the registration process. Further instructions are available at the URL address.

Timing

If the above referenced VIPERS system is not utilized, the Contractor is encouraged to use regular mail in lieu of express mail methods in order to promote cost effectiveness. Distribution of the original voucher/billing and copies shall be made as described below. Failure to comply with these voucher mailing instructions will result in delayed payments and may affect performance ratings for administrative areas.

Submittal of Vouchers

(a) The original of each voucher/billing shall be submitted to:

U.S. Department of Energy
Oak Ridge Financial Service Center
P. O. Box 4368
Oak Ridge, TN 37831

(b) One copy of the voucher/billing, with supporting detail shall be e-mailed or mailed to the cognizant contract specialist:

Suzette M. Olson
Procurement Services Division
U.S. Department of Energy
Idaho Operations Office (DOE-ID)
1955 Fremont Avenue, MS-1221
Idaho Falls, ID 83415-1221

E-mail: suzette.olson@nuclear.energy.gov

(c) One copy of the voucher/billing, with supporting detail, shall be e-mailed or mailed to the cognizant Contracting Officer's Representative:

Betsy Jonker
Environmental Technical Support Division
U. S. Department of Energy
Idaho Operations Office (DOE-ID)

1955 Fremont Avenue, MS-1216
Idaho Falls, ID 83415-1216

Email: betsy.jonker@nuclear.energy.gov

Voucher Information

The following information must be included in each voucher: Period being billed; specific line items of cost elements to include, yet not be limited to, all materials, number of labor hours for each individual, labor rates and overheads applied; logical rack-up of sub-totals to the bottom line total being billed; and cumulative amount billed with a historical listing of invoices paid including invoice number, period billed and amount; billing period.

Voucher Frequency

The period of performance covered by vouchers should correspond to required monthly progress reports.

Actual costs for travel and meeting expenses will be reimbursed in accordance with the Federal Travel Regulations and receipts must be presented for costs associated with this procurement.

G.3 CONTRACT ADMINISTRATION

The contract will be administered by:

T. Wade Hillebrant, Contracting Officer
U.S. Department of Energy
Idaho Operations Office (DOE-ID)
Procurement Services Division
1955 Fremont Avenue, MS-1221
Idaho Falls, Idaho 83415-1221

Phone: (208) 526-0547, Fax –5548, e-mail: thomas.hillebrant@nuclear.energy.gov

Suzette M. Olson, Contract Specialist
U.S. Department of Energy
Idaho Operations Office (DOE-ID)
Procurement Services Division
1955 Fremont Avenue, MS-1221
Idaho Falls, Idaho 83415-1221

Phone: (208) 526-7385, Fax –5548, e-mail: suzette.olson@nuclear.energy.gov

Written communication shall make reference to the contract number and shall be mailed to the above addressee. Future revisions of the contract administration information, above, may be accomplished by written notification from the CO to the contractor, without a formal contract modification.

G.4 ACCESS TO PROPRIETARY DATA OR COMPANY CONFIDENTIAL, FINANCIAL, OR

COMMERCIAL INFORMATION

The Government may fulfill any of its obligations, or take any action under this contract (including inspection of audit of books, records, accounts, documents, and other data) either directly or through contractors or consultants. Any proprietary data or company confidential financial or commercial information so accessed by Government contractors or consultants may not be used, reproduced, nor disclosed outside of the Government except as expressly provided in this contract.

G.5 DESIGNATION OF PROPERTY ADMINISTRATOR

As required under FAR 45.104 and DOE Property Management Regulation 109-1.5202, the property administrator for this contract shall be:

Carla Dunn
Organizational Property Management Officer
U.S. Department of Energy
Idaho Operations Office (DOE-ID)
1955 Fremont Avenue, MS-1240
Idaho Falls, Idaho 83415-1240

Phone (208) 526-9249, e-mail carla.dunn@nuclear.energy.gov

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SECTION H - SPECIAL CONTRACT REQUIREMENTS

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SECTION H - SPECIAL CONTRACT REQUIREMENTS

H.1 DEAR 952.242-70 -- TECHNICAL DIRECTION (DEC 2000)

(a) Performance of the work under this contract shall be subject to the technical direction of the DOE-ID CO's Representative (COR). The term "technical direction" is defined to include, without limitation:

(1) Providing direction to the contractor that redirects contract effort, shift work emphasis between work areas or tasks, require pursuit of certain lines of inquiry, fill in details, or otherwise serve to accomplish the contractual Statement of Work.

(2) Providing written information to the contractor that assists in interpreting drawings, specifications, or technical portions of the work description.

(3) Reviewing and, where required by the contract, approving, technical reports, drawings, specifications, and technical information to be delivered by the contractor to the Government.

(b) The contractor will receive a copy of the written COR designation from the contracting officer (CO). It will specify the extent of the COR's authority to act on behalf of the CO.

(c) Technical direction must be within the scope of work stated in the contract. The COR does not have the authority to, and may not, issue any technical direction that:

(1) Constitutes an assignment of additional work outside the Statement of Work;

(2) Constitutes a change as defined in the contract clause entitled "Changes;"

(3) In any manner causes an increase or decrease in the total estimated contract cost, the fee (if any), or the time required for contract performance;

(4) Changes any of the expressed terms, conditions or specifications of the contract; or

(5) Interferes with the contractor's right to perform the terms and conditions of the contract.

(d) All technical direction shall be issued in writing by the COR.

(e) The contractor must proceed promptly with the performance of technical direction duly issued by the COR in the manner prescribed by this clause and within its authority under the provisions of this clause. If, in the opinion of the contractor, any instruction or direction by the COR falls within one of the categories defined in (c)(1) through (c)(5) of this clause, the contractor must not proceed and must notify the CO in writing within five (5) working days after receipt of any such instruction or direction and must request the CO to modify the contract accordingly. Upon receiving the notification from the contractor, the CO must:

(1) Advise the contractor in writing within thirty (30) days after receipt of the contractor's letter that the technical direction is within the scope of the contract effort and does not constitute a change under the Changes clause of the contract;

(2) Advise the contractor in writing within a reasonable time that the Government will issue a written change order; or

(3) Advise the contractor in writing within a reasonable time not to proceed with the instruction or direction of the COR.

(f) A failure of the contractor and CO either to agree that the technical direction is within the scope of the contract or to agree upon the contract action to be taken with respect to the technical direction will be subject to the provisions of the clause entitled "Disputes."

H.2 MODIFICATION AUTHORITY

Notwithstanding any of the other clauses of this contract, the CO shall be the only individual authorized to:

(a) Accept nonconforming work,

(b) Waive any requirement of this contract, or

(c) Modify any term or condition of this contract.

H.3 GOVERNMENT PROPERTY AND DATA

The Government is not obligated to provide any real or personal property or data under this contract in addition to that as may be expressly identified elsewhere in this contract.

H.4 KEY PERSONNEL

The Contractor's key personnel are as follows:

NAME	TITLE
[redacted]	ESER Program Manager
[redacted]	[redacted]

[redacted]

The clause entitled "Key Personnel" contains a requirement for notification to the CO reasonably in advance of diverting of, or substitution for, any of these individuals. That period of time shall not be less than thirty (30) days.

H.5 SUBCONTRACTS

(a) Prior to the placement of subcontracts and in accordance with the clause, "Subcontracts Under Cost-Reimbursement and Letter Contracts," the Contractor shall ensure that they contain:

(1) All of the clauses of this contract (altered when necessary for proper identification of the contracting parties) which contain a requirement for such inclusion in applicable subcontracts;

(2) Any applicable subcontractor Representations and Certifications (see Part V--Section K); and

(3) Any required prior notice and description of the subcontract is given to the CO and any required consent is received. Except as may be expressly set forth in the consent, any consent by the CO to the placement of subcontracts shall not be construed to constitute approval of the subcontractor or any subcontract terms or conditions, determination of the allowability of any cost, revision of this contract or any of the respective obligations of the parties thereunder, or creation of any subcontractor privity of contract with the Government.

(b) If any advisory or assistance services are acquired from a subcontractor or consultant, the Contractor shall adhere to the guidance of DEAR 909.5 in monitoring any work for potential Organizational Conflicts of Interest (OCI). If an OCI is determined to exist, the Contractor shall notify the CO and request direction on approach to mitigating any conflict.

H.6 PROPERTY

Government property reports shall be prepared and submitted in accordance with the "Government Property" clause of this contract.

H.7 REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF THE OFFEROR

The Representations, Certifications, and Other Statements of the Offeror, dated July 27, 2005 for this contract are, by reference, hereby incorporated in and made a part of this contract.

H.8 ENVIRONMENTAL LAWS

The Contractor shall comply with all applicable Federal, state and local environmental laws and regulations.

H.9 CONFIDENTIALITY OF INFORMATION

(a) To the extent that the work under this contract requires that the Contractor be given access to confidential or proprietary business, technical, or financial information belonging to the Government or other companies, the Contractor shall after receipt of information, treat such information as confidential and agrees not to appropriate such information to its own use or to disclose such information to third parties unless specifically authorized by the CO in writing. The foregoing obligations, however, shall not apply to:

(1) Information, which, at the time of receipt by the Contractor, is in public domain;

(2) Information, which is published after receipt thereof by the Contractor or otherwise becomes part of the public domain through no fault of the Contractor;

(3) Information, which the Contractor can demonstrate was in its possession at the time of receipt thereof and was not acquired directly or indirectly from the Government or other companies;

(4) Information, which the Contractor can demonstrate was received by it from a third party who did not require the Contractor to hold it in confidence.

(b) The Contractor shall obtain the written agreement, in a form satisfactory to the CO, of each employee permitted access, whereby the employee agrees that he 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 the performance of the contract.

(c) The Contractor agrees, if requested by the Government, to sign an agreement identical, in all material respects, to the provisions of this clause, with each company supplying information to the Contractor under this contract, and to supply a copy of such agreement to the CO. From time to time upon request of the CO, the Contractor shall supply the Government with reports itemizing information received as confidential or proprietary and setting forth the company or companies from which the Contractor received such information.

(d) The Contractor agrees that upon request by DOE-ID it will execute a DOE-approved agreement with any party whose facilities or proprietary data it is given access to or is furnished, restricting use and disclosure of the data or the information obtained from the facilities. Upon request by DOE-ID, such an agreement shall also be signed by Contractor personnel.

(e) This clause shall flow down to all subcontracts.

H.10 SERVICES OF CONSULTANTS

(a) In addition to the provisions of the clause of this contract entitled "Subcontracts (Cost-Reimbursement and Letter Contracts)," the Contractor shall obtain the CO's written consent prior to reimbursing any of its employees as a "consultant" under this contract, or prior to awarding any subcontract for consulting services which will exceed ten (10) days in any calendar year or exceed a total value of $2,500. The Contractor shall obtain and furnish to the CO information concerning the need for and selection of any subcontracts for consultant services and the reasonableness of the fees to be paid, including, but not limited to, whether fees to be paid to any consultant exceed the lowest fee charged by such consultant to others for performing consulting services of a similar nature.

(b) The Contractor must obtain and furnish to the CO either an Organizational Conflicts of Interest (OCI) Disclosure Statement or Representation form in accordance with DEAR 909.507-2 "Organizational Conflicts of Interest" , and must insert the clause at 48 CFR 952.209-72 (See I.9), in any consulting agreement or subcontract for all consultants to be utilized under this contract prior to their performing any effort under this contract. No effort shall be performed until the CO has cleared the consultant for OCI.

(c)The following consultants have been cleared by the CO for OCI: *-To Be Determined-*

H.11 CONTINUING DUTY TO DISCLOSE MATTERS THAT CREATE POTENTIAL OCI

The Contractor has a continuing obligation to disclose any current or planned financial, contractual, organizational, or other interests relating to the performance of the Statement of Work that may create a potential OCI. Contractual interests include activities performed at the Idaho Site under a separate DOE contract or a subcontract to any IS contractor. This duty to disclose applies to the Contractor, its team members, and its subcontractors. The CO may require the Contractor to take steps to avoid, neutralize, and/or mitigate any potential OCI identified as a result of this disclosure.

H.12 INL ACCESS SAFETY

(a) The DOE-ID Idaho National Laboratory (INL), Advanced Mixed Waste Treatment Project (AMWTP), and Idaho Completion Project (ICP) contractors (hereafter referred as site contractors) are responsible for the safe conduct of operations at the INL and within facilities they occupy or control. Your work at the INL and any of these facilities must be performed in a manner that is consistent with the procedures established by these contractors that apply to site access controls, safeguards and security requirements, and the safe conduct of work. You will develop an interface agreement with the appropriate site contractor, subject to DOE-ID approval, on matters not governed by these procedures or where deviation from these procedures is necessary. You will also work cooperatively with the site contractors to clearly: 1) define, demarcate and document the boundaries within which work will be conducted; and, 2) define and document the respective roles and responsibilities with the site contractor relative to managing that work control boundary. Unless otherwise agreed, site contractor policies and procedures shall apply to the conduct of work outside your work boundary and your policies and procedures shall govern within that boundary. You are responsible for the training and safety of

individuals working for you and are obligated to ensure their fitness for duty. You will notify the DOE-ID COR of work activities and future work plans. You must also coordinate these activities and plans with the appropriate site contractor authority for the area in which you will be performing work and seek the approval of that authority prior to commencing work.

(b) The INL has adopted the principles and core functions of Integrated Safety Management and the Voluntary Protection Program. Work performed by you or your subcontractors at the INL will be appropriately planned and controlled commensurate with the risks and hazards involved. At a minimum, your system for managing and controlling work shall include:

1) Definition of the scope of the work to be performed;
2) Identification of the hazards to be expected in the performance of the work, including hazards of the work and of the work environment;
3) Requirements and provisions for mitigation of those hazards;
4) Provisions for worker training in the identified hazards and controls;
5) A means for controlling the work to ensure that the effort remains within scope and that hazard mitigations are maintained; and,
6) Provisions for active worker involvement in job safety and fitness for duty

(c) Normal work hours at the INL are from 7:00 A.M. to 5:30 P.M on Monday through Thursday. Normal work hours at the Idaho Falls facilities are from 7:00 A.M. to 5:00 P.M on Monday through Thursday and on alternating Fridays. Work outside of these hours shall require advance notification to, and approval from, the appropriate site contractor authority.

(d) The Department of Energy (DOE) has primary responsibility for safety and health oversight only if you have a contract directly with DOE-ID. BEA will conduct oversight within INL site areas, including all site areas beyond facility boundaries. CWI will conduct oversight within ICP areas. The site contractors and all their employees have the right to stop any activity, if continuation of that activity would either be considered an imminent danger situation or have a negative impact on the environment, safety or health of the site, the workers or the public. It shall be mandatory in the event of any such "stop work," that all work shall cease pending DOE-ID notification and resolution of the issue.

1) An imminent danger situation exists when any condition or practice could reasonably be expected to cause death or serious physical harm immediately or before the imminence of such danger can be eliminated through enforcement procedures.

2) A negative impact on the environment, safety or health of site workers or the public includes situations that result in unplanned releases to the environment, uncontrolled exposures to workers or the public, or programmatic failures that could result in these situations.

(e) DOE-ID will resolve any disagreement between you and the site contractors regarding the application of these requirements.

(f) Failure to meet these minimum safety expectations will require the development and submittal of a corrective action plan to the DOE-ID CO and COR. Continued failures may result in further adverse action. This clause does not affect all other obligations you have under law or contract to conduct activities in a manner that is safe to people and the environment.

PART II - CONTRACT CLAUSES

SECTION I - CONTRACT CLAUSES

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PART II - CONTRACT CLAUSES

SECTION I - CONTRACT CLAUSES

I.1 NOTICE LISTING CONTRACT CLAUSES INCORPORATED BY REFERENCE

The following contract clauses pertinent to this section are hereby incorporated by reference (by Citation Number, Title, and Date) in accordance with the clause at FAR "52.252-2 Clauses Incorporated By Reference (FEB 1998)" in Section I of this contract.

NUMBER	TITLE	DATE
FAR		
52.202-1	DEFINITIONS	JUL 2004
52.203-3	GRATUITIES	APR 1984
52.203-5	COVENANT AGAINST CONTINGENT FEES	APR 1984
52.203-6	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT	JUL 1995
52.203-7	ANTI-KICKBACK PROCEDURES	JUL 1995
52.203-8	CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY	JAN 1997
52.203-10	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY	JAN 1997
52.203-11	CERTIFICATION & DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS	APR 1991
52.203-12	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS	JUNE 2003
52.204-4	PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER	AUG 2000
52.204-7	CENTRAL CONTRACTOR REGISTRATION	OCT 2003
52.207-5	OPTION TO PURCHASE EQUIPMENT	FEB 1995
52.204-7	CENTRAL CONTRACT REGISTRATION	OCT 2003
52.209-6	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT	JAN 2005
52.215-2	AUDIT AND RECORDS—NEGOTIATION	JUNE 1999
	ALTERNATE II	APR 1998
52.215-8	ORDER OF PRECEDENCE-UNIFORM CONTRACT FORMAT	OCT 1997
52.215-12	SUBCONTRACTOR COST OR PRICING DATA	OCT 1997
52.215-13	SUBCONTRACTOR COST OR PRICING DATA-MODIFICATIONS	OCT 1997
52.215-17	WAIVER OF FACILITIES CAPITAL COST OF MONEY	OCT 1997

NUMBER	TITLE	DATE
52.214-21	REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA-MODIFICATIONS	OCT 1997
52.216-7	ALLOWABLE COST AND PAYMENT	DEC 2002
52.216-8	FIXED FEE	MAR 1997
52.216-24	LIMITIATION OF GOVERNMENT LIABILITY	APR 1984
52.216-15	PREDETERMINED INDIRECT COST RATES	APR 1998
52.217-8	OPTION TO EXTEND SERVICES	NOV 1999
52.217-9	OPTION TO EXTEND THE TERM OF THE CONTRACT	MAR 2000
52.219-6	NOTICE OF TOTAL SMALL BUSINESS SET-ASIDE	JUN 2003
52.219-8	UTILIZATION OF SMALL BUSINESS CONCERNS	MAY 2004
52.219-14	LIMITATIONS ON SUBCONTRACTING	DEC 1996
52.222-2	PAYMENT FOR OVERTIME PREMIUMS	JUL 1990
52.222-3	CONVICT LABOR	JUNE 2003
52.222-4	CONTRACT WORK HOURS AND SAFETY STANDARDS ACT-OVERTIME COMPENSATION	SEPT 2000
52.222-20	WALSH-HEALEY PUBLIC CONTRACTS ACT	DEC 1996
52.222-21	PROHIBITION OF SEGREGATED FACILITIES	FEB 1999
52.222-26	EQUAL OPPORTUNITY	APR 2002
52.222-35	EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS	DEC 2001
52.222-36	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES	JUN 1998
52.222-37	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS	DEC 2001
52.222-38	COMPLIANCE WITH VETERANS' EMPLOYMENT REPORTING REQUIREMENTS	DEC 2001
52.223-3	HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA	JAN 1997
	ALTERNATE I	JUL 1995
52.223-5	POLLUTION PREVENTION AND RIGHT-TO- KNOW INFORMATION	AUG 2003
52.223-6	DRUG-FREE WORKPLACE	MAY 2001
52.223-10	WASTE REDUCTION PROGRAM	AUG 20003
52.223-14	TOXIC CHEMICAL RELEASE REPORTING	AUG 2003
52.225-1	BUY AMERICAN ACT - SUPPLIES	JUN 2003
52.225-13	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES	MAR 2005
52.226-1	UTILIZATION OF INDIAN ORGANIZATIONS AND INDIAN-OWNED ECONOMIC ENTERPRISES	JUNE 2000
52.227-3	PATENT INDEMNITY	APR 1984
52.227-14	RIGHTS IN DATA - GENERAL	JUN 1987
52.227-23	RIGHTS TO PROPOSAL DATA (TECHNICAL)	JUN 1987

NUMBER	TITLE	DATE
52.228-7	INSURANCE-LIABILITY TO THIRD PERSONS	MAR 1996
52.232-9	LIMITATION ON WITHHOLDING OF PAYMENTS	APR 1984
52.232-17	INTEREST	JUN 1996
52.232-18	AVAILABILITY OF FUNDS	APR 1984
52.232-20	LIMITATION OF COST	APR 1984
52.232-22	LIMITATION OF FUNDS	APR 1984
52.232-23	ASSIGNMENT OF CLAIMS	JAN 1986
52.232-25	PROMPT PAYMENT	OCT 2003
	ALTERNATE I	FEB 2002
52.232-33	PAYMENT BY ELECTRONIC FUNDS TRANSFER – CENTRAL CONTRACTOR REGISTRATION	OCT 2003
52.233-1	DISPUTES	JUL 2002
	ALTERNATE I	DEC 1991
52.233-3	PROTEST AFTER AWARD	AUG 1996
	ALTERNATE I	JUN 1985
52.233-4	APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM	OCT 2004
52.237-2	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION	APR 1984
52.237-3	CONTINUITY OF SERVICES	JAN 1991
52.242-1	NOTICE OF INTENT TO DISALLOW COSTS	APR 1984
52.242-3	PENALTIES FOR UNALLOWABLE COSTS	MAR 2000
52.242-13	BANKRUPTCY	JUL 1995
52.243-2	CHANGES-COST REIMBURSEMENT	AUG 1987
	ALTERNATE I	
52.244-2	SUBCONTRACTS	AUG 1998
52.244-5	COMPETITION IN SUBCONTRACTING	DEC 1996
52.244-6	SUBCONTRACTS FOR COMMERCIAL ITEMS	DEC 2004
52.245-1	PROPERTY RECORDS	APR 1984
52.245-5	GOVERNMENT PROPERTY (COST-REIMBURSEMENT, TIME & MATERIAL, OR LABOR-HOUR CONTRACTS)	MAY 2004
52.246-25	LIMITATION OF LIABILITY—SERVICES	FEB 1997
52.247-63	PREFERENCES FOR U.S.-FLAG AIR CARRIERS	JUNE 2003
52.249-6	TERMINATION (COST-REIMBURSEMENT)	MAY 2004
52.249-14	EXCUSABLE DELAYS	APR 1984
52.253-1	COMPUTER GENERATED FORMS	JAN 1991
DEAR		
909.507-2	CONTRACT CLAUSE	JUL 1997
952.202-1	DEFINITIONS	MAR 2002
952.208-70	PRINTING	APR 1984
952.216-7	ALLOWABLE COST & PAYMENT	
	ALTERNATE I & II	
970.0309	WHISTLE-BLOWER PROTECTION FOR CONTRACTOR EMPLOYEES	

is now 52.245-1 (June 2007)

NUMBER	TITLE	DATE
952.223-71	INTEGRATION OF ENVIRONMENT, SAFETY, AND HEALTH INTO WORK PLANNING AND EXECUTION	DEC 2000
952.224-70	PAPERWORK REDUCTION ACT	APR 1994
952.226-70	SUBCONTRACTING GOALS UNDER SECTION 3021(a) OF THE ENERGY POLICY ACT OF 1992	JUN 1996
952.226-72	ENERGY POLICY ACT SUBCONTRACTING GOALS AND REPORTING REQUIREMENTS	JUN 1996
952.227-9	REFUND OF ROYALTIES	FEB 1995
952.227-13	PATENT RIGHTS-ACQUISITION BY THE GOVERNMENT	SEP 1997
952.227-84	NOTICE OF RIGHT TO REQUEST PATENT WAIVER	FEB 1998
952.235-5	AGENCY PROTEST REVIEW	SEP 1996
952.245-70	FOREIGN TRAVEL	DEC 2000

I.2 FAR 52.204-1 APPROVAL OF CONTRACT (DEC 1989)

This contract is subject to the written approval of the Contracting Officer and shall not be binding until so approved.

I.3 FAR 52.215-6 PLACE OF PERFORMANCE (OCT 1997)

(a) The offeror or respondent, in the performance of any contract resulting from this solicitation, ( ) intends, ( ) does not intend [*check applicable block*] to use one or more plants or facilities located at a different address from the address of the offeror or respondent as indicated in this proposal or response to request for information.

(b) If the offeror or respondent checks "intends" in paragraph (a) of this provision, it shall insert in the following spaces the required information:

Place of Performance (Street Address, City, State, County, ZIP Code)	Name and Address of Owner and Operator of the Plant or Facility if Other than Offeror or Respondent
_____	_____
_____	_____

I.4 FAR 52.215-19 NOTIFICATION OF OWNERSHIP REQUIREMENTS (OCT 1997)

(a) The Contractor shall make the following notifications in writing:

(1) When the Contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in the accounting records, the Contractor shall notify the Contracting Officer (CO) within 30 days.

(2) The Contractor shall also notify the CO within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership.

(b) The Contractor shall—

(1) Maintain current, accurate, and complete inventory records of assets and their costs;

(2) Provide the CO or designated representative ready access to the records upon request;

(3) Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of the Contractor's ownership changes; and

(4) Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership change.

(c) The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(k).

I.5 FAR 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This Contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this address: http://www.arnet.gov/far

I.6 DEAR 952.245-5 GOVERNMENT PROPERTY (COST-REIMBURSEMENT, TIME-AND-MATERIAL, OR LABOR-HOUR CONTRACTS)

Modify FAR 52.245-5 by adding "and DOE Acquisition Regulation Subpart 945.5" after the reference to FAR Subpart 45.5 in paragraphs (e)(1) and (e)(2) of the clause.

I.7 DEAR 952.251-70 CONTRACTOR EMPLOYEE TRAVEL DISCOUNTS (DEC 2000)

(a) The contractor shall take advantage of travel discounts offered to Federal contractor employee travelers by AMTRAK, hotels, motels, or car rental companies, when use of such discounts would result in lower overall trip costs and the discounted services are reasonably available. Vendors providing these services may require the contractor

employee to furnish them a letter of identification signed by the authorized contracting officer.

(b) Contracted airlines. Contractors are not eligible for General Services Administration (GSA) contract city pair fares.

(c) Discount rail service. Amtrak voluntarily offers discounts to Federal travelers on official business and sometimes extends those discounts to Federal contractor employees.

(d) Hotels/motels. Many lodging providers extend their discount rates for Federal employees to Federal contractor employees.

(e) Car rentals. The Military Traffic Management Command (MTMC) of the Department of Defense negotiates rate agreements with car rental companies that are available to Federal travelers on official business. Some car rental companies extend those discounts to Federal contractor employees.

(f) Obtaining travel discounts.

(1) To determine which vendors offer discounts to Government contractors, the contractor may review commercial publications such as the Official Airline guides Official Traveler, Innovata, or National Telecommunications. The contractor may also obtain this information from GSA contract Travel Management Centers or the Department of Defense's Commercial Travel Offices.

(2) The vendor providing the service may require the Government contractor to furnish a letter signed by the contracting officer. The following illustrates a standard letter of identification.

> OFFICIAL AGENCY LETTERHEAD
> TO: Participating Vendor
> SUBJECT: OFFICIAL TRAVEL OF GOVERNMENT CONTRACTOR
>
> (FULL NAME OF TRAVELER), the bearer of this letter is an employee of (COMPANY NAME) which has a contract with this agency under Government contract (CONTRACT NUMBER). During the period of the contract (GIVE DATES), AND WITH THE APPROVAL OF THE CONTRACT VENDOR, the employee is eligible and authorized to use available travel discount rates in accordance with Government contracts and/or agreements. Government Contract City Pair fares are not available to Contractors.
> SIGNATURE, Title and telephone number of Contracting Officer

I.8 FAR 52.252-4 ALTERATIONS IN CONTRACT

As prescribed in FAR 52.107(d), insert the following clause in solicitations and contracts in order to revise or supplement, as necessary, other parts of the contract, or parts of the solicitation that apply after contract award, except for any clause authorized for use with a deviation. Include clear identification of what is being altered.

ALTERATIONS IN CONTRACT (APR 1984)

Portions of this contract are altered as follows:

_____

_____

_____

I.9 DEAR 952.209-72 ORGANIZATIONAL CONFLICTS OF INTEREST

As prescribed at 48 CFR 909.507-2, insert the following clause:

ORGANIZATIONAL CONFLICTS OF INTEREST
(JUN 1997)

(a) Purpose. The purpose of this clause is to ensure that the contractor (1) is not biased because of its financial, contractual, organizational, or other interests which relate to the work under this contract, and (2) does not obtain any unfair competitive advantage over other parties by virtue of its performance of this contract.

(b) Scope. The restrictions described herein shall apply to performance or participation by the contractor and any of its affiliates

or their successors in interest (hereinafter collectively referred to as "contractor") in the activities covered by this clause as a prime contractor, subcontractor, cosponsor, joint venturer, consultant, or in any similar capacity. For the purpose of this clause, affiliation occurs when a business concern is controlled by or has the power to control another or when a third party has the power to control both.

(1) Use of Contractor's Work Product. (i) The contractor shall be ineligible to participate in any capacity in Department contracts, subcontracts, or proposals therefor (solicited and unsolicited) which stem directly from the contractor's performance of work under this contract for a period of (Contracting Officer see DEAR 9.507-2 and enter specific term) years after the completion of this contract. Furthermore, unless so directed in writing by the contracting officer, the Contractor shall not perform any advisory and assistance services work under this contract on any of its products or services or the products or services of another firm if the contractor is or has been substantially involved in their

development or marketing. Nothing in this subparagraph shall preclude the contractor from competing for follow-on contracts for advisory and assistance services.

(ii) If, under this contract, the contractor prepares a complete or essentially complete statement of work or specifications to be used in competitive acquisitions, the contractor shall be ineligible to perform or participate in any capacity in any contractual effort which is based on such statement of work or specifications. The contractor shall not incorporate its products or services in such statement of work or specifications unless so directed in writing by the contracting officer, in which case the restriction in this subparagraph shall not apply.

(iii) Nothing in this paragraph shall preclude the contractor from offering or selling its standard and commercial items to the Government.

(2) Access to and use of information. (i) If the contractor, in the performance of this contract, obtains access to information, such as Department plans, policies, reports, studies, financial plans, internal data protected by the Privacy Act of 1974 (5 U.S.C. 552a), or data which has not been released or otherwise made available to the public, the contractor agrees that without prior written approval of the contracting officer it shall not:

(A) use such information for any private purpose unless the information has been released or otherwise made available to the public;

(B) compete for work for the Department based on such information for a period of six (6) months after either the completion of this contract or until such information is released or otherwise made available to the public, whichever is first;

(C) submit an unsolicited proposal to the Government which is

based on such information until one year after such information is released or otherwise made available to the public; and

(D) release such information unless such information has previously been released or otherwise made available to the public by the Department.

(ii) In addition, the contractor agrees that to the extent it receives or is given access to proprietary data, data protected by the Privacy Act of 1974 (5 U.S.C. 552a), or other confidential or privileged technical, business, or financial information under this contract, it shall treat such information in accordance with any restrictions imposed on such information.

(iii) The contractor may use technical data it first produces under this contract for its private purposes consistent with paragraphs (b)(2)(i) (A) and (D) of this clause and the patent, rights in data, and security provisions of this contract.

(c) Disclosure after award. (1) The contractor agrees that, if changes, including additions, to the facts disclosed by it prior to award of this contract, occur during the performance of this contract, it shall make an immediate and full disclosure of such changes in writing to

the contracting officer. Such disclosure may include a description of any action which the contractor has taken or proposes to take to avoid, neutralize, or mitigate any resulting conflict of interest. The Department may, however, terminate the contract for convenience if it deems such termination to be in the best interest of the Government.

(2) In the event that the contractor was aware of facts required to be disclosed or the existence of an actual or potential organizational conflict of interest and did not disclose such facts or such conflict of interest to the contracting officer, DOE may terminate this contract for default.

(d) Remedies. For breach of any of the above restrictions or for nondisclosure or misrepresentation of any facts required to be disclosed concerning this contract, including the existence of an actual or potential organizational conflict of interest at the time of or after award, the Government may terminate the contract for default, disqualify the contractor from subsequent related contractual efforts, and pursue such other remedies as may be permitted by law or this contract.

(e) Waiver. Requests for waiver under this clause shall be directed in writing to the contracting officer and shall include a full description of the requested waiver and the reasons in support thereof. If it is determined to be in the best interests of the Government, the contracting officer may grant such a waiver in writing.

(End of clause)

Alternate I

In accordance with 909.507-2 and 970.0905, include the following alternate in the specified types of contracts.

(f) Subcontracts. (1) The contractor shall include a clause, substantially similar to this clause, including this paragraph (f), in subcontracts expected to exceed the simplified acquisition threshold determined in accordance with FAR Part 13 and involving the performance of advisory and assistance services as that term is defined at FAR 37.201. The terms ``contract," "contractor," and "contracting officer" shall be appropriately modified to preserve the Government's rights.

(2) Prior to the award under this contract of any such subcontracts for advisory and assistance services, the contractor shall obtain from the proposed subcontractor or consultant the disclosure required by DEAR 909.507-1, and shall determine in writing whether the interests disclosed present an actual or significant potential for an organizational conflict of interest. Where an actual or significant potential organizational conflict of interest is identified, the contractor shall take actions to avoid, neutralize, or mitigate the organizational conflict to the satisfaction of the contractor. If the conflict cannot be avoided or neutralized, the contractor must obtain the approval of the DOE contracting officer prior to entering into the subcontract.

(End of alternate)

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

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PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

ATTACHMENT J-A
REPORTING REQUIREMENTS CHECKLIST

All deliverables under this Contract must be sent according to the following distribution schedule. Where applicable, originals should be sent to recipient B with the exception of the Annual Work Proposal, which should be sent to recipient A.

REPORT	FREQUENCY	# OF COPIES	ADDRESSEES
Environmental Surveillance	Quarterly	Per RFP Sect. C, 4.11(b)	B
Site Environmental Report	Annually	Per RFP Sect. C, 4.11(c)	Per RFP Sect. C, 4.11(c)
Jackson, WY Sampling	Annually	Per RFP Sect. C, 4.11 (d)	B, C
Breeding Bird Surveys	Annually	1 hardcopy & 2 compact disk	B
Raptor Count	Annually	1 hardcopy	B
Big Game Surveys	Annually	1 hardcopy	B
Rabbit Count	Annually	1 hardcopy	B
Sage Grouse Survey	Annually	1 hardcopy	B
Snake/Lizard Monitoring	Annually	1 hardcopy	B
NEPA Environmental Checklist Evaluations	As Requested	Electronic Mail	D, E, F
Conservation Management Plan	Once After Award	TBD	B
Protective Cap/Biobarrier Experiment Summary	Annually	1 hardcopy & 1 compact disk	B
Topical Report (including Special and Research Reports)	As Required	1 hardcopy & 1 compact disk	B
Final Technical Report	Final	1,1	A, B
Draft for Review	As Required	1	B
Monthly Progress	Monthly	Electronic Mail	A, B
Work Proposal	Annually	1, 1	A, B
Federal Aviation Statistics Report	As Required	Electronic Mail	G

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

ATTACHMENT J-A
REPORTING REQUIREMENTS CHECKLIST

A. Suzette M. Olson, Contract Specialist
Procurement Services Division
U.S. Department of Energy
Idaho Operations Office (DOE-ID)
1955 Fremont Avenue, MS 1221
Idaho Falls, ID 83415-1221
suzette.olson@nuclear.energy.gov

B. Betsy Jonker, Program Manager
Environmental Technical Support Division
U.S. Department of Energy
Idaho Operations Office (DOE-ID)
1955 Fremont Avenue, MS 1216
Idaho Falls, ID 83415-1216
betsy.jonker@nuclear.energy.gov

C. Teton County Commissioners Chair
Teton County Administration Building
200 South Willow Street
Jackson, WY 83001

D. Jack Depperschmidt, NEPA Compliance Officer
Environmental Technical Support Division
U.S. Department of Energy
Idaho Operations Office (DOE-ID)
1955 Fremont Avenue, MS 1216
Idaho Falls, ID 83415-1216
jack.depperschmidt@nuclear.energy.gov

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

ATTACHMENT J-A
REPORTING REQUIREMENTS CHECKLIST

E. John Irving
Environmental Programs
Battelle Energy Alliance, LLC
1955 Fremont Avenue, MS-3428
Idaho Falls, ID 83415-3528
john.irving@inl.gov

F. Wendy Savkranz
Environmental Programs
CWI
1955 Fremont Avenue, MS-3211
Idaho Falls, ID 83415-3211
wss@inel.gov

G. Kermit Bunde
U.S. Department of Energy
Idaho Operations Office (DOE-ID)
1955 Fremont Avenue, MS 5121
Idaho Falls, ID 83415-5121
Kermit.bunde@nuclear.energy.gov

The Contractor shall be responsible for following established DOE-ID procedures for clearances on all oral, written, and audio/visual informational material prepared for public use.

The Government intends to evaluate the acceptability of reports on the basis of their quality with respect to both substantive and presentation considerations. Evaluation of substantive aspects of these submittals will be based upon criteria generally accepted in the relevant technical field. For document presentation, the Contractor shall write the documents to: (1) explicitly described and justify assumptions upon which the work is based, addressing what was accomplished, and (2) facilitate evaluation by readers who possess only general technical knowledge. Other factors, which will be considered in evaluating presentation aspects of the documents submitted, include: accuracy, format, clarity, spelling and grammar, organization, continuity, completeness, readability, and legibility of illustrations and figures.

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

ATTACHMENT J-B
GOVERNMENT FURNISHED PROPERTY

The following list of Government Furnished Property (GFP) is provided to the Contractor for performance of work.

Description	Qty	Prop ID	Mfg	SN	Model
4 Stack CD Burner	1				40X12X48
4x2 Explorer	1	71551	Ford		1994
Ainsworth Balance	1			X015592	CP-15
Air Filter Chamber	1				
Animal Grabber	1				
ArcView Spatial Analyst 2.0a Software	1				
lance	1	220419			
Balance Analytical	1	335549			
Balance Analytical	1	220722			
Balance S#26312122-0	1				
Barcode Scanner	1		PALM OS	SA0105W14F	SPT1550-TRG80400
Barcode Scanner	1		PALM OS	SA0105W14V	SPT1550-TRG80400
Barcode Scanner	1		PALM OS	SA0105P05G	SPT1550-TRG80400
Base Station	1		Kenwood	12A040024458	ICT1201212A
Binocular Scope	1				
Binocular, Leupold S#L12096	1				
Binocular, Leupold S#L12107	1				
Binocular, Pentex S# 16588	1				
Binocular, Pentex S# 35723	1				
Book Case	10				
Camera	1		Minolta	31011341	150EX
Camera Lens	1	202227			
Camera Lens	1	226916			
Camera Lens (500 mm)	1				
Camera Lens S# 2265654	1				

Description	Qty	Prop ID	Mfg	SN	Model
Canon Copier Model NP 3050	1				
Canon Sureshot	1		105 Zoom	5227421	
Commerical Grinder, duck meat grinder	1		Hamilton Beach		909
Computer Desk	11				
Computer Transport	1	369742	Minolta	620491CR00059	TSP-265
Computer, Optiplex	1	376101	Dell	3WRDL31	OPTIPLEX GX270S
Computer, Optiplex	1	376102	Dell		OPTIPLEX GX270T
Cordless Drill 9.6V	1		Dewalt	534369	
David White Meridian Level Transit	1			D43377	LT6-900
David White Tripod	1				
Desk Chair	9				
Dessicator Secador	1			1774	
Display	1				
Display (Case Only)	1				
Display Unit 10 ft popup	1				
asles	1				
Entry Table	1				
Ethernet Adapter Kit	1				LSA
Executive Desk	1				
Facsimile	1	335663			
File Cabinet 4-drawer	14				
Fire Proof File Cabinet 4-drawer	2				
Food Processor	1		Hamilton Beach		702R
Food Processor	1		Sear Robuck		400-696900
Freezer, Danby	1				
Geo Explorer (GPS)	1				
Glas-Col Heating Mangle 1000 ml	1				
Glas-Col Temperature Controller	1				
GPF XM	1	373728	Trimble	42415084	512 MB
GPS	1		Garmin	36437417	GPS12
GPS	1		Garmin	36057722	GPS12
GPS 3	1	373726	Trimble	84640322	
GPS Unit	1	376115	Thales	CH000668	MOBLE MAPPER
PS Unit	1	376114	Thales	CH000698	MOBLE MAPPER

Description	Qty	Prop ID	Mfg	SN	Model
GPS Unit	1	376113	Thales	CH000737	MOBLE MAPPER
GPS Unit	1	376112	Thales	CH000600	MOBLE MAPPER
GPS Unit	1	376111	Thales	CH000561	MOBLE MAPPER
GPS Unit	1	376110	Thales	CH000607	MOBLE MAPPER
GPS Unit	1			0010003VZJ	
GPS XM	1	373727	Trimble	4245B15053	512 MB
Guest Chair	10				
Handheld Radio	1		Kenwood	41200407	TK380
Handheld Radio	1		Kenwood	41200404	TK380
Handheld Radio	1		Kenwood	41200403	TK380
Handheld Radio	1		Kenwood	41200408	TK380
Handheld Radio	1		Kenwood	41200406	TK380
Handheld Radio	1		Kenwood	41200402	TK380
Handheld Radio	1		Kenwood	41200401	TK380
Handheld Radio	1		Kenwood	41200405	TK380
ndspring PDA	1		Handsrping	ANFMB20860874	02-0374-03
Handspring PDA	1		Handsrping	ANFMB20860104	02-0374-03
Handspring PDA	1	375248	Handsrping	GMHEE224200KF	TREO 90
Handspring PDA	1	375247	Handsrping	GMEE222200JM	TREO 90
Handspring PDA	1	375246	Handsrping	GMHEE224200MZ	TREO 90
Handspring PDA	1	375245	Handsrping	GMHEE2230199	TREO 90
Handspring PDA	1	375244	Handsrping	GMHEE22440081	TREO 90
Laptop	1	376100	Dell	13105420381	INSPIRON 8500
LCD Projector	1	351698			
LCD Projector	1	351971			
L-Desk	1				
Lens w/Case	1	239978			
Lettuce Grinder	1		Glen Creston		
Linberg Hevi-Duty Extraction Oven	1			2204111	
Liquid Scintillation Counter	1	376117	Tri-Carb	431373	3170TR
Ludlum	1		Ludlum	102957	12 S
Manometer	1			9011103	
Manometer	1			9011988	
Manometer	1			9011984	

Description	Qty	Prop ID	Mfg	SN	Model
Meat Grinder	1		American Eagle	AE-G12SS	
Metal Bookshelves	7				
Microphone Parabolic	1				
Microphone Recorder	1				
Microscope	1		Baush & Lomb		
Mixer	1		Hamilton Beach		
Mobile	1		Kenwood		
Mobile	1		Kenwood		
Mobile	1		Kenwood		
Monitor	1		NEC	3501188TA	MX7R77483233BS011
Monitor	1		Dell	MX7R77483233BS 011	
Nikon Camera	1	206375			
Nikon Camera Body	1	206376			
Nikon Lens	1	202226			
Nikon Spotting Scope	1			UH001638	80
Nikon Spotting Scope	1			UH1325	80
Nokia Cell Phone	1		Nokia	11410160697	5120
Nokia Cell Phone	1		Nokia	11410161414	5120
Nokia Cell Phone	1		Nokia	11007234780	5120
Oak Coat Rack	2				
Pager, 4490	1				
Pager, 4558	1				
Pager, 4560	1				
Pager, 4691	1				
Pager, 5105	1				
Pager, 5283	1				
Pager, 5434	1				
Pager, 5498	1				
Pager, 5991	1				
Pager, 6009	1				
Pager, 6470	1				
Pager, 6494	1				
Pager, 6753	1				
Pager, 6953	1				

Description	Qty	Prop ID	Mfg	SN	Model
Pager, 7192	1				
Pesola Macroline Spring Scale	1			80210-10 kg/20 lb	
Ph Meter, Mod #AR20	1				
Plotter	1	375249	HP	SG3775203Z	DESIGN JET 800
Printer	1	324964			
Printer	1	324971			
Printer	1	351983			
Printer	1		Epson	ELVE596887	B171A
Printer Cabinet	2				
Projector	1	361529			
Quark Xpress 5.0 Software	1				
Rad Detector	1	335661			
Rad Detector	1	335660			
Rain Gauge	1	701183			
Receiver	1	335548	Telonix		
gular Desk	6				
ound Table	1				
Scanner	1	272432			
Sigma Plot Software	1		Sigma Plot		V6.0
Shop Vac	1		Genie		
Shotgun Microphone	1				
Signmaster 8	1				
Single Door Traps - Havahart	12				
Snake Tongs	1		KETCH-ALL		
Snow Machine Polaris	1		Polaris		
Soil Campaction Meter	1				
Sony Camera	1			MVC-FD85-5123	
Spotting Scope S# 5012	1				
Statistical 6.0 Software	1				
Supply Cabinet	2				
Tansmitter, Radio Station	1	335659			
Thomas Wiley Mill	1				
Traceable Expandable Range Thermometer	1		Fisher Scientific		

Description	Qty	Prop ID	Mfg	SN	Model
Trailer w/ Float Boat	1	381103 (trailer only)	74003 license for trailer only		
Triple Beam Balance	1		Ohaus		
Tripod/w Head	2		Bogen Manfrotto		3205GN3
Typewriter	1	335665			
Typewriter Chair	1				
Typewriter Table	1				
Universal Rain Gauge 300 MM	1				854
Vacuum Gauge, Pressure	1				
Vegetation Grinder	1				8527 M-7
Vibration Damping Mount	1				
Video Camera	1	335662			
Wind Meter	1				
Work Table	2				
Workstation Computer	1	375243	Dell	8MS4L31	PRECISION 450
Workstation Computer	1	375242	Dell	CMS4L31	PRECISION 450

Property Management Instructions

(a) This contract requirement supplements the requirements of contract clause DEAR 952.245-5 Government Property (Cost-Reimbursement, Time-and-Material, or Labor-Hour Contracts) (JAN 1986). The DEAR clause shall take precedence in case of any conflict between the clause and these requirements.

(b) The above list represents the government furnished property available to the Contractor at time of contract award. This list resides in and is maintained in DOE-ID's management and operations contractor's (currently Battelle Energy Alliance) Property Records Data Base (PRDB). A property account number has been set up in the PRDB for this contract with the Contractor listed as the property custodian. The property account list represents the official contract list of government furnished property for this contract. Property will not be entered into or removed from this account without the Contractor's and Contracting Officer's written approval (e-mail is acceptable). This account includes property in possession of subcontractors under this contract. The Contractor must ensure rigorous and effective management of government furnished property in possession of its subcontractors.

(c) Government furnished property must be managed as follows:

(1) Acquisition

A contract requirement creating a need to acquire property must be valid and within the Contractor's budget and approach to accomplish the statement of work. Any acquisition of property must be approved by the CO and COR in advance of the acquisition.

(2) Records

The Contractor is required to implement controls to manage Government property purchased for this project as soon after acquisition as possible. Please coordinate with INL Property Management to ensure property is evaluated for DOE-ID tagging requirements. When a piece of property is tagged with a serialized U. S. Government property ID tag, an electronic property record is generated. This record is then assigned to account number, in the PRDB. Subcontractors that acquire property associated with the ESER project need to coordinate through your office as soon as possible.

(3) Reporting:

An annual physical inventory report of Government property is required. This report shall include subcontractor held property. INL Property Management will notify you when this report is due. After submittal, the report is checked against your property account number for accuracy. The electronic property record is then updated with a current inventory date. The Contractor must coordinate with its subcontractors in fulfilling the requirements of this report.

Timely and formal reporting of lost, damaged or stolen property to the DOE-ID Organizational Property Management Officer (OPMO) is paramount. Subcontractors need to report directly to the Contractor when Government property is lost, damaged, stolen or when there is a significant change in the physical location of the property (e.g. one place of business to another).

(4) Disposal:

Please coordinate with INL Property Management prior to disposal of Government property. INL Property Management will coordinate with the CO (for concurrence) and you to ensure proper disposal and prompt removal of the item(s) from the PRDB. Subcontractors that possess Government property need to coordinate property disposals through your office.

(5) Official Use of Government Property:

Government furnished and or acquired property shall be used only by the Contractor and its subcontractors, and only for performance of work covered by this contract.

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

ATTACHMENT J-C
ACCESS TO AND USE OF FACILITIES

The recipient will have access to the Central Facilities Area (CFA), the unrestricted areas of the IS, and the Experimental Field Station (EFS), as soon as badges are obtained. Security clearances are not needed for work performance. Entry into other facilities will require facility specific training. Some may require escorts for access. Normally, no access will be provided to the Naval Reactors Facility (NRF). A small laboratory hood and room are used in CF-689 at CFA.

The EFS will be available for use by the Contractor. The EFS is located about 5 miles north of CFA and 1.5 miles east of Lincoln Boulevard. The EFS has three buildings--a pump house, barn, and storage shed. The recipient would have access to most of the barn (shared with the IS contractors) and to the shed. The well and pump may be used, but the operation of the pump will require support from the Operating Contractor, for which some charges will be made. The EFS has electrical service. No lodging or office space is available at the EFS. The EFS, near the pump house, has a battery of air samplers now operated by the state of Idaho, IS contractors, and the Contractor. The Protective Cap/Biobarrier Experiment is located in the general area of the EFS buildings. The Contractor will be responsible for general housekeeping and safety in the EFS area. The INL contractor operates an unmanned aerial vehicle runway in the vicinity of the EFS. Cooperative use and management of the EFS must be an element of the interface agreement required under Sections C.10.1(a) and H.12.

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

ATTACHMENT J-D
ACRONYMS

ACH Automated Clearing House
ACWP Actual Cost of Work Performed
AMWTP Advanced Mixed Waste Treatment Project
ASER Annual Site Environmental Report
B&R Budget and Reporting
BCWP Budgeted Cost of Work Performed
BCWS Budgeted Cost of Work Scheduled
CAP Capabilities and Approach Proposal
CCR Central Contractor Registration
CD compact disk
CFA Central Facilities Area
CFLUP Comprehensive Facility and Land Use Plan
CFR Code of Federal Regulations
CITRC Critical Infrastructure Test Range Complex
CMP Conservation Management Plan
CO Contracting Officer
COI Conflict of Interest
COR Contracting Officer's Representative
CWI CH2M Hill Washington Group, Idaho LLC
DEAR Department of Energy Acquisition Regulation
DOE Department of Energy
DOE-HQ Department of Energy -Headquarters
DOE-ID Idaho Operations Office
DPAS Defense Priorities and Allocation System
DUNS Data Universal Numbering System
EAC Estimate at Completion
EBR Experimental Breeder Reactor
EFS Experimental Field Station
EH DOE Office of Environment, Safety, and Health
EM DOE Office of Environmental Management
EPA U. S. Environmental Protection Agency
ES&H Environmental, Safety and Health
ESER Environmental Surveillance, Education, and Research Program
ETC Estimate to Complete
FAR Federal Acquisition Regulation
FOIA Freedom of Information Act
GAO General Accounting Office
GFP Government-Furnished Property
GPS Global Positioning System
GSA General Services Administration
ICP Idaho Cleanup Project
ID-OPMO ID Organizational Property Management Officer
INEEL Idaho National Engineering and Environmental Laboratory
INL Idaho National Laboratory (formerly INEEL)

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

ATTACHMENT J-D
ACRONYMS

INTEC Idaho Nuclear Technology and Engineering Center
IS Idaho Site
ISMS Integrated Safety Management Systems
LCD liquid crystalline display
M&O Management and Operating
MFC Materials and Fuels Complex
MOU Memorandum of Understanding
MTMC Military Traffic Management Command
NAICS North American Industrial Classification System
NE DOE Office of Nuclear Energy, Science and Technology
NEPA National Environmental Policy Act
NERP National Environmental Research Park
NOAA National Oceanic and Atmospheric Administration
NR Naval Reactors
NRF Naval Reactors Facility
OCI Organizational Conflict of Interest
OIG DOE Office of Inspector General
OSHA Occupational, Safety and Health Administration
PBF Power Burst Facility
PCBE Protective Cap/Biobarrier Experiment
PDA personal data assistant
PIN Personal Identification Number
PRDB Property Records Data Base
R&D Research and Development
RFP Request for Proposal
RTC Reactor Technology Complex
RWMC Radioactive Waste Management Complex
SDA Subsurface Disposal Area
SEP Source Evaluation Panel
SMC Specific Manufacturing Capability
SNF Spent Nuclear Fuel
SNFDSP Spent Nuclear Fuel Disposition and Storage Project
SNM Special Nuclear Material
SOW Statement of Work
SSA Site Stabilization Agreement
TAN Test Area North
TEC Total Estimated Cost
TPC Total Project Cost
TRA Test Reactor Area
USC United States Code
VIPERS Vendor Inquiry Payment Electronic Reporting System
WBS Work Breakdown Structure
WERF Waste Experimental Reduction Facility
WIPP Waste Isolation Pilot Project

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

.. CONTRACT ID CODE	PAGE 1 OF 3 PAGES

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
A001	SEE BLOCK 16C	N/A	

6. ISSUED BY CODE

U.S. Department of Energy
Idaho Operations Office (NE-ID)
1955 Fremont Avenue
Idaho Falls, ID 83401-1221

7. ADMINISTERED BY *(If other than Item 6)* CODE
SAME AS BLOCK NO. 6

Suzette M. Olson, Contract Specialist
Phone: (208) 526-7385
Fax: (208) 526-5548
E-mail: olsonsm@id.doe.gov

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and Zip Code)*

S. M. Stoller Corporation
1780 First Street
Idaho Falls, ID 83401

CODE FACILITY CODE

9A. AMENDMENT OF SOLICITATION NO.

9B. DATED *(SEE ITEM 11)*

X 10A. MODIFICATION OF CONTRACT/ORDER NO.
DE-AC07-06ID14680

10B. DATED *(SEE ITEM 13)*

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*
TF/05/89X0243.91/252/AF0202000/02/01050/2720310/500201/25200/XID=35387

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS; IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

X	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO *(Specify authority)*: **FAR 52.243-2 (Changes - Cost Reimbursement Sep 2000)** THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE-NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(Such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.232-22
	D. OTHER *(Specify type of modification and authority)*:

E. IMPORTANT: Contractor __ is not, _X_ is required to sign this document and return [3] copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible)*
See Page 2, Continuation.

Except as provided herein, all terms and conditions of the document referenced in Items 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
		T. Wade Hillebrant, Contracting Officer	
15B. CONTRACTOR/OFFEROR *(Signature of person authorized to sign)*	15C. DATE SIGNED 5/9/06	16B. UNITED STATES OF AMERICA BY *(Signature of Contracting Officer)*	16C. DATE SIGNED 5/5/06

This Modification, authorized by the Contracting Officer's written notice to proceed dated February 15, 2006, incorporates the following changes:

1. Section B.2, LOCAL 999.B03 ESTIMATED COST AND FIXED FEE (IF APPLICABLE) – BASE CONTRACT AND OPTION WORK, is changed as follows:

   a. The estimated cost and fixed fee (if applicable) for the base contract year is as follows:

   Base Contract Term – January 1, 2006 to December 31, 2006.

Amendment	Estimated Cost	Fixed Fee	Total
Basic Award	[redacted]	[redacted]	$1,579,803
A001	[redacted]	[redacted]	$204,002
Total	[redacted]	[redacted]	**$1,783,805**

2. Section B.3, LIMITATION OF FUNDS, is replaced in its entirety with the following:

Pursuant to FAR 52.232-22, entitled "Limitation of Funds," total funds are obligated herewith, as shown below, and are made available for payment of allowable costs and fixed fee (if applicable) to be incurred from the effective date of this contract through December 31, 2006.

Date	Modification	Obligations
11/18/05	A000	$ 500,000
2/8/06	A001	$1,200,000
TOTAL		$1,700,000

3. Section C.7, OTHER RESEARCH, is modified to add the following section:

7.2.1, Additional Research Projects – February 2006

The following additional research projects are approved and included:

Research Project	Tracking Data
Printing 2004 ASER Report	4101-114
2004 ASER Summary Report	4101-114
Tin Cup Final Report	4101-201
Ants of the INL	4101-201
Conservation Management Planning Aerial Surveys for Sage Grouse and Pygmy Rabbits	4101-305
Historical Fire Regimes of Wyoming and Basis Big Sagebrush Steppe on the IS	4101-602

Research Project	Tracking Data
Minimizing risk of Cheatgrass Invasion and Dominance at the INL	4101-603
Sagebrush Demography	4101-604
Total	

4. Section H.10, SERVICES OF CONSULTANTS, is changed as follows:

(c) The following consultants have been cleared by the CO for OCI:

[redacted]

(End of Continuation Pages)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE 1 OF 4 PAGES
2. AMENDMENT/MODIFICATION NO. A002	3. EFFECTIVE DATE SEE BLOCK 16C	4. REQUISITION/PURCHASE REQ. NO. N/A		5. PROJECT NO. *(If applicable)*

6. ISSUED BY CODE

U.S. Department of Energy
Idaho Operations Office (NE-ID)
1955 Fremont Avenue
Idaho Falls, ID 83401-1221

7. ADMINISTERED BY *(If other than Item 6)* CODE
SAME AS BLOCK NO. 6

Suzette M. Olson, Contract Specialist
Phone: (208) 526-7385
Fax: (208) 526-5548
E-mail: olsonsm@id.doe.gov

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and Zip Code)*

S. M. Stoller Corporation
1780 First Street
Idaho Falls, ID 83401

CODE FACILITY CODE

9A. AMENDMENT OF SOLICITATION NO.

9B. DATED *(SEE ITEM 11)*

X

10A. MODIFICATION OF CONTRACT/ORDER NO.
DE-AC07-06ID14680

10B. DATED *(SEE ITEM 13)*

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*
Refer continuation pages

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS; IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

X A. THIS CHANGE ORDER IS ISSUED PURSUANT TO *(Specify authority)*: **FAR 52.243-2 (Changes - Cost Reimbursement Sep 2000)**

THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE-NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(Such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.232-22

D. OTHER *(Specify type of modification and authority)*:

E. IMPORTANT: Contractor __ is not, X is required to sign this document and return **[3]** copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible)*
Refer continuation pages.

Except as provided herein, all terms and conditions of the document referenced in Items 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
Douglas Gail North west Operations Director / AVP		**T. Wade Hillebrant, Contracting Officer**	
15B. CONTRACTOR/OFFEROR *(Signature of person authorized to sign)*	15C. DATE SIGNED 9/27/06	16B. UNITED STATES OF AMERICA BY *(Signature of Contracting Officer)*	16C. DATE SIGNED 9/27/06

The purpose of this Modification is to:

1. Pursuant to Contract Clause FAR 52.243-2 Changes – Cost Reimbursement" incorporate the below listed attachments into contract Section C as required work to be performed/completed. Period of performance shall be within the current contract performance period and deliverables provided as stated in the Attachments. DOE acknowledges that some work (e.g. Noxious Weed inventory, Sensitive Animal Species Inventory, others) may be extended into the next contract option year, if exercised. S.M. Stoller and DOE will mutually agree on specific work and funding to be carried over prior to the execution of such option year.

A. Attachment No. 1 - ESER CONTRACT TASKS Audit of Teledyne Brown Engineering (TBE) / PCBE Comprehensive Report / Laboratory / Conservation Management Planning / Ants of the INL

Stoller must exert best efforts to complete the tasks within the following task estimated cost and fee:

Task	Estimated Cost & Fee
Audit of TBE Laboratory	$ 9,432
PCBE Comprehensive Report	$ 22,679
Conservation Management Planning	$ 198,656
Ants of the INL	$ 3,971
TOTAL	$ 234,738

B. Attachment No. 2 - Sensitive Animal Species and Noxious Weed Inventory on the INL Sagebrush Steppe Ecosystem Reserve

Stoller must exert best efforts to complete the tasks within the following task estimated cost and fee:

Task	Estimated Cost & Fee
Noxious Weed Inventory	$ 3,180
Sensitive Animal Species Inventory	$ 12,884
Interpretive Sign for Sagebrush Steppe Ecosystem Reserve	$ 4,949
Documentation Preparation	$ 3,381
TOTAL	$ 24,394

2. Revise contract clause B.2, LOCAL 999.B03 ESTIMATED COST AND FIXED FEE (IF APPLICABLE) – BASE CONTRACT AND OPTION WORK, to increase the estimated cost and fixed fee consequent to the incorporation of the work in Item No. 1. as follows:

a. The estimated cost and fixed fee (if applicable) for the base contract year is as follows:

Base Contract Term – January 1, 2006 to December 31, 2006.

Amendment	Estimated Cost	Fixed Fee	Total
Basic Award	$ [redacted]	$ [redacted]	$ 1,579,803
A001	$ [redacted]	$ [redacted]	$ 204,002
A002	$ [redacted]	$ [redacted]	$ 259,131
TOTAL	$ [redacted]	$ [redacted]	$ 2,042,936

Revise clause B.3, LIMITATION OF FUNDS, as follows:

Pursuant to FAR 52.232-22, entitled "Limitation of Funds," total funds are obligated herewith, as shown below, and are made available for payment of allowable costs and fixed fee (if applicable) to be incurred from the effective date of this contract (estimated) through December 15, 2006.

Date	Modification	Obligations
11/18/05	A000	$ 500,000
2/8/06	A001	$ 1,200,000
08/21/06	A002	$ 287,009
TOTAL		$ 1,987,039

For DOE accounting purposes the Accounting and Appropriation Data is as follows:

REFER NEXT PAGE

Fund	Year	Alottee	Reporting Entity	SGL	Object Class	Program	Project	WFO	Local Use	XID	Dollar Amount
3y 00556	06	02	500201		25200	1720329		AGR20023 5000591		35749	$ 18,271.00
01250	06	02	500201		25221	1110864	0000897			35928	$ 24,000.00
01050	06	02	500201		25200	2720310				35387	$ 234,738.00
	Approp Year 2005										
00550	6	02	500201		25200	2720296				36158	$ 10,000.00
									TOTAL		**$287,009.00**

3. Revise the COR Name as follows:

FROM: Betsy Jonker TO: Betsy Holmes

The COR's address and phone number have not changed. The new email address is Betsy.Holmes@id.doe.gov or Betsy.Holmes@nuclear.energy.gov.

Contract clauses effected are Section G – Contract Administration Data; G.2 Submission of Vouchers/Invoices – Submittal of Vouchers (c); and, Attachment J-A Reporting Requirements Checklist; B. Betsy Holmes, Program Manager

4. Add a clause to Part II –CONTRACT CLAUSES; SECTION I – CONTRACT CLAUSES as follows:

I.10 FAR 52.251-1 -- Government Supply Sources.

Government Supply Sources (Apr 1984)

The Contracting Officer may issue the Contractor an authorization to use Government supply sources in the performance of this contract. Title to all property acquired by the Contractor under such an authorization shall vest in the Government unless otherwise specified in the contract. Such property shall not be considered to be "Government-furnished property," as distinguished from "Government property." The provisions of the clause entitled "Government Property," except its paragraphs (a) and (b), shall apply to all property acquired under such authorization.

(End of Clause)

Alternate I (Apr 1984). If a facilities contract is contemplated, delete the last sentence from the basic clause.

Contract No. DE-AC07-AC07-ID14680
Modification A002 - Attachment No. 1

ESER CONTRACT TASKS - Audit of [redacted] / PCBE Comprehensive Report / Conservation Management Planning / Ants of the INL

Task 1: Audit of [redacted]

- Augment proposed audit personnel for audit of analytical laboratory per Contract Statement of Work. Deliverable: Audit Report.

Task 4: PCBE Comprehensive Report

- Update the plant-soil water relationships on the INL PCBE plots reported in Stoller-ESER-56 for 2001-2006. Analyze and report changes in percent cover of individual species as they vary among treatments, years, and with soil water content. Analyze, synthesize, and report findings from data collected by Stoller up to September 2006. This work will be performed by subcontractor [redacted]. Deliverable: MS Word Document and Sigmaplot graphs in digital and hardcopy in order to update Stoller-ESER-56.

Task 3: Conservation Management Planning

- For the Conservation Management Plan, develop the biodiversity inventory design plan, integrate data into the NRDMS and Information Suitability and Completeness Criteria, and analyze and interpret existing data. Design survey for pygmy rabbits and sage grouse, integrate data into the NRDMS and Information Suitability and Completeness Criteria, and analyze and interpret existing data. Initiate CMP development. Deliverables: biodiversity inventory design plan; data collection, analysis, and interpretation; survey design.

Task 6: Ants of the INL

- Complete and publish the Ants of the INL report. Deliverable: Copy of report and report published in a national technical journal.

Contract No. DE-AC07-06ID14680
Modification A002, Attachment No. 2

Sensitive Animal Species and Noxious Weed Inventory on the INL Sagebrush Steppe Ecosystem Reserve

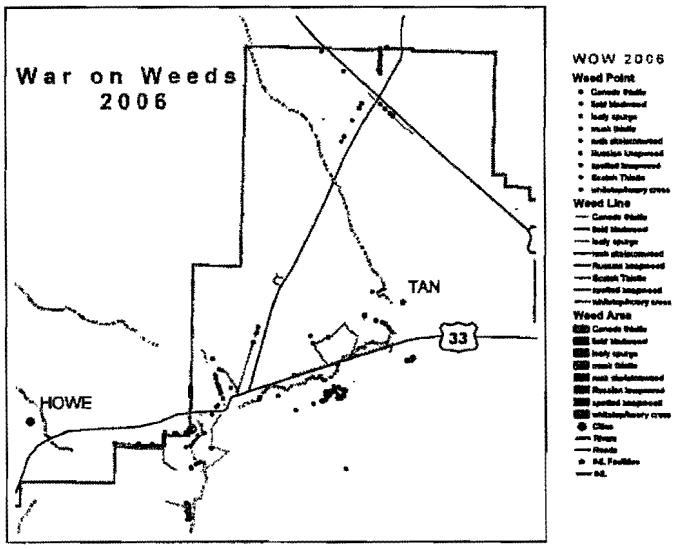
Introduction

DOE-ID has requested that Stoller through the Environmental Surveillance, Education and Research Program (ESER) perform noxious weed and sensitive animals species inventories on the INL Sagebrush Steppe Ecosystem Reserve (SSER). Design and placement of an educational sign about the SSER was also requested. These tasks are discussed below.

Noxious Weed Inventory

During the 2006 War on Weeds Project, eight students from Butte County, under the direction of the ESER Program, mapped noxious weeds on the Sagebrush Steppe Ecosystem Reserve of the INL. Area mapped during the 2006 season included 98,560 acres. The area mapped by the students had been mapped earlier in 2001. This year's data shows a marked increase in the amount of leafy spurge in the Sinks area and the presence of Russian knapweed into the SSER, a noxious weed not found in this area previously ("War-On-Weeds Project 2006" Report).

Areas not included in the 2006 SSER weed survey will be mapped in 2007 by War on Weeds students. A report, including GIS locations of various noxious weeds identified on the SSER will be generated.



2006 SSER weed map

Schedule: Field work will be performed in June and July 2007 followed by map updates and report preparation in August or September 2007.

Sensitive Animal Species Inventory

According to the most recent Species List provided to the INL from USFWS, pygmy rabbits, sage grouse, bald eagles, ferruginous hawks, burrowing owls, bats, long-billed curlew and gray wolf are identified as either a listed species or a species of interest due to their current population status and threats to their long-term viability. Due to the level of funding, this inventory will include pygmy rabbits, sage grouse, bald eagle, and ferruginous hawk surveys. Recommendations and costs are also estimated for the remaining four species in this proposal should additional funding be available.

Pygmy Rabbits - Eleven habitat types are identified on the SSER vegetation map. We will review each habitat type and rank them from low to high probability of pygmy rabbit occurrence. Sixty sample plots will be randomly selected consisting of ≥60% occurring in high, ≥30% medium, and ≤10% low probability areas. Surveys will be conducted as soon as snow covers the ground. This work will be an expansion of the pygmy rabbit surveys being conducted for the Conservation Management Plan (CMP).

Schedule: Potentially beginning November 2006 – February 2007.

Sage Grouse - Aerial line transects will be the most efficient way to determine lek locations across the SSER. We have estimated that the entire SSER can be covered in two -2 hour flights (2 observers per flight). Each lek observed will be visited on the ground to get accurate population data and GPS location. Winter abundances and use will be collected on an incidental basis while conducting other surveys. This work will be an expansion of the sage grouse surveys being conducted for the CMP.

Schedule: Surveys will occur in March and April 2007.

Burrowing Owls – Hooting surveys would begin at sunrise and be completed two hours after sunrise. We estimate that 15km can be covered each morning depending upon weather conditions. This work will be an expansion of the burrowing owl surveys being conducted for the CMP.

Schedule: Surveys will occur December 2006 – March 2007

Ferruginous Hawks - Due to the extreme sensitivity to nesting ferruginous hawks, we propose that a survey be conducted for potential nest sites before the birds arrive and begin nesting. This survey can be conducted on the same flights as the sage grouse lek surveys, adding an additional hour or so at the end of the flight to focus on locating nests in the juniper areas. Each nest can then be surveyed once from the ground during early June to determine species use and possibly nest success.

Schedule: March-April 2007.

Interpretive Sign for Sagebrush Steppe Ecosystem Reserve

An interpretive sign will be installed along U.S. Highway 33 describing the sagebrush steppe ecosystem found within the SSER, including the unique qualities of the sagebrush steppe ecosystem that will be understandable by the general public (6th-7th grade level). The sign will be a 3-foot by 6-foot display (one-sided) made of high pressure laminate. It will be mounted with two wooden posts. The display will be similar to signs at the INL and NERP signs at the Lost River Rest Area and will compliment existing highway historical signs.

Schedule: Text and graphics will be completed by February 2007 and sign construction and installation will be completed by June 2007.

Deliverables

The primary deliverables will be:

1. A report updating the noxious weed inventory on the SSER including methods and GIS locations.
2. A report describing the sensitive animal species inventory of the SSER including GIS locations and potential locations.
3. An interpretive sign for the SSER to be placed in a location agreed upon by DOE-ID and the Idaho Department of Transportation.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE 1 OF 2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
A003	SEE BLOCK 16C	07-07ID14680.002	

6. ISSUED BY CODE

U.S. Department of Energy
Idaho Operations Office (NE-ID)
1955 Fremont Avenue
Idaho Falls, ID 83401-1221

7. ADMINISTERED BY *(If other than Item 6)* CODE
SAME AS BLOCK NO. 6

T. Wade Hillebrant, Contract Specialist
Phone: (208) 526-0547
Fax: (208) 526-5548
E-mail: hillebtw@id.doe.gov

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and Zip Code)*

S. M. Stoller Corporation
1780 First Street
Idaho Falls, ID 83401

CODE FACILITY CODE

9A. AMENDMENT OF SOLICITATION NO.

9B. DATED *(SEE ITEM 11)*

X 10A. MODIFICATION OF CONTRACT/ORDER NO.
DE-AC07-06ID14680

10B. DATED *(SEE ITEM 13)*

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*
Refer continuation pages

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS; IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO *(Specify authority)*: THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE-NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(Such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.232-22
X	D. OTHER *(Specify type of modification and authority)*: **Contract Clause B.2 "Estimated Cost and Fixed Fee – Base Contract and Option Work and clause F.5 "FAR 52.217-9 Option to Extend The Term of the Contract (MAR 2000)"**

E. IMPORTANT: Contractor **X** is not, ___ is required to sign this document and return [__] copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible)*
Refer continuation pages.

Except as provided herein, all terms and conditions of the document referenced in Items 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) **T. Wade Hillebrant, Contracting Officer**	
15B. CONTRACTOR/OFFEROR *(Signature of person authorized to sign)*	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY /S/ *(Signature of Contracting Officer)*	16C. DATE SIGNED 12/5/06

The purpose of this Modification is to:

1. In accordance with contract clause F.5 FAR 52.217-9 OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 2000) exercise the unilateral option for contract year 2 for the period January 1, 2007, to December 31, 2007, at the estimated cost and fixed fee stated in contract clause B.2 ESTIMATED COST AND FIXED FEE (IF APPLICABLE) – BASE CONTRACT AND OPTION WORK establish the Estimated Cost and Fixed.

2. Obligate $200,000 in incremental funding for contract year 2 performance as follows:

   2007 02 00550 2720310 ID 500201 25200 ID14680 XID=40354 $200,000

3. Revise clause B.3 "LIMITATION OF FUNDS" clause as follows:

   Pursuant to FAR 52.232-22, entitled "Limitation of Funds," total funds in the amount of $2,187, 009 are obligated herewith and made available for payment of allowable costs and fixed fee (if applicable) to be incurred from the effective date of this contract through the period estimated to end February 15, 2007.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE 1 OF 2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
A004	SEE BLOCK 16C	07-07ID14680.003	

6. ISSUED BY CODE	7. ADMINISTERED BY *(If other than Item 6)* CODE
U.S. Department of Energy **Idaho Operations Office (NE-ID)** **1955 Fremont Avenue** **Idaho Falls, ID 83401-1221**	SAME AS BLOCK NO. 6 **T. Wade Hillebrant, Contract Specialist** **Phone: (208) 526-0547** **Fax: (208) 526-5548** **E-mail: hillebtw@id.doe.gov**

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and Zip Code)*		9A. AMENDMENT OF SOLICITATION NO.
S. M. Stoller Corporation **120 Technology Drive** **Idaho Falls, ID 83402**		9B. DATED *(SEE ITEM 11)*
CODE FACILITY CODE	X	10A. MODIFICATION OF CONTRACT/ORDER NO. **DE-AC07-06ID14680** 10B. DATED *(SEE ITEM 13)*

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*
Refer continuation pages

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS; IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

XX	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO *(Specify authority)*: Contract Changes clause FAR 52.243-2 "Changes – Cost Reimbursement – Alternate I AUG 1998
	B. THE ABOVE-NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(Such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.232-22
	D. OTHER *(Specify type of modification and authority)*:

E. IMPORTANT: Contractor X is not, ___ is required to sign this document and return [__] copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible)*
Refer continuation pages.

Except as provided herein, all terms and conditions of the document referenced in Items 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
		T. Wade Hillebrant, Contracting Officer	
15B. CONTRACTOR/OFFEROR *(Signature of person authorized to sign)*	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY: *(Signature of Contracting Officer)*	16C. DATE SIGNED 3/23/07

The purpose of this Modification is to:

1. In accordance with contract clause B.2 ESTIMATED COST AND FIXED FEE (IF APPLICABLE) – BASE CONTRACT AND OPTION WORK and clause B.3 "LIMITATION OF FUNDS" provide funding to the contract in the amount of $1,453,348 to fully fund the current contract estimated cost and fixed fee. (Refer item No. 5 below for funding citation).

2. In accordance with the Changes clause of the contract (Section I clause FAR 52.243-2 "Changes – Cost Reimbursement – Alternate I AUG 1998) authorize the attached work entitled "Conservation Management Plan Acceleration and 10 CFR 851 Compliance" The term and deliverables of this work is as defined in the statement of work.

3. In accordance with the change/additional work authorized in No. 2 above, provide $325,000 in incremental funding for the work. A definitizing modification will be issued soon revising/increasing the estimated cost and fixed fee.

4. Revise clause Revise clause B.3 "LIMITATION OF FUNDS" clause as follows, consequent to the funding authorization of item No. 1 and No. 3 above:

   Pursuant to FAR 52.232-22, entitled "Limitation of Funds," total funds in the amount of $1,778,348.00 are obligated herewith and made available for payment of allowable costs and fixed fee (if applicable) to be incurred from the effective date of this contract through the period estimated to end December 31, 2007.

5. State the DOE accounting and appropriation data for the $1,778,348 funding provided in No. 4 above:

   0550 07 5002101 25200 2720310 89X0224.91 AF0202000 XID = 40354

   $1,778,348.00

should state total contract fnd'g of $ 3,185,357

6. Change the address of S.M. Stoller Corp to 120 Technology Drive, Idaho Falls, ID 83402.

Conservation Management Plan Acceleration and 10 CFR 851 Compliance

Tasks -

CMP:

- Complete the biodiversity inventory with the exception of the final year of raptor and reptile surveys that will occur in 2008.

- Have the aerial photography flown that is needed for developing a map of plant communities.

- Purchase the bulk of the supplies need to begin radio telemetry work on sage grouse in 2008.

- Strengthen Stoller relationship with [redacted] and the [redacted] by providing Research Assistantships for students that are working on projects related to the development of the Conservation Management Plan (pygmy rabbit research from [redacted] and herpetological research from [redacted]).

10 CFR 851 compliance:

- Perform initial planning and implementation activities associated with 10 CFR 851 compliance for current contract. Year.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE 1 OF 2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
A005	SEE BLOCK 16C	07-07ID14680.003	

6. ISSUED BY	CODE	7. ADMINISTERED BY *(If other than Item 6)* SAME AS BLOCK NO. 6	CODE
U.S. Department of Energy **Idaho Operations Office (NE-ID)** **1955 Fremont Avenue** **Idaho Falls, ID 83401-1221**		**T. Wade Hillebrant, Contract Specialist** **Phone: (208) 526-0547** **Fax: (208) 526-5548** **E-mail: hillebtw@id.doe.gov**	

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and Zip Code)*		9A. AMENDMENT OF SOLICITATION NO.
S. M. Stoller Corporation **120 Technology Drive** **Idaho Falls, ID 83402**		9B. DATED *(SEE ITEM 11)*
CODE FACILITY CODE	X	10A. MODIFICATION OF CONTRACT/ORDER NO. **DE-AC07-06ID14680** 10B. DATED *(SEE ITEM 13)*

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*
Refer continuation pages

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS; IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO *(Specify authority)*:
	B. THE ABOVE-NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(Such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
XX	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Contract Changes clause FAR 52.243-2 "Changes – Cost Reimbursement – Alternate I AUG 1998
	D. OTHER *(Specify type of modification and authority)*:

E. IMPORTANT: Contractor __ is not, X is required to sign this document and return [3] copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible)*
Refer continuation pages.

Except as provided herein, all terms and conditions of the document referenced in Items 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) **T. Wade Hillebrant, Contracting Officer**	
15B. CONTRACTOR/OFFEROR *(Signature of person authorized to sign)*	15C. DATE SIGNED 5/7/07	16B. UNITED STATES OF AMERICA BY *(Signature of Contracting Officer)*	16C. DATE SIGNED 5/7/07

The purpose of this Modification is to:

1. Definitize the step one change order issued in Modification A004 as follows:

	FROM	INCREASE	TO
Estimated Cost	[redacted]	[redacted]	[redacted]
Fixed Fee	[redacted]	[redacted]	[redacted]
TOTAL	$ 3,640,357.00	$ 350,000.00	$ 3,990,357.00

2. In accordance with contract clause B.2 ESTIMATED COST AND FIXED FEE (IF APPLICABLE) – BASE CONTRACT AND OPTION WORK and clause B.3 "LIMITATION OF FUNDS" provide funding to the contract in the amount of $21,652 to incrementally fund the current contract estimated cost and fixed fee. (Refer item No. 4 below for funding citation). The contract is now 99.9% funded for the period estimated to end December 31, 2007.

3. Revise clause B.3 "LIMITATION OF FUNDS" as follows, consequent to the funding authorization of item No. 2 above:

   Pursuant to FAR 52.232-22, entitled "Limitation of Funds," total funds in the amount of $3,987,009 are obligated herewith and made available for payment of allowable costs and fixed fee to be incurred from the effective date of this contract through the period estimated to end December 31, 2007.

4. State the DOE accounting and appropriation data for the $ 21,652 funding provided in No. 2 above:

   0550 07 5002101 25200 2720310 89X0224.91 AF0202000 XID = 40354

   $ 21,652

5. Incorporate the following consequent to the equitable adjustment of this definitizing Modification:

   In consideration of the modification(s) agreed to herein as complete equitable adjustments for the Contractor's March 13, 2007, "proposal for adjustment," the Contractor hereby releases the Government from any and all liability under this contract for further equitable adjustments attributable to such facts or circumstances giving rise to the "proposal(s) for adjustment".

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE 1 OF 2 plus attachments
AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. *(If applicable)*
A006	SEE BLOCK 16C	07-07ID14680.004		

6. ISSUED BY CODE

U.S. Department of Energy
Idaho Operations Office (NE-ID)
1955 Fremont Avenue
Idaho Falls, ID 83401-1221

7. ADMINISTERED BY *(If other than Item 6)* CODE
SAME AS BLOCK NO. 6

T. Wade Hillebrant, Contract Specialist
Phone: (208) 526-0547
Fax: (208) 526-5548
E-mail: hillebtw@id.doe.gov

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and Zip Code)*

S. M. Stoller Corporation
120 Technology Drive
Idaho Falls, ID 83402

CODE FACILITY CODE

9A. AMENDMENT OF SOLICITATION NO.

9B. DATED *(SEE ITEM 11)*

X

10A. MODIFICATION OF CONTRACT/ORDER NO.

DE-AC07-06ID14680

10B. DATED *(SEE ITEM 13)*

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

ACCOUNTING AND APPROPRIATION DATA *(If required)*
2007 2007 02 00550 2720310 ID 500201 25200 ID14680 XID= 40354 Obligate: $130,000

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS; IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

XX	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO *(Specify authority)*: Contract Changes clause FAR 52.243-2 "Changes – Cost Reimbursement – Alternate I AUG 1998
	B. THE ABOVE-NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(Such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER *(Specify type of modification and authority)*:

E. IMPORTANT: Contractor **XX** **is not**, __ is required to sign this document and return [__] copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible)*
Refer continuation pages.

Except as provided herein, all terms and conditions of the document referenced in Items 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
SIGNATURE NOT REQUIRED		**T. Wade Hillebrant, Contracting Officer**	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		BY T. Wade Hillebrant *(Signature of Contracting Officer)*	6/29/07

The purpose of this Modification is to:

1. In accordance with the Changes clause of the contract (Section I clause FAR 52.243-2 "Changes – Cost Reimbursement – Alternate I AUG 1998) authorize the attached work entitled "Big Lost River Trenches Revegetation Demonstration Project". This Statement of Work is considered incorporated into contract Section C.

2. In accordance with the change/additional work authorized in No. 1 above, provide $130,000 in incremental funding for the work. A definitizing modification will be issued soon revising/increasing the estimated cost and fixed fee and obligating any additional funds as needed.

3. S.M. Stoller must provide a proposal for equitable adjustment to the contract no later than 30 days from effective date of this modification.

4. Stoller shall segregate costs for this work under a new W.B.S. number to be approved by the Contracting Officer's Representative.

5. The Statement of Work contains requirements that extend beyond the current performance period of the contract, assuming all contract option periods are exercised. This Modification does not extend the current contract ending date. Any modification requirement beyond the contract ending date will be considered effective only if Stoller were to be awarded a follow-on contract.

Big Lost River Trenches Revegetation Demonstration Project

A. Background

The Big Lost River trenches excavation began in 2001 and continued into 2002 to evaluate geomorphic evolution and flooding history. The information obtained from the trenching project was related to the results of previous river flow models. The detailed characterizations then provided a basis for addressing questions of river channel stability and evolution, the influence of Aeolian activity on channel geometry, the existence of channels or evidence of overflow on Pleistocene surfaces, and a better definition of the upper limits of Holocene floods. Eventually, this project led to a determination of flooding potential and extent on the INL Site from the Big Lost River.

Once the data gathering was completed an extensive process of evaluation and then peer review was performed to ensure the adequacy of the analysis. During this time the trenches were left open to allow for site visits. In 2006, a determination was made to retain the excavated trenches until the Idaho Department of Environmental Quality was satisfied with the flooding evaluation that resulted from the trenching project. The trenches have been released for reclamation.

B. Scope of Work

The purpose of this project is to demonstrate cost effective reclamation and revegetation methods that may be used in the harsh desert environment of the INL Site to achieve 70% native vegetation coverage in areas of soil disturbance. The disturbed areas to be reclaimed for this demonstration are trenches excavated for the "Big Lost River Geomorphic Investigations to Reduce Uncertainty on the Paleohydrologically Constrained Big Lost River Flood Hazard Bounds on the INEEL" project (Trenching Project). The trenches were excavated in 2001 and 2002 on the INL Site near the Big Lost River. This project will demonstrate cost effective reclamation and revegetation methods to reduce the costs and number of seasons necessary to achieve stable native vegetation.

The trenches are located on lands considered culturally sensitive by the Shoshone-Bannock Tribes. Several mitigative measures were agreed upon through negotiations with the Tribes, the State Historic Preservation Office and the Advisory Council on Historic Preservation. Some of these conditions are applicable mitigations for this SOW.

C. Tasks

The field work must be coordinated with the INL M&O contractor, Battelle Energy Alliance, in accordance with their Integrated Safety Management System.

C.1 Backfill Trenches and remove and disposition snowfence and posts.

C.2 Revegetate disturbed areas.

C.3 Monitor and maintain revegetated areas as needed.

D. Technical References and Key Documents

Work shall be in accordance with and not be adverse to following references, which are included as attachments to this Statement of Work:

D.1 Attachment 1 "Big Lost River Trenching Project FY2002 Activities" provides more detailed information regarding the excavations, their locations, spoil piles, cultural resources and environmental considerations.

D.2 Attachment 2 - DOE/EA-1448 and FONSI "Geomorphic Investigations of the Big Lost River at Site BLR-8 on the Idaho National Engineering and Environmental Laboratory" provides details on the environmental and cultural resource protection conditions that must met when this project is performed. The EA and FONSI also references the Memorandum of Agreement with the State Historic Preservation Office that includes stipulations for protection of cultural resources surrounding the trenches.

D.3 Attachment 3 - Memorandum of Agreement with the State Historic Preservation Office for the Big Lost River Trenching Project.

D.4 Attachment 4 – Environmental Checklist and NEPA categorical exclusion determination by DOE: Letter "Approval of the Categorical Exclusion and Environmental Checklist 'INEEL Geomorphic Investigations to Reduce Uncertainty on Paleohydrologically Constrained Big Lost River Flood Hazard Bounds on the INEEL'". This EC is for the trenches other than BLR-8, contains conditions for approval of the categorical exclusion for excavation of the other trenches.

E. Schedule

E.1 The reclamation and initial revegetation efforts must be completed by the end of the field season in 2007. Site evaluations will be completed each year after 2007 for 4 years to determine whether further actions, such as spraying for weeds, watering, barriers to disturbance or additional seeding is required to achieve 70% native vegetation coverage. If 70% native vegetation coverage is achieved prior to the 4th year after the initial revegetation effort, then no further evaluations will be required.

E.2 Initial revegetation is defined as soil preparation and planting of an approved native vegetation seed mix at a minimum.

Milestones:

October 31, 2007 – Complete initial revegetation of all Big Lost River trenches.
June 2008 – Complete an evaluation of revegetation success and need for additional action.
July 31, 2008 – Provide progress information and determinations on further actions needed to DOE.

October 31, 2011 – If not provided earlier, provide final project report on methods and results of this revegetation demonstration project.

F. Deliverables

F.1 Once 70% vegetative cover is established or at the end of the field season in 2011, provide a report to DOE-ID on the project. The report shall include the methods used, conditions and the timeframes for all activities that contributed to re-establishing vegetation on the disturbed areas, as well as data on the efficacy of the methods and any lessons learned. The report shall be in a format that allows for distribution to INL Site contractors to improve methods used for revegetation for faster and more cost effective results.

Addressees for Report shall be the contract Contracting Officer and Contracting Officer's Representative. DOE shall have review and comment right to the report for any rework. Report shall be submitted no later than 30 days from work completion.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE 1 OF 1
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. *(If applicable)*
A007	SEE BLOCK 16C	07-07ID14680.004		

6. ISSUED BY	CODE	7. ADMINISTERED BY *(If other than Item 6)* SAME AS BLOCK NO. 6	CODE
U.S. Department of Energy **Idaho Operations Office (NE-ID)** **1955 Fremont Avenue** **Idaho Falls, ID 83401-1221**		**T. Wade Hillebrant, Contract Specialist** **Phone: (208) 526-0547** **Fax: (208) 526-5548** **E-mail: hillebtw@id.doe.gov**	

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and Zip Code)*		9A. AMENDMENT OF SOLICITATION NO.
S. M. Stoller Corporation **120 Technology Drive** **Idaho Falls, ID 83402**		9B. DATED *(SEE ITEM 11)*
CODE FACILITY CODE	X	10A. MODIFICATION OF CONTRACT/ORDER NO. **DE-AC07-06ID14680** 10B. DATED *(SEE ITEM 13)*

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*
Refer Block No. 14.

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS; IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO *(Specify authority)*:
	B. THE ABOVE-NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(Such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
XX	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Changes Clause FAR 52.243-2 Change – Cost Reimbursement Alternate I
	D. OTHER *(Specify type of modification and authority)*:

E. IMPORTANT: Contractor ___ **is not**, XX is required to sign this document and return **[3]** copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible)*
Refer continuation page.

Except as provided herein, all terms and conditions of the document referenced in Items 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
Doug Gail / NW Ops Director		**T. Wade Hillebrant, Contracting Officer**	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
BY Doug Gail *(Signature of person authorized to sign)*		BY T. Wade Hillebrant *(Signature of Contracting Officer)*	9/27/07

The purpose of this Modification is to:

1. Definitize/incorporate the estimated cost and fixed fee into the contract consequent to the execution of Modification A006 change order for the "Big Lost River Trenches Revegetation Demonstration Project" work.

2. The contract estimated cost and fixed fee is increased as follows:

	FROM	INCREASE	TO
Estimated Cost	[redacted]	[redacted]	[redacted]
Fixed Fee	[redacted]	[redacted]	[redacted]
TOTAL	$3,990,357.00	$179,987.00	$4,170,344.00

3. In accordance with the change/additional work authorized in No. 2 above, provide $49,987 to fully fund the work. $130,000 was obligated to the contract in Modification A006 for this work; modifications A006 and A007 have now cumulatively fully funded this work in the amount of $179,987.00. (Refer No. 7 below for a correction to the internal DOE finance obligation system.)

4. Summary of funds obligated is as follows:

	Funding Obligated	Cumulative Funding Obligated
Basic	$ 500,000.00	$ 500,000.00
A001	$ 1,200,000.00	$ 1,700,000.00
A002	$ 287,009.00	$ 1,987,009.00
A003	$ 200,000.00	$ 2,187,009.00
A004	$ 1,778,348.00	$ 3,965,357.00
A005	$ 21,652.00	$ 3,987,009.00
A006	$ 130,000.00	$ 4,117,009.00
A007	$ 49,987.00	$ 4,166,996.00

5. Revise clause B.3 "LIMITATION OF FUNDS" as follows:

Pursuant to FAR 52.232-22, entitled "Limitation of Funds," total funds in the amount of $4,166,996 are obligated herewith and made available for payment of allowable costs and fixed fee to be incurred from the effective date of this contract through the period estimated to end December 31, 2007

6. Incorporate the following consequent to the equitable adjustment of this definitizing Modification:

> *In consideration of the modification(s) agreed to herein as complete equitable adjustments for the Contractor's June 21, 2007, "proposal for adjustment," the Contractor hereby releases the Government from any and all liability under this contract for further equitable adjustments attributable to such facts or circumstances giving rise to the "proposal(s) for adjustment".*

7. ~~6~~. Pursuant to correcting a DOE internal accounting error, the following action is taken:

a. Deobligate the $130,000 in A006 under the following accounting data:

YA 89X0221.91 07 005500 252 2720310 XID= 40354 $130,000

b. Obligate $1~~8~~9,987 in this Modification as follows:

NE YA 89X0224.91 00550 07 500201 252 2720310 XID = 40354 $90,000

EM TP 89X0224.91 50020 06 500201 252 1110868 XID= 41142 $89,987

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE 1 OF 3
2. AMENDMENT/MODIFICATION NO. A008	3. EFFECTIVE DATE SEE BLOCK 16C	4. REQUISITION/PURCHASE REQ. NO. 07-07ID14680.005		5. PROJECT NO. *(If applicable)*

6. ISSUED BY CODE	7. ADMINISTERED BY *(If other than Item 6)* CODE SAME AS BLOCK NO. 6
U.S. Department of Energy **Idaho Operations Office (NE-ID)** **1955 Fremont Avenue** **Idaho Falls, ID 83401-1221**	**T. Wade Hillebrant, Contract Specialist** **Phone: (208) 526-0547** **Fax: (208) 526-5548** **E-mail: hillebtw@id.doe.gov**

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and Zip Code)*		9A. AMENDMENT OF SOLICITATION NO.
S. M. Stoller Corporation **120 Technology Drive** **Idaho Falls, ID 83402**		9B. DATED *(SEE ITEM 11)*
CODE FACILITY CODE	X	10A. MODIFICATION OF CONTRACT/ORDER NO. **DE-AC07-06ID14680** 10B. DATED *(SEE ITEM 13)*

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

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Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*
Refer Continuation Page.

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS; IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO *(Specify authority)*:
	B. THE ABOVE-NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(Such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
XX	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Contract clause B.2 Estimated Cost and Fixed Fee – Base Contract and Option Work and FAR 52.217-0 Options
	D. OTHER *(Specify type of modification and authority)*:

E. IMPORTANT: Contractor ___ **is not**, XX is required to sign this document and return **[3]** copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible)*
Refer continuation page.

Except as provided herein, all terms and conditions of the document referenced in Items 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) **T. Wade Hillebrant, Contracting Officer**	
15B. CONTRACTOR/OFFEROR BY_____ *(Signature of person authorized to sign)*	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY_____ *(Signature of Contracting Officer)*	16C. DATE SIGNED

The purpose of this Modification is to:

1. In accordance with contract clause F.5 FAR 52.217-9 OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 2000) exercise the option for contract year 3 for the period January 1, 2008, to December 31, 2008, at the current Statement of Work.

2. Consequent to the addition of the work in Modification A004 and A005 (i.e. 10 CFR 851 Compliance) revise/increase the estimated cost and fixed fee for contract year 3 within contract clause B.2 ESTIMATED COST AND FIXED FEE – BASE CONTRACT AND OPTION WORK as follows:

	FROM	INCREASE	TO
Estimated Cost	$ [redacted]	$ [redacted]	$ [redacted]
Fixed Fee	$ [redacted]	$ [redacted]	$ [redacted]
Total	$ 1,646,693	$ 20,307	$ 1,667,000

3. The contract estimated cost and fixed fee is increased as follows:

	FROM	INCREASE	TO
Estimated Cost	[redacted]	[redacted]	[redacted]
Fixed Fee	[redacted]	[redacted]	[redacted]
TOTAL	$4,170,344.00	$1,667,000.00	$5,837,344.00

4. Obligate $500,000 in incremental funding for contract year 3 performance as follows:

   2008 2008 02 00550 2720310 ID 500201 25200 ID14680 XID=45654 $500,000

5. Revise clause B.3 "LIMITATION OF FUNDS" clause as follows:

   Pursuant to FAR 52.232-22, entitled "Limitation of Funds," total funds in the amount of $4,666,996 are obligated herewith and made available for payment of allowable costs and fixed fee to be incurred from the effective date of this contract through the period estimated to end April 15, 2008.

6. Incorporate the following clause into Section H of the contract:

H. 13 PROHIBITION ON PERSONALLY IDENTIFIABLE INFORMATION (PII)

The Contractor must not provide PII, either printed or electronic, to the U.S. Department of Energy within any deliverable, report or submittal under this contract.

Personally Identifiable Information (PII) is any information maintained by the Contractor about an individual, including but not limited to, education, financial transactions, medical history and criminal or employment history, and information that can be used to distinguish or trace an individual's identity, such as his/her name, social security number, date and place of birth, mother's maiden name, biometric data, etc., and including any other personal information that is linked or linkable to a specific individual.

This requirement must be incorporated into any and all subcontracts to the lowest tier.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE 1 OF 3
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. *(If applicable)*
A009	SEE BLOCK 16C	07-08ID14680.003		

6. ISSUED BY CODE

U.S. Department of Energy
Idaho Operations Office (NE-ID)
1955 Fremont Avenue
Idaho Falls, ID 83401-1221

7. ADMINISTERED BY *(If other than Item 6)* CODE
SAME AS BLOCK NO. 6

T. Wade Hillebrant, Contract Specialist
Phone: (208) 526-0547
Fax: (208) 526-5548
E-mail: hillebtw@id.doe.gov

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and Zip Code)*

S. M. Stoller Corporation
120 Technology Drive
Idaho Falls, ID 83402

CODE FACILITY CODE

9A. AMENDMENT OF SOLICITATION NO.

9B. DATED *(SEE ITEM 11)*

X 10A. MODIFICATION OF CONTRACT/ORDER NO.

DE-AC07-06ID14680

10B. DATED *(SEE ITEM 13)*

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

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(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*
Refer Continuation Page.

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS; IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO *(Specify authority)*:
	B. THE ABOVE-NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(Such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
XX	D. OTHER *(Specify type of modification and authority)*: Contract clause B.2 Estimated Cost and Fixed Fee and B.3 Limitation of Funds

E. IMPORTANT: Contractor **XX is not**, __ is required to sign this document and return **[3]** copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible)*
Refer continuation page.

Except as provided herein, all terms and conditions of the document referenced in Items 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
SIGNATURE NOT REQUIRED		**T. Wade Hillebrant, Contracting Officer**	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
BY SIGNATURE NOT REQUIRED *(Signature of person authorized to sign)*		BY [signature] *(Signature of Contracting Officer)*	5/19/08

NSN 754-01-152-8070
PREVIOUS EDITION UNUSABLE

30-105

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.

The purpose of this Modification is to:

1. In accordance with contract clause B.2 ESTIMATED COST AND FIXED FEE – BASE CONTRACT AND OPTION WORK and B.3 LIMITATION OF FUNDS obligate the final/full increment of funds to the contract in the amount of $1,170,348 as follows:

   2008 2008 02 05350 2720310 ID 500201 25200 ID14690 XID = 45987
   $1,170,348

2. Consequent Revise clause B.3 "LIMITATION OF FUNDS" clause as follows:

   Pursuant to FAR 52.232-22, entitled "Limitation of Funds," total funds in the amount of $5,837,344 are obligated herewith and made available for payment of allowable costs and fixed fee to be incurred from the effective date of this contract through the period estimated to end December 31, 2008.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE 1 OF 3

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
A010	SEE BLOCK 16C	07-08ID14680.002, 003 & 004	N/A

6. ISSUED BY	CODE	7. ADMINISTERED BY *(If other than Item 6)*	CODE
U.S. Department of Energy **Idaho Operations Office (NE-ID)** **1955 Fremont Avenue** **Idaho Falls, ID 83401-1221**		**SAME AS BLOCK NO. 6** **T. Wade Hillebrant, Contract Specialist** **Phone: (208) 526-0547** **Fax: (208) 526-5548** **E-mail: hillebtw@id.doe.gov**	

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and Zip Code)*		9A. AMENDMENT OF SOLICITATION NO.
S. M. Stoller Corporation **120 Technology Drive** **Idaho Falls, ID 83402**		9B. DATED *(SEE ITEM 11)*
CODE FACILITY CODE	X	10A. MODIFICATION OF CONTRACT/ORDER NO. **DE-AC07-06ID14680** 10B. DATED *(SEE ITEM 13)*

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

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12. ACCOUNTING AND APPROPRIATION DATA *(If required)*
Refer Continuation Pages.

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS; IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO *(Specify authority)*:
	B. THE ABOVE-NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(Such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
XX	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Contract Changes clause FAR 52.243-2 "Changes – Cost Reimbursement – Alternate I AUG 1998
	D. OTHER *(Specify type of modification and authority)*:

E. IMPORTANT: Contractor ___ is not, X is required to sign this document and return [3] copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible)*
Refer continuation pages.

Except as provided herein, all terms and conditions of the document referenced in Items 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
James Van Vliet / Vice President		**T. Wade Hillebrant, Contracting Officer**	
15B. CONTRACTOR/OFFEROR BY _____ *(Signature of person authorized to sign)*	15C. DATE SIGNED 6/24/08	16B. UNITED STATES OF AMERICA BY _____ *(Signature of Contracting Officer)*	16C. DATE SIGNED 6/24/08

The purpose of this Modification is to:

1. In accordance with contract clause "FAR 52.243-2 "Changes – Cost Reimbursement – Alternate I AUG 1998" provide an equitable adjustment to the contract for the "Conservation Management Plan" work authorized by Contracting Officer email (i.e. Step 1 Change Order) on March 3, 2008. The attached Statement of Work/Stoller proposal titled "Conservation Management Plan / Candidate Conservation Agreement for the Idaho National Laboratory" as prior provided as an attachment to the March 3, 2008, Step 1 change order is incorporated into contract Section C. Stoller is not authorized to proceed with any out-year work noted in the SOW (i.e. 2009, 2010, etc.); these are stated for planning purposes only.

2. Increase the estimated cost and fixed fee of the contract as follows, for performance of the work identified in No. 1 above:

	FROM	INCREASE	TO
Estimated Cost	[redacted]	[redacted]	[redacted]
Fixed Fee	[redacted]	[redacted]	[redacted]
TOTAL	$5,837,344.00	$833,000	$6,670,344.00

3. Provide full funding to the contract for the work of No. 1 above as follows:

05350 2008 02 500345 61000000 25100 2720468 KK0501206 XID= 45998
$500,000.00

$833,000

2008 2008 02 05350 2720310 ID500201 25200 ID14680 XID = 45987
$329,652

2008 2006 02 01050 2720310 ID 500201 25200 ID14680 XID = 46482
$3,348

4. Revise clause B.3 "LIMITATION OF FUNDS" clause as follows:

Pursuant to FAR 52.232-22, entitled "Limitation of Funds," total funds in the amount of $6,670,344 are obligated herewith and made available for payment of allowable costs and fixed fee to be incurred from the effective date of this contract through the period estimated to end December 31, 2008.

5. Include as contract language the following "Contractor's Statement of Release":

Contractor's Statement of Release

In consideration of the modification(s) agreed to herein as complete equitable adjustment for the Contractor's proposal dated April 30, 2008, the Contractor hereby releases the Government from any and all liability under this contract for further equitable adjustments attributable to such facts or circumstances giving rise to the proposal.

Conservation Management Plan / Candidate Conservation Agreement for the Idaho National Laboratory

Background

Based on the suggestion of the U.S. Fish and Wildlife Service a change of approach to our conservation planning was made in 2008. They recommended that we prepare a Candidate Conservation Agreement (CCA) that would address the species most likely to be the subject of an Endangered Species Act (ESA) listing. The Conservation Management Plan (CMP) would then address all potential resource issues on the INL, but would not be completed until 2012 or later. The advantage of this approach is that although the cost to complete the entire CMP will be virtually the same over the long-term, costs are reduced by half in 2008 and 2009 while enabling the preparation of a CCA protecting DOE's proposed work from delays. The CCA would provide much of the information necessary for a Biological Assessment/Biological Opinion for pygmy rabbit or sage grouse as required under the ESA.

This does not preclude the development of the full CMP. As the CCA is being completed, work on the remaining elements of the CMP will resume with completion of the CMP in 2012. The CMP will address the remaining potential issues and sensitive species that could impact projects on the INL and would provide much of the data needed for Environmental Impact Assessments or Statements that would be required for a major federal project (such as a reactor) on the INL. Therefore, the CMP will be a complementary document to the CCA and will provide DOE with a solid foundation of information to proceed with their mission without undue delays.

The CCA will require that four major components be completed: vegetation mapping, pygmy rabbit status, sage grouse status, and a geographic information system (GIS) tool. The approach for each of the major components of the CCA is outlined below and assumes full funding (as presented in Table 1) would be available.

Vegetation Community Classification and Mapping

Introduction

Accurate classification and mapping of vegetation communities have become increasingly important tools for conservation management. By understanding the distribution and condition of plant communities on a landscape, a number of conservation goals can more easily be met including;

- Determining which community types are intrinsically rare or have been severely degraded
- Identifying the best remaining occurrences of natural communities across their geographic ranges
- Development of habitat suitability models for predicting species occurrences, and

- Classifying areas for their importance in conservation management planning.

Previous vegetation maps of the INL are inadequate to serve these conservation management planning goals primarily because they are outdated. The most recent effort was almost twenty years ago and does not capture important changes that have occurred since that time including fires, sagebrush die-off and invasion by non-native plants. Also, methodologies for vegetation classification and mapping have been refined and standardized since those earlier maps and will allow for continuity between classification on the INL and on neighboring lands managed by other agencies.

Goals and Objectives

The overall goal of vegetation community classification and mapping is to assess the distribution of plant communities on the INL. Specific objectives are to:

- Determine the communities types present on the INL
- Determine the distribution of those communities types on the landscape, and
- Conduct an accuracy assessment of the resulting map.

The final products of this effort will be a [redacted] of plant communities on the INL at a geographic scale suitable for use in Candidate Conservation Agreements and the Conservation Management Plan. This [redacted].

Approach

The proposed approach to plant community classification and mapping will be done in a three step process.

- The first step is to classify the plant communities on the INL. The classification system chosen is the U.S. National Vegetation Classification system. It is a hierarchical system developed by the Federal Geographic Data Committee. We will prepare a preliminary classification using existing data (i.e. LTV) with the assistance of the [redacted] prepared the classification for [redacted] and their experience in that effort will provide a head start for the INL vegetation classification. The preliminary classification will be used to guide the field data collection. Field data collection will be done by Stoller ESER staff with interns funded through [redacted]. [redacted] will provide daily support for electronic data collection, data downloads, and preliminary data QA. Field data are used in a multivariate statistical approach to define the final plant community classification.
- The second step is to delineate the mapping units. The mapping units are derived through aerial photo interpretation. The minimum mapping unit size will be 0.5 ha (1 acre). Delineations will be done by Stoller ESER staff and [redacted] with additional

technical expertise from [redacted]. [redacted] conducted the delineation work for a similar effort at [redacted]. Once the map unit delineations are completed, the team will assign the relationships between mapping units and plant communities.

- The third step is to ground truth the map and conduct an accuracy assessment. This is done by surveying randomly selected points from the draft map. Deviations of this survey data from the map form the basis for the accuracy assessment. This work will be done by Stoller, [redacted].

Schedule

2008

- Delineation of mapping units based on imagery collected in 2007. Stoller, [redacted]
- Preliminary classifications. Stoller and [redacted]
- Field data collection. Stoller, [redacted]
- Start Final Classification. Stoller and [redacted]

2009

- Complete Final Classification. Stoller and [redacted]
- Conduct Accuracy Assessment. Stoller, [redacted]

2010

- Final Report. Stoller, [redacted]

Benefits to Department of Energy

Understanding the distribution and condition of plant communities on the INL will support conservation management through habitat mapping, development of Habitat Suitability Indices and will guide surveys for sensitive species. Additional benefits to land management at the INL include guiding revegetation and weed management efforts, increasing the efficiency of assessing environmental impacts, siting new facilities. It will also serve as an important background database for research on the National Environmental Research Park and ecological monitoring at the INL.

Status of Pygmy Rabbits (*Brachylagus idahoensis*) on the INL

Introduction

Pygmy rabbits are sagebrush obligate species that are experiencing declines due to the widespread conversion of sagebrush habitats to grasslands. It is important that DOE understands the status of pygmy rabbits on the INL because pygmy rabbits are considered imperiled in Idaho, sensitive by the U.S. Forest Service, and imperiled by the U.S. Bureau of Land Management. Pygmy rabbits are considered vulnerable to declines

and extinction in Idaho and were recently petitioned for federal endangered species status multiple times. The U. S. Fish and Wildlife Service (USFWS) decided not to initiate a status review for pygmy rabbits due to a lack of information on the distribution and population trends. However, a recent lawsuit claims there is enough information to list the pygmy rabbit and is forcing USFWS to revisit the issue of the pygmy rabbits status. Conducting an assessment of pygmy rabbit status on the INL would provide valuable distribution and abundance information that can be used in land use planning if pygmy rabbits are indeed listed for protection under the ESA in the future.

Goals and Objectives

The goal of this assessment is to document the status of pygmy rabbits on the INL. Specific objectives include: 1) Assess the distribution of pygmy rabbits on the INL, 2) Assess the abundance of pygmy rabbits on the INL, and 3) Delineate critical use areas for pygmy rabbits on the INL.

Approach

- [redacted]

Benefits to the Department of Energy

The results from this study will support the Conservation Management Plan by providing important information on the distribution and abundance of pygmy rabbits and their habitats on the INL. By understanding the distribution and abundance of pygmy rabbits on the INL DOE will be able to make informed land use planning decisions. This is especially important as the pygmy rabbit may become a listed species under the ESA in the future. To maximize the benefits to DOE, we are working with the USFWS to ensure our assessments will provide the necessary information if the pygmy rabbit is listed in the future.

Schedule

2008

- [redacted]

2009

- [redacted]

2010

- Final Report and Incorporation into CCA, [redacted] and Stoller

Status of Sage Grouse (*Centrocercus urophasianus*) on the INL

Introduction

Sage grouse are sagebrush obligate species that are experiencing declines due to the widespread degradation of sagebrush habitats. Due to its status there is a collaborative planning effort among a variety of organizations to protect sage grouse and their habitats. It is important that DOE understands the status of sage grouse on the INL because similar to pygmy rabbits, sage grouse are considered imperiled in Idaho, sensitive by the U.S. Forest Service, and imperiled by the U.S. Bureau of Land Management. Sage grouse are considered vulnerable to declines and extinction in Idaho and have been petitioned for protection under the Endangered Species Act (ESA) seven times. The USFWS made a positive 90-day finding on the majority of these petitions but no legal actions have been taken. Conducting an assessment of sage grouse status on the INL would provide valuable distribution and abundance information that can be used for land use planning especially if sage grouse are indeed listed as endangered species in the future.

Goals and Objectives

The goal of this project is to assess the status of sage grouse on the INL by defining the distribution of their critical habitats. Specific objectives include: 1) delineate breeding habitats on the INL, 2) delineate summer habitats on the INL, 3) delineate winter habitats on the INL, and 4) delineate important corridors for maintaining connectivity among sage grouse habitats.

Approach

- Conduct aerial and ground surveys for sage grouse breeding areas across the entire site.
- Conduct counts at breeding areas to estimate abundance.
- Capture and radio collar 50 sage grouse per year in 2008 and 2009 to determine the distribution of important breeding, summer, winter, and migration habitats.
- Relocate radio collared birds monthly from the air and the ground through 2008 to 2009.
- Conduct ground surveys for sage grouse.
- Use results from surveys, counts, and radio telemetry to define critical breeding, summer, winter and migration habitats.

Benefits to the Department of Energy

The results from this study will support the Conservation Management Plan by providing important information on the distribution and abundance of sage grouse and their habitats on the INL. By understanding the distribution and abundance of sage grouse on the INL, DOE will be able to make informed land use planning decisions. This is especially important as the sage grouse may become a federally endangered species in the future. To maximize the benefits to DOE we are working with the USFWS to ensure our assessments will provide the necessary information if the sage grouse is indeed listed in the future.

Schedule

2008

- Begin Telemetry Studies to Document Movements and Critical Habitats, [redacted]
- Continue Lek Surveys, [redacted] and Stoller
- Conduct Studies on the Effect of Human Activities on Sage Grouse Nest Success, [redacted]

2009

- Continue Telemetry Studies, [redacted]
- Complete Studies on Sage Grouse Nest Success

2010

- Complete Telemetry Studies, [redacted]
- Final Report and Incorporation into CCA, [redacted] and Stoller

Developing an Interactive GIS Land Use Planning Tool

We will develop and interactive GIS land use planning tool that DOE and other planners can use when developing projects. The data we collect during our assessments as well as data collected in previous studies on the INL will be used to develop the [redacted]

Goals and Objectives

The goal of this project is to develop a user friendly [redacted] on the INL. Specific objectives include, 1) [redacted] for the INL [redacted]), 2) Use the [redacted], and 3) [redacted]

Schedule

2008

- [redacted]. Stoller, [redacted]

2009

- [redacted]. Stoller, [redacted]

2010

- [redacted]. Stoller, [redacted]

Benefits to DOE

The [redacted]

CCA

A formal CCA will be completed addressing sage grouse and pygmy rabbits. The report will be formulated to meet suggestions and recommendations provided by the US Fish and Wildlife Service. The CCA will focus on the pygmy rabbit and sage grouse site-wide and could be completed in 2010 or 2011. The CCA will serve as a stepping-stone toward completion of the CMP.

Schedule

2010

- Complete CCA, Stoller and [redacted]

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE 1 OF 2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
A011	SEE BLOCK 16C	07-07ID14680.007	N/A

6. ISSUED BY	CODE	7. ADMINISTERED BY *(If other than Item 6)*	CODE
U.S. Department of Energy **Idaho Operations Office (NE-ID)** **1955 Fremont Avenue** **Idaho Falls, ID 83401-1221**		**SAME AS BLOCK NO. 6** **T. Wade Hillebrant, Contract Specialist** **Phone: (208) 526-0547** **Fax: (208) 526-5548** **E-mail: hillebtw@id.doe.gov**	

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and Zip Code)*		9A. AMENDMENT OF SOLICITATION NO.
S. M. Stoller Corporation **120 Technology Drive** **Idaho Falls, ID 83402**		9B. DATED *(SEE ITEM 11)*
CODE FACILITY CODE	X	10A. MODIFICATION OF CONTRACT/ORDER NO. **DE-AC07-06ID14680** 10B. DATED *(SEE ITEM 13)*

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*
Refer Continuation Page.

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS; IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO *(Specify authority)*:
	B. THE ABOVE-NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(Such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
XX	D. OTHER *(Specify type of modification and authority)*: **Contract Clause FAR 52.217-9 "Option to Extend the Term of the Contract"**

E. IMPORTANT: Contractor ___ **is not**, X is required to sign this document and return **[3]** copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible)*
Refer continuation page.

Except as provided herein, all terms and conditions of the document referenced in Items 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
James A. Van Vliet Vice President		**T. Wade Hillebrant, Contracting Officer**	
15B. CONTRACTOR/OFFEROR BY *(Signature of person authorized to sign)*	15C. DATE SIGNED 9/18/08.	16B. UNITED STATES OF AMERICA BY *(Signature of Contracting Officer)*	16C. DATE SIGNED 9/18/08

The purpose of this Modification is to:

1. In accordance with contract clause F.5 FAR 52.217-9 OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 2000) exercise the government's unilateral right to execute contract option years 4 and 5 for the period January 1, 2009, to December 31, 2010, for performance of the current Statement of Work.

2. S. M. Stoller must continue to cost and report contract performance on a yearly basis in accordance with contract year 4 and 5's separate estimated cost and fixed fee.

3. The contract estimated cost and fixed fee is as follows:

		INCREASE		
	FROM	**Contract Year 4** (01/01/09 to 12/31/09)	**Contract Year 5** (01/01/10 to 12/31/10)	**TO**
Estimated Cost	[redacted]	[redacted]	[redacted]	[redacted]
Fixed Fee	[redacted]	[redacted]	[redacted]	[redacted]
Total	$6,670,344	$1,647,750	$1,724,518	**$10,042,612**

4. Obligate $2,580,000 in incremental funding for contract year 4 and 5 performance as follows:

   2008 2008 02 05350 2720468 ID 500345 25100 ID14680 XID=45998
   $2,580,000

5. Revise clause B.3 "LIMITATION OF FUNDS" clause as follows:

   Pursuant to FAR 52.232-22, entitled "Limitation of Funds," total funds in the amount of $9,250,344 are obligated herewith and made available for payment of allowable costs and fixed fee to be incurred from the effective date of this contract through the period estimated to end July 31, 2010.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE 1 OF 2
2. AMENDMENT/MODIFICATION NO. A012	3. EFFECTIVE DATE SEE BLOCK 16C	4. REQUISITION/PURCHASE REQ. NO. 07-09ID14680.00		5. PROJECT NO. *(If applicable)* N/A

6. ISSUED BY	CODE	7. ADMINISTERED BY *(If other than Item 6)* SAME AS BLOCK NO. 6	CODE
U.S. Department of Energy Idaho Operations Office (NE-ID) 1955 Fremont Avenue Idaho Falls, ID 83401-1221		T. Wade Hillebrant, Contract Specialist Phone: (208) 526-0547 Fax: (208) 526-5548 E-mail: hillebtw@id.doe.gov	

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and Zip Code)*		9A. AMENDMENT OF SOLICITATION NO.
S. M. Stoller Corporation 120 Technology Drive Idaho Falls, ID 83402		9B. DATED *(SEE ITEM 11)*
CODE FACILITY CODE	X	10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC07-06ID14680 10B. DATED *(SEE ITEM 13)*

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning ___ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*
Refer Continuation Page.

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS; IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO *(Specify authority)*:
	B. THE ABOVE-NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(Such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
XX	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: **Contract Clause FAR 52.243-2 Changes – Cost Reimbursement - Alternate I AUG 1998**
	D. OTHER *(Specify type of modification and authority)*:

E. IMPORTANT: Contractor ___ is not, X is required to sign this document and return [3] copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible)*
Refer continuation page.

Except as provided herein, all terms and conditions of the document referenced in Items 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
James A. Van Vliet Vice President		T. Wade Hillebrant, Contracting Officer	
15B. CONTRACTOR/OFFEROR BY *(Signature of person authorized to sign)*	15C. DATE SIGNED 11/25/08	16B. UNITED STATES OF AMERICA BY *(Signature of Contracting Officer)*	16C. DATE SIGNED 11/25/08

The purpose of this Modification is to:

1. In accordance with contract clause "FAR 52.243-2 "Changes – Cost Reimbursement -- Alternate I AUG 1998" authorize the attached Statement of Work entitled "Conservation Management Plan and Candidate Conservation Agreement for the Idaho National Laboratory" for the period of performance of January 1, 2009, through December 31, 2010.

2. Consequent to the addition of the work in No. 1 above, increase the contract estimated cost and fixed fee as follows:

	FROM	INCREASE	TO
Estimated Cost	[redacted]	[redacted]	[redacted]
Fixed Fee	[redacted]	[redacted]	[redacted]
Total	**$10,042,612.00**	**$2,044,880.00**	**$12,087,492.00**

3. Provide incremental funding to the contract in the amount of $780,000. The DOE accounting information is as follows:

   05350 09 500201 25200 2720310 XID = 51906 $780,000

4. Revise clause B.3 "LIMITATION OF FUNDS" clause as follows:

   Pursuant to FAR 52.232-22, entitled "Limitation of Funds," total funds in the amount of $10,030,344 are obligated herewith and made available for payment of allowable costs and fixed fee to be incurred from the effective date of this contract through the period estimated to end July 31, 2010.

5. Include as contract language the following "Contractor's Statement of Release":

   Contractor's Statement of Release

   In consideration of the modification(s) agreed to herein as complete equitable adjustment for the Contractor's proposal dated November 20, 2008, the Contractor hereby releases the Government from any and all liability under this contract for further equitable adjustments attributable to such facts or circumstances giving rise to the proposal.

Contract No. DE-AC07-06ID14680
S.M. Stoller Corporation
Environmental Surveillance, Education and Research (ESER)
Modification A012
37 Pages

STATEMENT OF WORK

Conservation Management Plan and Candidate Conservation Agreement for the Idaho National Laboratory

Note: All work items stated for 2011 and/or 2012 are not authorized for completion and are for planning purposes only.

Introduction

At present, there are no species on the Idaho National Laboratory (INL) that are protected under the Endangered Species Act (ESA). In the recent past, the only ESA protected species potentially occurring on the INL included the Bald Eagle and the Gray Wolf. The Bald Eagle was known to be present on the INL only during the winter, and then only in areas remote from any INL facilities and activities. The Gray Wolf in the area of the INL was considered an Experimental/Nonessential Population. Because of this, the INL did not have an ESA protected species whose presence was in conflict with INL activities and has not had to develop a process for managing or conserving a listed species.

With the decline in the extent and condition of the sagebrush steppe ecosystem throughout the West, a number of species closely tied to sagebrush are also in serious decline. The conservation of these species will likely become a priority for federal agencies in the near future. Two of these species are presently under consideration for protection under ESA. These are the Greater Sage Grouse and the Pygmy Rabbit.

Because the INL represents the largest remnant of the sagebrush steppe ecosystem these two species, or any of the other sagebrush-obligate species, are quite common. An ESA listing for any of these species would impact nearly any INL activity occurring outside of current facility boundaries. This would apply to new projects as well as ongoing and routine maintenance activities.

Should there be an ESA listing for any of these species any new project at the INL would require the preparation of a Biological Assessment and a Biological Opinion from the U.S. Fish and Wildlife Service (USFWS). Depending on the nature of the proposed project and the species involved, it could take as long as seven years to receive a favorable Biological Opinion from the USFWS.

Ongoing and maintenance activities would also require review by the USFWS. These activities would be reviewed for their potential to impact the protected species and a Conservation Agreement would be developed with the goal of ensuring the conservation of the species on the INL. The Conservation Agreement would set out guidelines for ongoing and maintenance activities as well as establish a conservation plan for the species.

It is possible that either the status review for sage grouse or pygmy rabbit will result in finding that it be considered as a "candidate" for listing rather than as either threatened or endangered. In this case a Candidate Conservation Agreement would be developed much like the Conservation Agreement above but without the specific guidelines for ongoing and maintenance activities. Conserving candidate species is important because by definition their status could be changed to threatened or listed and receive full protection as priorities change or resources become available. Early conservation of candidate species also preserves future management options, reduces the eventual cost of recovery and compliance, and reduces the potential for more restrictive land use policies in the future. It is also important to consider that working cooperatively with USFWS to meet their goals means they will be more willing to work cooperatively to support INL goals when needed.

The limiting factor for timely development of Candidate Conservation Agreements, Conservation Agreements, Biological Assessments and Biological Opinions is the availability of high quality, relevant data on these species and their habitats on the INL. This proposal addresses a process for organizing existing data into a data management system, identifying and collecting data and information that is presently not available, developing resource management plans and strategies for implementing conservation actions on the INL, and organizing this information into a Conservation Management Plan (CMP) and a Candidate Conservation Agreement (CCA). The goal of these conservation plans is to minimize the impact of an ESA listing to DOE mission activities.

Project Management

Objectives

To provide oversight, overall task planning, meetings, management, monthly reports to DOE and ensure project remains within budget.

Accomplishments to Date

Progress reports submitted on schedule.
Meetings scheduled and conducted.

Work to be Done – Deliverables

Monthly Progress Reports to DOE

Task Responsibility

ESER Contractor

Natural Resources Data Management System

Ecological research has been conducted within the boundaries of what is currently designated as the Idaho National Laboratory (INL) and its predecessors for over 50 years. The vast majority of this data has been summarized and published in DOE Technical Reports, peer-reviewed scientific journals, graduate theses and other documents. However, there has been very little effort to systematically capture and organize information about the projects through which these data have been collected, let alone organize the data sets themselves, in a central database. Such a database that allows ready access to the project information and data would be of great value for addressing issues of natural resources management and planning, as well as for future researchers using the INL.

Because the ultimate success of the CMP requires immediate access to relevant and credible information about ecological resources on the INL, the development of a system to manage this information is critical. A database was developed using Microsoft Access 2003. This database maintains and supplies the data used for the website as well as ad-hoc queries. Although several database programs were considered for this project, Access 2003 was selected based on several factors, including:

- **Staff familiarity.** The ESER staff is familiar with Microsoft Access database software. This will eliminate time required for training and familiarization with new software, allowing us to immediately begin database development.

- **Availability of local support.** In the event that we should require additional software technical support for the development and maintenance of the database, there would not be a shortage of available personnel who are experienced developing databases with Microsoft Access.

- **Cost effectiveness.** The purchase price for Microsoft Access 2003 is under $200 per licensed user. This is an affordable solution, which would provide all the capabilities required for development of a successful database.

- **Good match for size and functionality of project.** Microsoft Access provides all of the functionality for a comprehensive relational database as well as the ability for growth and design enhancement.

- **Platform independent – available migration path.** Microsoft Access is built on industry standards, which provide compatibility with other data sources. The ability to save data in formats used by other ecological databases, such as EML, will allow future compatibility and data exchange.

A website is in development (http://www.stoller-eser.com/CMP/index.htm) to allow keyword search capabilities for the database as well as provide links to other databases with data relevant to natural resources management such as the NOAA climatic database. The development of the corresponding website will utilize web creation tools such as ASP (Active Server Pages), EML (Ecological Metadata Language), and XML (Extensible Markup Language). These tools were selected for several reasons including:

- **Windows platform compliant.** The software tools selected are compatible with the current ESER Windows operating systems and servers, eliminating the need for the purchase and support of multiple operating systems.
- **Compatibility with other ecological research database languages.** The metadata will be available in EML (Ecological Metadata Language), allowing the data to be shared with other ecological organizations and research sites. A template for the metadata has been developed and will be utilized to assemble the metadata in a consistent format.

Goals and Objectives

The goal of the Natural Resources Data Management System (NRDMS) is to provide a systematic approach to data archive and retrieval that will support the CMP. This task is addressing two data management issues. First, raw data sets that currently exist must be formatted to allow resource managers and researchers access to those data. Second, the

database must include provisions for adding new data to the system. The objectives for developing the NRDMS are to:

- Develop a comprehensive natural resources database for the INL; the goal will be to develop a relational database with the capacity for growth and enhancement. We will build the database based on our own knowledge of how the database will be used as well as the lessons learned by other agencies who design and maintain ecological databases,
- Identify and evaluate the methods used by other research organizations to develop successful data management systems. This will be accomplished by investigating the attributes of other ecological database designs, combining outside ideas with our own design requirements. The database design is fundamental to the successful utility of the database itself and, ultimately, to that of the CMP. Therefore, it must be well thought through to avoid costs associated with re-design,
- Develop methods for integrating the database into the development and use of the Conservation Management Plan, and
- Develop a policy for administering the data management system. This policy will address both the addition of new information to the database as well as controls on access and use of the information in the database by other researchers. Those controls are necessary to protect copyright and intellectual property rights of the data owners.

Approach

[redacted]

[redacted]

[redacted]

There has been a large amount of information collected on the INL since 1950. However, much of it is in a form that is not easily accessible or useable by investigators or managers today. [redacted] at [redacted]

Accomplishments to Date

[redacted]. This general format for metadata will be used for all new data collection associated with the CMP and CCA. An Ecological Data Management Policy has been developed to ensure proper archive and use of data (http://www.stoller-eser.com/CMP/policy.htm).

Work to be Done – Deliverables

Although the database structure has been developed and will be used to support collection, analysis and archiving new data being collected, addition of historical datasets, collections and project metadata has been suspended.

Task Responsibility

ESER Contractor

Projects Catalog

Objectives

The Projects Catalog is metadata about each project on the INL that collected natural resources data.

Accomplishments to Date

The project catalog is still in an early phase of development. The project catalog currently contains 31 projects. This catalog's purpose is to identify projects which were performed on the INL. Specifically this catalog provides metadata including the purpose of the project, the project originator, dates and locations of the project, names of additional researchers, as well as an abstract of the project, other associated metadata and a *keyword* searchable field. Time was spent researching each project's primary authors contact information. A contact list was created and letters sent to 174 primary authors. A second letter was sent as a follow-up. Phone calls were made to several contacts, resulting in a few responses. This catalog is still in an early stage of completion. The next phase would require further collection and investigation of past projects based on current and future document collection. The project catalog would provide a history of projects which have been performed on the INL. The Projects Catalog is web-searchable (http://www.stoller-eser.com/CMP/project_search.asp) and linked to the other Catalogs.

Work to be Done – Deliverables

This task will begin with a review of all publication lists to locate all documents related to ecological research at the INL. ESER will work with M&O personnel to combine this survey with the information already collected in electronic form. All of these data will be entered into a system which will enable current and future research scientists and INL managers to be able to access all of the research studies conducted over the past five decades, using study categories, searchable by keywords associated with each. The Projects Catalog will be web-searchable (http://www.stoller-eser.com/CMP/project_search.asp) and linked to the other Catalogs. Information fields will include bibliographic information, project, investigator, institution, years, where documents can be found (e.g. the collection of reprints held by ESER, INL Technical Library, etc.), and names of data sets. The Projects Catalog will be the source for searching the other catalogs.

Task Responsibility

ESER Contractor

Document Catalog

Objectives

Development of the Document Catalog has been initiated and includes existing documents, theses, journal articles, and reports representing ecological and radioecological research conducted on the INL. The catalog includes abstracts or summaries of documents. We will also attempt to obtain copies of ESER publications not currently in the ESER files. A process is being developed for adding new documents to the system.

The document catalog is web-searchable and will be linked to the Projects Catalog and the Collections Catalog and GIS Tool described below. Information fields include bibliographic information, project, investigator, institution, years, where documents can be found (e.g. the collection of reprints held by ESER, INL Technical Library, etc.), and data sets.

Accomplishments to Date

All current documents in the Stoller Library have been entered into document catalog within the Resource Management Database (http://www.stoller-eser.com/CMP/Document_search.asp). New documents received will be added to this catalog on a continuing basis. The current number of documents in the document catalog is 1038. These consist of journals, essays, thesis, reports, professional papers and articles. These entries contain a *keyword* search field

allowing the user to request documents which contain a keyword(s). We have assigned a unique number for most documents, which in addition to our library's arrangement by document type, allows for easy shelf retrieval.

Work to be Done – Deliverables
Work on the Document Catalog includes continued searches for existing research and data reports on INL natural resources.

Task Responsibility
ESER Contractor

Collections Catalog
Objectives
The Collections Catalog will provide an organized inventory of the many collections of ecological specimens from the INL. Over the years, the ESER and its predecessors have developed study collections of various biological specimens and photographs. This information is valuable in all aspects of field research providing reference information for ecological and radioecological studies. This repository will include information about biological specimen collections (plants, animals including insects) and photographs that come from many projects. A process will also be developed for updating and maintaining these collections. These kinds of collections are critical for quality assurance and quality control (QA/QC) procedures in ecological science, especially when considering data collected over long periods of time. These collections provide the reference specimens used to document the species actually surveyed or sampled. They provide a traceable record that allows continuity and reproducibility in collecting data over long time periods, especially with respect to data collected by scientists who are not longer nearby or are no longer living.

The first collection to be addressed for this catalog is the ESER Reference Herbarium. This collection contains more than 800 specimens. It provides the standard reference specimens for plant identification on the INL. This task involved verifying that all identifications on the specimens were correct, that the nomenclature reflects the state-of-the-science for classification and taxonomy, and affixing appropriate annotation labels. In addition to this classical approach to updating herbaria, the label information was entered from each specimen into a database and digital photos were prepared of each specimen. The database and the photos have been incorporated into an internet-based herbarium that will allow users' virtual access to the specimens.

We know that other plant specimen collections exist at [redacted] and the [redacted]. For example, the specimens from the only rare plant survey conducted of the INL in the early 1980s are housed at the [redacted]. We also know that collections of INL insect specimens are housed at the [redacted], and a collection of small mammal specimens are at the [redacted]. We believe that other collections of INL specimens exist at [redacted], but more investigation will be needed to find them. Many of these collections have not been properly cataloged and must be before they can be used in the CMP.

Accomplishments to Date
A virtual herbarium has been developed using one of the ESER Herbarium collections. This provides a web-based collection of photos of archived plant specimens easily accessible to

interested researchers or vegetation management crews (http://www stoller-eser.com/CMP/herbarium/herbariumsearch.asp). Remaining work on the virtual herbarium includes photographing the remaining ESER herbarium collection and adding the photos and metadata to the existing database and website. An INL plant handbook was also developed to provide a field identification tool. This is web based as well (http://www.stoller-eser.com/CMP/Plant_handbook/index.asp).

Work to be Done – Deliverables
This task has been suspended for the foreseeable future.

Task Responsibility
ESER Contractor

GIS Map Tool
Objectives
The second aspect is [redacted].

1. Specific objectives for developing the GIS tools include:
2.
   - Compile a [redacted]).
3.
   - Use the [redacted]
4.
   - Provide [redacted]
5.
6. This task was initiated in FY 2004. [redacted]
7.

Accomplishments to Date
[redacted]

Work to be Done – Deliverables

[redacted]

2008

- Begin work on the GIS Tool

2009

- Continue work on the GIS Tool

2011

- Complete GIS Tool

Task Responsibility
ESER Contractor
[redacted]
BEA

Data Acquisition and Data Management
Information gathered as part of the catalogs described above will have to be properly archived into the NRDMS. To do that we propose to ESER staff to design the necessary data forms and enter the into those data forms. In addition to the catalogs, any historic data relevant to the CMP or CCA will need to be entered into the NRDMS. Those data sets will be entered as part of this task as well. Data Acquisition and Data Management tasks remaining include data entry and data forms design for the remaining catalog activities other relevant historic data sets.

Task Responsibility
ESER Contractor

NRDMS Schedule
2008

- Begin work on Collections Catalogs for INL Herbarium, Small Mammals and Ant Collections
- Begin work on the GIS Tool

2009

- Begin work on the Projects Catalog
- Begin continued work on Data Acquisition

2010

- Begin and complete work on the Document Catalog
- Complete work on the Collections Catalog

- Complete work on the Projects Catalog

2011

- Complete GIS Tool
- Complete Data Acquisition

Sage Grouse Inventory

Objectives

The goal of this project is to assess the status of sage grouse on the INL by defining the distribution of their critical habitats. Specific objectives include: 1) delineate breeding habitats on the INL, 2) delineate summer habitats on the INL, 3) delineate winter habitats on the INL, and 4) delineate important corridors for maintaining connectivity among sage grouse habitats.

8.
9. Conduct aerial and ground surveys for sage grouse breeding areas across the entire site.
10.
11. Conduct counts at breeding areas to estimate abundance.
12.
13. Capture and radio collar 50 sage grouse per year in 2008 and 2009 to determine the distribution of important breeding, summer, winter, and migration habitats.
14.
15. Relocate radio collared birds monthly from the air and the ground through 2008 to 2009.
16.
17. Conduct ground surveys for sage grouse.
18.
19. Use results from surveys, counts, and radio telemetry to define critical breeding, summer, winter and migration habitats.
20.
21. The results from this study will support the Conservation Management Plan by providing important information on the distribution and abundance of sage grouse and their habitats on the INL. By understanding the distribution and abundance of sage grouse on the INL, DOE will be able to make informed land use planning decisions. This is especially important as the sage grouse may become a federally endangered species in the future. To maximize the benefits to DOE we are working with the USFWS to ensure our assessments will provide the necessary information if the sage grouse is indeed listed in the future.

Accomplishments to Date

Breeding Season Surveys

Aerial and Ground Surveys. We used aerial (2006) and ground surveys (2006 and 2007) to determine the location of sage grouse leks on the INL. Leks are defined as any group of more than 1 displaying male. Aerial surveys were conducted for the entire site over a 5 week period (last week of March to first week in May), from ½ hour before sunrise to 1 hour after sunrise, on partly cloudy to clear days with little to no wind. Surveys were conducted from a fixed wing plane flying at low altitude (300 feet above the ground) and speed (80 mph). Two observers

scanned the landscape looking for displaying males. Once a lek was located we recorded a GPS location.

Some leks especially small leks (<12 displaying males) can often be missed when conducting aerial surveys (Connelly personal communication). To account for this, we simultaneously conducted ground surveys. [redacted]

Movement and Critical Habitat Studies

Delineating Critical Habitats. [redacted] We will attach radio transmitters to a subset of sage grouse (50 per year) from leks distributed across the INL. We are currently in the process of trapping and collaring grouse. [redacted]

Preliminary Results

During aerial and ground surveys for leks we located 6 leks that had not been previously identified. We feel that aerial surveys were not an effective way to survey for sage grouse leks. Thus we feel that we have not completely surveyed the INL for leks (Figure 1). See figure 1 for our current understanding of the distribution of sage grouse leks on the INL. We are currently trapping grouse and fitting them with radio transmitters.

All the results from this study will be incorporated into the INL Conservation Management Plan. Actual grouse locations and predictive habitat maps will be incorporated into the GIS planning [redacted] we are developing. The predicted habitat maps will provide important information on sage grouse critical habitats and will be an important tool for making land management decisions as well as being useful in siting projects. In addition, we have a graduate student at [redacted] examining how landscape features created by humans (e.g., powerlines, roads, facilities...) influence the density of ravens and in turn how the density of ravens influence sage grouse reproductive success The results from this study will provide information on the threats new construction will have or sage grouse and will be an important addition to the CMP.

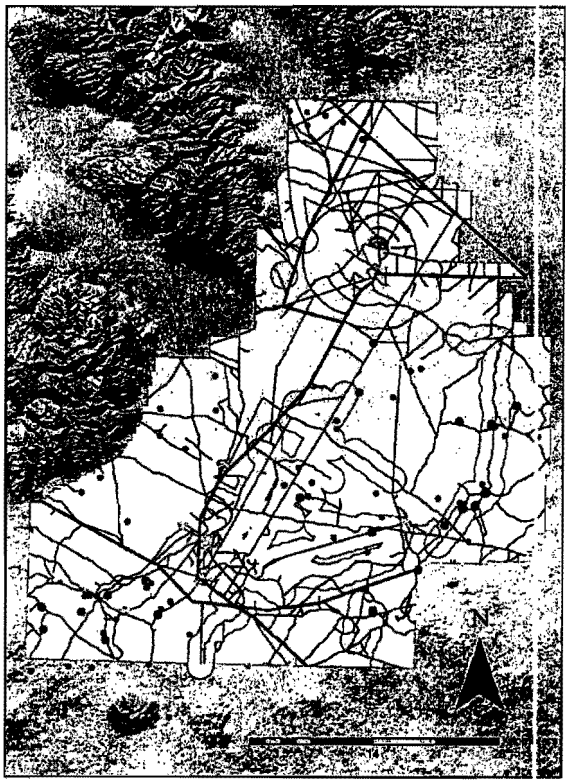


Figure 1. Map of the INL showing the locations of ground surveys (gray polygons), the distribution of leks that were active as of spring 2007 (red points), and the distribution of known leks as of 1980 (blue points).

Work to be Done – Deliverables

22. 2008
- Begin Telemetry Studies to Document Movements and Critical Habitats, [redacted]
- Continue Lek Surveys, [redacted] and Stoller
- Conduct Studies on the Effect of Human Activities on Sage Grouse Nest Success, [redacted] and [redacted]

23.

24. 2009
- Continue Telemetry Studies, [redacted]
- Complete Studies on Sage Grouse Nest Success

25.

26.

27. 2010

- Complete Telemetry Studies [redacted]
- Final Report and Incorporation into CCA, [redacted] and Stoller

Task Responsibility

[redacted]

Historical Lek Surveys
Objectives

Several research projects, most notably Jack Connelly (*An Ecological Study of Sage Grouse in Southeastern Idaho*, 1982, PhD Dissertation, Washington State University) have been conducted on the INL identifying sage grouse leks. Many of these have not been surveyed or use confirmed for many years. Therefore as part of the sage grouse inventory we will visit these historic leks in order to determine their present use.

Figure 2 shows the distribution of known active leks across the INL, and additional leks whose status is unknown. The leks of unknown status are a combination of leks in the IDF&G statewide database (sent by Ann Moser) and also from Jack Connelly's work on the site during the late 70's and early 80's conducted by airplane and vehicle surveys over 4 years. All lek locations that were immediately adjacent to existing active leks were omitted because satellite leks and small shifts in lek location are often included in the statewide database and represented by multiple point locations but are really a single lek. All other leks were included on the map, including sites that are located along or near existing lek routes surveyed by the ESER program and IDF&G. Leks within 1-1.5km from the INL boundary were also included because of the potential for these birds to use the site or the possibility of a lek shifting onto the INL. There are a total of 18 leks from the IDF&G database and 43 leks from Jack Connelly's work that have an unknown status.

The IDF&G database description states, "An **inactive** lek is one that was surveyed or censused at least 2 years in a 5 year period, but at which no male sage-grouse were observed." According to this definition we would have to survey possible leks for at least two years before they could be deemed inactive. The leks within the National Security Test Range (NSTR) were surveyed during the spring of 2008 by the ESER program to determine if they were still active. Other than the one active lek that is shown, all others were found to be inactive. The lek in the upper northeast corner of the NSTR survey box had sign of sage-grouse presence (i.e. scat) and a calling male was heard once near this site along a T-road, but no birds were observed during our field visit.

Many of the locations from Jack Connelly's work were identified from aerial surveys and marked on maps prior to GPS capabilities. These points have an unknown spatial accuracy and could be far from the point plotted on the attached map. [redacted]

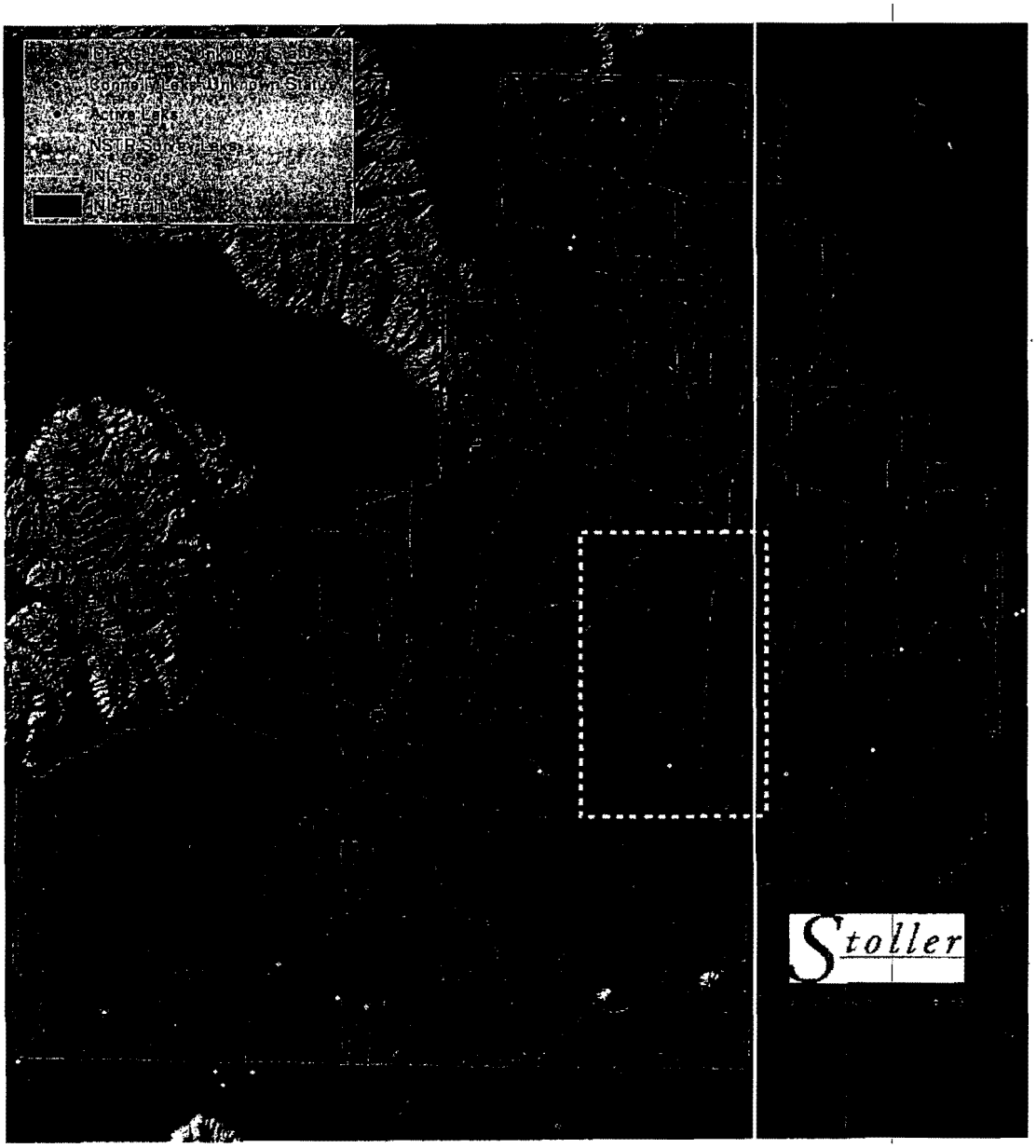


Figure 2. Historical leks on the Idaho National laboratory.

We will visit each lek location and assess visually or by [redacted] to determine if the lek is being used. If the lek is used, its location will be marked and the map updated. If no birds are seen or heard at a location, the lek will be marked for resurvey the next year. If on the second resurvey, no grouse activity is recorded, the lek will be deemed inactive.

Accomplishments to Date
This task has not been initiated.

Work to be Done – Deliverables
2009

- Survey historical leks on the INL established by Connelly and other researchers.
- Mark leks with activity and no activity. Those with no activity will be resurveyed in 2010.

2010

- Resurvey leks documented to have no activity in 2009
- Develop a map and report of viability of historical leks for inclusion in the CCA and CMP.

Task Responsibility
[redacted]
ESER Contractor

Pygmy Rabbit Inventory
Objectives
The goal of this assessment is to document the status of pygmy rabbits on the INL. Specific objectives include: 1) Assess the distribution of pygmy rabbits on the INL, 2) Assess the abundance of pygmy rabbits on the INL, and 3) Delineate critical use areas for pygmy rabbits on the INL.

28.
29. [redacted]
30. [redacted]
31. [redacted]
32.
33. [redacted]
34. [redacted]

The results from this study will support the Conservation Management Plan by providing important information on the distribution and abundance of pygmy rabbits and their habitats on the INL. By understanding the distribution and abundance of pygmy rabbits on the INL DOE will be able to make informed land use planning decisions. This is especially important as the pygmy rabbit may become a listed species under the ESA in the future. To maximize the

benefits to DOE, we are working with the USFWS to ensure our assessments will provide the necessary information if the pygmy rabbit is listed in the future.

Accomplishments to Date

We conducted ground surveys for pygmy rabbits using a [redacted]

We are also working with the [redacted] to develop an abundance index for pygmy rabbits. We are conducting census surveys of burrow systems is some areas and then using [redacted] and [redacted] to estimate the abundance of rabbits. By conducting these surveys at multiple sites we are developing a relationship between the number of burrows and the estimated number of rabbits. Once we have developed this relationship we will be able to go into the field and census the number of burrows to get an estimate of pygmy rabbit abundance.

Preliminary Results

We conducted pygmy rabbit surveys in 351 plots between 2006 and 2007. During these surveys we found 851 burrow systems (Figure 3). Pygmy rabbits appear common on the INL and were found throughout most of the site with the exception of burned areas and areas dominated by shorter sagebrush species (e.g., low sagebrush).

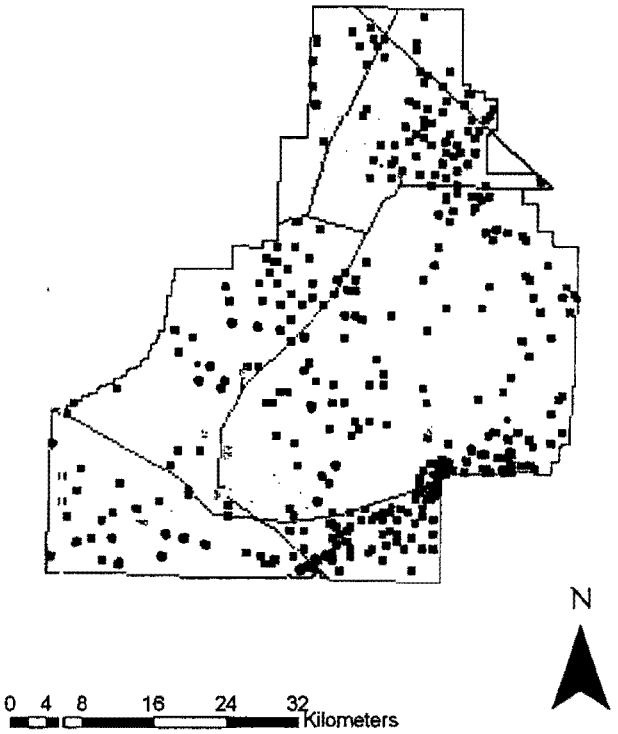


Figure 3. Map of the INL showing the locations of plots surveyed for pygmy rabbits (black squares) and the location of burrow systems identified during surveys (red circles).

The results from these surveys will be used to [redacted]

A graduate student from the [redacted] has begun field work on the INL to determine the relationship between number of burrows and number of rabbits. Initial evidence suggests that the relationship is 1 rabbit to multiple burrows but these results are currently considered anecdotal.

All the results from this study will be incorporated into the INL Conservation Management Plan. Predictive maps of rabbit distribution and possibly abundance will be incorporated into the GIS planning tool we are developing. The predicted habitat maps and abundance information will provide important information on pygmy rabbit critical habitats and will be an important tool for making land management decisions as well as being useful in siting projects. The budget to complete the pygmy rabbits was increased by $53.5K for 2009 and 2010 to ensure we can [redacted]

[redacted]

Work to be Done – Deliverables

2008

- [redacted]

2009

- [redacted] on the INL
- [redacted]

2010

- Final Report and Incorporation into CCA

Task Responsibility

[redacted]

ESER Contractor

Pygmy Rabbit Burrow Index

Objectives

Background: Growing concern for the conservation status of the pygmy rabbit has prompted the need for data on distribution and abundance of the species and for a method for monitoring changes in populations over time. The U.S. Fish and Wildlife Service recently announced that the petition for endangered or threatened status for the species would be re-evaluated (Federal Register, 2008). Although populations of other lagomorph species fluctuate or cycle, such information is not available for the sagebrush-dwelling pygmy rabbit. This work will evaluate the utility of an index of abundance based on burrow system density and activity.

Goal: Develop a monitoring program to detect changes in abundance in pygmy rabbit populations on the Idaho National Laboratory.

Specific Objectives:

Calibrate an index of abundance based on burrow systems by correlating the index with estimates of population density.

[redacted]

Expand a general model for linking burrows and population abundance to coordinate with on-going surveys conducted on the Idaho National Laboratory.

Methods:

Overview: [redacted]

[redacted]

Accomplishments to Date

Over the fall of 2007, a complete census of burrow systems was conducted at 1 site delineated near Atomic City located at the southern boundary of the INL. Trapping and mark-resight surveys also were conducted at this site. During winter-spring 2008, fresh snow conditions allowed for 2 separate snow-track surveys to be completed. Preliminary analysis based on active sign in the snow, low trapping success, and relatively few resightings of rabbits suggests that rabbits exist on this site at low density, despite the large number of burrow systems documented during the fall burrow census.

Work to be Done – Deliverables

Additional study sites will be established on the INL this fall using information of rabbit presence from occupancy surveys completed by [redacted] in previous years. Approximately [redacted] will be included in the fall census and winter snow-tracking work. This will allow for a representative sample of pygmy rabbit populations throughout the INL boundary and its various habitat associations. [redacted] will be used to examine the relationship between burrow system density from the burrow censuses and population density based on the snow-track surveys. This work will be included in a M.S. thesis at the [redacted] Deliverables include: 1) a final report summarizing results, evaluating the potential index of abundance, and if appropriate, outlining a [redacted] 2) data files with all raw and summarized data; and 3) copy of the M.S. thesis (completion date anticipated December 2009). Copies of peer-reviewed publications also will be provided when available.

Task Responsibility

[redacted]

Vegetation Map

Objectives

Accurate classification and mapping of vegetation communities have become increasingly important tools for conservation management. By understanding the distribution and condition of plant communities on a landscape, a number of conservation goals can more easily be met including;

- Determining which community types are intrinsically rare or have been severely degraded
- Identifying the best remaining occurrences of natural communities across their geographic ranges
- Development of habitat suitability models for predicting species occurrences, and
- Classifying areas for their importance in conservation management planning.

Previous vegetation maps of the INL are inadequate to serve these conservation management planning goals primarily because they are outdated. The most recent effort was almost twenty years ago and does not capture important changes that have occurred since that time including fires, sagebrush die-off and invasion by non-native plants. Also, methodologies for vegetation classification and mapping have been refined and standardized since those earlier maps and will allow for continuity between classification on the INL and on neighboring lands managed by other agencies.

The overall goal of vegetation community classification and mapping is to assess the distribution of plant communities on the INL. Specific objectives are to:

- Determine the communities types present on the INL
- Determine the distribution of those communities types on the landscape, and
- Conduct an accuracy assessment of the resulting map.

The final products of this effort will be a GIS database of plant communities on the INL at a geographic scale suitable for use in Candidate Conservation Agreements and the Conservation Management Plan. This GIS database will be used as the basis for assigning conservation strategies.

The proposed approach to plant community classification and mapping will be done in a three step process.

- The first step is to classify the plant communities on the INL. The classification system chosen is the U.S. National Vegetation Classification system. It is a hierarchical system developed by the Federal Geographic Data Committee. We will prepare a preliminary classification using existing data (i.e. LTV) with the assistance of the [redacted]. [redacted] prepared the classification for [redacted] and their experience in that effort will provide a head start for the INL vegetation classification. The preliminary classification will be used to guide the field data collection. Field data collection will be done by Stoller ESER staff with interns funded through [redacted]. [redacted] will provide daily support for electronic data collection, data downloads, and preliminary data QA. Field data are used in a multivariate statistical approach to define the final plant community classification.

- The second step is to delineate the mapping units. The mapping units are derived through aerial photo interpretation. The minimum mapping unit size will be 0.5 ha (1 acre). Delineations will be done by Stoller ESER staff and [redacted] with additional technical expertise from [redacted], Inc. [redacted] conducted the delineation work for a similar effort at [redacted]. Once the map unit delineations are completed, the team will assign the relationships between mapping units and plant communities.
- The third step is to ground truth the map and conduct an accuracy assessment. This is done by surveying randomly selected points from the draft map. Deviations of this survey data from the map form the basis for the accuracy assessment. This work will be done by Stoller, [redacted]

Understanding the distribution and condition of plant communities on the INL will support conservation management through habitat mapping, development of Habitat Suitability Indices and will guide surveys for sensitive species. Additional benefits to land management at the INL include guiding revegetation and weed management efforts, increasing the efficiency of assessing environmental impacts, siting new facilities. It will also serve as an important background database for research on the National Environmental Research Park and ecological monitoring at the INL.

Accomplishments to Date

In June of 2007, new aerial imagery of the INL was collected. The imagery is four band color and infrared with a spatial resolution of 1m.

In 2008, the vegetation sampling field crews have collected on over 300 plots out of a planned 300. All field GPS data have been differentially corrected and imported into GIS geodatabase format for continued use in the image classification component of the project.

Two Access databases were designed to support the plant community classification component of vegetation mapping task. The databases were set up to facilitate QA/QC as well as data reduction, summary, and analyses. Additionally the databases crosswalk the data collected for the vegetation map to other standard data sets like the INL LTV data, the USDA Plants database, and the National Vegetation Classification System. Ninety-eight of the vegetation plots collected during the summer 2008 field season have been checked using the QA/QC database and incorporated into the primary project database.

We have tested the capabilities of software-based automated image classifications of specific vegetation features. There are some vegetation communities where the automated approach should work well and decrease the amount of time required to manually delineate these classes. We have completed draft vegetation polygons for a few classes, and continue to work on establishing draft community boundaries that will be updated and edited throughout the fall of 2008.

Equipment

We will be purchasing two Trimble GeoXH handheld mapping receivers. The Trimble GeoXH receiver is the top of the line in the GeoExplorer series, runs on a Windows Mobile 6 operating system with 1 GB flash memory, and has a rugged water-resistant design. The new H-Star

technology provides real-time 30 cm positional accuracy and subfoot (10 cm) accuracy with differential post-processing.

Our current 2003 Trimble GeoXM receivers are no longer supported by Trimble and this line has been discontinued. We had to repair both receivers in the midst of our field data collection this summer, and the only replacement parts available are used or refurbished.

The new GPS receivers will be used primarily for the vegetation map accuracy assessment data collection planned for summer 2009. The ESER program also uses these receivers for breeding bird surveys and numerous other field projects that require precise location data.

Work to be Done – Deliverables

2008

- Delineation of mapping units based on imagery collected in 2007.
- Preliminary classifications.
- Field data collection.
- Start Final Classification.

2009

- Complete Final Classification.
- Conduct Accuracy Assessment.

2010

- Final Report.

Task Responsibility

ESER Contractor

[redacted]

Sagebrush Demography

Objectives

The basic questions addressed in this research relate to how big sagebrush stands replace themselves and is the die-off of sagebrush related to old age. These two questions are pivotal to determining strategies for managing big sagebrush as habitat for sage grouse, pygmy rabbit and other sagebrush obligate species. At present, there is an assumption that big sagebrush replaces itself only after a disturbance much like occurs in lodgepole pine. A related assumption is that the widespread die-off of big sagebrush is associated with old age and a disturbance is required to "rejuvenate" the stand. Neither of these assumptions has been tested and reported in the literature. Data previously collected through ESER sponsored research suggest that these assumptions are likely incorrect.

Application of these assumptions to managing sagebrush has resulted in attempts to manipulate stand age structure by applying disturbances such as prescribed burning, widespread herbicide application and removing sagebrush using chaining, harrowing and disking. Because of the long recovery times for big sagebrush following disturbance, these manipulations have the potential to affect habitat quality for decades.

This project will provide empirical data presently absent from existing theories on sagebrush management. Examination of stand-age structure (demography) is typically used in determining ecological strategies of long-lived woody plants. This approach has been used with great success in developing forest management strategies. Without this information, it will not be possible to develop meaningful, long-term management goals and strategies for those areas on the INL presently dominated by sagebrush or those areas with the potential to be dominated by sagebrush and there will be no basis for habitat management recommendations.

Approach

The approach used in this project is to sample a number of stands of Wyoming big sagebrush to determine the age structure of the population. On the same plots, we will measure several aspects of vigor of both individuals and the population. Examining stand age structure alone will provide information on how and when big sagebrush initiates recruitment and will readily tell if a disturbance is required. Comparing this information to the measures of vigor will allow us to determine if die-off is related to stand age or other factors.

Knowing the underlying ecological phenomena associated with sagebrush and sagebrush steppe habitats is essential to the development of long term strategies for managing those habitats. Because sagebrush is both a long-lived species and a species that requires decades for recovery following disturbance, mistakes in managing this species can persist on the landscape as potentially unsuitable habitat for decades. To ensure that such mistakes do not limit the conservation of sagebrush obligate species on the INL, and therefore DOE mission activities, a science-based approach to managing this species and the habitats it dominates is critical.

Accomplishments to Date

During 2003 we prepared a literature review to document and review the existing scientific literature on this topic. That literature review was used as the basis for designing a field study to address the deficiencies in scientific understanding of the population dynamics of big sagebrush. During 2006, 14 stands of Wyoming big sagebrush (*Artemisia tridentata* ssp. *wyomingensis*) were sampled. The vegetation data collected as a component of this study included; shrub cover, sagebrush density, and individual shrub rank data for use in developing criteria for measuring stand condition. At each stand, cross section samples of sagebrush were also collected. The cross sections were labeled and archived in preparation for sanding and ring counts.

Work to be Done – Deliverables

This task has been suspended for the foreseeable future.

Task Responsibility

ESER Contractor

Biodiversity Inventory

Objectives

The overall goal of the biodiversity inventory is to determine the distribution of vegetation, plant communities, and wildlife within the Development Zone of the INL.

This goal provides DOE-ID with information useful for making resource management and land use decisions. DOE needs an accurate account of rare species and ecosystems present on the INL in order to make informed decisions about future land uses. Because DOE-ID's primary mission is changing to nuclear energy and decontamination and decommissioning, large-scale ground-disturbing activities are likely. This will require identification and mapping occurrences of native plants, rare plant populations, native animals, and rare animal populations and habitat needs within and adjacent to approximately 125 square miles (Figure 4) within the designated INL development corridor. To achieve this goal we have chosen a subset of species to sample that will represent the biodiversity in sagebrush steppe ecosystems of the INL. Data provided by this biodiversity inventory will help determine where clean up, construction and other activities might best be located, timed or otherwise modified to avoid or minimize impacts to significant natural resources. It will also aid in determining areas where additional research will be useful.

Accomplishments to Date

Vegetation

We conducted vegetation surveys during the spring and summer of 2006 and 2007. We used a stratified random design where sampling locations were stratified by cover type (from McBride cover type map). In 2006, we used the modified Whittaker technique measuring species composition at multiple spatial scales and measuring density by species. In 2007, we used the same design but also measured cover at each sampling location.

Reptiles

Reptiles were surveyed using trapping arrays and visual surveys placed in a random stratified design. Samples were stratified based on vegetation cover and terrain roughness. For more details on sampling see [redacted]

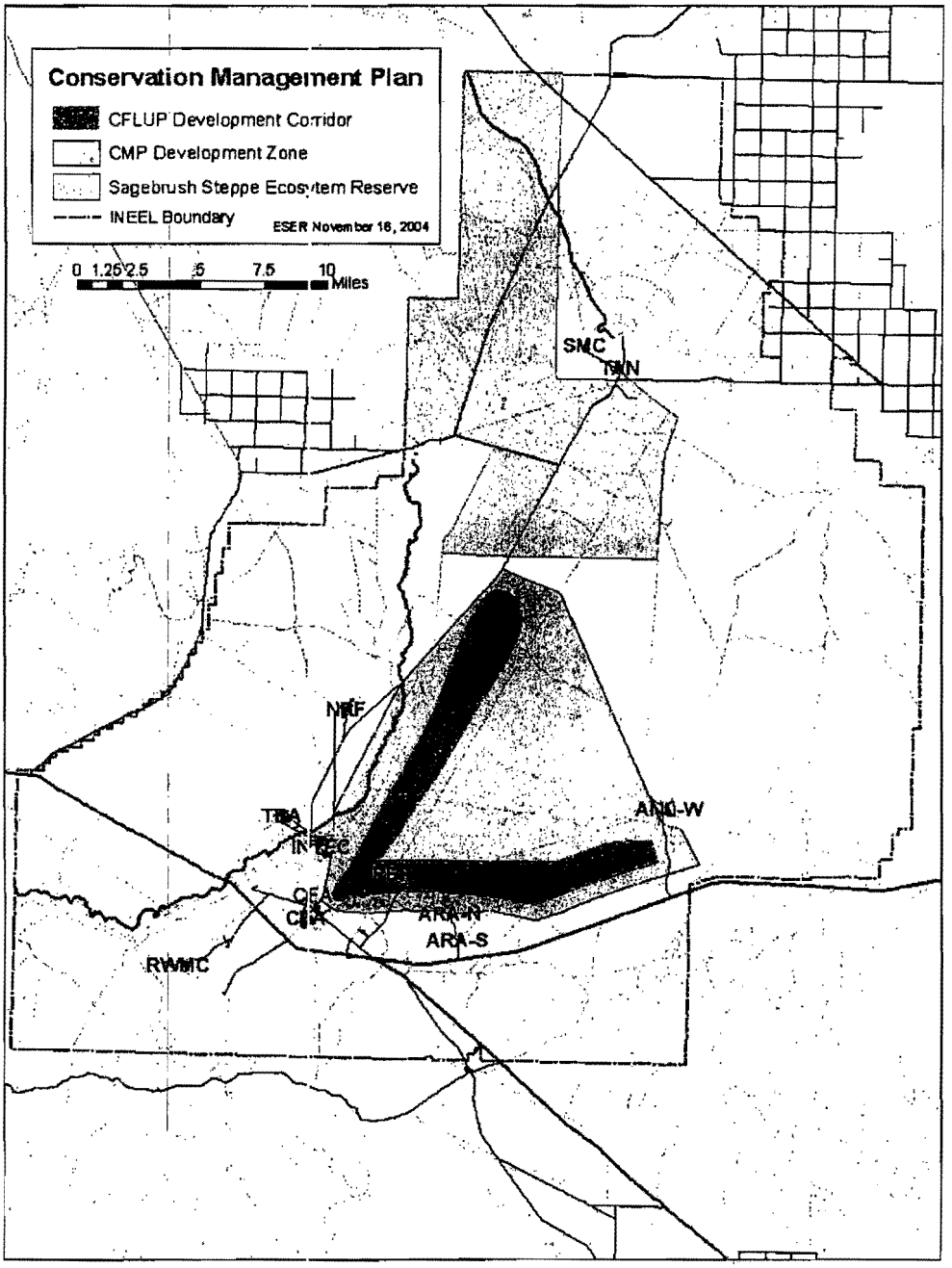


Figure 4. Conservation Management Plan development zone and area of biodiversity inventory.

Passerine Birds

We conducted passerine bird surveys during the spring of 2006 and 2007. We used a stratified random design where sampling locations were stratified by cover type (from McBride cover type map). In addition, to ensure we could get to adequate sample sizes surveys were conducted from two track roads (In 2007, 10 point counts were conduct away from two tracts in remote areas). Point counts were conducted by two observers. Observers would spend 8 minutes identifying birds based on seeing the bird and/or seeing their call.

Raptors

A winter raptor survey was conducted in January 2007 within the development zone. All T-roads within the development zone were driven at 24 km/h or less, and all raptors and ravens observed along these routes were recorded. During the spring and summer of 2007 and 2008, point-count surveys were conducted across the INL site (in conjunction with raven surveys performed fo[redacted] graduate research with[redacted]) to determine the distribution and density of predatory bird populations across the INL. Raptors and ravens can travel far from nest sites within short periods of time during their daily hunting forays. It is for this reason that both nesting location surveys and point count surveys have been conducted across the INL site.

Survey transects of 2 km in length with two survey points located 1 km apart were traveled by 4WD truck at no more than 24 km/h. Point counts were conducted for ten minutes at each survey point. The observer got out of the truck and scanned the landscape in all directions using binoculars. All raptors and ravens detected at each survey point, as well as those detected while traveling along the transects were recorded. Information regarding the activity of the bird when sighted, distance (determined using a range finder) and compass bearing from the observer was recorded.

Nesting surveys included locating raven and raptor nests on natural and artificial substrates. Optimal nesting areas such as juniper trees, cliffs, rock-outcrops, and man-made structures (power lines, landscaped trees, nesting platforms, billboards) were located by aerial photo interpretation and ground reconnaissance. Power lines were surveyed by vehicle. All landscaped trees located near facilities were checked (dependent upon access) for the presence of raven and raptor nests.
A total of 67 active nests were identified during the spring and summer of 2007 (24 raven nests and 43 raptor nests). Of these, 9 raptor nests and 6 raven nests were located within the development zone. A total of 78 active nests were identified during the spring and summer of 2008 (33 raven nests and 45 raptor nests). Of these, 11 raptor nests and 5 raven nests were located within the development zone. Predatory bird population density across the INL site will be analyzed using DISTANCE software (refer to [redacted] thesis dissertation fall 2009).

Burrowing Owls

Surveys to determine the distribution, abundance, and nesting locations of burrowing owls within the development zone on the INL were conducted during the first two weeks of May 2006. Call-broadcast surveys were used to locate nesting burrows by soliciting a response (visual or

aural) from burrowing owls with taped recordings of their primary call. Ten survey routes along T-roads were selected to provide adequate distribution across all habitat types throughout the proposed development zone. Survey points were located 0.8-1.0 km apart along survey routes depending on visibility and topography. Surveys were conducted on calm days for approximately 4 hours following sunrise and 2 hours prior to sunset. Call-broadcast surveys were 6-minutes in length and consisted of a 3-minute observation segment followed by a 3-minute call-broadcast segment. The observation segment entailed listening for burrowing owl calls and scanning the landscape with binoculars. The 3-minute call-broadcast segment consisted of 30 sec of calls then 30 sec of silence, with this pattern repeated 3 times. The survey area was observed during and after the call-broadcast for owl activity and behavioral responses. This procedure was repeated at each of the survey points.

Burrowing owls were observed at ten different locations and in all habitat types. Nine were located within the development zone, and one was located south of the development zone. Five detections were the result of call-broadcast survey efforts, and five were from incidental observations. Occupied sites were revisited two to five times during May through June to determine the fate of each nest. In three instances, a single burrowing owl was detected at a burrow once but never observed at that location again. Another burrow was occupied by a single adult with no sign of a second adult or chicks. The remaining known active sites were occupied by confirmed pairs. Of these, one nest was abandoned; one nest produced 1 confirmed chick; one nest produced 4 confirmed chicks; one nest produced 5 confirmed chicks; and the outcome of two nest sites is unknown.

Small Mammals

We conducted small mammal surveys during the summers of 2006 and 2007. We used a stratified random design where sampling locations were stratified by cover type (from McBride cover type map). At each sampling location, we used 30 Sherman live traps and 8 Havahart traps placed in a grid for two nights. All small mammals captured were identified to species and weighed. In addition, we hair clipped each so they would not be counted twice.

Bats

We conducted bat surveys in summer of 2006 using Anabat echolocation equipment. We used a stratified random design where sampling locations were stratified by cover type (from McBride cover type map). At each sampling location, Anabat equipment was set up one hour before sun set and was taken down two hours after dark. Data was downloaded from the Anabat and bat echolocations were identified using the Wyoming ANABAT call key.

In addition to echolocation surveys, we conduct surveys of three over wintering caves in January 2007. Cave surveys were conducted by walking slowly through caves and using red light to illuminate and identify bat to species.

<u>Preliminary Results</u>

We have completed the majority of the Biodiversity Inventory with only one more field season of raptor and bats surveys remaining. All of the data has been entered and is in various stages of being summarized/analyzed.

A summary of the work completed for the sage grouse, pygmy rabbit and biodiversity inventories is presented in Table 1.

Work to be Done – Deliverables

- Conduct vegetation diversity surveys (in the Development Zone) in the summers of 2007 and 2008.
- Conduct trapping and visual surveys for reptiles in the summers of 2007 and 2008.
- Conduct point counts for breeding birds in the springs of 2007 and 2008.
- Conduct winter and spring surveys for raptors (i.e., hawks, falcons, eagles, and owls) in 2007 and 2008
- Conduct winter hibernacula surveys and summer acoustic and mist net surveys for bats in 2007 and 2008.
- Conduct small terrestrial mammal trapping in the summers of 2007 and 2008.
- Conduct weasel trapping in the summers of 2007 and 2008.
- Conduct aerial surveys for large mammals in the winters and summers of 2007 and 2008.

Table 1. Summary of work completed on pygmy rabbits, sage grouse and biodiversity inventories.

Task	Progress	Status
Pygmy Rabbit Surveys	375 plots have been surveyed for the presence of rabbits > 500 burrow systems have been identified 1 field season completed on developing abundance index	Distribution surveys will be completed this fall with 3 months of sampling GIS model will be completed in 2010 Abundance index study will be completed in 2010 Winter burrow surveys will be conducted
Sage Grouse Lek Surveys	Conducted from the air and ground in 2006 and 2007 6 previously unidentified leks were located	Completed unless additional surveys are requested in certain areas
Sage Grouse Movement and Critical Habitat	We will begin collaring sage grouse in spring 2008	This study will be completed in 2010
Biodiversity Inventory		
Vegetation	100 plots surveyed in 2006 and 2007	Complete
Reptiles	250 reptile surveys completed in 2006 and 2007	Complete
Passerine Birds	125 point count surveys completed in 2006 and 2007	Complete
Raptors (including burrowing owls)	100 raptor surveys completed in 2007 100's of raptors and 71 active nests were identified in 2007 11 burrowing owl nesting pairs located in 2006	Will be completed in spring 2008 as part of our surveys for Ravens (BLM funded) Complete
Small Mammals	125 plots trapped for small mammals in 2006 and 2007	Complete
Bats	41 echolocation surveys conducted for bats in 2006 3 winter cave surveys conducted As part of winter surveys we identified the 2nd largest over wintering colony of Townsend's Big eared bats in Idaho	1 more season of bat surveys remains to be completed Bat surveys will be completed when funding becomes available

[redacted]

Rare Species Inventory

An account of rare species and ecosystems present on the Development Zone, to enable DOE to make informed decisions about future land uses, has been designed as part of the Biodiversity Inventory of this area. This will provide DOE with information useful for making resource management and land use decisions. Data provided will help determine where clean up, construction and other activities might best be located, timed or otherwise modified to avoid or minimize impacts to significant natural resources. These data will also guide the identification of areas suitable as mitigation banks to offset the need to disturb habitat elsewhere.

It is also necessary to develop background information that will allow DOE to make determinations of habitat suitability, quality, trend and that will provide management options for maintaining or improving habitat quality.

The goal of the rare species inventory is to provide information regarding the location of rare and sensitive species and habitats within the INL Development Zone and to develop information necessary to manage those resources.

Specific objectives include:

- Identify and map occurrences of rare animal populations and rare plant populations
- Identify and map occurrences of important habitat types and other ecologically significant areas within the INL Development Zone

The surveys and mapping for rare plants will be walking surveys of areas selected as potential suitable habitat. Rare animals, including Merriam's shrew and Townsend's big eared bat will also be surveyed based on areas of potential habitat. For each species, information from the literature will be used to identify habitat characteristics for those species. Although burrowing owls were surveyed in the Development Zone in 2006, we will record any sightings opportunistically as we are completing vegetation and rare animal surveys. That information will be used in conjunction with previously collected field data, remotely sensed imagery and the draft plant community classification map to identify areas of potential habitat for each species. These areas will then be surveyed for presence of the species. A similar approach will be used to map other ecologically significant habitats, especially those relevant to our conservation targets. All occurrences will be mapped using GPS.

Knowing the locations of rare and sensitive species and significant habitats is a critical part of the CMP. This information is necessary to guide decision making with regard to placement of DOE mission projects in areas that do not or only minimally disturb sensitive species and their habitats on the INL. It will also be important for guiding the development of mitigation and restoration plans designed to improve conservation management of these species.

[redacted]

Accomplishments to Date

The wildlife surveys conducted for the Biodiversity Inventory were adequate to survey all rare species listed as conservation significance in the state action plan (including the burrowing owl) with the exception of Merriam's Shrew and Townsend's Big Eared bats. We suggest pit trapping and mist netting surveys for the shrew and bat, respectively.

Although basic vegetation surveys were completed in the Development Zone, they were not adequate to find rare plants, which will require more intensive survey techniques than used for the original surveys. These intense surveys could not be conducted concurrently with the vegetation surveys due to funding levels.

Work to be Done – Deliverables

2009

- Finalize data compilation and analysis 2009.
- Initiate rare vegetation and animal studies in the developmental zone. Literature reviews and existing INL data will be used to assist in determining design and layout of surveys.

2010

- The second year of surveys will be completed.

2011

- Data analysis and reporting will be completed

Task Responsibility

[redacted]

Habitat Mapping and Conservation Ranking

Objectives

As results become available for inventories conducted in the Development Zone, we will begin to assess spatial patterns of diversity and habitat usage by rare species. Using this information along with the plant community classification and mapping results we will begin to define areas of important habitat, patterns of those habitats and linkages between them and begin to assign conservation ranks to those areas used by rare and sensitive species in the Development Zone. Field surveys will be used to confirm the results of these modeling efforts. The results of this project will be used to establish conservation strategies for various areas within the Development Zone.

Accomplishments to Date

This is a new task which has not been initiated.

Work to be Done – Deliverables

2009

- Define potential habitat characteristics for each rare or sensitive species and incorporate into survey protocols.
- Review rare plant and animal survey data and conduct preliminary analysis for habitat characteristics.
- Begin defining habitat patterns and linkages based on first year data.

2010

- Analyze habitat characteristics and match up with characteristics from preliminary vegetation community map.
- Finalize mapping of habitat patterns and linkages.

2011

- Assign Conservation Rankings to areas within the Development zone based on habitat patterns and linkages.

Task Responsibility

[redacted]
ESER Contractor

Related Research Projects

There are several additional research projects currently underway and funded through other means that will provide essential information to the Conservation Management Plan and the Candidate Conservation Agreements. Among these are studies on Fire History of the INL, Cheatgrass Invasibility, and Raven Depredation on Sage Grouse.

The Fire History study is being conducted by the [redacted] and is designed to determine the frequency of fire on the INL and vicinity and also to determine the size distribution of those fires. Fire frequency is a measure of how often a given location has burned in the past. The size distribution provides information on how big fires were and how many fires were of any given size. The results of this study will provide an understanding of what the mosaic of burned areas may have been like at a landscape level. This information will be used to guide planning for restoration of landscapes and planning for any vegetation manipulations to create habitat patterns on the landscape.

The Cheatgrass Invasibility study is being conducted by the [redacted] to determine the factors associated with cheatgrass invasion into sagebrush steppe plant communities. There are a number of studies reporting the apparent ability of cheatgrass to invade sagebrush steppe at specific locations. However, there has been little research conducted to determine those factors that allow a particular plant community in a particular location to be invaded by cheatgrass. This study has included the INL in a larger project studying invisibility across the Great Basin and the Snake River Plain. The results of this study will guide conservation planning by providing information on specific site conditions that make an area susceptible to cheatgrass invasion. Using this information we can determine those habitat types on the INL that are more susceptible to invasion and in need of protection or other management actions to control cheatgrass invasion.

The Raven Depredation study is being conducted by [redacted] and is designed to determine the rate at which sage grouse nests and/or broods are affected by ravens and to determine environmental factors associated with that depredation rate. Ravens are a human-subsidized predator in that there distribution is closely related to habitat modification by humans. We have documented substantial increases in the raven population on the INL in recent years and ravens are known to depredate sage grouse nests. Results of this study will provide information on the relative significance of ravens as a threat to the conservation of sage grouse and may, if necessary, provide guidance on how to best manage depredation by ravens.

Conservation Planning

The approach we propose to use to build the Conservation Management Plan and the Candidate Conservation Agreement is based on the [redacted] As stated earlier, the goal for the Conservation Management Plan is to minimize the impact of an ESA listing to DOE mission activities at the INL. Because this goal is somewhat different from what might otherwise be the goal of a conservation plan, some aspects of the [redacted]

CAA Preparation

Objectives

In a recent meeting, the U.S. Fish and Wildlife Service suggested a change of approach to our conservation planning that, given the pending status reviews for sage grouse and pygmy rabbit, would provide some measure of protection for DOE programs in the event of a listing for either of these two species and do so within a reasonable time-frame. They recommended that we prepare a Candidate Conservation Agreement (CCA) that would address the species most likely to be the subject of an Endangered Species Act (ESA) listing. This CCA would focus on the pygmy rabbit and sage grouse site-wide and could be completed in 2010 or 2011. The CCA would serve as a stepping-stone toward completion of the CMP. The CMP would then address all potential resource issues on the INL, but would not be completed until 2012 or later. The CCA address these two species site wide and would provide much of the information necessary for a Biological Assessment/Biological Opinion for pygmy rabbit or sage grouse as required under the ESA.

This does not preclude the need for development of the full CMP. Work on the remaining data collection elements of the CMP will run concurrently with those of the CCA with completion of the CMP scheduled for 2012. The CMP will address the remaining potential issues and sensitive species that could impact projects on the INL and would provide much of the data needed for Environmental Impact Assessments or Statements that would be required for a major federal project (such as a reactor) on the INL. Therefore, the CCA will be a complementary document to the CMP and will provide DOE with a solid foundation of information to proceed with their mission without undue delays.

The CCA will require that four major components be completed: vegetation mapping, pygmy rabbit status, sage grouse status, and a geographic information system (GIS) tool.

[redacted]

[redacted] This information will serve as the basis for the Conservation Management Plan and the Candidate Conservation Agreement.

[redacted] This will also include the development of conservation plans specific to the sage grouse and pygmy rabbit as necessary for the Candidate Conservation Agreement for these species.

Accomplishments to Date
This task has not been initiated.

Work to be Done – Deliverables
2009

- Begin work on [redacted]
- Begin development of [redacted]
- Begin development of [redacted]
- Begin development of CMP
- Begin development of CCA

2010

- Complete [redacted]
- Complete [redacted]
- Complete [redacted]
- Draft CCA will be prepared in early 2010 and submitted to FWS for review.
- Final CCA

Task Responsibility
[redacted]
ESER Contractor

CMP Preparation
Objectives
The purpose of the Conservation Management Plan (CMP) is to assist the Department of Energy, Idaho Operations Office (DOE-ID) federal staff in understanding the Idaho National Laboratory (INL) ecosystem in order to enhance federal decision-making and to more properly direct future work performed by the INL contractors. The CMP is intended to minimize disruption to routine site operations and INL Completion Project activities as well as better position the DOE to offer the INL as an attractive site for new projects through considered and deliberate management of sensitive, threatened, and endangered species and associated habitat. The CMP shall be based on INL's current and planned activities, understanding that a majority of these activities will take place within areas of the site that have already experienced some level of disturbance (i.e. the

development corridor described in the Comprehensive Facilities and Land Use Plan). Limiting the focus to this area equates to approximately 125 square miles to be analyzed for the CMP.

Informal discussions with the U.S. Fish and Wildlife Service have achieved initial agreement that focusing on the development corridor is an acceptable strategy to pursue.
These consultations will be continued by [redacted], at the direction of and collaboration with DOE and the Environmental Surveillance, Education and Research Program (ESER) staff. The CMP will be developed in a manner that it can be [redacted]

The primary objectives of the CMP are:

- Support DOE's environmental cleanup and other INL missions,
- Provide DOE with mechanisms for ensuring compliance with laws that relate to the management of potential impacts to natural resources,
- Provide a structure for ensuring appropriate natural resource management goals, objectives, and/or strategies are developed to facilitate DOE stewardship of INL's natural resources, and
- Implement an ecosystem management approach for ecological resources on the INL.

[redacted]

[redacted] This information will serve as the basis for the Conservation Management Plan and the Candidate Conservation Agreement.

[redacted]

[redacted]

Accomplishments to Date
This task has not been initiated.

Work to be Done – Deliverables
2011

- Begin constructing and writing CMP
- Develop and/or revise [redacted] Natural Resource Management Plans (Wildland Fire, Weeds, etc.)

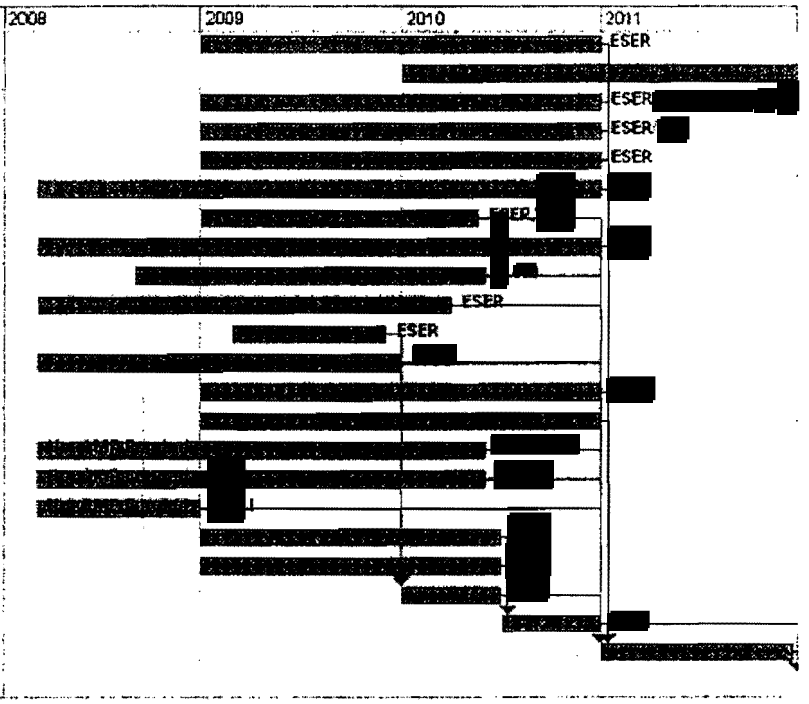
2012

- Draft CMP will be provided for review to DOE as well as appropriate INL contractors.
- Finalize CMP.

Task Responsibility
[redacted]
ESER Contractor

Schedule

ID	Task Name	Duration
1	Project Catalog	522 days?
2	Document Catalog	522 days?
3	Collections Catalog	522 days?
4	GIS Map Tool	522 days
5	Data Acquisition	522 days?
6	Sage Grouse Inventory	740 days?
7	Historical Lek Survey	360 days
8	Pygmy Rabbit Inventory	740 days?
9	Pygmy Rabbit Burrow Index	456 days?
10	Vegetation Map	543 days?
11	Sagebrush Demography	197 days?
12	Biodiversity Inventory	478 days?
13	Rare Species Inventory	522 days?
14	Habitat Mapping and Conserva	522 days?
15	Raven Depredation	586 days?
16	Cheatgrass Invasibility	586 days?
17	Fire History	218 days?
18	Key Attributes & Monitoring Pl	390 days
19	Threat Assessment	390 days
20	Conceptual Models	130 days
21	CCA Completion	130 days
22	Tiered Plan Development	255 days
23	CMP Completion	255 days



AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE 1 OF PAGES 2

2. AMENDMENT/MODIFICATION NO. 013

3. EFFECTIVE DATE 05/27/2009

4. REQUISITION/PURCHASE REQ. NO. 09NE000395

5. PROJECT NO. (If applicable)

6. ISSUED BY CODE 00701

Idaho Operations
U.S. Department of Energy
Idaho Operations
1955 Fremont Avenue
Idaho Falls ID 83415

7. ADMINISTERED BY (If other than Item 6) CODE 00701

Idaho Operations
U.S. Department of Energy
Idaho Operations
1955 Fremont Avenue
MS 1221
Idaho Falls ID 83415

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

S.M. STOLLER CORPORATION, THE
Attn: FRANK DOUGLAS
105 TECHNOLOGY DRIVE
SUITE 190
BROOMFIELD CO 800213432

CODE 075265629 FACILITY CODE

(x) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

X 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC07-06ID14680

10B. DATED (SEE ITEM 11) 11/18/2005

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: $15,507.00

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	FAR 52.243-2 Changes - Cost Reimbursement - Alternate 1 AUG 1998
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 2 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Tax ID Number: 13-2635898
DUNS Number: 075265629
Subj to Retent: N
Delivery Location Code: 00701
Idaho Operations
U.S. Department of Energy
Idaho Operations
1955 Fremont Avenue
Idaho Falls ID 83415 US

Fund: 01250 Appr Year: 2009 Allottee: 02 Report
Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) T. Wade Hillebrant

15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA Signature on File (Signature of Contracting Officer)

16C. DATE SIGNED 08/20/2009

NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC07-06ID14680/013	2	2

NAME OF OFFEROR OR CONTRACTOR
S.M. STOLLER CORPORATION, THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Entity: 500201 Object Class: 25100 Program: 1110864 Project: 0000897 WFO: 0000000 Local Use: 0000000 FOB: Destination Period of Performance: 05/27/2009 to 09/30/2009 Add Item 00002 as follows: FOR OFFICIAL USE ONLY				
00002	Perform ecological surveys of the Railcar Explosion Area in support of UXO cleanup. The authorization to commence work effective May 27, 1009, (i.e. Step 1 change order iaw the contract Changes clause - "FAR 52.243-2 - Changes - Cost Reimbursement - Alternate I AUG 1998") is acknowledged as per Contracting Officer direction via email dated May 27, 2009. Refer Attachment A - item 00002 continued Refer Atttachment B - Statement of Work . Obligated Amount: $15,507.00				15,507.00

Item 002 Continued –

a. Consequent to the addition of the ecological survey work, the increase to the contract estimated cost and fixed fee is as follows:

	FROM	INCREASE	TO
Estimated Cost	[redacted]	[redacted]	[redacted]
Fixed Fee	[redacted]	[redacted]	[redacted]
Total	$12,087,492	$15,507	**$12,102,999**

b. The following is incorporated into the contract consequent to the equitable adjustment of this definitizing Modification:

> *In consideration of the modification(s) agreed to herein as complete equitable adjustments for the Contractor's July 27, 2009, "proposal for adjustment," the Contractor hereby releases the Government from any and all liability under this contract for further equitable adjustments attributable to such facts or circumstances giving rise to the "proposal(s) for adjustment".*

Statement of Work

ECOLOGICAL SUPPORT

A. Background

During the summer of 2009, the DOE Idaho clean-up contractor, CH2M-WG Idaho, LLC ("CWI") will be performing geophysical surveys of the Rail Car Explosion Area to locate any unexploded ordnance remaining in the area. The survey will be conducted using a magnetometer array towed behind a six-wheeler. The geophysical surveys will be conducted along 2-meter transects across approximately 350 acres.

The requirement was determined from the Environmental Checklist for the Operable Unit 10-04 Phase IV Remediation of UXO Sites (EC Number ICP-09-004).

Activity is anticipated to be between May 15 and September 30, 2009.

B. Tasks

1. S.M. Stoller shall perform a nesting bird survey commensurate with the work activity of CWI's work activity.

2. S. M. Stoller shall provided written or email confirmation to project personnel regarding work commencement and any special conditions identified as a result of the nesting bird surveys.

3. If special conditions are specified by Stoller's clearance of an area, CWI will follow-up with an e-mail note to Stoller after completion of the work, explaining how the special condition was met.

4. It is anticipated that 30 acres will be surveyed per week; therefore, the nesting bird surveys will need to be conducted within two weeks of each 30 acre parcel.

5. The location of nesting birds will be conveyed to CWI as soon as practicable to prevent disturbance or impacts from the ordnance surveys. Coordination with CWI to establish an efficacious information exchange process is required.

Deliverables

A formal summary report including the results of all surveys conducted is requested within 30 days of the completion of the survey work.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE 1 OF PAGES 2

2. AMENDMENT/MODIFICATION NO. 014

3. EFFECTIVE DATE 09/29/2009

4. REQUISITION/PURCHASE REQ. NO. 09NE000381

5. PROJECT NO. (If applicable)

6. ISSUED BY CODE 00701

Idaho Operations
U.S. Department of Energy
Idaho Operations
1955 Fremont Avenue
Idaho Falls ID 83415

7. ADMINISTERED BY (If other than Item 6) CODE 00701

Idaho Operations
U.S. Department of Energy
Idaho Operations
1955 Fremont Avenue
MS 1221
Idaho Falls ID 83415

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)

S.M. STOLLER CORPORATION, THE
Attn: FRANK DOUGLAS
105 TECHNOLOGY DRIVE
SUITE 190
BROOMFIELD CO 800213432

CODE 075265629 FACILITY CODE

(x) 9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

X 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC07-06ID14680

10B. DATED (SEE ITEM 11) 11/18/2005

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required) Net Increase: $1,220,000.00

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE

A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

X FAR 52.243-2 Changes - Cost Reimbursement - Alternate 1 AUG 1998

D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 2 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

Tax ID Number: 13-2635898
DUNS Number: 075265629
The purpose of this supplemental agreement modification is to provide $820,000 to the contract in incremental funding and increase the work, estimated cost and fixed fee in the amount of $400,000.
Subj to Retent: N
Delivery Location Code: 00701
Idaho Operations
U.S. Department of Energy
Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Eliot J. Dye

15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)

15C. DATE SIGNED

16B. UNITED STATES OF AMERICA Signature on File (Signature of Contracting Officer)

16C. DATE SIGNED 09/30/2009

NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 53.243

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	DE-AC07-06ID14680/014	2	2

NAME OF OFFEROR OR CONTRACTOR
S.M. STOLLER CORPORATION, THE

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Idaho Operations 1955 Fremont Avenue Idaho Falls ID 83415 US Fund: 05350 Appr Year: 2009 Allottee: 02 Report Entity: 500201 Object Class: 25200 Program: 2720310 Project: 0000000 WFO: 0000000 Local Use: 0000000 FOB: Destination Period of Performance: 09/30/2009 to 12/31/2010 Add Item 00003 as follows:				
00003	Additional tasks are incorporated into the contract as per the attached "Statement of Work." These tasks are fully funded and the contract estimated cost and fixed fee are increased by $400,000. Refer also to the attached Continuation Page for funding information and revision/increase to contract cost and fee. Obligated Amount: $400,000.00				400,000.00
	Add Item 00004 as follows:				
00004	Incremental Funding Obligated Amount: $820,000.00 Refer to two attachments; Statement of Work and Continuation Page				820,000.00

Line Item 003 is broken down as follows:

1. The estimated cost and fixed fee is increased as follows:

Statement of Work Tasks	Estimated Cost	Fixed Fee	Total
1. Sagebrush Demography	[redacted]	[redacted]	$52,682
2. Cultural Resources – Long Term Veg.	[redacted]	[redacted]	$38,752
3. Pygmy Rabbit Habitat Characterization	[redacted]	[redacted]	$58,725
4. Sage Grouse Habitat Characterization	[redacted]	[redacted]	$58,725
5. Sagebrush Restoration – D&D Areas	[redacted]	[redacted]	$42,487
6. Pre-Trtmnt & Post-Trtmnt Assmnt	[redacted]	[redacted]	$32,495
7. Educational Supplements	[redacted]	[redacted]	$30,051
8. Air Monitoring Program Upgrades	[redacted]	[redacted]	$86,083
TOTAL	[redacted]	[redacted]	$400,000

2. Consequent to the addition of the work in No. 1 above, the increase to the contract estimated cost and fixed fee is as follows:

	FROM	INCREASE	TO
Estimated Cost	[redacted]	[redacted]	[redacted]
Fixed Fee	[redacted]	[redacted]	[redacted]
Total	$12,118,506	$400,000	**$12,502,999**

3. Revise clause B.3 "LIMITATION OF FUNDS" clause as follows:

   Pursuant to FAR 52.232-22, entitled "Limitation of Funds," total funds in the amount of $11,265, 851 are obligated herewith and made available for payment of allowable costs and fixed fee to be incurred from the effective date of this contract through the period estimated to end November 30, 2010.

4. The following is incorporated into the contract consequent to the equitable adjustment of this definitizing Modification:

   In consideration of the modification(s) agreed to herein as complete equitable adjustments for the Contractor's July, 2009, "proposal for adjustment," the Contractor hereby releases the Government from any and all liability under this

contract for further equitable adjustments attributable to such facts or circumstances giving rise to the "proposal(s) for adjustment".

STATEMENT OF WORK

This Statement of Work is for the following task items:

1. Sagebrush Demography
2. Cultural Resources Surveys of the Long-Term Vegetation Plots
3. Pygmy Rabbit Habitat Characterization
4. Sage Grouse Habitat Characterization
5. Sagebrush Restoration on D&D Sites
6. Wildlife Monitoring Pre-and Post- Sagebrush Seedling Planting
7. ESER Education Supplements
8. ESER Surveillance Equipment Upgrades

1. SAGEBRUSH DEMOGRAPHY

Objectives

The basic questions addressed in this research relate to how big sagebrush stands replace themselves and is the die-off of sagebrush related to old age. These two questions are pivotal to determining strategies for managing big sagebrush as habitat for sage grouse, pygmy rabbit and other sagebrush obligate species. At present, there is an assumption that big sagebrush replaces itself only after a disturbance much like occurs in lodgepole pine. A related assumption is that the widespread die-off of big sagebrush is associated with old age and a disturbance is required to "rejuvenate" the stand. Neither of these assumptions has been tested and reported in the literature. Data previously collected through ESER sponsored research suggest that these assumptions are likely incorrect.

Application of these assumptions to managing sagebrush has resulted in attempts to manipulate stand age structure by applying disturbances such as prescribed burning, widespread herbicide application and removing sagebrush using chaining, harrowing and disking. Because of the long recovery times for big sagebrush following disturbance, these manipulations have the potential to affect habitat quality for decades.

This project will provide empirical data presently absent from existing theories on sagebrush management. Examination of stand-age structure (demography) is typically used in determining ecological strategies of long-lived woody plants. This approach has been used with great success in developing forest management strategies. Without this information, it will not be possible to develop meaningful, long-term management goals and strategies for those areas on the INL presently dominated by sagebrush or those areas with the potential to be dominated by sagebrush and there will be no basis for habitat management recommendations.

Approach

The approach used in this project is to sample a number of stands of Wyoming big sagebrush to determine the age structure of the population. Several aspects of vigor of both individuals and the population will be measured. Examining stand age structure alone will provide information on how and when big sagebrush initiates recruitment and

will readily tell if a disturbance is required. Comparing this information to the measures of vigor will allow us to determine if die-off is related to stand age or other factors.

Knowing the underlying ecological phenomena associated with sagebrush and sagebrush steppe habitats is essential to the development of long term strategies for managing those habitats. Because sagebrush is both a long-lived species and a species that requires decades for recovery following disturbance, mistakes in managing this species can persist on the landscape as potentially unsuitable habitat for decades. To ensure that such mistakes do not limit the conservation of sagebrush obligate species on the INL, and therefore DOE mission activities, a science-based approach to managing this species and the habitats it dominates is critical.

Accomplishments to Date

During 2003 a literature review was prepared to document and review the existing scientific literature on this topic. That literature review was used as the basis for designing a field study to address the deficiencies in scientific understanding of the population dynamics of big sagebrush. During 2006, 14 stands of Wyoming big sagebrush (*Artemisia tridentata* ssp. *wyomingensis*) were sampled. The vegetation data collected as a component of this study included; shrub cover, sagebrush density, and individual shrub rank data for use in developing criteria for measuring stand condition. At each stand, cross section samples of sagebrush were also collected. The cross sections were labeled and archived in preparation for sanding and ring counts.

Work to be Done – Deliverables

Remaining work includes preparing the surface of each cross section sample for ring counting by sanding and polishing, counting rings, analyzing data, and reporting the results. Preparing the cross sections need to be completed within the next year to minimize degradation of the samples to the point they are no longer useful for reliable determination of ages. This work will be completed in 2009.

2. CULTURAL RESOURCES LONG-TERM VEGETATION

This task would provide cultural resource field surveys, documentation and reporting to support soil survey work on the long-term vegetation (LTV) plots. None of the LTV plots are in areas that have been surveyed for cultural resources within the last decade. Since the soil survey will involve ground disturbance, cultural resource surveys will be necessary to determine if there will be impacts to cultural resources and come up with strategies for avoidance (e.g. slight relocation of excavations, archaeological monitoring of excavations, etc.). Archaeological sensitivity in the LTV plot locations ranges from Very High to Very Low. The survey results will be documented in a report with a plot-specific assessment of cultural resource sensitivity and recommendations to avoid adverse impacts to sensitive areas during soil sampling. DOE-ID agreements with the State Historic Preservation Office and Shoshone-Bannock Tribes (see DOE/ID-10997) require these cultural resource assessments.

The purpose of the cultural resource surveys is to support a USDA funded research project being conducted [redacted]. That study is using the LTV data to develop conceptual models that describe the consequences of changes in land use and climate change for ecosystems. The INL LTV transects provide an unprecedented record of vegetation change for the sagebrush steppe biome. Unfortunately, data from large numbers of long-term vegetation transects are often "noisy" due to in part to differences in soils, landform, and microtopography. Once accounted for in statistical models, different responses of vegetation change on distinct soil profiles can provide information about where, for example, exotic grass invasions are most likely to occur or where fire disturbance is most likely trigger wind erosion. We propose to characterize the soils directly at each of the 99 LTV transects using standard National Cooperative Soil Survey methods. Because the existing INL soil maps are coarse-scaled, soil map units tend to contain several kinds of soil. Therefore, the INL soil maps cannot be used to produce a one-to-one relationship between point vegetation properties and soil properties. The development of a point-based soil profile database would not only extend the inferential power of the LTV data to explain vegetation change within the INL, but would also extend the utility of that dataset to areas outside of INL that share similar soil properties. Thus, the resulting fusion of soil and LTV data would support Ecological Site Descriptions used by the USDA Natural Resources Conservation Service, US Forest Service, USDI Bureau of Land Management. The development of linked vegetation-soil database will be an important long-term investment in ecological science for the surrounding region and will be used to support development of the INL Conservation Management Plan.

3. PYGMY RABBIT HABITAT CHARACTERIZATION

Objectives

Populations of pygmy rabbits (*Brachylagus idahoensis*) rely heavily on sagebrush-steppe habitat across their range; however, very little is known regarding micro-habitat selection by these leporids. Current research is documenting general patterns of use of the INL site by pygmy rabbits. This information, in conjunction with remotely sensed data on vegetation community type, is being used to develop coarse-scale models of potential pygmy rabbit distribution on the INL. However, characteristics of micro-habitat used by this species has never been quantified on the INL. Stoller will use existing location data gathered from burrow surveys of pygmy rabbits to quantify the selection of micro-habitat features (i.e., sagebrush height, surrounding sagebrush height, sagebrush cover, and soil composition) for this species on the INL.

Justification

Data regarding micro-habitat selection by pygmy rabbits on the INL will be important for the DOE, because understanding the characteristics of habitat used by these leporids will facilitate classifying sagebrush habitat across the site as either suitable or unsuitable for this species. This information will be useful in supporting NEPA assessments to evaluate the potential for a specific land parcel to support pygmy rabbits, especially as they are being considered for protection under the Endangered Species Act. Furthermore, we will collaborate with professors of local universities [redacted]) to complete this research.

Methods

[redacted]

4. SAGE GROUSE HABITAT CHARACTERIZATION

Objectives

Research regarding habitat use by greater sage-grouse (*Centrocercus urophasianus*) indicates that breeding, brood-rearing, and winter habitat are critical to population persistence of these birds. Connelly et al. (2000) suggest that micro-habitat characteristics (i.e., height and percent canopy cover of sagebrush, forbs, and grasses) are extremely important for productive sage grouse habitat. Current research on the INL is documenting movements, migration patterns, and use of the INL site by sage grouse. This information, in conjunction with remotely sensed data on vegetation community type, is being used to develop coarse-scale models of sage-grouse distribution on the INL. However, little is known regarding micro-habitat selection by sage grouse on the INL. Stoller will use existing location data gathered from birds equipped with radio transmitters to quantify the selection of breeding, brood-rearing, and winter micro-habitat features specific to the INL.

Justification

Data regarding micro-habitat selection by sage grouse on the INL will be important for the DOE, because understanding the characteristics of habitat used by grouse will facilitate classifying sagebrush habitat across the site as either suitable or unsuitable for grouse during breeding, brood-rearing, and winter. This information will be useful in supporting NEPA assessments to evaluate the potential for a specific land parcel to support sage-grouse especially as they are being considered for protection under the Endangered Species Act. Furthermore, this project will also benefit the DOE as it will require collaboration with professors of local universities (e.g. [redacted]).

Methods

[redacted]

5. SAGEBRUSH RESTORATIOIN AT D&D AREAS

Background and Objectives

Loss of sagebrush steppe has resulted in the decline of wildlife that depends on sagebrush. Development of facilities on the INL Site over the past 60 years and subsequent decommissioning and dismantling of those facilities has left areas that are presently without sagebrush. Some of these areas have had herbaceous native vegetation restored to them, but sagebrush has only rarely been successfully re-established on these sites.

A 2002 report on improving revegetation success identified 46 individual revegetation projects on the INL Site. All or nearly all of these projects included big sagebrush seed in the planted mix. Only one of these was known in 2002 to have sagebrush successfully established on them. In that same 2002 report identified several opportunities to improve the success of revegetation, including the establishment of sagebrush through the use of sagebrush seedlings.

Stoller recent experience with sagebrush seedlings on the Big Lost River Trenches project has been that sagebrush seedlings overcome many of the difficulties associated with gaining establishment from seeds. The objective of this project would be to complete the restoration of those areas that have already been successfully revegetated with native herbaceous species by planting sagebrush seedlings. These areas would serve as demonstration plots to illustrate the potential for use of seedlings in restoration.

Methods

[redacted]

6. PRE-TREATMENT AND POST-TREATMENT ASSESSMENT OF WILDLIFE AREAS OF SAFEBRUSH PLANINGS

Objectives

Sagebrush-steppe habitat has been reduced across the western USA from rangeland a number of anthropogenic causes. Planting sagebrush seedlings may be important for the recovery of sagebrush-steppe rangelands and habitat for wildlife; however, few data exist on the response of wildlife to restoration of sagebrush-steppe habitat. As part of the project to plant sagebrush seedlings on the INL in areas that need restoration, Stoller will assess the response of wildlife (i.e., birds along with large and small mammals) in restoration areas before and after planting sagebrush.

Justification

Data regarding the response of wildlife species to sagebrush restoration will be important for the DOE, because it will elucidate the effectiveness of such plantings as a restoration tool for wildlife on the INL. Furthermore, the DOE will benefit from this project as Stoller will collaborate with professors of local universities (e.g., [redacted] and the [redacted] to complete this research.

Methods

[redacted]

7. ESER EDUCATION SUPPLEMENTS

A large portion of the ESER Educational Outreach program's mission is to provide an education resource for local schools. This goal is consistent with DOE's mission to advance science, mathematics and technology education. The ESER Program has expanded reach into the community in recent years to further this goal.

Outreach Education Program

The ESER Program has developed 29 presentations to advance science education. These presentations are available to teachers throughout southeastern Idaho. In 2001, the outreach program served approximately 500 students. In the 2008-2009 school year, presentations were given to about 9,000 students.

Current resources limit the number of presentations given, as well as the reach of these programs. The ESER Program will travel to locations in Idaho that were prior considered unfeasible and offer more presentations to schools already served by the program, thereby increasing the community outreach. These additional presentations would further DOE's outreach education mission, as well as reinforce DOE's positive image in the community as a supporter of education.

Community Outreach

The ESER Program participates in several community events and programs, including:

- Idaho Falls Earth Day Celebration
- Idaho Falls Water Festival for area 6th graders
- INL Expo
- Museum of Idaho Discovery Days
- Ask a Scientist weekly Post Register column
- Meet a Scientist monthly free public forum
- Idaho Environmental Education Association (IdEEA) board memeber
- Eastern Idaho Environmental Education Association (EIEEA) board member
- Museum of Idaho Children's Education board member

ESER's community outreach has increased every year since 2001. This task will continue to represent the INL ESER Program and DOE in these venues and provide additional support to these programs as requested.

Summer Science Camp

The ESER Program began participation in the Rocky Mountain Adventure (RMA) summer science camp in 2001 with one day of instruction from ESER staff. During the ensuing years, ESER has increased its scope of activity to hosting and supporting a full two weeks of camp. Additional participation has also increased the amount of preparation required for the camps.

Stoller will continue to support the full two weeks of Rocky Mountain Adventure summer camp, as well as plan and direct an additional week of Service Camp. Service Camp is a planned capstone camp that would use all of the information and training provided in

the RMA to provide a community service opportunity for advanced campers. The camp will be a weeklong learning adventure.

8. ESER AIR MONITORING PROGRAM UPGRADES

A critical element of the environmental surveillance program is the regional air monitoring network. Weekly filter and charcoal cartridge samples are collected from 16 locations on the INL site, on the INL boundary, and at offsite communities. Samples are analyzed at laboratories and provide data on gross alpha and beta activity, as well specific concentrations of alpha-, beta-, and gamma-emitting radionuclides in the air. The ESER Program uses techniques to collect samples and ancillary data that were developed decades earlier. This [redacted]

Basis and Objectives for Upgrading Air Monitoring System.

The air monitoring program currently involves the collection of air using an air pump, operating at 2 cfm and filter media (Versapor1200 filter for particulates and a charcoal filter for radioiodine). Technical personnel collect the filters on a weekly basis and fill out a logbook sheet at each station. Data recorded include:

- Date on and date off
- Time on and time off
- Flow meter on and flow meter off
- Time meter on and tome meter off
- Vacuum off
- Sample volume

The entering of data into logbooks is time-consuming, introduces the problem of human error and inaccuracy, and only provides a "snapshot" of monitor data. Flow rates, vacuum readings and pump operation can vary over time and provide important information about the station's operation. For example, an event that causes the pump to shut down temporarily can be revealed through observation of a lower volume of air collected, but the observer has no idea of when or how long the occurrence was. Additionally, the flow rate observed is not a standard one calculated using barometric pressure and temperature. Stoller calculates this by hand when samples are brought back to town.

Another disadvantage of using logbooks is that the data must then be entered by hand into spreadsheets for use in our database. This is another time-consuming process which can introduce additional errors into the database.

This task will allow the ESER Program to purchase digital air flow calibrators, which when attached to the air sampling pumps [redacted]

- [redacted]

[redacted]

[redacted]

The overall basis and objectives in upgrading the monitoring system and reporting data [redacted] are:

- Increased efficiency of data collection and reporting
- Improved data accuracy
- Increased quantity of data to aid in interpreting results
- [redacted]
- Improved public relations with special interest groups, such as KYNF, who will [redacted]

Approach

[redacted]

[redacted]

[redacted]