APPENDIX B
ENVIRONMENTAL STEWARDSHIP GUIDELINES

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Environmental Stewardship Guidelines

General Resource Management	Overall resource management at the project planning phase considers a broad spectrum of USAG FWA resources and chains of communication.

SOPs used during project planning process and implementation of proposed project includes:

- USAG FWA would continue to follow existing chain of command procedures regarding project development.
- If it is determined that the project may not fall within the scope of this PEA, USAG FWA Environmental (NEPA) staff would determine what appropriate level of NEPA analysis should be performed prior to funds being spent on construction.
- USAG FWA contractors would continue to be supplied the Environmental Concerns for Construction and Renovation Project Package upon contract award. This package outlines environmental guidelines and construction site management issues that the contractor must adhere to during project construction and requires contractors to prepare an Environmental Protection Plan
- USAG FWA will continue management and monitoring of its lands including natural and cultural resources as outlined in the INRMP, ITAM and ICRMP programs.

BMPs used during the project planning process and implementation of proposed projects include:

- To the extent possible, alignment of new roads, access trails or utility corridors would take advantage of existing roads and pathways.
- Site fingerprinting, which involves clearing and grading only those areas necessary for building activities and equipment traffic should be used during site planning.
- BMPs for construction site waste management, control of allowable non-storm water discharges, education and awareness training, material management, minimize offsite vehicle tracking of sediments, sanitary/septic disposal, site stabilization, and structural controls to prevent erosion contained within *Storm Water Management Plan.*

Soil Resources	Soil stability is important for maintaining sustainable range use for Soldier training and for protecting surface water resources, wetlands, fisheries, vegetative cover and wildlife habitat. Soil stability can be managed through project design and construction staging, site restoration and ongoing monitoring of projects.

SOPs to avoid soil erosion include:

- During the project planning phase, USAG FWA will review project site soil types to determine: 1) constructability and suitability of soils for intended uses, 2) presence of permafrost or highly erodible soils, 3) the potential need for structures or practices to prevent erosion (i.e., grading or reshaping the ground to lesson steep slopes, shoring excavated areas).
- USAG FWA would continue to implement Dust Control Plans which includes BMPs for reducing wind erosion and promoting site stabilization during and after demolition, construction, earthmoving, excavating, stockpiling and transport activities.
- Incorporate Energy Independence and Security Act (EIISA) language for recontouring land for water retention and reduced mass flow.

BMPs to prevent or control soil erosion include:

Project Design

- Avoid permafrost and highly erodible soils whenever possible.
- To the extent possible, keep footprint disturbances within areas of existing or previously disturbed sols.

Construction Staging

- Control dust emissions during construction on site per Garrison Dust Control Plans to include: pre-grading planning, pre-grading watering, post-grading watering, chemical stabilizers, wind fencing/sheltering, wind awareness, cover haul vehicles, reduced speed limits/vehicular trips during construction.
- Follow SWPPP provisions to include: phasing construction to minimize areas of exposed soils, temporary stabilization of exposed soils, covering and/or seeding soil stockpiles, and monitoring of BMP's on a regular interval and following significant rain events.
- When working in permafrost, minimize the footprint of the disturbed area, and in areas of temporary disturbance provide vegetative cover as soon as possible following disturbance.
- Tree and vegetation removal activities would preferably occur during winter months when soils are frozen. Hand clearing or use of hydro-axe to clear vegetation located within sensitive soils during non-winter months.
- Construct soil stockpiles with gradual slopes and in a manner that reduces the potential for erosion as well as reduce the attractant for bank swallows constructing nest in the stockpiles.

Site Restoration

- Seed and fertilize, as necessary, the area immediately following construction to aid in the establishment of protective vegetative cover. Soil tackifiers, mulch, and/or erosion control blankets would be used as necessary in areas susceptible to higher wind erosion to aid in the establishment to protective vegetative cover.
- Restoration of disturbed areas by implementing industry standard BMPs and techniques as detailed by industry standard protocols.
- Monitor landscape altering projects and land use impacts to identify rehabilitation needs and/or incompatible uses. Use programs like ITAM and its core components of Range and Training Land Assessment (RTLA) and Land Rehabilitation and Maintenance (LRAM) to support mitigation of military training and training support project impacts on soils.

Operations

- Minimize impacts caused by off-road vehicle use by timing, as much as is practical, and schedule training activities to coincide with the times of the year during which the lands are more resilient. For example, snow-pack and frozen ground conditions would minimize the impacts to soils and permafrost compared to spring break-up when soils are more susceptible to erosion.
- Improve existing trails and roadways to increase the resiliency and capacity for the land to absorb traffic. Improvements would include stormwater management controls such as incorporation of vegetated swales adjacent to improved trails and roadways to manage sediments and runoff.

Surface Water and Floodplains	Section 404 of the Clean Water Act (CWA) regulated activities which directly affect surface water resources and National Pollution Discharge Elimination System (NPDES) regulates activities affecting surface water quality. Surface water quality and floodplain integrity can be managed through project design. Buffer zones reduce the velocity of storm water runoff, provide an area for the runoff to permeate the soil, contribute to ground water recharge, and act as filters to catch sediment both during construction and from ongoing operations.

Reference the following documents for **BMPs** and **SOPs** for surface water and floodplains:

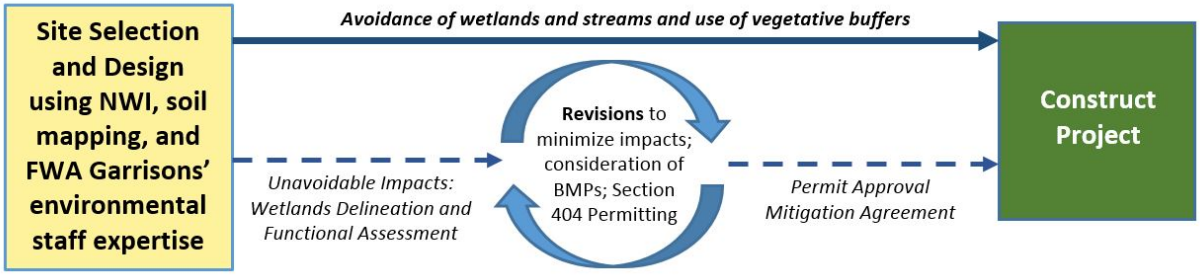
- Army Low Impact Development Technical User Guide, 4 January 2013, Office of the Assistant Chief of Staff for Installation Management
- Memorandum, Army Stormwater Management Using Low Impact Development, DAIM-OD, 21 September 2015

- BMP Effectiveness Report 18-9001-15, Fairbanks, AK, February 2006
- Silt fences, silt curtains, or other diversion or containment structures shall be installed to contain sediment and turbidity at the work site in accordance with the applicable storm water pollution prevention plan.
- Silt and sediment from excavation and fill activities may not enter waterbodies outside the project footprint.
- Where practicable, fill material must be free from fine material that is subject to erosion and suspension. Site preparation, excavation, fill placement, and construction activities must be conducted to prevent, minimize, and contain the erosion and suspension of fine material that could be carried off-site by surface runoff.
- If suspended material is evident in standing or flowing water outside the project footprint, appropriate control and containment measures must be applied. These measures may include slope stabilization, revegetation, filter fabric fences, straw bales, other effective filters or barriers, fiber matting, settling ponds, drainage control, trenches and water bars, waterproof covers over material piles and exposed soils, avoiding work during heavy precipitation, and other appropriate measures.
- Disturbed ground and exposed soil not covered with fill, structures, or appurtenances must be stabilized and revegetated in an appropriate and timely manner to minimize erosion and sedimentation, so that a durable vegetative cover is established and maintained. Project limits of authorized sites shall be clearly identified in the field (e.g., staking, flagging, silt fencing, use of buoys, existing footprint for maintenance activities, etc.) prior to clearing and construction to ensure avoidance of impacts to waters of the U.S.(including wetlands) beyond project footprints.
- Projects should incorporate stormwater management retention devices in the development of parking lots, plazas, and walkways to decrease amount of runoff and to filter out oil and other potential hazardous substances which could occur within parking runoff.

Wetland Resources	Wetland resources occur throughout USAG FWA are vital in maintaining water quality, aid in flood control, and provide wildlife habitat. These resources are also regulated by Section 404 of the Clean Water Act. Wetland impacts can be avoided through project design, during construction staging and from ongoing monitoring of operations. Temporary impacts to wetlands can be addressed through site restoration.

SOPs to be used for activities involving wetlands during project design and construction include:

- Preparation of a Finding of No Practical Alternative (FNPA) to justify unavoidable impacts to wetlands resources and submitted with the Section 404 permit.
- Project planning and the Section 404 permitting process:



WORK IN WETLANDS OR WATERS OF THE U.S. SHOULD NEVER BE DONE WITHOUT PRIOR CONSULTATION with DPW Environmental and the U.S. Army Corps of Engineers. Work in wetlands and waters of the U.S. will require authorization, acquisition of permits and the use of BMP's, of which examples are given below.

BMPs for certain projects may include:

Project Design

- Conduct a functional assessment of wetlands within the project study area to provide a means of rating wetlands and to facilitate the prioritization of impact avoidance and minimization measures. The functional assessment would be used to identify appropriate mitigation during the Section 404 permitting process to replace wetland function lost from unavoidable impacts.
- Use trenchless utility crossing technology (i.e., directional drilling) below wetlands.
- Maintain natural drainage patterns by the installation of culverts of adequate number and size to prevent flooding or excessive drainage of adjacent wetlands.
- Narrow/confine trail widths in sensitive wetland habitats or when possible, widen trails to the upland direction to avoid wetland impact.
- To the extent practicable, excavation equipment shall work from an upland site (e.g., the top of the bridge or culverted road crossing) to minimize adding fill into waters of the U.S. If it is not practicable to work from an upland site, excavation equipment must minimize disturbance to the channel or stream bank and bottom (other than the removal of accumulated sediments or debris).
- Restoration and revegetation of streambank and shoreline habitat should utilize the most up-to-date bioengineering techniques and use of biodegradable materials when feasible and practicable (i.e. Streambank Revegetation and Protection: A Guide for Alaska

(Muhlberg and Moore 1998)). Techniques may include, but are not limited to, brush layering, brush mattressing, live siltation, and use of jute matting and coir logs to stabilize soil and re-establish native vegetation.

Construction Staging

- Clearly identify project limits in the field (e.g., staking, silt fencing, use of buoys, existing footprint for maintenance activities, etc.) prior to clearing and construction to ensure avoidance of impacts to waters of the U.S. (including wetlands) beyond project footprints.
- To the extent practical, locate construction staging areas outside of wetlands.
- Conduct vegetation clearing activities during the winter months within wetland areas when soils are frozen to avoid impacts to sensitive wetland soils.
- Use a hydro-ax during vegetation clearing within wetlands to reduce impacts to hydric soils and low-lying vegetation.
- Place temporary fill in wetlands on geotextile fabric laid on top the existing wetland grade, especially during non-frozen conditions.
- Separately stockpile wetland topsoil and organic surface material such as root mats from overburden and return material to the surface of restored wetland sites.
- Disperse load of heavy equipment by working in frozen or dry ground conditions, employing mats when working in wetlands or mudflats, and using tracked rather than wheeled vehicles so that the bearing strength of the soil is not exceeded.
- In peat wetlands, conserve the natural vegetative mat (with root masses intact) systematically removing prior to construction. Store it in a manner to retain viability (usually frozen or hydrated), then replace it after re-contouring the ground following construction, with final contours within 1 foot of adjacent undisturbed soil surfaces.
- For minor utility projects where no imported bedding or backfill material are used (e.g., “plowed in” cables or small utility lines installed with ditch-witches), simple restoration to pre-work contours and appropriate native revegetation shall suffice.

Post Construction Riparian Restoration

- Stabilizing of all disturbed areas resulting from project construction using native vegetation to minimize erosion and subsequent sedimentation of wetlands and streams.
- Restore temporarily disturbed wetlands to original grades using stockpiled wetlands topsoils and plant native vegetation.

Vegetation	Vegetation provides erosion control, stormwater detention, biofiltration, habitat for wildlife and aesthetic values to a site during and after construction activities. Areas of preserved vegetation can also process higher quantities of storm water runoff than newly seeded areas, does not require time to establish, has a higher filtering capacity than newly planted vegetation, reduces storm water runoff by intercepting rainfall, promotes infiltration, lowers the water table through transpiration, provides buffers and screens against noise and visual disturbance, provides a fully developed habitat for wildlife and usually requires less maintenance (e.g., irrigation, fertilizer) than planting new vegetation. Retention of vegetation can be managed through project design and during construction staging. Monitoring of ongoing operations and site restoration helps maintain vegetative cover and overall health.

SOPs to be used for activities regarding vegetative cover during project design and construction include:

- USAG FWA will continue vegetation management within the Main Cantonment and Training Lands, including invasive species monitoring and management per the INRMP and ITAM. This will help prevent the spread of invasive species from routine maintenance, upgrade, and construction activities, and would serve to manage existing timber resources.
- To the extent possible, USAG FWA will continue to preserve natural vegetation (protection of desirable trees, bushes, and grasses) from damage during project development to the maximum extent practicable, particularly in floodplains, wetlands, and stream banks, steep slopes, and other areas where erosion controls would be difficult to establish, install, or maintain. This includes the restriction of vehicles to roadways and trails to the maximum extent practicable.
- Use site fingerprinting, which involves clearing and grading only those areas necessary for building activities and equipment traffic should be used during site planning and concentrate development in areas where past development has occurred.

BMPs to be used to help mitigate impacts:

Project Design

- Review ecotype mapping within the project area to determine if the project has the potential to be located within the preferred habitat of a rare plant species.
- Utilize previously disturbed areas to reduce impacts to regional native plant species and communities.
- Retain appropriately sized vegetated buffers along waterbodies, including those with essential fish habitat and anadromous streams.

Construction Staging

- Clearly mark trees and preservation areas and protect from ground (root) disturbances.
- Restrict nailing of objects (signage) to trees during building operations.
- Avoid placement of fill dirt within the limit of preserved areas and during final site cleanup, barriers around preserved areas and trees should be removed.

Vegetation Preservation Considerations

- Tree vigor: Preserve healthy trees that will be less susceptible to damage, disease, and insects.
- Tree age: Older trees are more aesthetically pleasing as long as they are healthy.
- Tree species: Preserve tree species well-suited to present and future site conditions. Preserving a mixture of evergreens and hardwoods can help to conserve energy when evergreen are preserved on the northern side of the site to protect against cold winter winds and deciduous trees are preserved on the southern side to provide shade in the summer and sunshine in the winter.
- Wildlife benefits: Choose tree species that are preferred by wildlife for food, cover, and nesting.
- Drainage patterns: Following natural contours and maintaining preconstruction drainage patterns would prevent alteration of hydrology and the potential die-off of preserved vegetation.

Site Restoration

- Revegetate areas disturbed during project construction as soon as possible with native grass or other appropriate vegetation, preferably in the same growing season as the disturbance to prevent erosion and maintain habitat integrity.
- Monitor mitigation efforts to ensure goals are reached, and initiate additional measures required to meet restoration goals.

Wildlife and Fisheries	Wildlife and fishery resources are abundant within USAG FWA garrison range and training lands. These resources provide for subsistence and recreational hunting and fishing activities and are regulated through the Migratory Bird Treaty Act (MBTA), Endangered Species Act (ESA), the Fish and Wildlife Coordination Act, Bald and Golden Eagle Protection Act, Magnuson-Stevens Fishery Conservation and Management Act, and the State Anadromous Fish Act. Wildlife and fisheries management can be considered during project design and during the timing of construction staging. Monitoring of ongoing operations and site restoration helps maintain overall sustainability and health of these resources.

SOPs to be used to maintain biodiversity and local wildlife and fisheries populations during project design, construction, and operations include:

- For those projects affecting or adjacent to surface waters, USAG FWA will refer to the State Anadromous Fish Catalogue to determine presence of anadromous streams near construction areas and all projects will conform to any conditions required by State officials, such as vegetation buffers or other appropriate measures.
- In the event that a Proposed Action could adversely affect Essential Fish Habitat, appropriate consultation with the National Marine Fisheries Service would occur, and project will conform to all conditions imposed by National Marine Fisheries Service (NMFS) officials.
- For those projects affecting anadromous steams, all design and unavoidable construction activities affecting anadromous water will be accomplished in accordance with Alaska Statues AS 16.05.871 – AS 16.05.901.
- Compliance with the Migratory Bird Treaty Act and the Bald and Golden Eagle Act by coordination with Environmental and implementation of the INRMP to avoid instances of intentional or unintentional take of protected species and/or guidance on beginning the permitting process to take a protected bird or nest is conducted before project development can commence.
- Avoid siting, to the extent practical, projects in higher functioning habitats such as riparian areas or those containing rare or sensitive species.
- Activities that include the construction and maintenance of intake structures must include adequate fish screening devices to prevent the entrainment or capture of fish. The authorized structure, pipe, or associated fill shall not impede flood flows.

BMPs to be used to maintain biodiversity and local wildlife and fisheries populations include:

Project Design

- Culverts installed in fish bearing streams will be sized appropriately to maintain natural connectivity, stream depth and velocity.
- The natural contour of the stream should be followed for culvert installation.
- Activities that include the construction and maintenance of intake structures must include adequate fish screening devices to prevent the entrapment or capture of fish.
- Limit impacts to anadromous streams by placing pads and vault/junction boxes an appropriate distance away from waterbodies and wetlands containing anadromous fish.

Construction Sequencing

- Where required, obtain State permits to erect a fish barrier of netting, both upstream and downstream of the crossing, to prevent fish from entering the work area.

- Move stranded fish found in the dewatered channel downstream.

Site Restoration

- To the maximum extent practicable, backfill material shall consist of the excavated material and shall be returned in the same place on the vertical stratum from which it was excavated. As a contingency, use clean gravel or native cobbles for the upper 1-foot of trench backfill in all waterbodies that contain fisheries.

Land Use, Energy and Utilities	Army Regulation (AR) 210-21, *Army Ranges and Training Land Program*, and the associated *Generic Methodology for the Range and Training Land Program*, dated September 1998, guide overall range planning for establishing current requirements and utilization levels for available training assets and provides a near- and long-term project plan for training, public works, and environmental planners. Land use compatibility and availability of existing energy and utilities should be considered during project site selection and project design.

SOPs to be used during project design to avoid land use conflicts and consider energy and utility aspects of proposed projects include:

- Planning of proposed new facilities and upgrades should follow AR 210-20 (*Real Property Master Planning for Army Installations*).
- Siting of facilities and activities (including maneuver training) to avoid sensitive areas as much as possible. This includes activities that generate noise, dust, and other nuisance factors.
- Recreational access will be restricted where mission requirements are incompatible with recreational use of range and training lands using appropriate buffers, fencing, designated access restrictions or recreational use tracking procedures.
- Project planners will avoid placing permanent facilities or ground disturbing activities in sensitive habitats or ecological areas, when practicable.
- Project planners will site facilities in a manner that maximizes the use of existing utility infrastructure.
- Where increases of energy demand is likely, have project planners incorporate measures to reduce or offset emissions during project planning, construction and operations in compliance with EO 13423.

BMPs to be used during project design to avoid land use conflicts and consider energy and utility aspects of proposed projects include:

- Encourage sustainable building and development practices (e.g., implementation of the Leadership in Energy and Environmental Design rating system as a guide for projects).
- Prior to new construction, project planners should coordinate with other construction managers of new projects and notify users and operators of existing utilities if an existing utility system needs to be temporarily out of service during construction activities.
- During construction, limit the shut-off of existing utilities to off-peak usage period.

Public Access, Recreation and Subsistence	The Sikes Act has opened numerous military lands to recreation, including portions of USAG FWA Training Areas. Public access, recreation, and subsistence is considered during project design and operations to limit impacts to the military mission.

SOPs to be used to limit impacts to public access, recreation and subsistence activities during operations include:

- Continued assessment and management of subsistence resources for all users per guidelines outlined in the INRMP.
- Continued establishment of government-to-government relationships with Alaska Native tribes whose interests may be significantly affected by Army activities. This would ensure efficient and effective communication between both leadership and staff members of tribal governments and the Army.
- Continued implementation of the U.S. Army Alaska Recreation Tracking System (USARTRAK) automated check-in phone system. This would provide information regarding daily closures and should greatly simplify the public access process.
- Continued implementation of the U.S. Army Alaska Recreation Tracking System (USARTRAK)/isportsman website and telephonic system for checking in to recreate. This would provide information regarding daily closures and should greatly simplify the public access process.

BMPs to be used to limit impacts to public access, recreation and subsistence activities include:

Project Design

- Determine the placement of access gates to allow for continued recreational use and to maximize public safety.
- Determine the placement of bridges in areas that will not inhibit existing publically-used low water crossings.

Operations

- Continued implementation of recreational vehicle use policies, per the INRMP. The INRMP outlines specific actions to maintain and improve public access and recreation opportunities on Army lands.
- Continued monitoring of recreational usage of each training area through the USARTRAK phone system. This would inform USAG FWA on use patterns, which should improve management for public access and recreation.
- Continued maintenance of kiosks at all primary entrances to recreational areas on USAG FWA lands and provision of visitor maps and information. Information kiosks can help users quickly identify areas designated for recreational use, as well as the times and locations of military activities.
- Increased use of signs and other public notification measures to increase public awareness of dangers of military training.
- Continued use of advanced public notification of military training activities likely to restrict the use of Alaska Army lands for recreational, subsistence, and other uses.

Wildfire Management	Range projects and operations have the potential to cause unintentional wildfire starts. Wildfire prevention can be administrated during operations through adherence to existing management plans and agreements and management of the landscape.

SOPs to be used which avoid unintentional wildfire starts include:

- Compliance with training exercise regulations and wildfire prevention as stipulated by USAG FWA Range Regulation 350-2, *Training*, and continued update and implementation of Integrated Wildfire Management Plans developed by USAG FWA.

BMPs to be used to avoid unintentional wildfire starts include:

- Continue on-going actions to prepare the landscape for potential wildland fires (i.e., prescribed burns and thinning to restore ecosystem functions to fire and to reduce future fire severity).
- Continue to utilize the fire danger rating system to reduce the likelihood of a fire by limiting military activities when certain thresholds of wildfire risk are reached.
- Have available an Initial Attack Response Team during military training activities during high and extreme fire danger to provide a rapid initial response to potential wildfires in the area.
- Continue to implement INRMP and IWFMP.
- Prepare a burn plan and detailed parameters for when burning can take place.

Cultural Resource Management	USAG FWA-managed lands contain historic properties requiring review under Section 106 of the National Historic Preservation Act (NHPA).

SOPs to be used which prevent impacts to cultural resources include:

- Implementation of the ICRMPs which helps maintain cultural resources sustainability and provides guidance prescribed methods for compliance with cultural resources management responsibilities, including but not limited to:
    - Development and implementation of an information and education program for personnel and public citizens using USAG FWA lands in order to enhance the conservation of cultural resources on Army-managed lands.
    - Consultation with Alaska Native tribes to identify and evaluate Traditional Cultural Properties (TCPs) that may be present on military-managed lands in Interior Alaska.
    - Avoidance cultural resources during training area development and building design, utilizing information gathered from on-the-ground surveys.
    - Enforcement of the appropriate protocol for inadvertent discovery of human remains and related items per the Native American Grave Protection and Repatriation Act (NAGPRA) is such discovery is made during any activity on Army-managed lands.
    - Survey of unsurveyed areas and evaluation of resources identified during survey. Those resources determined to be NRHP-eligible will be treated according to the NHPA and other state and federal standards. This would not apply to areas deemed ineligible for survey due to threats to human health and safety.
    - Treatment of archaeological sites that are identified but not yet evaluated for eligibility for listing on the NRHP as NRHP-eligible sites; until such time that they are evaluated. Once evaluated, sites determined to be NRHP-eligible will be treated according to NHPA and the Secretary of the Interior's Standards for Archaeological Documentation and Preservation, as well as Alaska state standards for archaeology.
    - Curate archaeological and paleontological materials in accordance with 36 CFR 79 and utilizing a Memorandum of Agreement between USAG FWA and the University of Alaska Museum of the North, a museum that meets the qualifications to store Federally-owned collections.
- Apply the Programmatic Agreement regarding operations, maintenance, and development (O&M PA) activities which streamlines the review of many activities that occur regularly on USAG FWA facilities and lands.
- Apply the Programmatic Agreements or Program Alternatives that consider undertakings that involve cultural resources and are considered exempt or categorical exclusions,

requiring no further review from the USAG FWA Cultural Resources Manager (CRM) or Alaska State Historic Preservation Officer (SHPO). These include:

- Program Comment for Capehart and Wherry Era (1949-1962) Army Family Housing and Associated Structures and Landscape Features.
- Program Comment for World War II and Cold War Era (1939-1974) Ammunition Storage Facilities.
- Nationwide Programmatic Agreement for World War II Temporary Buildings.

BMPs to be used to avoid impacts to cultural resources during project design, construction and operation include:

Project Design

- Coordinate with engineers and other project planners during site planning and building design.
- Coordinate with and consult the Alaska SHPO to identify any adverse impacts and mitigation requirements.
- If adverse impacts are inevitable, consultation with stakeholders and Alaska Native tribes.

Construction

- Receive notification and launch appropriate protocols in the event of inadvertent discovery of human remains and/or cultural resources (artifacts, etc.) during construction.
- Receive notifications and respond accordingly in the event of project modification during construction.

Operations

- Coordinate with users, engineers, and other appropriate individuals regarding review needs in the event of changes of range operations or structure use.
- Receive notifications and launch appropriate protocols in the event of inadvertent discovery of human remains and/or cultural resources (artifacts, etc.) during range operations.
- Systematically monitor archaeological sites that are eligible for listing on the national Register of Historic Places (NRHP).
- Systematically inventory buildings as they age to determine eligibility for listing on the NRHP.
- Review all repairs and other projects planned for historic structures and buildings.

Noise	Noise control is regulated under the Noise Control Act of 1972. To assess military-related noise effects, the U.S. Army Center for Health Promotion and Preventive Medicine has developed noise zones which consider noise levels along with sociological considerations and compatible land uses. Noise control can be considered during both the planning and construction phases for range activities.

SOPs to be used which avoid impacts from noise during project design and planning include:

- Noise generation of the planned use of any given project would consider siting based on the Installation Noise Management Plan noise contours and compatible noise zones.
- Any activity generating a new type of noise source (i.e., new equipment or technologies) which could change existing noise contours or be in conflict with Installation Noise Management Plans would undergo USPHC noise modeling to detect any potential changes to existing noise conditions.
- Continue to maintain an active noise management program to protect present and future operational capabilities of range land training. This includes continual evaluation of noise impacts that may be produced by ongoing and proposed Army actions/activities, maintenance of a noise complaint management program and minimization of noise impacts and annoyance to the greatest extent practicable.
- Noise generation of the planned use of any given project would consider siting based on The Installation Noise Management Plan noise contours and compatible noise zones.

BMPs to be used to avoid impacts from noise during construction include:

- Adjust construction schedules within areas of sensitive noise receptors to reduce impacts.
- Ensure construction equipment with internal combustion engines have mufflers which are well maintained.
- Operate construction equipment at lower speeds and increase spaces between equipment.
- Set-up noise barriers or enclosures such as plywood or lead-vinyl curtains for particularly noisy operations near very sensitive receptors.

Human Health and Safety	USAG FWA has a proactive system to address human health and safety issues and to prevent injury or harm to Soldiers and civilians resulting from range construction projects and range operations.

SOPs to be used which avoid impacts to human health and safety include:

Project Design

- As necessary, at the earliest time after the project planning charrette, USAG FWA will perform a UXO site survey to determine the extent of the ordnance contamination to aid in the design of the range and minimize intrusive work in portions of the range which are highly contaminated with ordnance and to determine the correct ordnance response actions.
- During predesign site studies and investigations, if ordnance contamination is suspected, UXO safety support for UXO avoidance becomes mandatory during topographic surveying, geotechnical investigation, and other on-site operations that require gathering design data.
- Hazardous waste generation associated with building demolition should be identified in advance, and proper abatement planned as part of the project. These hazards include, but are not necessarily limited to asbestos, lead (primarily in paint), PCBs and glycol.
- Due to the nature and type of training conducted in the past (especially prior to 1986), unidentified contamination could be found on Army lands. All work involving the modification of facilities or excavation of any kind shall be coordinated via the USAG FWA "Work Clearance Permit" a minimum of five working days prior to mobilization to the site.
- Coordination requirements are outlined on the permit. Any potentially contaminated soil or groundwater encountered during this action shall be segregated, sampled, analyzed, and containerized in approved containers (specified in 49 CFR 178.500). Soil and groundwater shall not be removed from any part of the installation or transported off the installation, regardless of whether it is clean or contaminated, without written authorization from an appointed USAG FWA representative. Dependent on the location, a Sample and Analysis Plan (SAP) if contaminants are known or a Field Screening Plan if no known contaminants have been previously encountered is required before a dig permit can be signed off. If a SAP is required, contractors will need more than 5 days as it'll need to go to EPA and ADEC for comment and approval.
- If unidentified contaminated soils, drums, or unusual debris (i.e., unexploded ordnance, discarded military munitions, or munitions debris) are encountered at any time on or around the work site, the agency or contractor shall stop work immediately and notify the Public Works Environmental Office. Contaminated soils or groundwater shall be segregated, sampled, analyzed, and containerized for transportation, and taken off-site for disposal within 90 days of final lab results being received. If soil or groundwater is scheduled for remediation off-post, it shall be returned to the installation after treatment and certified laboratory analyses, conducted by the treatment facility, to confirm the material does not exceed a regulatory cleanup level.

- All military units using the sites will be required to possess and have available appropriate spill response materials for the types and quantities of hazardous materials they may transport and use within proximity to this work area. All spills / releases will be reported to Fort Wainwright's or Fort Richardson's Fire Department and DPW-Environmental, Spill Prevention and Response (SPAR). All appropriate remediation measures will be accomplished.
- HAZWOPER certified workers may be needed if clean-up and disposal of hazardous materials is necessary. All materials should be handled, stored and disposed of in accordance with applicable laws and regulations, including USAG FWA Department of Public Works Environmental Institutional Controls. The potential for encountering hazardous materials/substances exists, including but not limited to petroleum, oils, and lubricants (POL), POL degradation by-products, asbestos, lead based paint, PCBs and mercury. Contaminated groundwater, soils, and debris shall be segregated, sampled, analyzed, and containerized for proper disposal according to the type of contamination identified.
- Project proponents will utilize the installation's Institutional Control map to avoid known contamination when siting facilities. If known contamination cannot be avoided, established BMPs/SOPs will be followed. Project proponents will coordinate with installation Environmental Clean Up personnel in a timely fashion prior to project contract award and construction start in order to gain proper regulatory approval of work in a contaminated site, if applicable.

Construction

- During the construction, ordnance may be found in the area. Inert practice ordnance may also be encountered. If UXO contamination is encountered, work within the immediate area will cease and the Installation's Explosive Ordnance Disposal (EOD) team will be notified
- If there is a probability of UXO contamination, only UXO-qualified personnel can conduct any type of ordnance handling or disturbance work.
- All hazardous material spills would be reported to the Directorate of Public Works (DPW) Environmental Office as well as the U.S. Army Corps of Engineers or DPW project manager using the DPW Oil and Hazardous Substances Spill Notification form.
- Any project that involves excavation or movement of soils must include field screening for petroleum (plus any other identified contaminants). Excavation or movement of soils that are contaminated or suspected of contamination must have a pre-approved plan in place. Soils registering less than field screening levels indicated in Army policy are transported to the Clean Soil Stockpile. Soils screening levels higher than amounts indicated in Army policy must follow USAG FWA contaminated soil policies.
- Each project would be evaluated to determine whether an Air Quality Control Permit (AQCP) is required prior to commencing construction. An AQCP is typically required for