DOE-ID NEPA CX DETERMINATION

CX Posting No.: DOE-ID-18-111

SECTION A. Project Title: 2018 Supplemental Environmental Projects

SECTION B. Project Description

There are 4 projects proposed as Supplemental Environmental Projects (SEPs) to settle the penalty for failing to initiate treatment of sodium bearing waste stored in the INTEC Tank Farm Facility from 4/1/2017 through 3/31/2018.

The SEPs are completed through agreement between DOE and the recipients to perform the work scope and provide progress reports to DOE. None of the projects take place on the INL Site and all are performed by the recipients or entities they contract with to complete the work.

SEP Project Descriptions:

1. IDWR proposes bolstering the ESP A groundwater monitoring network to improve the INL groundwater flow model and the ESP AM, support managed recharge efforts, and fill in gaps in the water level monitoring network. Monitoring network upgrades will include the installation of new monitoring wells and upgrades to existing wells. Where possible, IDWR will deploy electronic data loggers in new and existing wells to automate daily water level collection. Water quality samples will be collected from newly drilled wells.

   IDWR has identified 20 potential locations as the highest priorities for drilling new monitoring wells. It is anticipated that land access constraints will control the sequence of drilling. Thirteen well locations are on State of Idaho land and are desirable due to ease of access. Six wells are proposed on BLM land; however, the BLM requires that these wells also be useable for fire suppression and located next to a road. One of the selected well locations is on private land. It is assumed that wells will be cased to total completed depth, with seal depths of 100 feet for regional wells.

   Drilling, drilling oversight, and water sampling will be completed through contracted work, possibly with multiple contractors. The oversight contractor will oversee well drilling, collect chip samples, and develop well logs. The water sampling contractor will collect baseline water quality samples semiannually for the grant duration. Sampling will require the installation, purchase, or rental of a submersible pump. Discharge pipes will be installed for wells located on BLM land. Pressure transducers, direct read cables, and/or telemetry equipment will be deployed in new wells to automate daily water level collection.

2. IDWR proposes to develop a water budget and hydrogeologic framework for the Big Lost River basin. This will require a comprehensive hydrologic investigation including well drilling, water level monitoring, borehole geophysics, seepage runs, and stream gages. New wells will be professionally logged, and borehole geophysical surveys will be collected to correlate geologic units. Water quality samples will be collected from newly drilled wells.

   IDWR plans to contract with the United States Geological Survey (USGS) to perform multi-year seepage studies to quantify reach gains and losses along the Big Lost River. IDWR will also hire a contractor to install and/or improve stream gages on Warm Springs Creek, Thousand Springs Creek, Lower Cedar Creek, and the Big Lost River below the following diversions: Moore, Arco, Pence, and Donahue. If the contractor is the USGS, data will be available in real-time via the USGS National Water Information System (NWIS). The seepage runs and gage work will help improve IDWR water right accounting efforts, water budget calculations, and representation of the Big Lost River basin below Mackay Dam in the ESPAM.

   IDWR has identified nine potential well locations for drilling new monitoring wells in the Big Lost Basin. Six of the wells are shallow (approximately 50 feet deep or less) and three of the wells are deep (150 feet deep or greater). Three of the six shallow wells will be drilled in tandem with the three deep wells; shallow wells will be distributed along the Big Lost River with corresponding deep wells farther from the river. Three additional shallow wells will be drilled and paired with three existing deep wells already monitored. In total, six pairs of shallow and deep wells will be available for monitoring along the Big Lost River.

   Six of the nine wells are located on Idaho Department of Transportation access locations at bridge crossings. Three of the nine wells are on private land and landowner participation will be required. Water quality samples and water level measurements will be collected as discussed in the previous ESPA project activities section. Drill cuttings from new wells will be professionally logged, and borehole geophysical surveys will be conducted to correlate geologic units.

   A contractor will install seven stream gages on Warm Springs Creek, Thousand Springs Creek, Lower Cedar Creek, and the Big Lost River below the Moore, Arco, Pence, and Donahue diversions. Gage locations were selected to help improve IDWR water right accounting efforts and water budget calculations. Existing structures will be improved, and new measurement devices installed. If the contractor is the USGS, telemetry equipment will be installed to directly serve data to NWIS.

   The USGS will conduct two seepage studies per year (spring and fall) for two years to quantify reach gains and losses along the Big Lost River. Each study will consist of measuring surface water flows (stream flows, diversion rates, return flows, and

tributary inputs) over several days. The USGS will work with local landowners and irrigators to identify diversions and return flows.

The USGS will develop a water budget and hydrogeologic framework for the Big Lost River basin. Both efforts will run in parallel to the hydrologic fieldwork being done to fill in data gaps. An Agrimet weather station will be installed near the city of Moore, Idaho, to provide precipitation, evapotranspiration, and barometric data essential to the water budget and other monitoring efforts.

3. Construct fencing around spring areas to exclude livestock grazing and protect riparian areas found in Beck Canyon near Arco Idaho in the Big Lost River valley. There is a total of five springs that could be protected by the enclosures. These springs are located on BLM ground. EIS and NEPA have both been completed in these areas. Project materials costs will be covered by this project. BLM will provide the labor and equipment for fencing building. Maintenance will be done yearly by the permittee of the grazing allotment per their grazing lease.

   Overall the enclosures would enclose approximately 2 - 4 acres. The enclosures would be a four-strand fence consisting of 3 strands of barbed wire spaced at 42 inches, 30 inches and 24 inches from ground level, and 1 smooth wire located 16 inches from ground level. Green metal fence posts would be used between the braces and would be spaced 16.5 feet apart. A wire stay would be placed on the fence wire midway between steel "T" posts. Fence wire would be marked to alert wildlife of the hazard. Construction activities would be conducted outside of the nesting season (April 1 to June 30) to minimize the potential impacts to migratory birds and/or special status species.

4. The proposed project would place a series of ditch plugs along the drainages. These ditch plugs will hold the existing water to restore drained wetland acres. These new wetlands will function more as seasonal emergent wetlands. Market Lake Wildlife Management Area (WMA) has a majority of aquatic beds. Emergent wetlands are the most productive grounds for foraging and migrating waterfowl. Adding more emergent wetlands will be a great benefit to Market Lake WMAs ability to provide quality stopover habitat and nesting habitat for waterfowl. Ducks Unlimited is a partner with the ID F&G, in design and acquisition. They have identified Market Lake as one of their priority landscapes. Within these priority landscapes they perform multiple tasks to aid in the habitat conservation and restoration.

   East Springs Wetland Restoration is proposed as a Supplemental Environmental Project. East Springs is a wetland area on Market Lake WMA that has changed over time. Before flood control the East Springs area was a floodplain wetland created by the Snake River flood events. Flood control has reduced the river's ability to add water to the East Springs to only subsurface flow.

   Flood irrigation on Egin Bench then fed the springs on the east side of the area. During flood irrigation the area had plentiful water, in fact the wetlands operated as aquatic beds. This wetland supported a fishery and waterfowl hunting. After the Egin Bench converted to center pivot irrigation, the springs' flow became substantially less. The aquifer has dropped enough to affect the output of the springs feeding the East Springs area.

   The East Springs Area's wetlands are mostly dry due to continual outflow of water back to the river. The wetlands are connected by a series of drainage ditches that were used to control the water at times when water was plentiful. This outflow runs along the border with the railroad. The outflow was not an issue during times of high water inputs.

   Market Lake WMA and Mud Lake WMA colonies comprise 25% of the western population of White-faced Ibis, a Species of Greatest Conservation Need. White-faced Ibis main foraging resource is the aquatic invertebrates found in shallow seasonal wetlands.

SECTION C. Environmental Aspects / Potential Sources of Impact

The proposal includes building fencing, installation and improvement of groundwater monitoring wells, and installation of a stream gaging stations. Fence building is to protect and improve water quality and wildlife habitat. Drilling new groundwater monitoring wells will generate small amounts limited amounts of used personal protective equipment, miscellaneous industrial waste, and discharge of wastewater from the drilling operation to the ground. IDWR has procedures and extensive experience in drilling activities and proper handling of generated waste. There would be exhaust from operation of the drill unit and other heavy equipment, but these emissions would be below reportable levels.

An intensive survey of the Market Lake project area was performed. Due to the nature and location of the undertaking, no cultural resources will be affected by any associated ground disturbing activities.

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SECTION D. Determine the Level of Environmental Review (or Documentation) and Reference(s): Identify the applicable categorical exclusion from 10 CFR 1021, Appendix B, give the appropriate justification, and the approval date.

Note: For Categorical Exclusions (CXs) the proposed action must not: 1) threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, and health, including requirements of DOE orders; 2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities; 3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; 4) adversely affect environmentally sensitive resources. In addition, no extraordinary circumstances related to the proposal exist which would affect the significance of the action, and the action is not "connected" nor "related" (40 CFR 1508.25(a)(1) and (2), respectively) to other actions with potentially or cumulatively significant impacts.

References: B1.11 Installation of fencing, including, but not limited to, border marking, that would not have the potential to significantly impede wildlife population movement (including migration) or surface water flow.

B1.20 Small-scale activities undertaken to protect cultural resources (such as fencing, labeling, and flagging) or to protect, restore, or improve fish and wildlife habitat, fish passage facilities (such as fish ladders and minor diversion channels), or fisheries. Such activities would be conducted in accordance with an existing natural or cultural resource plan, if any.

B3.1 Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis.) Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments.) Specific activities include, but are not limited to: (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells.

Justification: The activity consists of providing funding to organizations to build fencing to protect natural resources, install and improve of groundwater monitoring wells, and install of a stream gaging stations.

Is the project funded by the American Recovery and Reinvestment Act of 2009 (Recovery Act) ☐ Yes ☒ No

Approved by Jason Sturm, DOE-ID NEPA Compliance Officer on 10/23/2018