

USAG Alaska 2021 Natural Resource Management Report to the Bureau of Land Management



U.S. Army Garrison Alaska



January 2022

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Introduction

United States Army Garrison Alaska acknowledges the Athabascan people as the original stewards of these lands and expresses appreciation to live, work, recreate, and train on the Dena homeland.

Effective communication and coordination between the Bureau of Land Management (BLM) and the Army has been identified as a need in the “Memorandum of Understanding between the U.S. Department of the Interior, Bureau of Land Management Alaska, and the U.S. Army Garrison Alaska concerning the management of lands in Alaska withdrawn by Public Law 106-65 for military use”. This report contains brief project descriptions of United States Army Garrison (USAG) Alaska actions in support of natural resources management and serves as the annual report for calendar year 2021 to the BLM as stipulated by 106-65 memorandum: providing a report on vegetation and habitat actions. To continue improving communicating among federal and state agencies, stakeholders, and tribes, this document contains USAG Alaska managed lands that are not included in the 106-35 memorandum.

The Natural Resources Program is guided by the USAG Alaska Integrated Natural Resources Management Plan ([INRMP](#)), a requirement of the Sikes Act (USC §670), which establishes policies, programs, prescriptions, projects, and procedures that the Army uses to manage natural resources on training lands in Alaska. The INRMP contains goals and specific objectives necessary to (1) sustain “no net loss” in the capability of military lands to support mission requirements, (2) support stewardship of natural resources, (3) ensure compliance with applicable environmental laws, and (4) maximize public access within the constraints of the military mission while protecting public safety and conserving the environment. The INRMP reflects mutual agreement of the Army, U.S. Fish and Wildlife Service (USFWS) and the Alaska Department of Fish and Game (ADFG) concerning the conservation of the natural resources under their respective legal authorities. The INRMP consolidates other related Army natural resource planning documents in one place, including the Ecosystem Management Plan, Integrated Wildland Fire Management Plan, Endangered Species Management Plan, Forestry Management Plan, Watershed Management Plan, and Outdoor Recreation Management Plan. The INRMP also incorporates the applicable BLM Resource Management Plans for Yukon and Donnelly Training Areas. The INRMP for USAG Alaska was last updated in 2020 and is reviewed and updated annually.

The Army’s Integrated Training Area Management (ITAM) programs are housed within the United States Army Alaska (USARAK) Sustainable Range Program and are guided by the ITAM Work Plan, which is updated annually. The ITAM program is also integrated into the INRMP. ITAM provides sustainable range management directly to the Army mission of USARAK, while coordinating with the USAG Alaska environmental staff. The goals of the ITAM program are to support the installation’s training mission by providing maneuver land and decision support capability based on the integration of training requirements, land conditions, maneuver ranges, and land management requirements.

For questions concerning environmental goals and policies, please contact:

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Acronyms

AFS Alaska Fire Service
ADFG Alaska Department of Fish and Game
ADNR Alaska Department of Natural Resources
APHIS Animal and Plant Health Inspection Service
ATV All-Terrain Vehicle
BLM Bureau of Land Management
BRTS Black Rapids Training Site
CEMML Center for Environmental Management of Military Lands
CRREL Cold Regions Research and Engineering Laboratory
CSU Colorado State University
ADOE Alaska Division of Forestry
DPW ENV Directorate of Public Works Environmental Division (USAG Alaska)
DTA Donnelly Training Area
FIA Forest Inventory and Analysis
FWI Fire Weather Index
GRTA Gerstle River Training Area
GTT Geospatial Task Tracker
LiDAR Laser imaging, Detection, and Ranging
LRAM Land Rehabilitation and Maintenance
RFMSS Range Facility Management Support System
RTLA Range and Training Land Assessment
SDSFIE Spatial Data Standard for Facilities, Infrastructure, and Environment
SDSWCD Salcha-Delta Soil & Water Conservation District
SERDP Strategic Environmental Research and Development Program
USAG Alaska United States Army Garrison Alaska
USDA WS United State Department of Agriculture Wildlife Services
USFWS United States Fish and Wildlife Service
TFTA Tanana Flats Training Area
WASH Ladd and Allen Army Airfield Wildlife Aircraft Strike Hazard
YTA Yukon Training Area

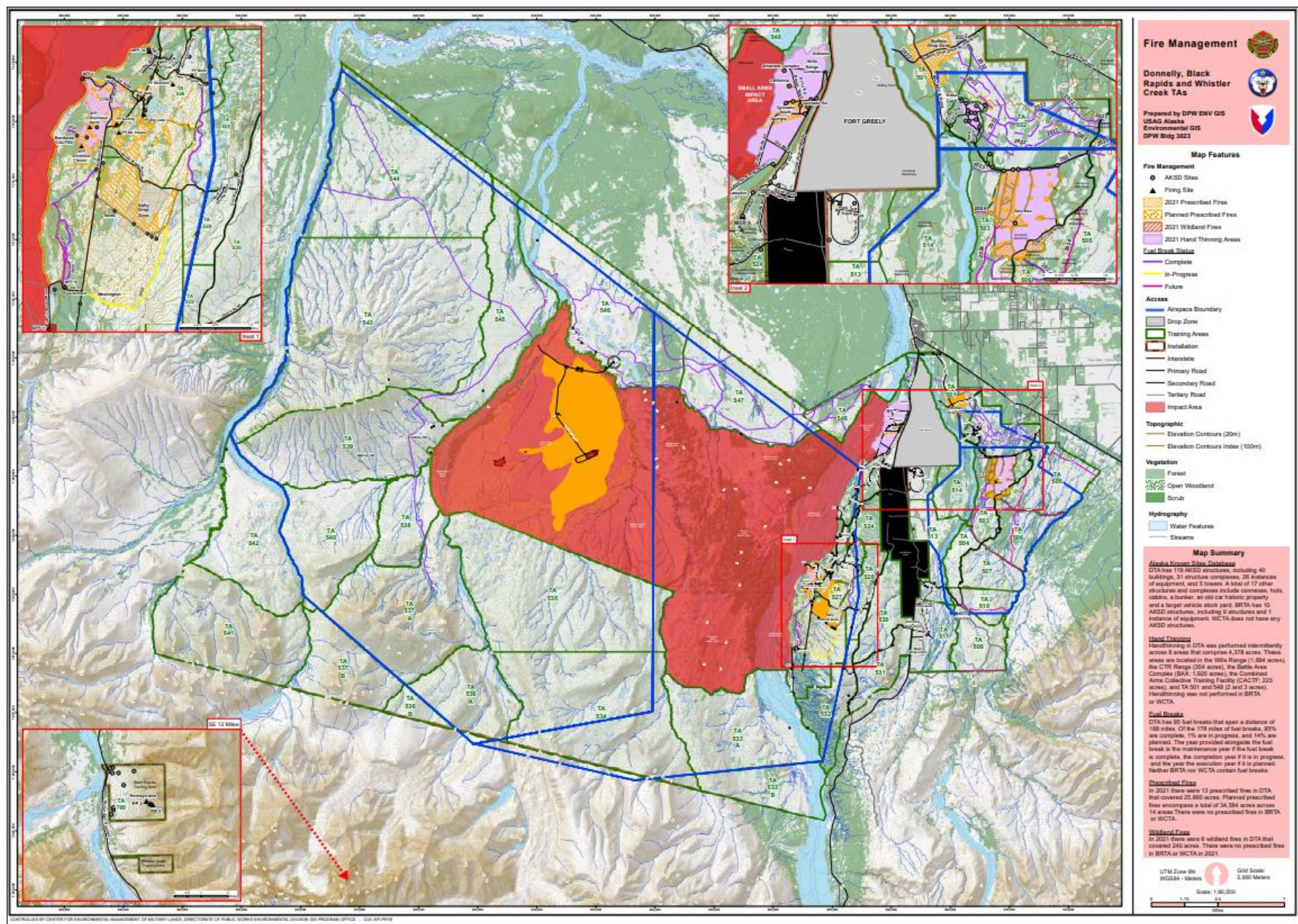
Environmental GIS

The USAG Alaska Geographic Information System (GIS) is a foundational capability of natural resource management. GIS is a computer-based tool capable of assembling, storing, manipulating, and displaying geographically referenced information, (i.e., data identified according to their locations). The system can be used to analyze and model (manipulate, overlay, measure, compute, and retrieve) the digital spatial data and display the new map products and tabular resources information showing the results of the spatial analysis. GIS technology integrates common database operations such as query and statistical analysis with the unique visualization and geographic analysis benefits offered by maps. These abilities distinguish GIS from other information systems.

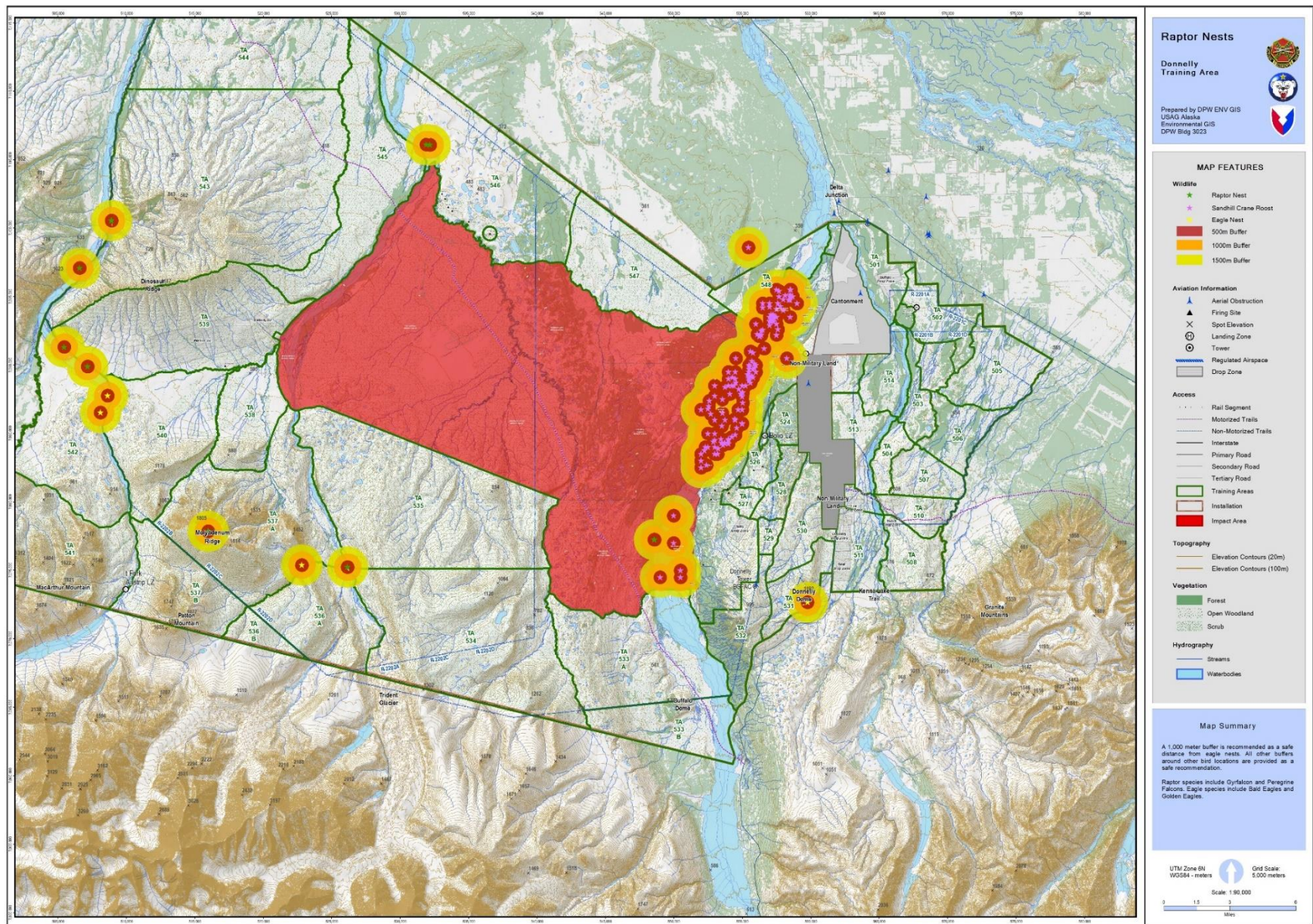
USAG Alaska Fort Wainwright DPW Environmental personnel, with assistance from USAG Alaska Fort Wainwright 516th Signal Brigade, manage the GIS application server. The server supports GIS users from USAG Alaska Fort Wainwright and Fort Greely DPW, and USARAK TSA-AK Range Control at Fort Wainwright, Donnelly Training Area, and Joint Base Elmendorf Richardson (JBER).

Each of the three primary GIS users (DPW Environmental, DPW Real Property, USARAK TSA AK) are responsible to be data stewards for their data layers. DPW Environmental is responsible for natural resource data layers, such as soils, water, vegetation, forestry, and wildlife resources. DPW Real Property is responsible for real property data layers such as boundaries and infrastructure, while USARAK TSA AK maintains data layers for range and training activities.

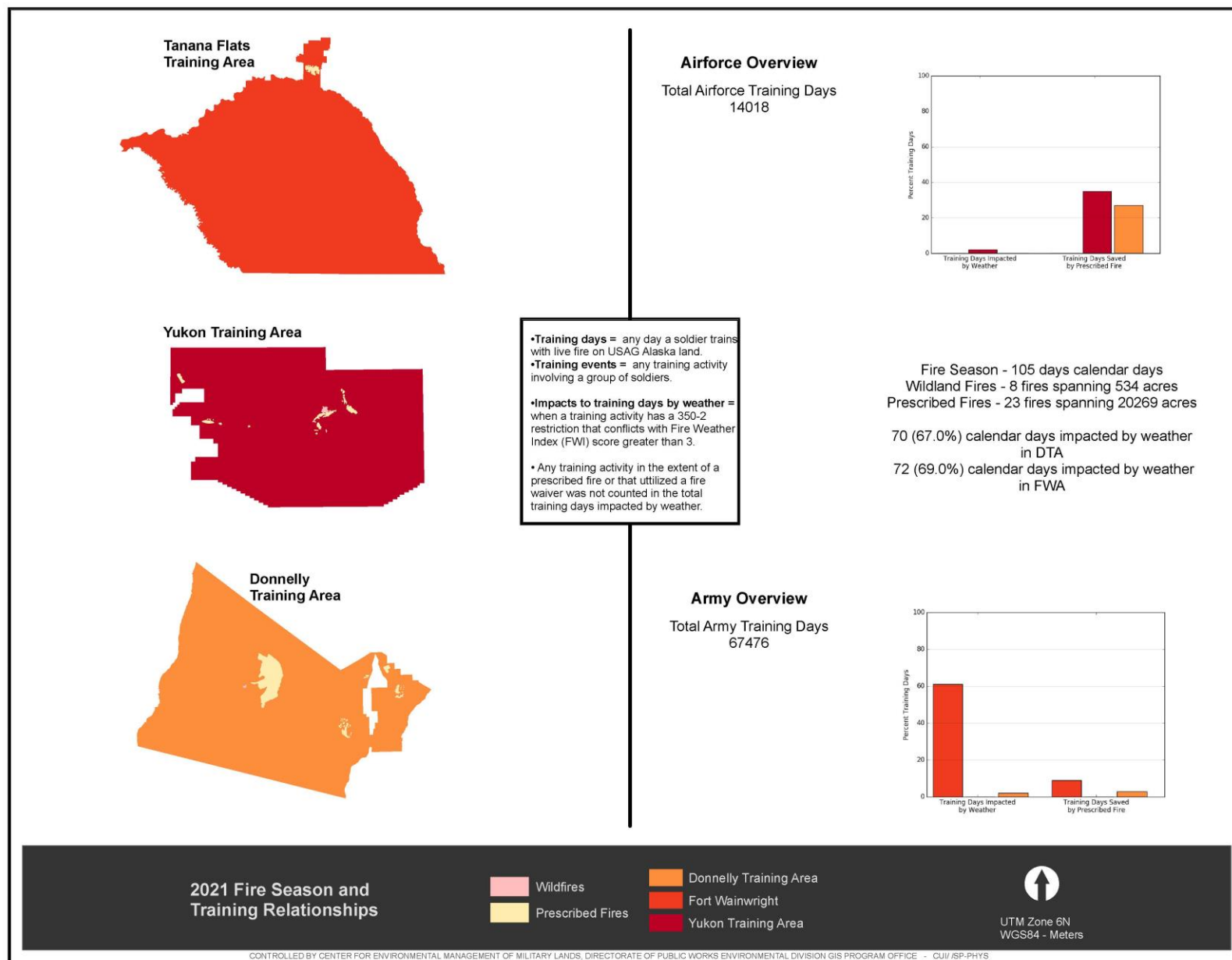
The following describe the GIS Natural Resources 2021 completed tasks relevant to BLM and Sikes Act partners. The tasks are displayed as maps or graphics with a brief description. For more information, or higher resolution map or graphic, for each completed, ongoing, or future tasks, please contact the USAG Alaska Natural Resource office. For a detailed explanation and history of each program, please refer to the [USAG Alaska INRMP](#).



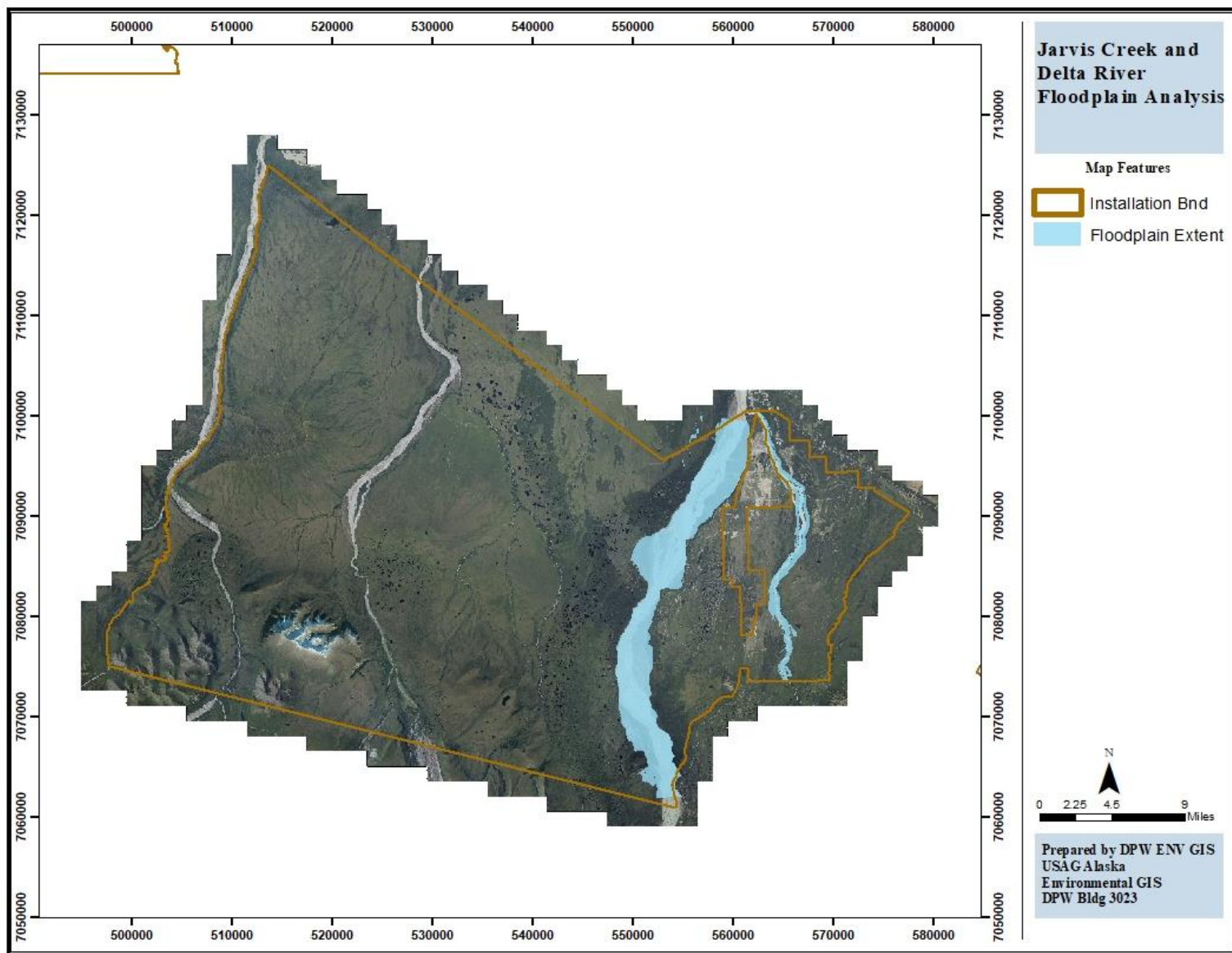
Large reference maps were generated for DTA, YTA, and TFTA. These maps display hand thinning areas, this year's prescribed and wild fires, updates to Alaska Known Sites Database (AKSD), updates to fuel breaks, as well as relevant infrastructure, including firing points, ranges, etc.



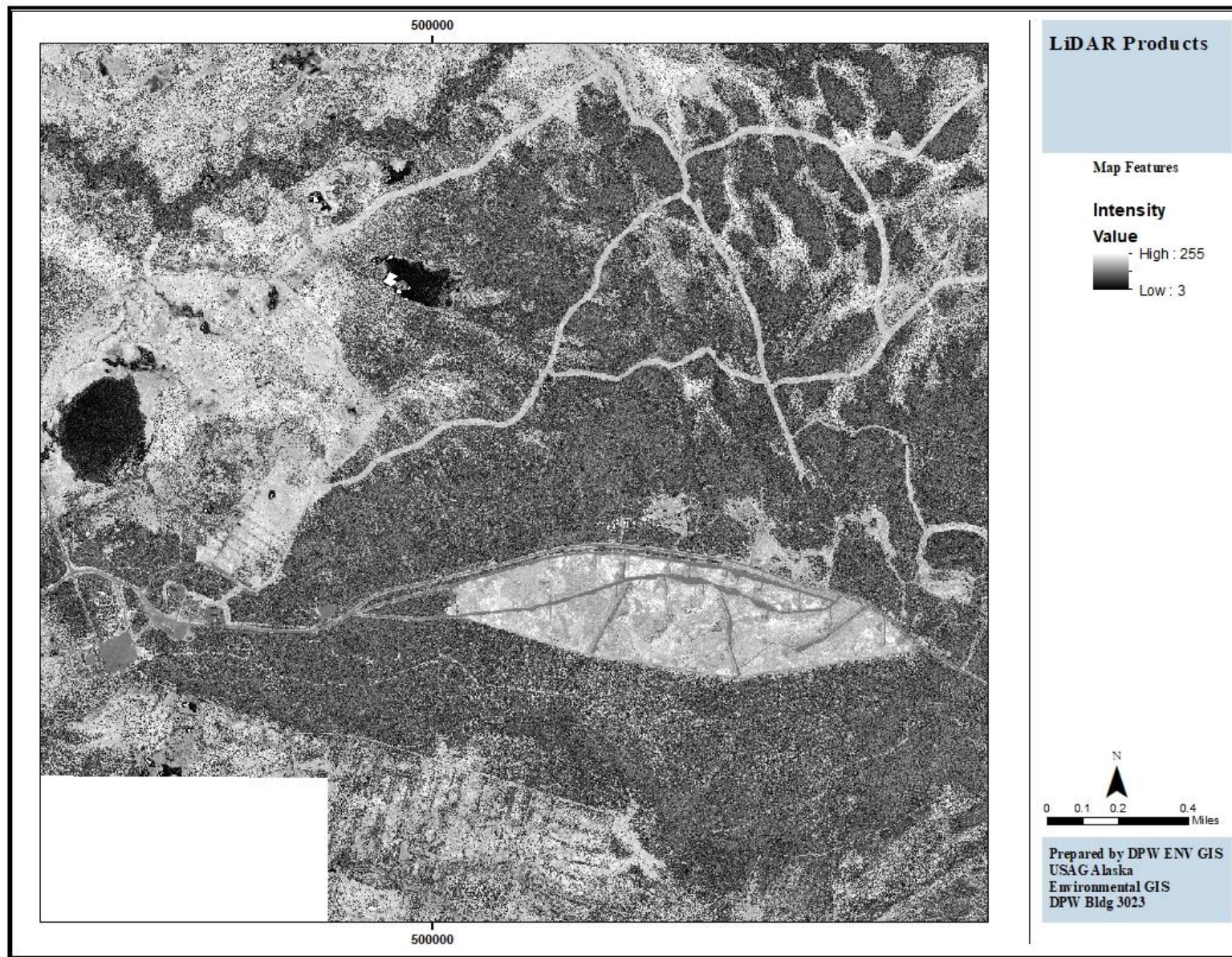
This Aviation Strike Hazard Reference map series was generated to provide aviation managers with up to date information on the location of significant bird species, as well as relevant military infrastructure.



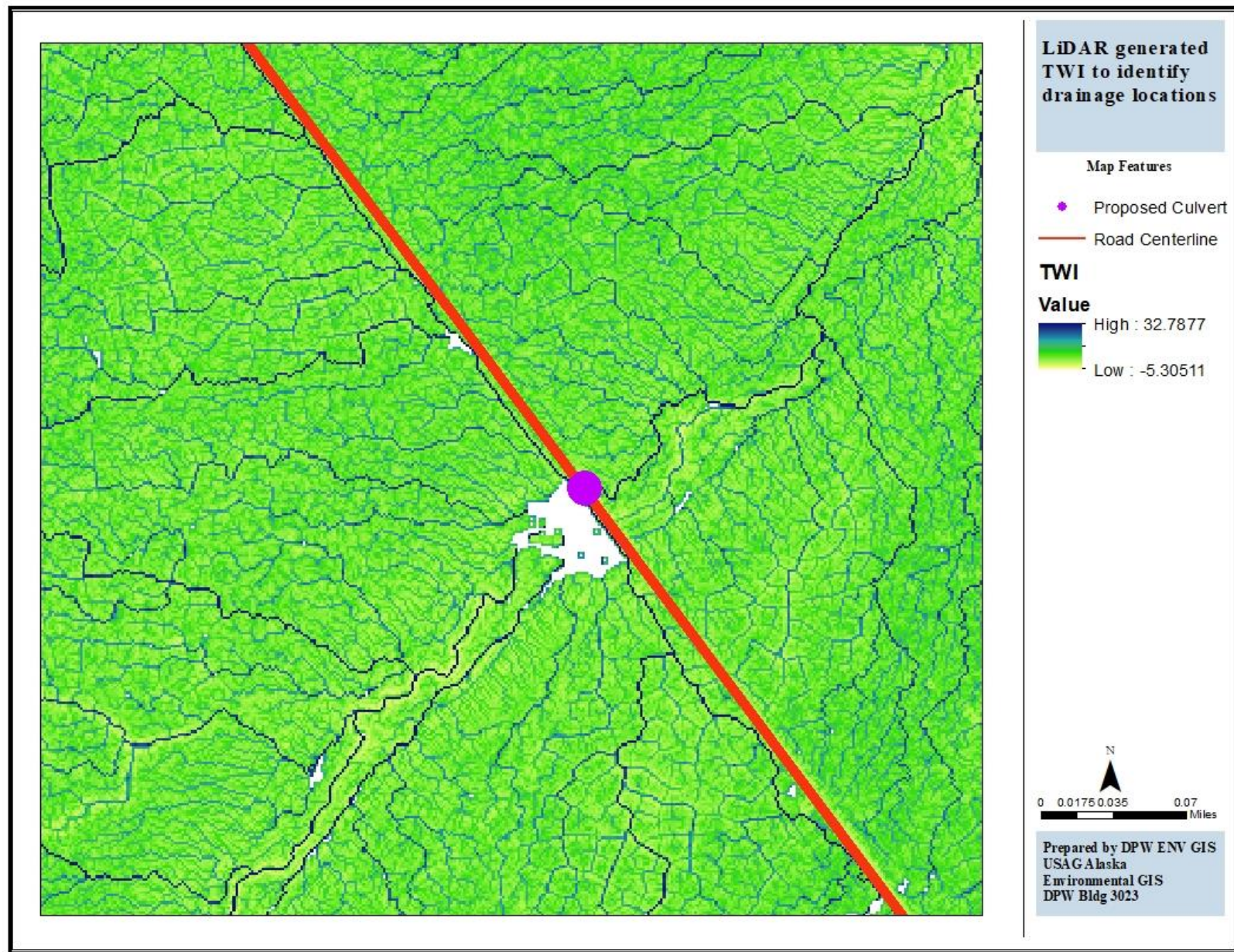
The goal of this project is to describe the relationship between Fire Weather Index (FWI) and training restrictions, which will improve costs assessment associated with prescribed burning, 350-2 fire waivers, and imposed training restrictions. Analysis updated annually.



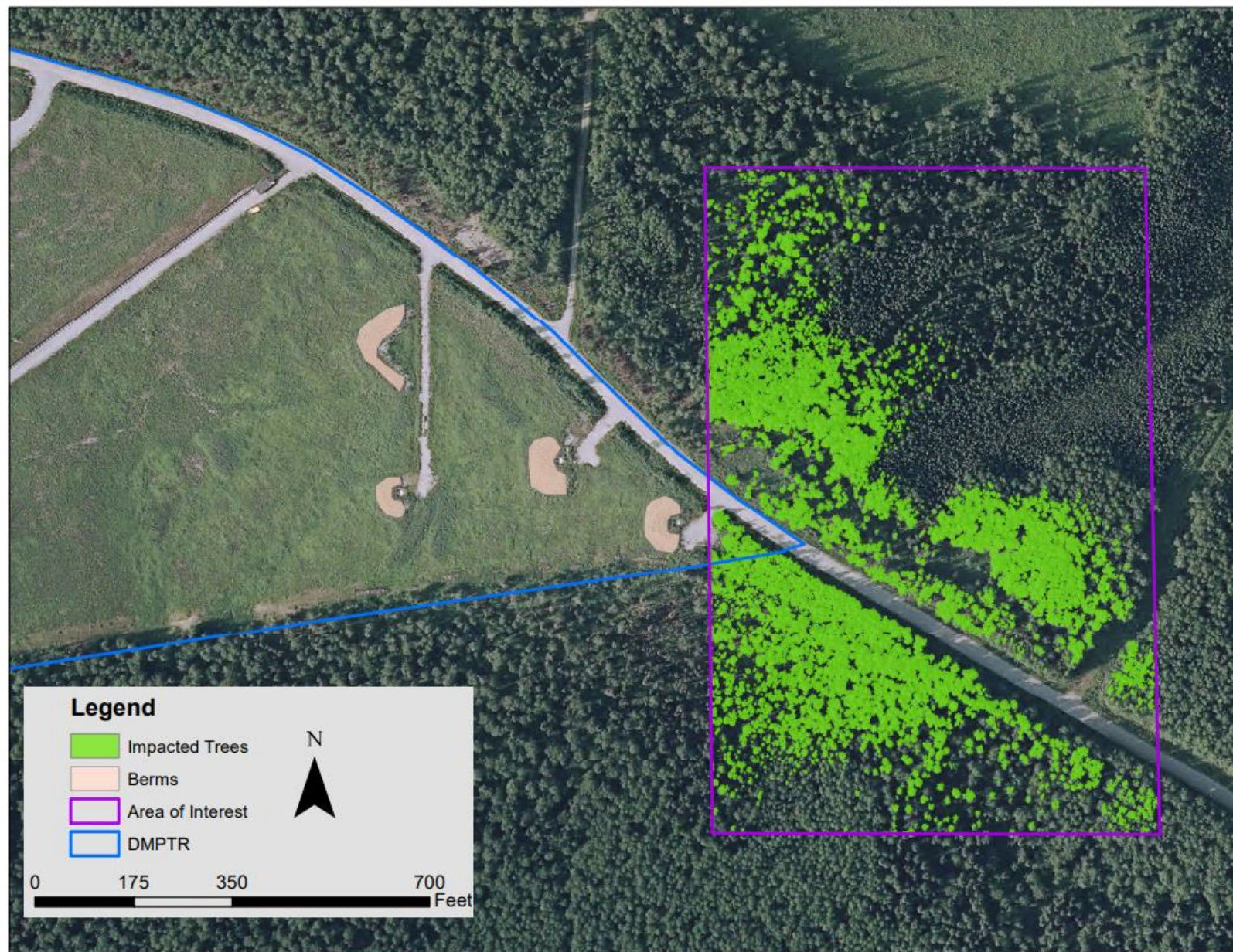
100 and 500 year floodplains were modeled for the Jarvis Creek and Delta River with a focus on areas on-post. These layers were added and attributed properly in SDSFIE. Limitations in data availability informed the development of a methodology that relied upon topographic data, a USGS regression equation, and modeling in HEC-RAS (USACE's Hydraulic Engineering Center's River Analysis System). This methodology could be useful for future applications in determining flood extents in areas that the Army wants to develop along creeks and smaller streams that do not yet have delineated floodplains.



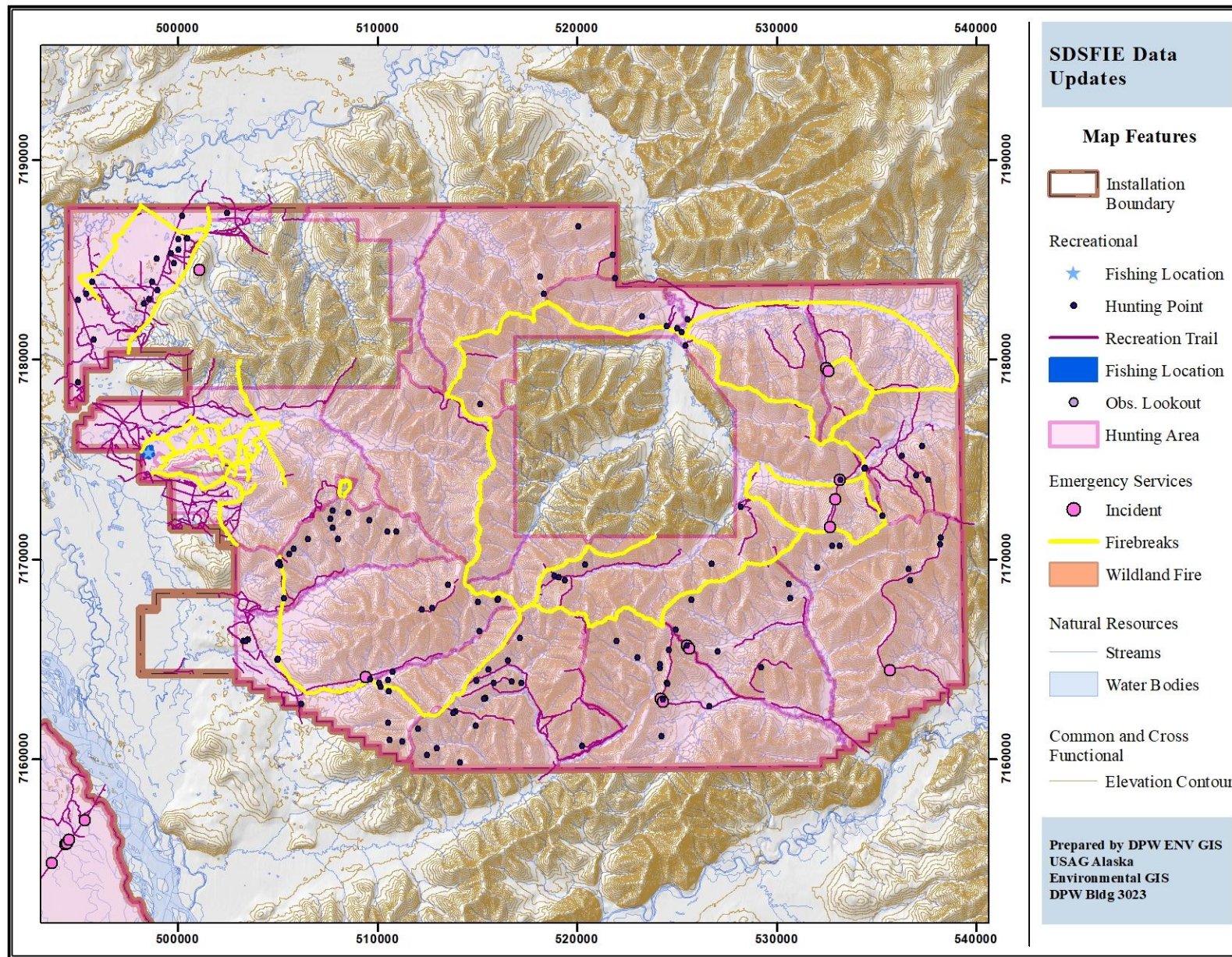
LiDAR was acquired for all interior USAG AK interior training lands from 2019 to 2020. Contractors provided thousands of bare earth, highest hit, and intensity, as well as raw LAS points. All tiles were mosaicked together. Products generated from the mosaic and raw LAS points include Aspect, Contours, Curvature, Flow Accumulation, Flow Direction, Height, Hillshade, Kurtosis, Landform Classification, Skewness, Slope, Standard Deviation, and TWI. Currently, we are working on generating additional products from LiDAR including vegetation classification and land cover.



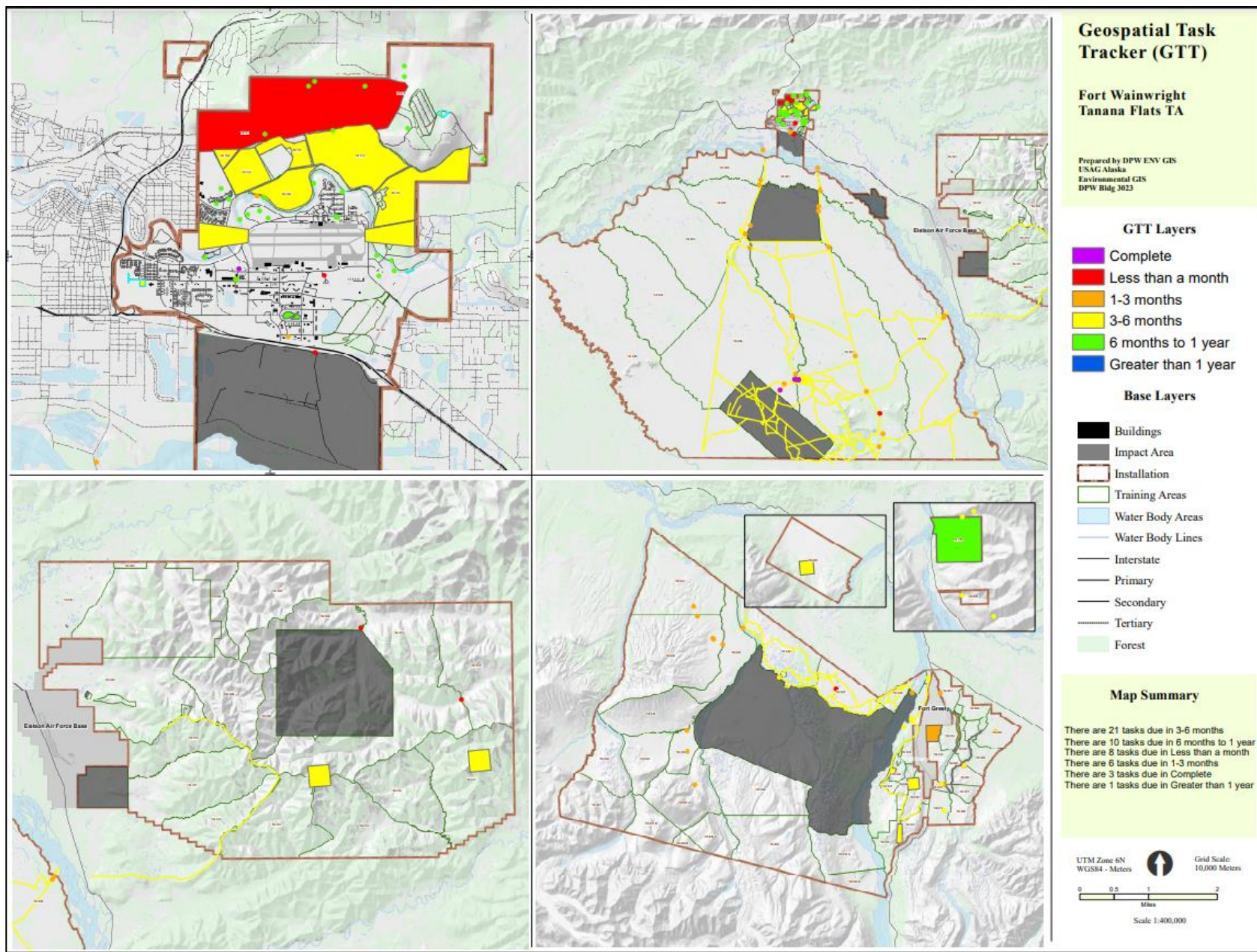
Using LiDAR generated Topographic Wetness Index (TWI) and road centerlines we created a model, which finds all locations where a significant drainage crosses a road. At the intersection between the significant drainage and road the model places a point. Points were field verified and found to be a reliable source of optimal culvert locations along roadways.



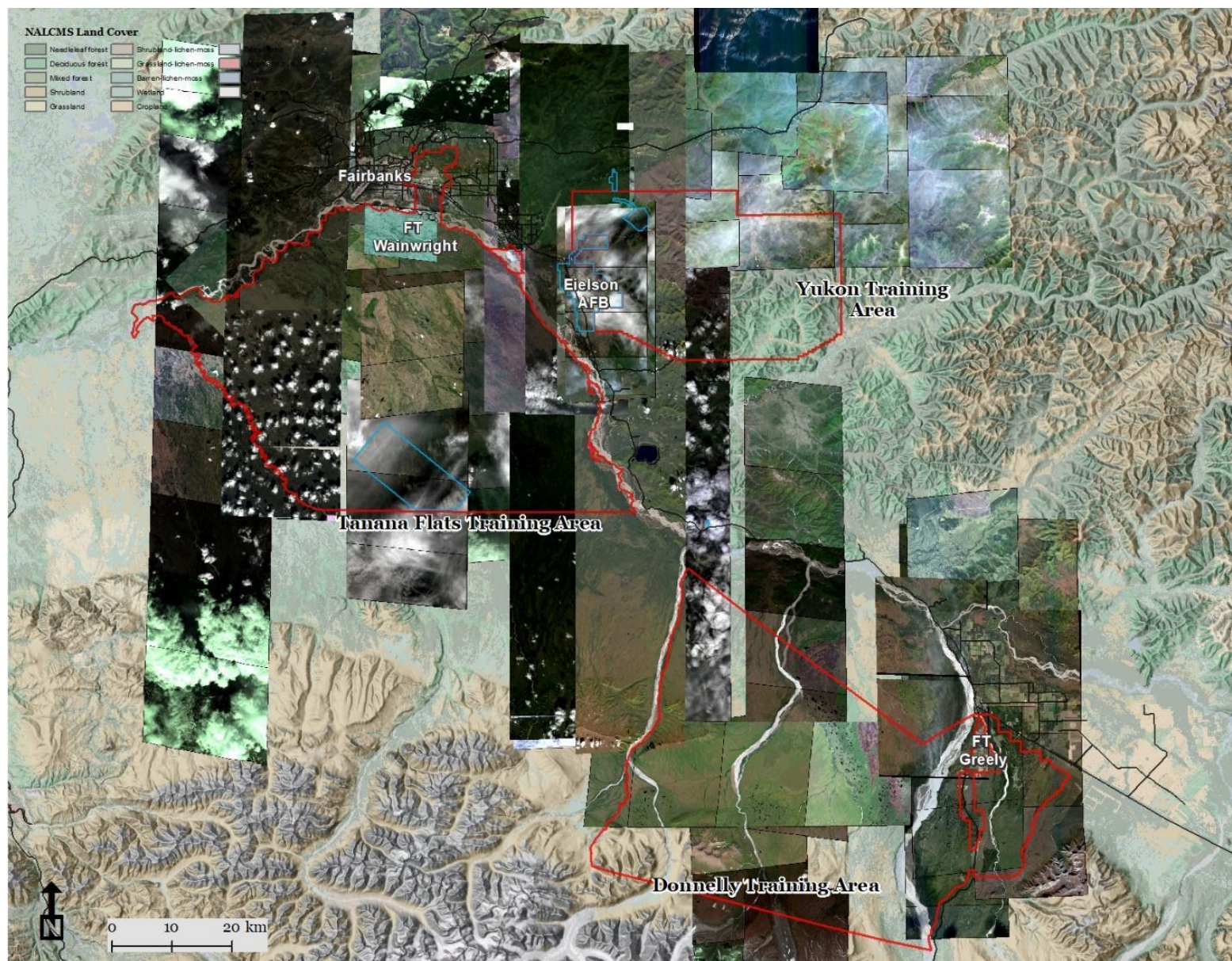
Around various firing sites we conducted an impact analysis on forested land. A model using LiDAR identified all trees above the height of the nearby berms. If the trees height are above the berm height then they had the potential to be impacted by operations at the firing site.



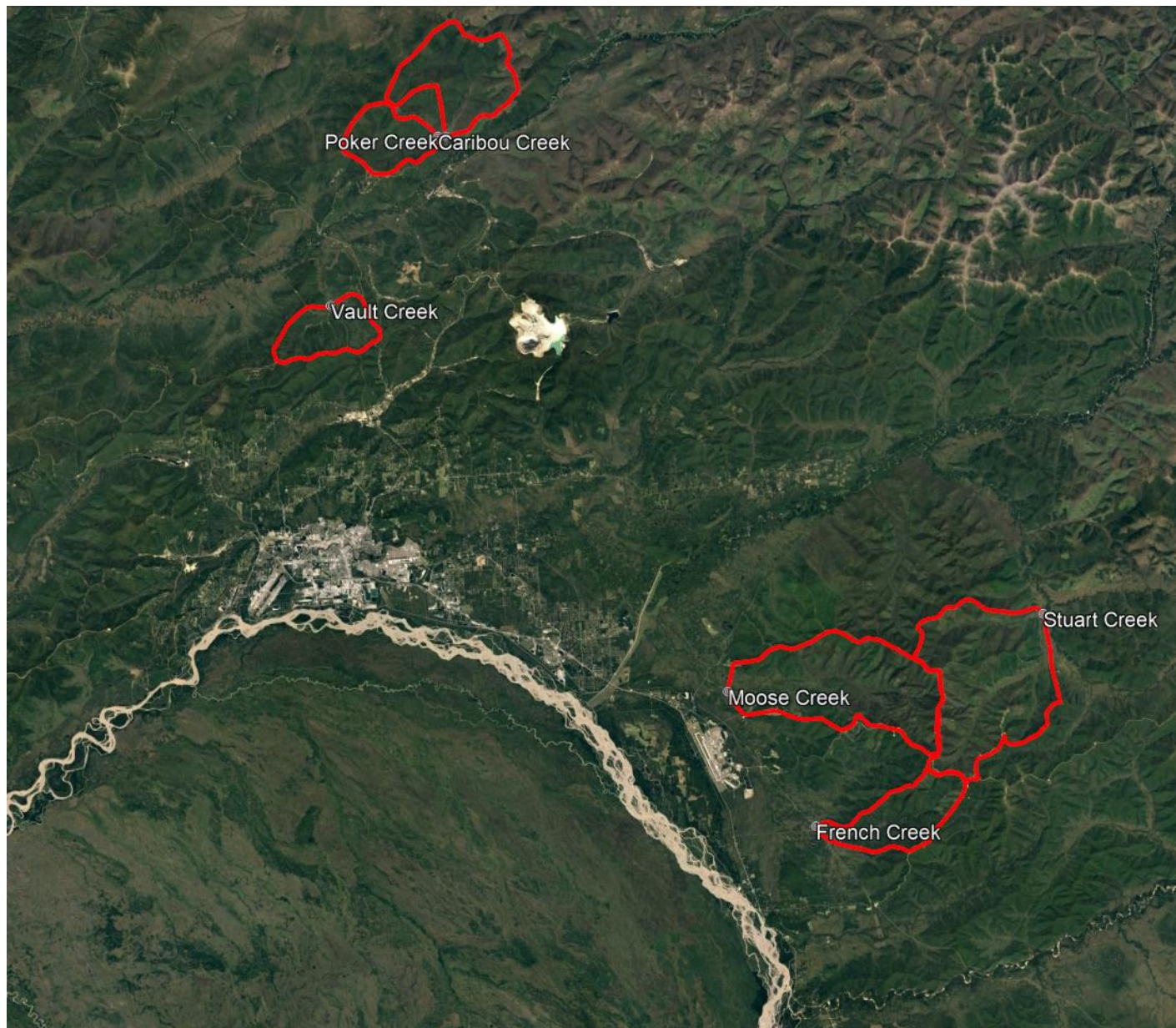
Updates to the geometry and attribution of all data layers were completed with the objective of improving compliance with the SDSFIE 4.0 format (a DoD IT standards requirement), to provide more information for all data users and prepare for land withdrawal review. Additionally, a series of new data layers was created. Data layers are updated annually.



The Geospatial Task Tracker (GTT) is a database system and map based application that allows the natural resource management crew to track in real time the status of all projects.



For this Strategic Environmental Research and Development Program (SERDP) funded study, field measurements of soil composition, soil temperature, depth to permafrost, habitat processes, and animal sounds at locations are being analyzed in combination with remote sensing data products to model post fire recovery for ecosystems and habitats at potentially vulnerable permafrost areas. The study results will include field measurements at a variety of locations on the Training Ranges as well as a forward looking ecosystem trajectory model to the year 2100. [Final report](#) was completed July 2021.



Stream flow and stream chemistry measurement were taken at Moose Creek and Stewart Creek, specifically focusing on surface water nitrogen and carbon in the microbiome. The goal of this SERDP funded study is to model the relationship between flow and nitrogen and carbon concentrations to calculate change from the watershed. Project will be completed January 2022.

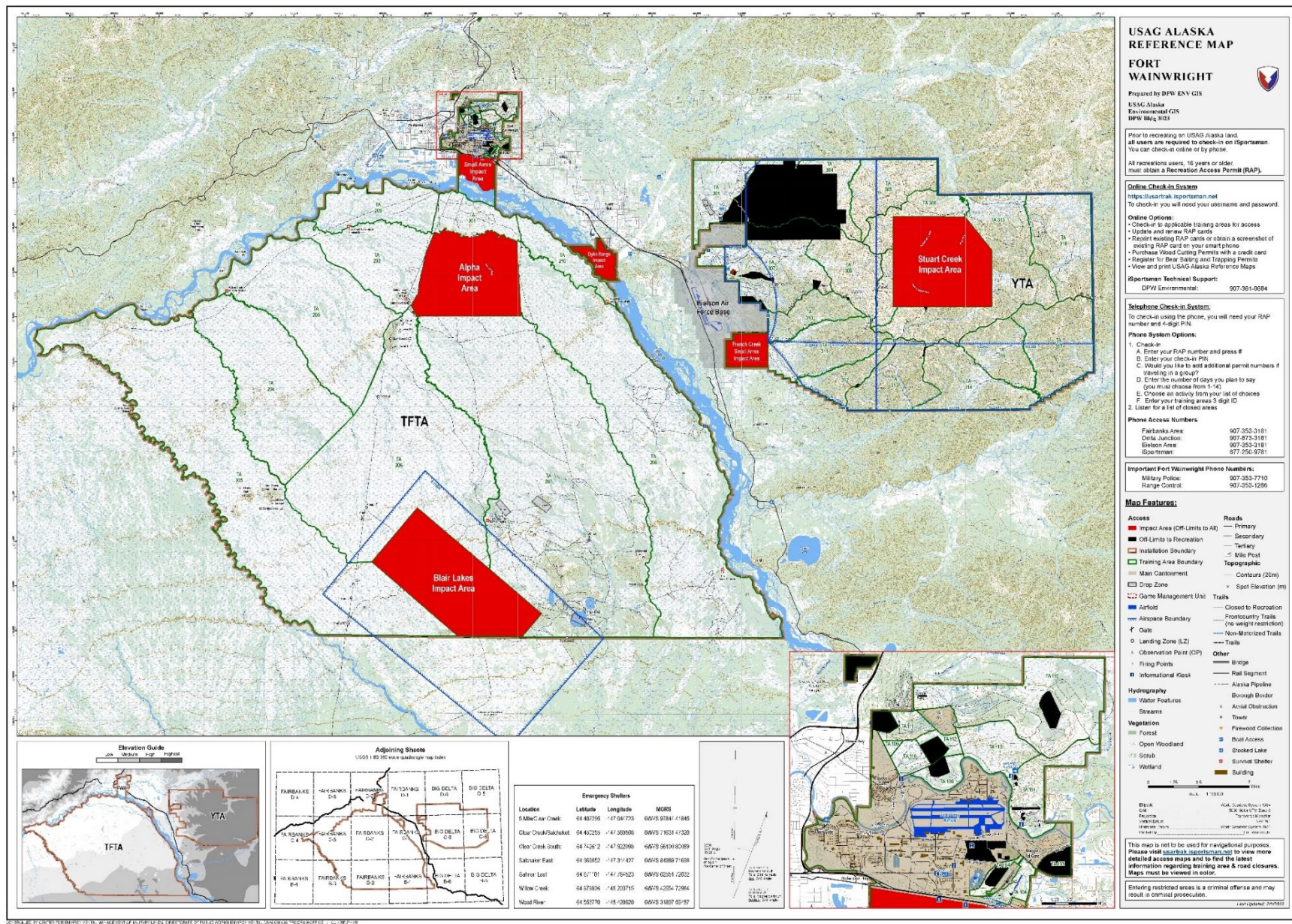
Recreation

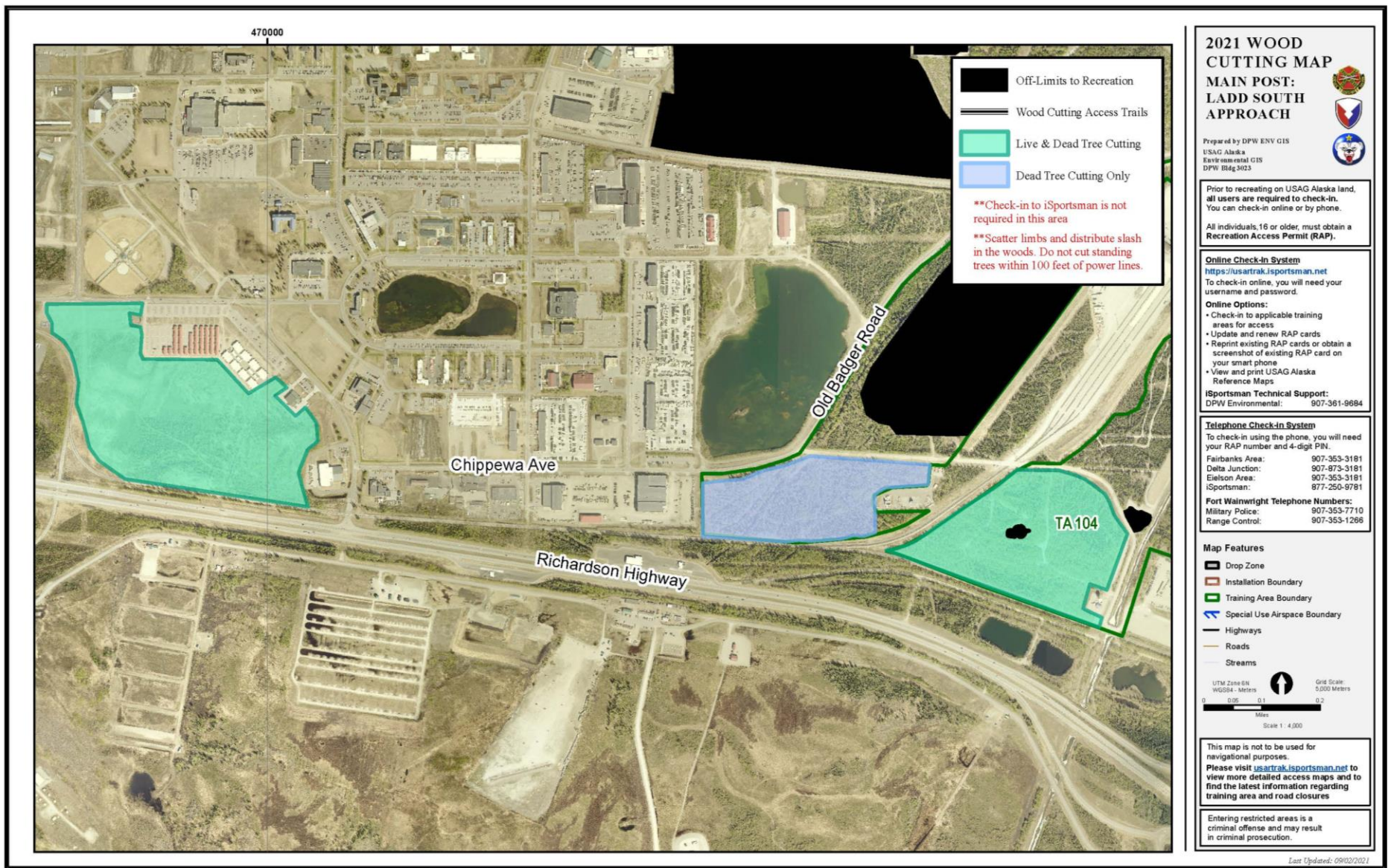
Training areas on USAG Alaska lands are open to fishing, hunting, and trapping when the training areas are not being used for military training. Hunters, trappers, and fishermen must follow state regulations and USAG Alaska Regulation 190-13 (Enforcement of Hunting, Trapping, and Fishing on Army Lands in Alaska). USAG Alaska currently uses the USAG Alaska iSportsman website (<https://usartrak.isportsman.net>) to (1) inform the public where they are able to recreate, (2) when accessible training areas are available for recreation, (3) record when recreationists access USAG Alaska managed lands.

The goals of USAG Recreation Program include (1) providing for sustainable use by the public of natural resources to the extent that the use is not inconsistent with the needs of fish and wildlife resources, (2) providing high quality, sustainable hunting, trapping, and fishing opportunities to Soldiers, civilians, and the public, (3) making the program self-sustainable, potentially by implementation of hunting, trapping, and fishing fees, (4) increasing hunting, trapping, and fishing opportunities for disabled veterans, (5) supporting ADFG population goals on USAG Alaska lands, (6) providing professional enforcement of natural resources related laws, and (7) providing for the same fee schedule for all participants, except for senior citizens, children, and the handicapped.

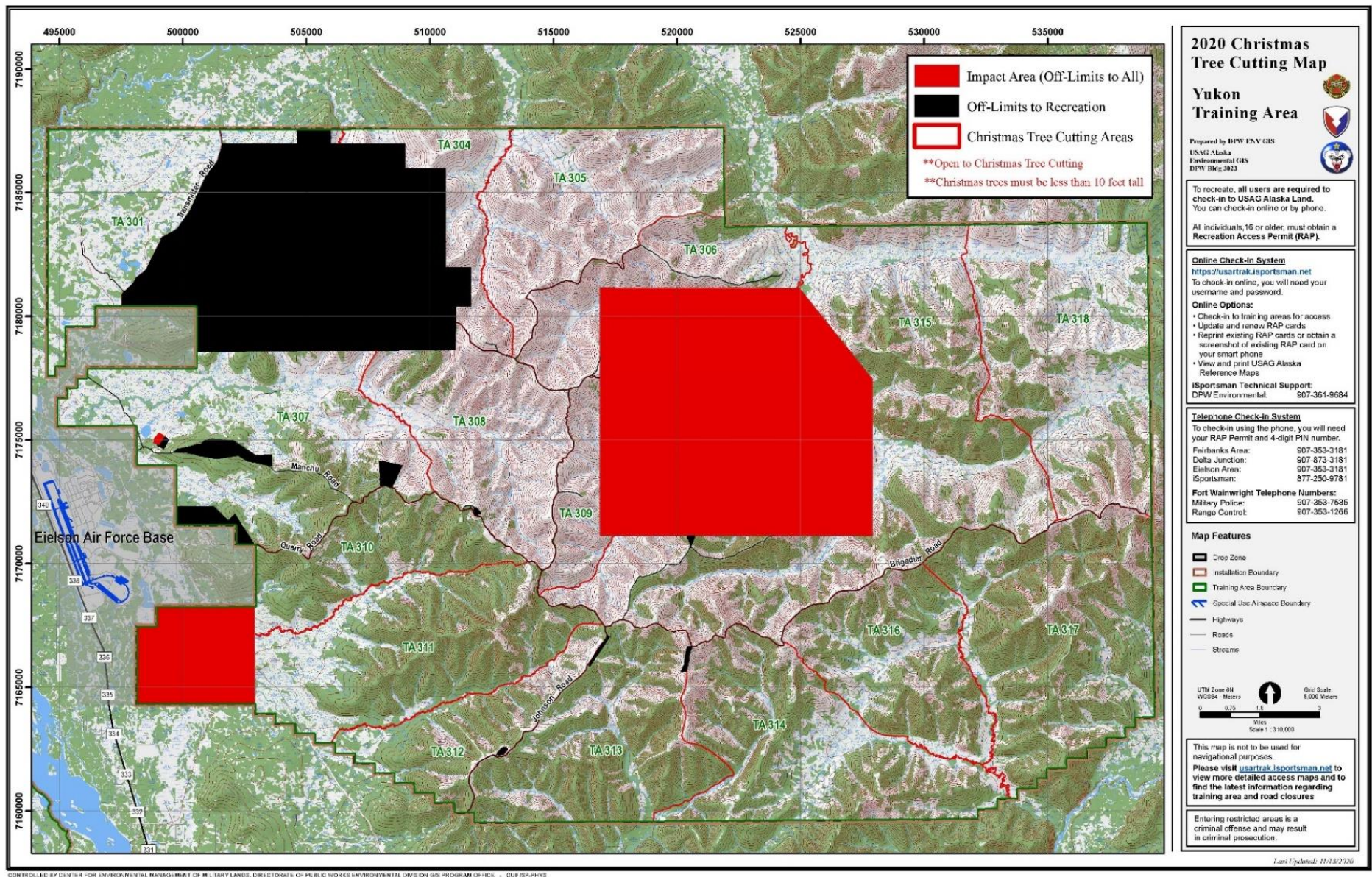
Recreation management has a long legacy on USAG Alaska managed lands. Hunting, fishing, and trapping on USAG Alaska managed lands are regulated by both the State of Alaska, through its hunting and trapping regulations and the federal government through Army-wide and installation specific regulations. The ADFG issues various regulations for fisherman, hunters, and trappers in Alaska. Army Regulation 200-1, USAG Alaska Regulation 190-13, and the ADFG annual Hunting and Fishing Regulations are the primary means of establishing controls on fishing, hunting, and trapping as well as other natural resources-related activities on USAG Alaska managed lands. USAG Alaska Regulation 190-13 pertains to hunting, trapping, fishing, and off-road recreational vehicle use on USAG Alaska managed lands. The USAG Alaska Recreation Supplements (updated at least every two years), and USAG Alaska iSportsman website content (updated continuously) condense these regulations into a user-friendly format and are distributed to the public.

The following describe the 2021 Recreation Program pertinent information. The tasks are displayed as maps or graphics with a brief description. For more information or higher resolution maps or graphics for each completed, ongoing, or future tasks, please contact the USAG Alaska Natural Resource office. For a detailed explanation and history of each program, please refer to the [USAG Alaska INRMP](#).



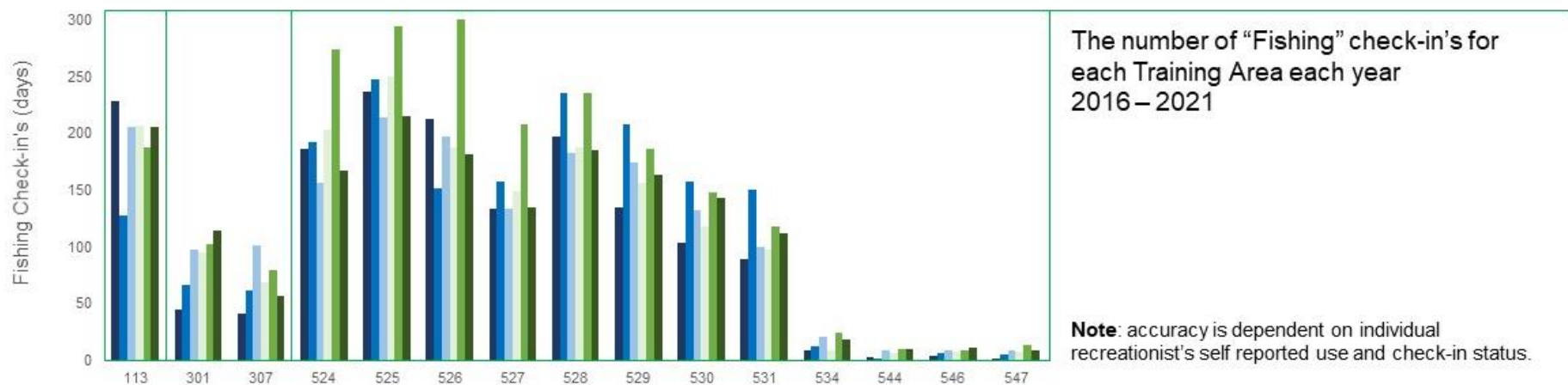
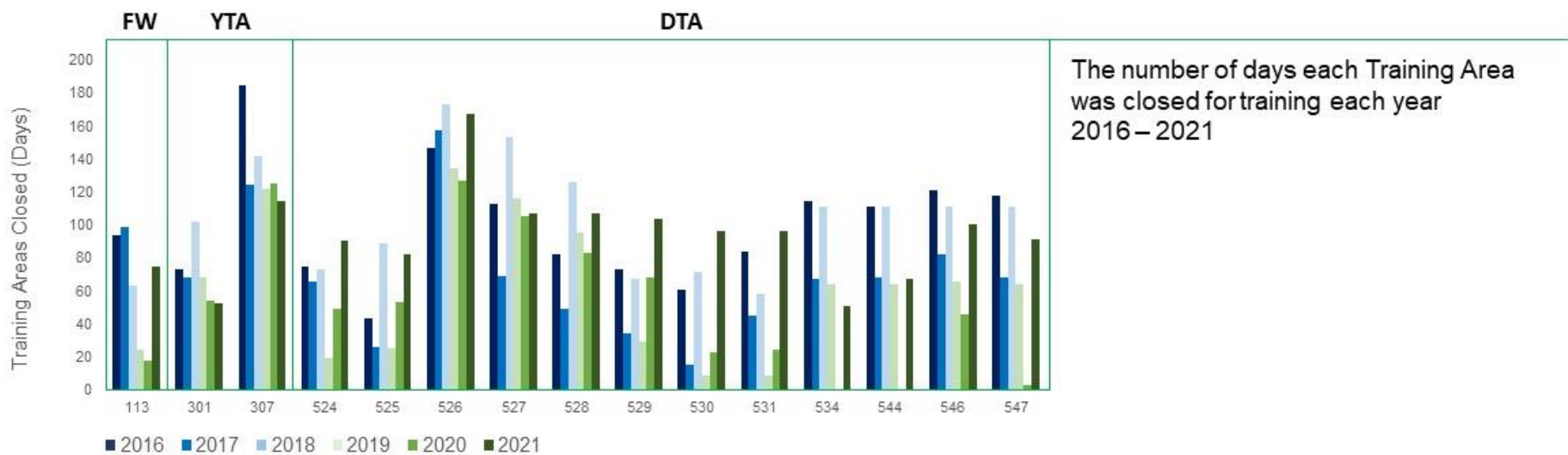


Roughly 900 cords of firewood were harvested from approximately 45 acres on USAG Alaska managed lands in 2021. Visit the [USAG Alaska iSportsman wood cutting page](#) for a complete set of maps.



144 Christmas Tree Cutting Permits were issued in 2021.

Visit the [USAG Alaska iSportsman Christmas Tree Cutting page](https://usatrak.isportsman.net) for more info and a complete set of maps.

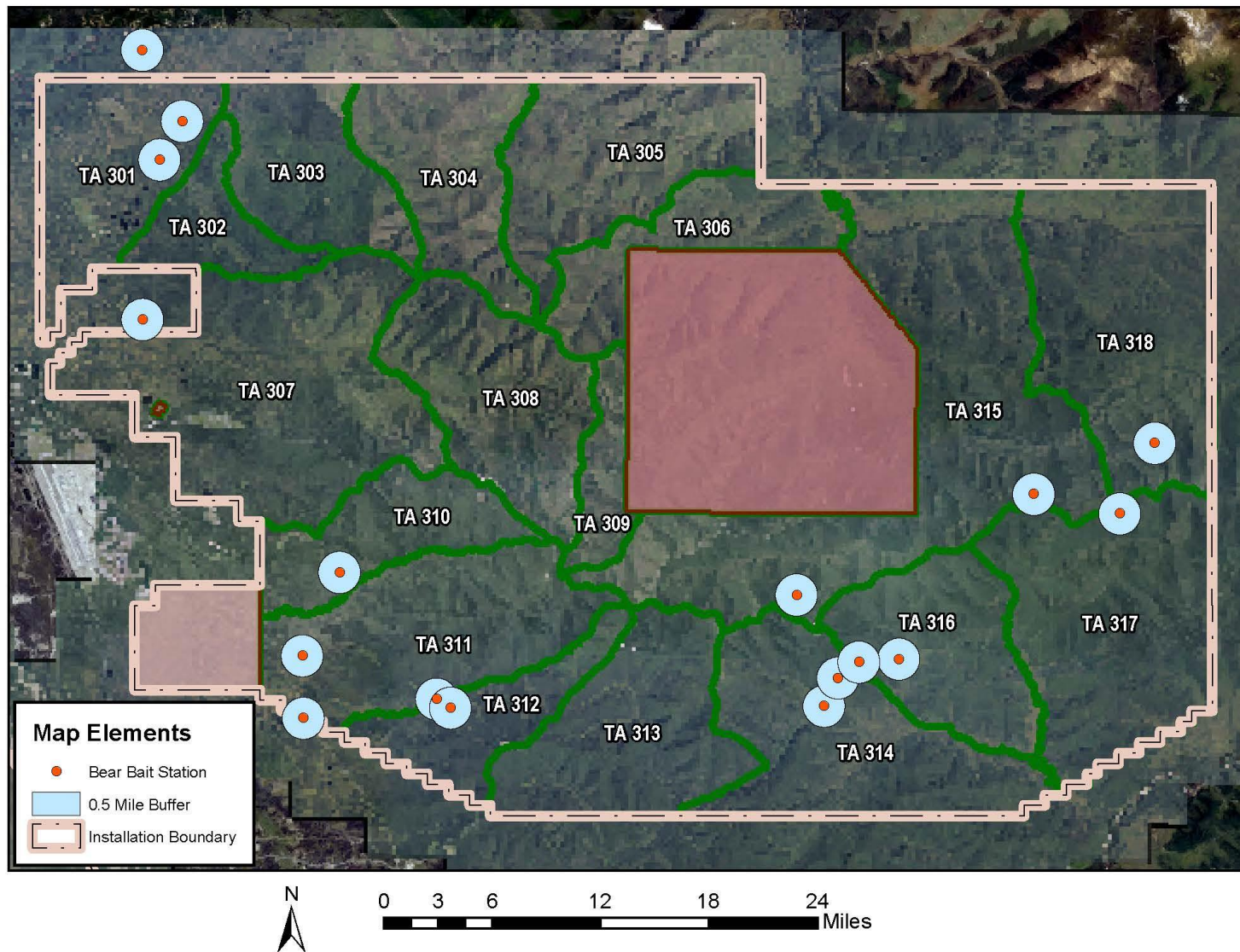


To compare maps with these data, please visit:
<https://usatrak.isportsman.net/Fishing.aspx>

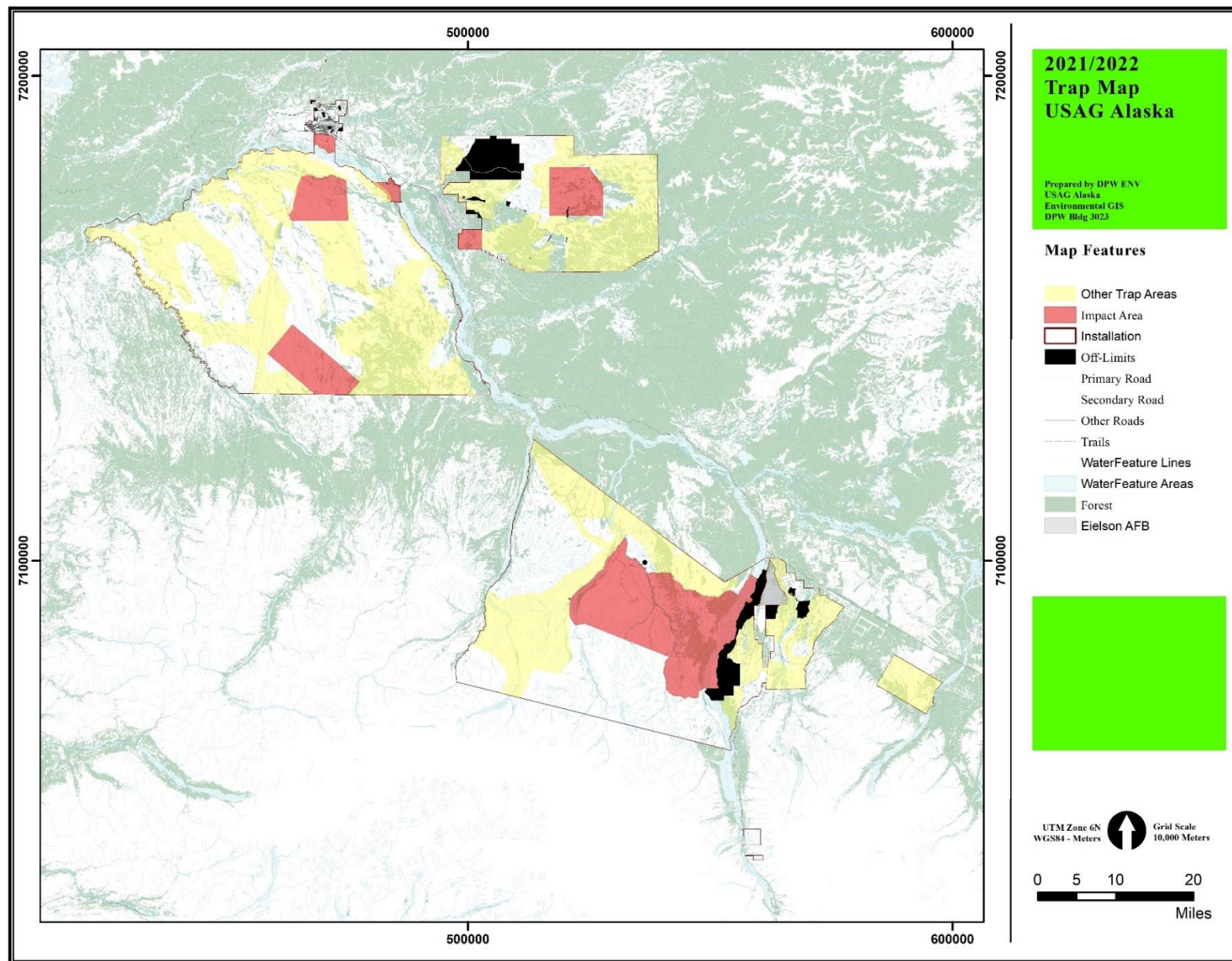
851 people checked into fish on USAG Alaska land in 2021. Training areas containing stocked lakes had the highest use. Recreationists can review stocked lake information and location maps on the [USAG Alaska iSportsman Fishing page](#).

YTA Bear Baiting Locations

As of May 17, 2021



There were 25 registered bear bait stations on USAG Alaska in Spring 2021 in the TFTA, YTA, DTA, and GRTA. Recreationists can register bait stations on the [USAG Alaska iSportsman Bear Baiting page](#).



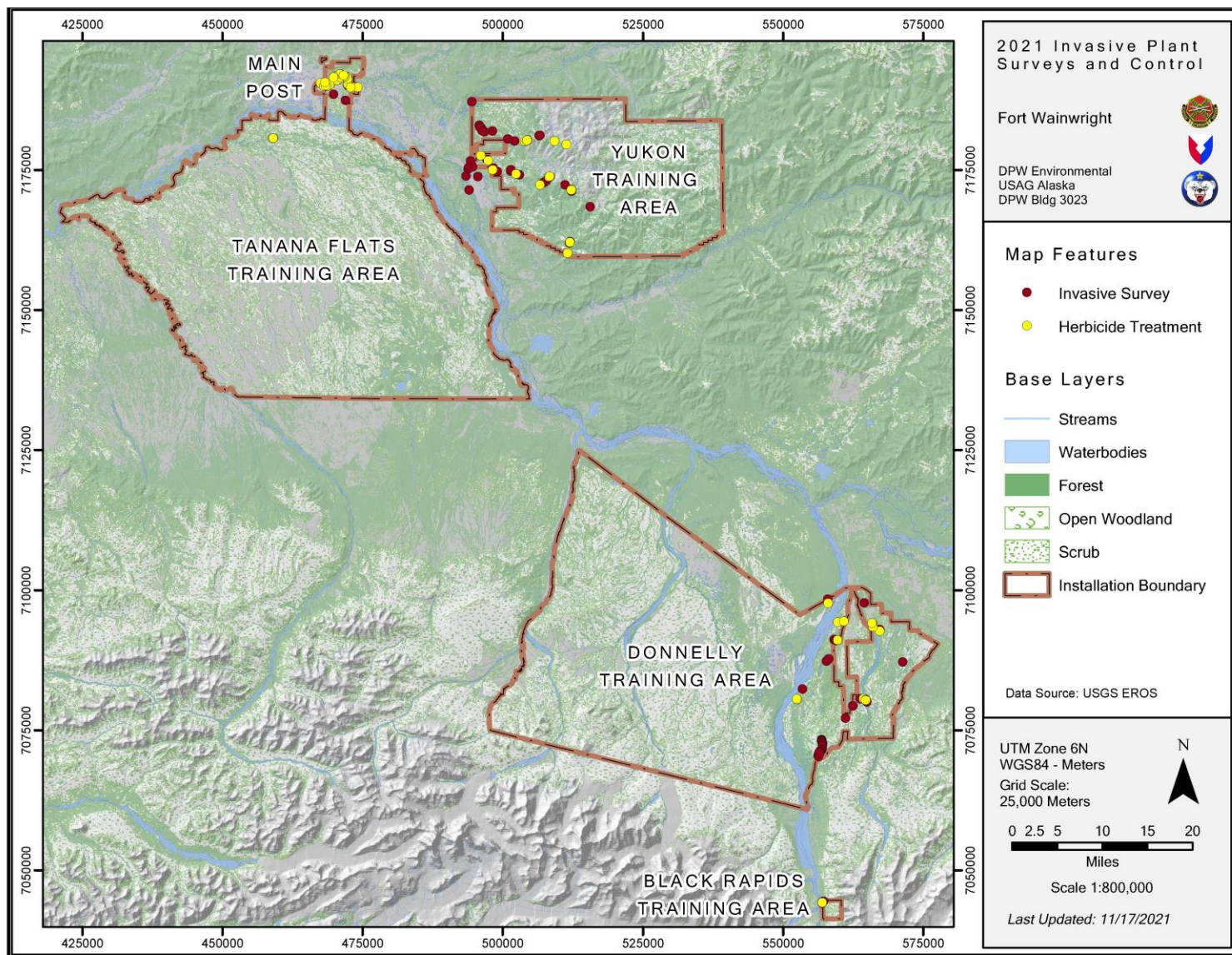
There are 62 registered trapping areas on USAG Alaska land with 45 active trappers in 2010-2021 and 32 active trappers in 2021-2022 (October 2021 – December 2021). Trappers are asked to complete a Trapper Questionnaire at the end of each trapping season, which includes harvest and conflict related questions. Recreationist can register trapping areas on the [USAG Alaska iSportsman website](#).

Invasive Species

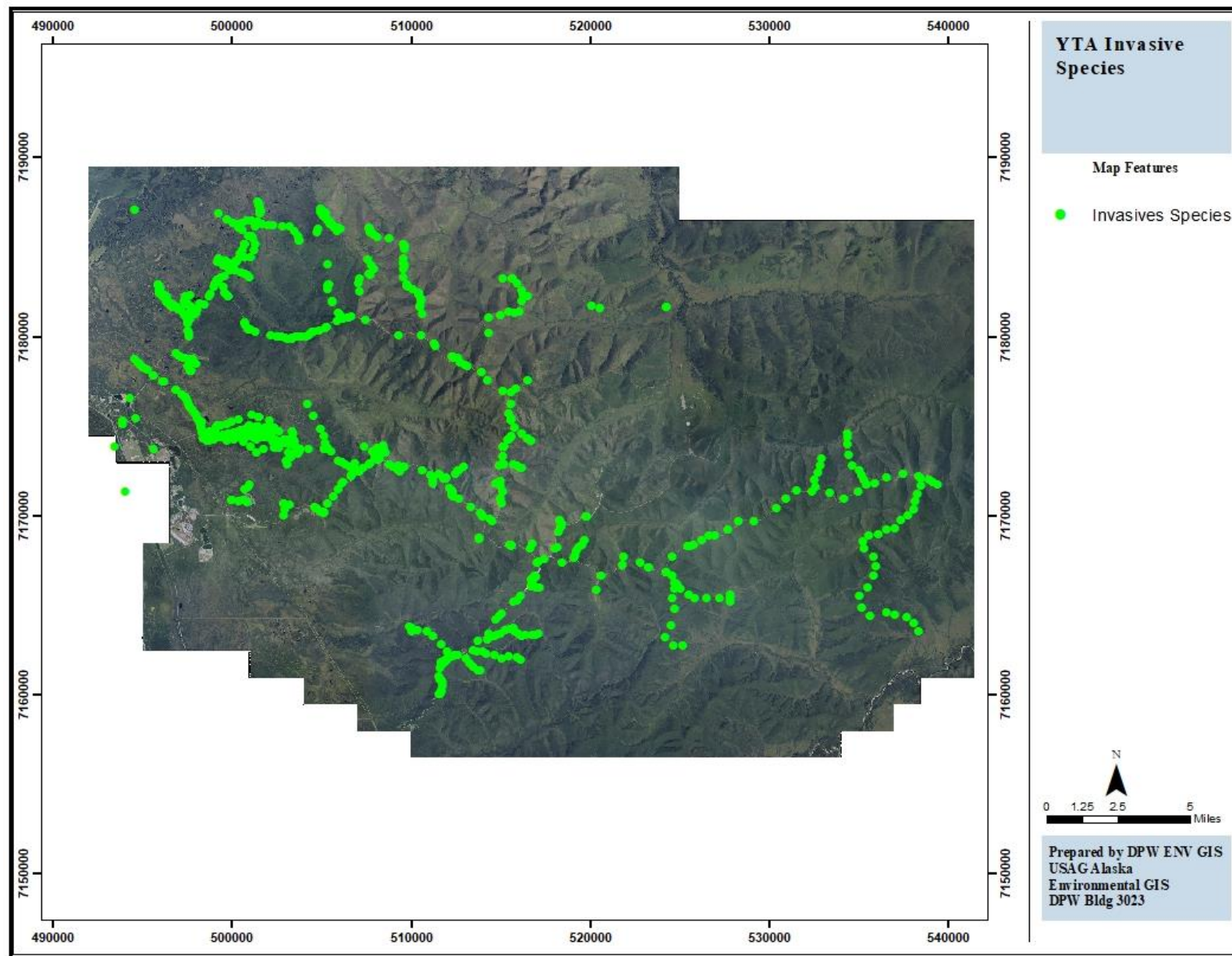
USAG Alaska opportunistically surveys for invasive species focusing on high use areas and recent disturbance areas. This is accomplished by maintaining compliance with the Integrated Pest Management Plan (IPMP) and focusing control efforts on State listed Noxious Species. The state list of Noxious Species is annually reviewed and checked for presence on USAG Alaska managed lands. The U.S. Forest Service, State of Alaska, and Private Forestry entities monitor the cantonment areas and training lands for invasive insects and diseases annually.

Invasive species monitoring has been included as part of other surveys continually occurring within the installation, which include fisheries management, wetland surveys, flora and fauna planning level surveys, and a multitude of natural resource related surveys. Invasive species monitoring has also occurred informally through the Range and Training Land Assessment (RTLA) program and natural resources program. The RTLA program has quantitatively documented invasive plant species on training lands at plot locations, and pest control manages invasive plant species in cantonment areas. USAG Alaska managed lands currently have few faunal invasive species and the primary focus of these efforts are currently invasive vascular plants such as *Elodea* spp. Forest insects, diseases and invasive plant species are annually monitored on USAG Alaska managed lands by the US Forest Service. Annual Forest Health Survey Reports are available from the US Forest Service, State, and Private Forestry [Forest Health website](#).

The following describe the Invasive Species 2021 completed tasks. The tasks are displayed as maps or graphics with a brief description. For more information or higher resolution maps or graphics for each completed, ongoing, or future tasks, please contact the USAG Alaska Natural Resource office. For a detailed explanation and history of each program, please refer to the [USAG Alaska INRMP](#).



In 2021, 188 sites across the installation were surveyed for populations of priority invasive plant species, i.e. bird vetch (*Vicia cracca*), white sweet clover (*Melilotus albus*), perennial sow thistle (*Sonchus arvensis*), European bird cherry (*Prunus padus*), and Canadian waterweed (*Elodea canadensis*). Of those, 113 sites were previously identified populations, and 69 sites were newly identified in 2021. The majority of new and old sites were treated by either manual or chemical control. Sites were selected for chemical control based on size of infestation, likelihood of spread, and habitat sensitivity. 79 sites received at least 1 herbicide treatment.



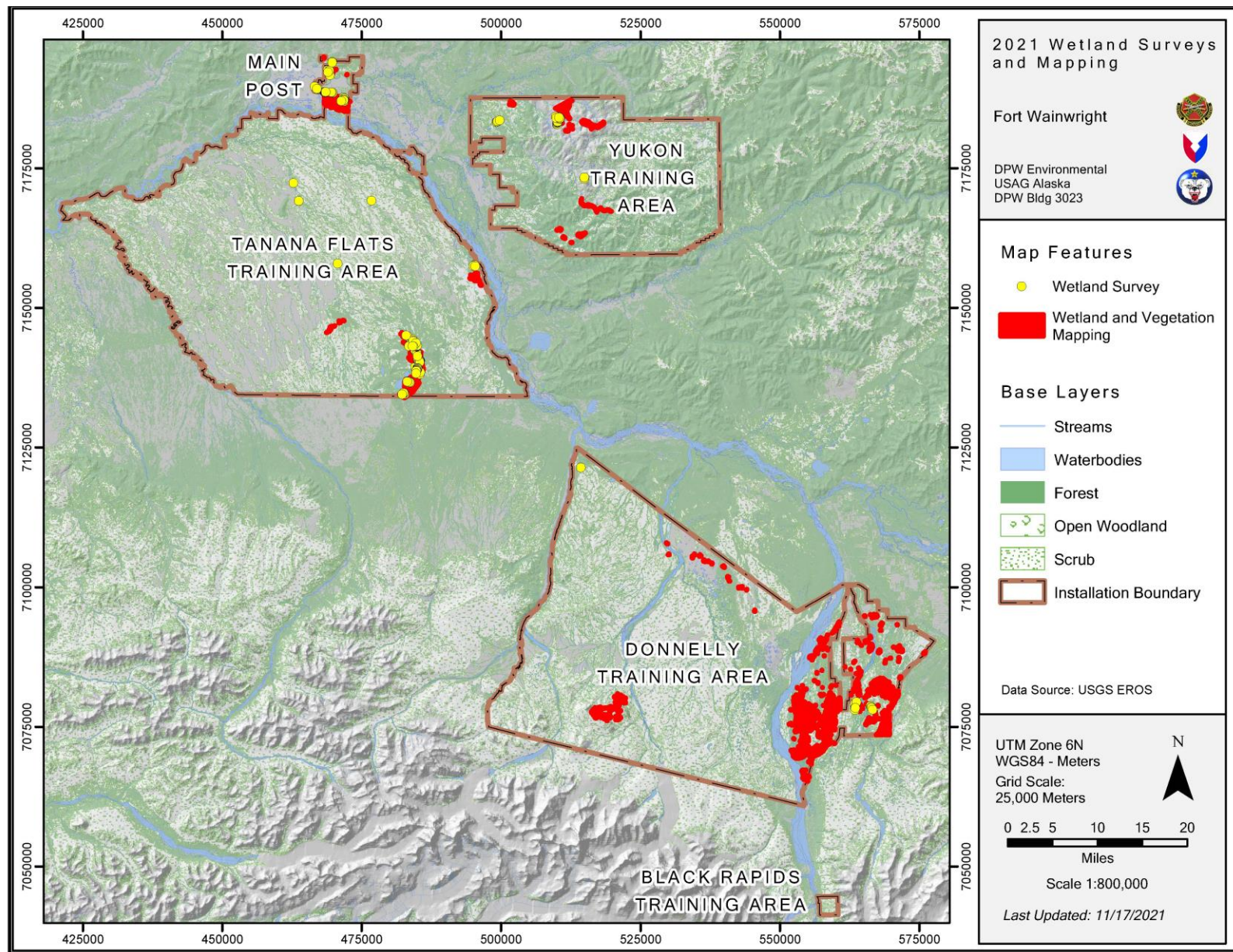
A series of tools were developed to create field data forms for invasive species data and then ingest the field collected data into our invasive species geodatabase. Reformatted the invasive species database so that every site contains a single record and multiple revisits are stored in an associated table. We also are working on converting Excel based pesticide application data into SDSFIE data.

Wetlands

There are over 1 million acres of wetlands located across all major training areas on USAG Alaska managed lands. Military operations have minimal impact on wetlands in most watersheds in the Training Lands, while the most impacted wetlands are located on Main Post Fort Wainwright and Fort Greely. USAG Alaska actively manages wetlands through the USACE Alaska Regulatory permit process. USAG Alaska's wetland and waterbody management program (WWMP) facilitates compliance with Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbor Act, and other environmental regulations. Wetland and waterbody management on USAG Alaska managed lands is implemented on the primacy that conduct of the military mission must comply with applicable laws and should not result in long-term damage to the environment. Training and testing that incorporates environmental stewardship make this possible and allow for the maintenance of a quality military training and testing environment, as well as protection of sensitive habitats, such as wetlands.

The goals of the USAG Alaska WWMP are to (1) ensure that USAG Alaska, USARAK, tenant organizations, and Missile Defense are in compliance with all applicable federal and state laws and regulations regarding wetlands, (2) provide wetland areas for realistic military training while maintaining ecosystem integrity and minimizing impacts to wetlands, (3) promote early coordination between installation staff and DPW Environmental to prevent adverse impacts to wetlands, (4) provide a customer-friendly process to initiate wetland permits for military exercises or construction.

The following describe the USAG Alaska WWMP 2021 completed tasks. The tasks are displayed as maps or graphics with a brief description. For more information (like permitting information) or higher resolution maps or graphics for each completed, ongoing, or future tasks, please contact the USAG Alaska Natural Resource office. For a detailed explanation and history of each program, please refer to the [USAG Alaska INRMP](#).



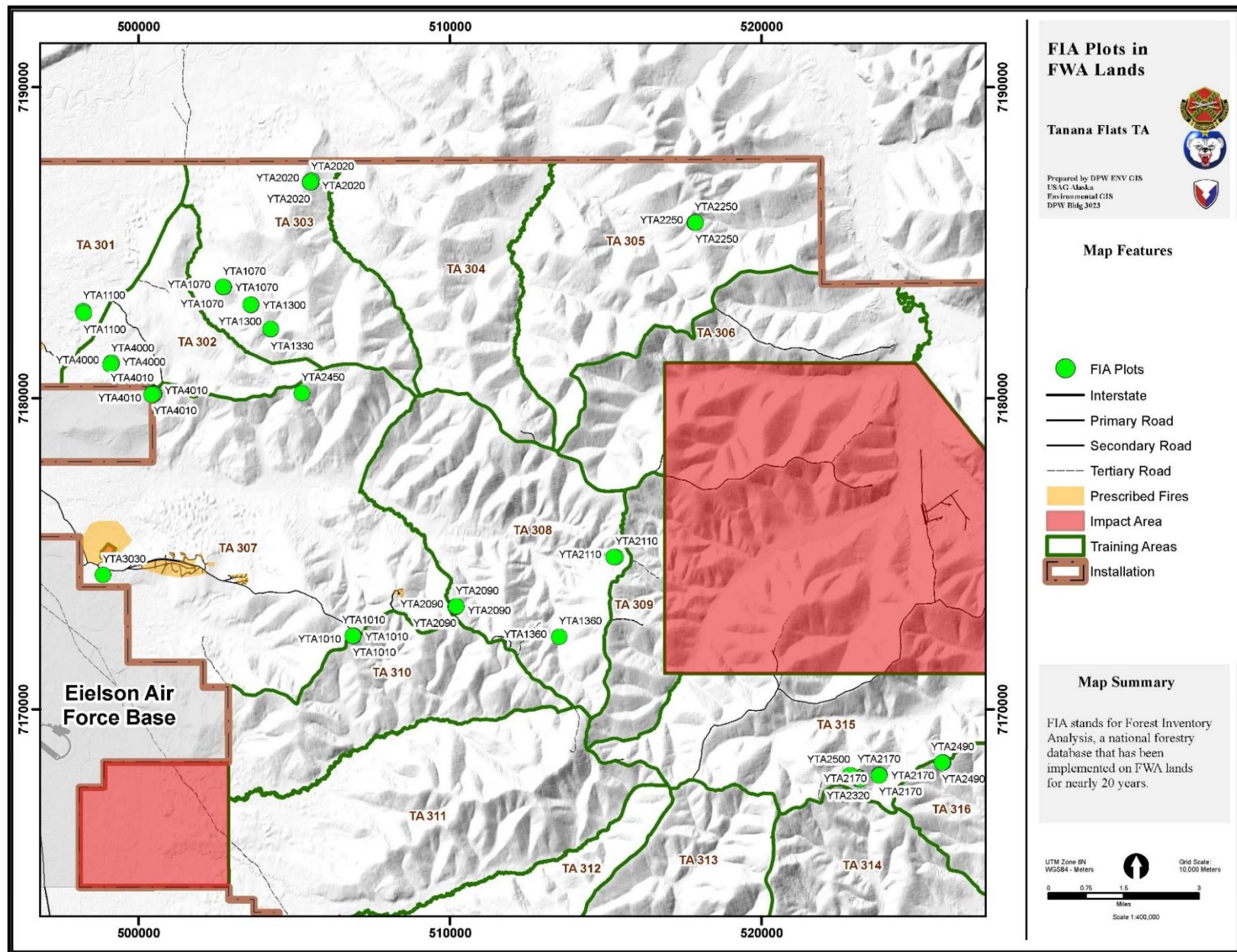
In 2021, field data was collected for 205 sites, including 65 wetland determinations, to identify wetland and upland boundaries. Survey data were used to delineate and classify wetlands and vegetation across 41,400 acres of training lands.

Forestry

USAG Alaska manages 374,678 acres of forest. Forest inventory and forest stand maps are maintained for all USAG Alaska lands. USAG Alaska sells firewood and money is deposited into the DoD Forestry Account. USAG Alaska issues approximately 200 firewood permits annually and cuts approximately 50 acres (1000 cords) per year primarily to support military training and wildfire management. Secondary benefits are for forest health and wildlife habitat.

The goals of USAG Forestry Program include (1) maintaining a diverse forest to enhance a varied military training environment, (2) maintaining ecosystem functionality and manage vegetation and timber in support of ecosystem management objectives, (3) maintaining and enhancing the health, productivity, and biological diversity of forest and woodland ecosystems, (4) reducing wildland fire risk, (5) maintaining forestry operations and standards as defined by the State of Alaska Forest Practices Act, (6) maintaining forest inventory, (7) Operating a firewood program within the limits of annual allowable harvest within each major training area as defined by the State of Alaska Forest Practices Act.

The following describe the Forestry 2021 completed tasks. The tasks are displayed as maps or graphics with a brief description. For more information, or higher resolution maps or graphics, for each completed, ongoing, or future tasks, please contact the USAG Alaska Natural Resource office. For a detailed explanation and history of each program, please refer to the [USAG Alaska INRMP](#).



Forest Inventory and Analysis (FIA) plot survey plots in the YTA completed in 2021. The surveys provided summaries of tree species composition, size class distribution, understory species composition, canopy cover, crown size and position, stem density, basal area, mean annual growth, regeneration composition and density, and merchantable volumes by species. The project was completed October 200

LRAM/RTLA

Integrated Training Area Management (ITAM) maintains the live maneuver training environment and sustains the Army's live training capability by repairing maneuver damage and creating a resilient and resistant training land base. ITAM fundamentally supports installation compliance with the Sikes Act and is a critical component of installation natural resource management. USAG Alaska's ITAM planning process generates land management projects from Senior Commander's requirements by integrating mission analysis and maneuver training tasks with terrain capability assessments, land condition requirements, and sustainable range awareness. The ITAM program is separated into five key components: (1) Training Requirements Integration, (2) The Range and Training Land Assessment (RTLA), (3) Land Rehabilitation and Maintenance (LRAM), (4) Sustainable Range Awareness, and (5) GIS (as mentioned in GIS section). ITAM works directly with USAG Alaska Natural Resources to ensure Sikes Act compliance.

The LRAM purpose is to maintain awareness of training land conditions in order to apply mitigation when and where it is most needed. Through a regular program of monitoring, areas can be identified for repair before they become safety issues or require expensive engineering solutions. LRAMs responsibility is planning and conducting projects necessary to keep land usable for live training. LRAM projects are designed to: address safety hazards and repair training damage on maneuver land; maintain training lands that receive regular use and require maintenance to maintain operational conditions; reconfigure existing lands to optimize their availability for a variety of live training uses. LRAM vegetation management techniques include reseeding with native vegetation, and fertilizing when appropriate, masticating woody vegetation when clearing is needed and using woody debris to promote erosion control, tree removal by feller-buncher in accordance with timber salvage requirements, brushing or mowing where conditions allow, hand crew chainsaw and brush-cutter use where large heavy equipment is not appropriate, tree and shrub retention within and around project sites. Besides reseeding, revegetation methods also include willow live staking, vegetation matting, and tree/shrub planting. This task is performed through Range Control contracted by Colorado State University Center for Environmental Management of Military Lands (CEMML) and the Salcha-Delta Soil and Water Conservation District (SDSWCD).

The RTLA component is the primary ITAM effort in achieving the core mission of sustaining realistic live training. The RTLA component includes a mix of inventory and monitoring techniques, for several different assessments conducted either on a regular basis, or one time depending on need. The various assessments currently being used are listed in the annual ITAM work plan. Data analysis and report-writing occurs through the fall and winter, with annual reports available at each range control office. This task is primarily performed through Range Control contracted by CEMML.

The following describe the USAG Alaska LRAM/RTLA 2021 completed tasks. The tasks are displayed as maps or graphics with a brief description. For more information or higher resolution maps or graphics for each completed, ongoing, or future tasks, please contact the USAG Alaska Natural Resource office. For a detailed explanation and history of each program, please refer to the [USAG Alaska INRMP](#).

LRAM 2021 Completed Tasks

The following describe the CEMML LRAM 2021 completed tasks. The tasks are first described by area divided into (1) Fort Wainwright Main Post, YTA, TFTA and (2) DTA, GRTA, BRTA, WCTA. The tasks are then displayed, by area, as maps or graphics in the subsequent pages.

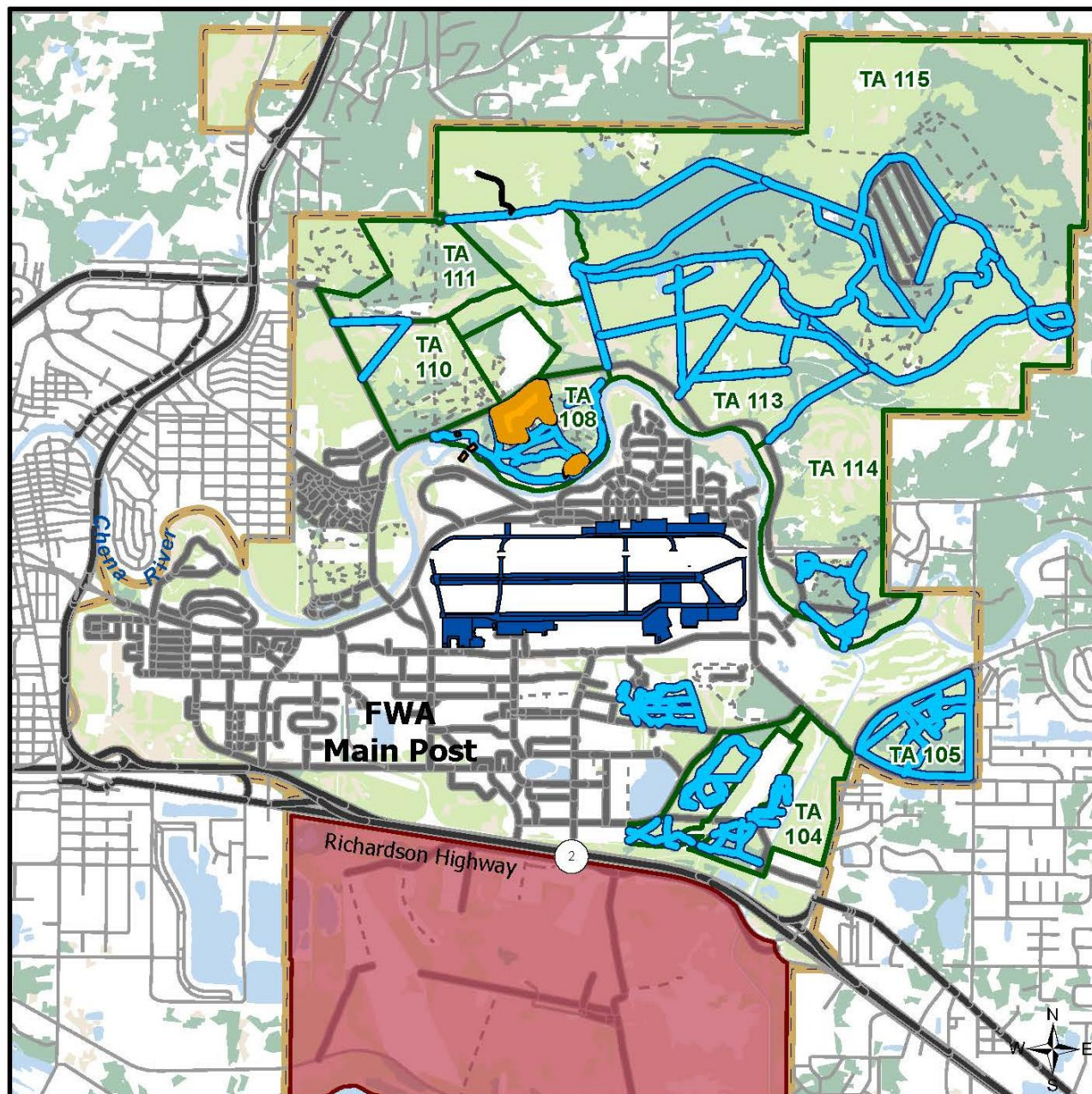
Fort Wainwright Main Post, YTA, and TFTA

Hand Crew, conducted a variety of vegetation maintenance activities. Approximately 96 acres of training lands were accessed and maintained through mowing, seeding or chainsaws (mostly in removing hazard trees). The crew also completed about 83 KM of trails and linier maintenance activities. The LRAM Crew 2021 annual report is in progress and will be completed by January 31, 2022.

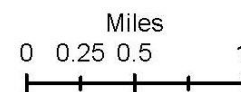
DTA, GRTA, BRTA, and WCTA

Hand crew completed maintenance projects consisting of the removal of blow down hazard trees and standing trees with structural defects within falling range of a training facility, site or maneuver trail, clearing and/or thinning of vegetation to achieve line of sight for a training purpose, maintenance of one helicopter landing zone, removal of vegetation that has been damaged by vehicle maneuver activities, and removal of vegetation for vehicle maneuver trail maintenance and/or creation. All trees cleared that were over 6" DBH were cut into manageable lengths and hauled to a centralized firewood pick-up location for individuals who have purchased firewood permits. A total of 32.39 acres were maintained within DTA; 2.15 of those acres were on trails. The LRAM Crew 2021 annual report was completed January 31, 2022.

LRAM CREW 2021

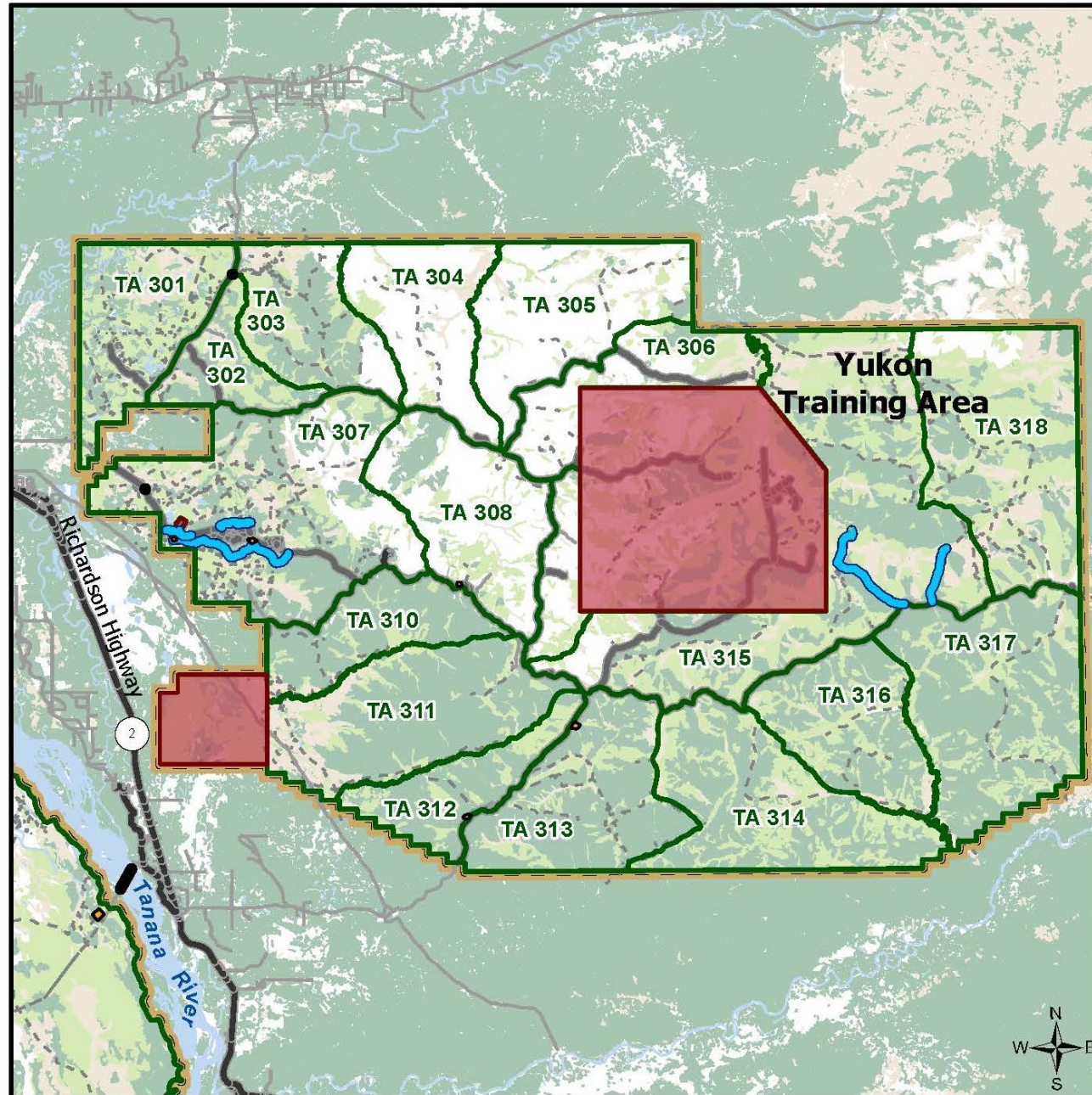


- LRAM Projects
 - LRAM Projects
- ### Roads
- Interstate
 - Primary
 - Secondary
 - Tertiary
 - Unimproved/Trail
 - Training Area
 - Impact Area
 - Airfield
 - Military Installation
 - Water Feature
- ### Vegetation
- Forest
 - Open Woodland
 - Scrub



Prepared by Fort Wainwright
Range Control GIS

LRAM CREW 2021



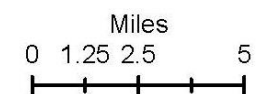
- LRAM Projects
- LRAM Projects

Roads

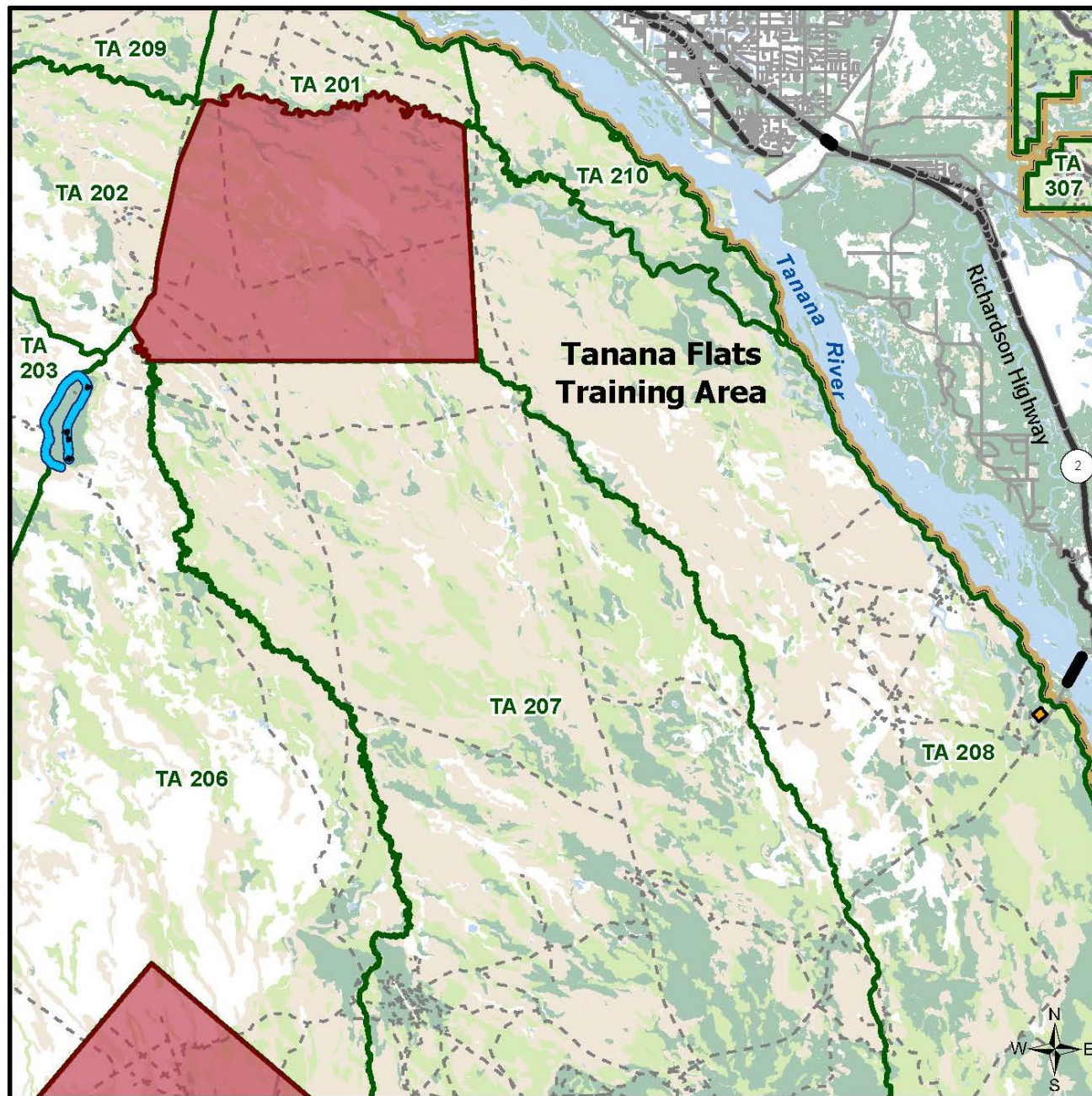
- Interstate
- Primary
- Secondary
- Tertiary
- Unimproved/Trail
- Bridge
- Training Area
- Impact Area
- Military Installation
- Water Feature

Vegetation

- Forest
- Open Woodland
- Scrub



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Range Control GIS



LRAM CREW 2021

LRAM Projects

LRAM Projects

Roads

Interstate

Primary

Secondary

Tertiary

Unimproved/Trail

Bridge

Training Area

Impact Area

Military Installation

Water Feature

Vegetation

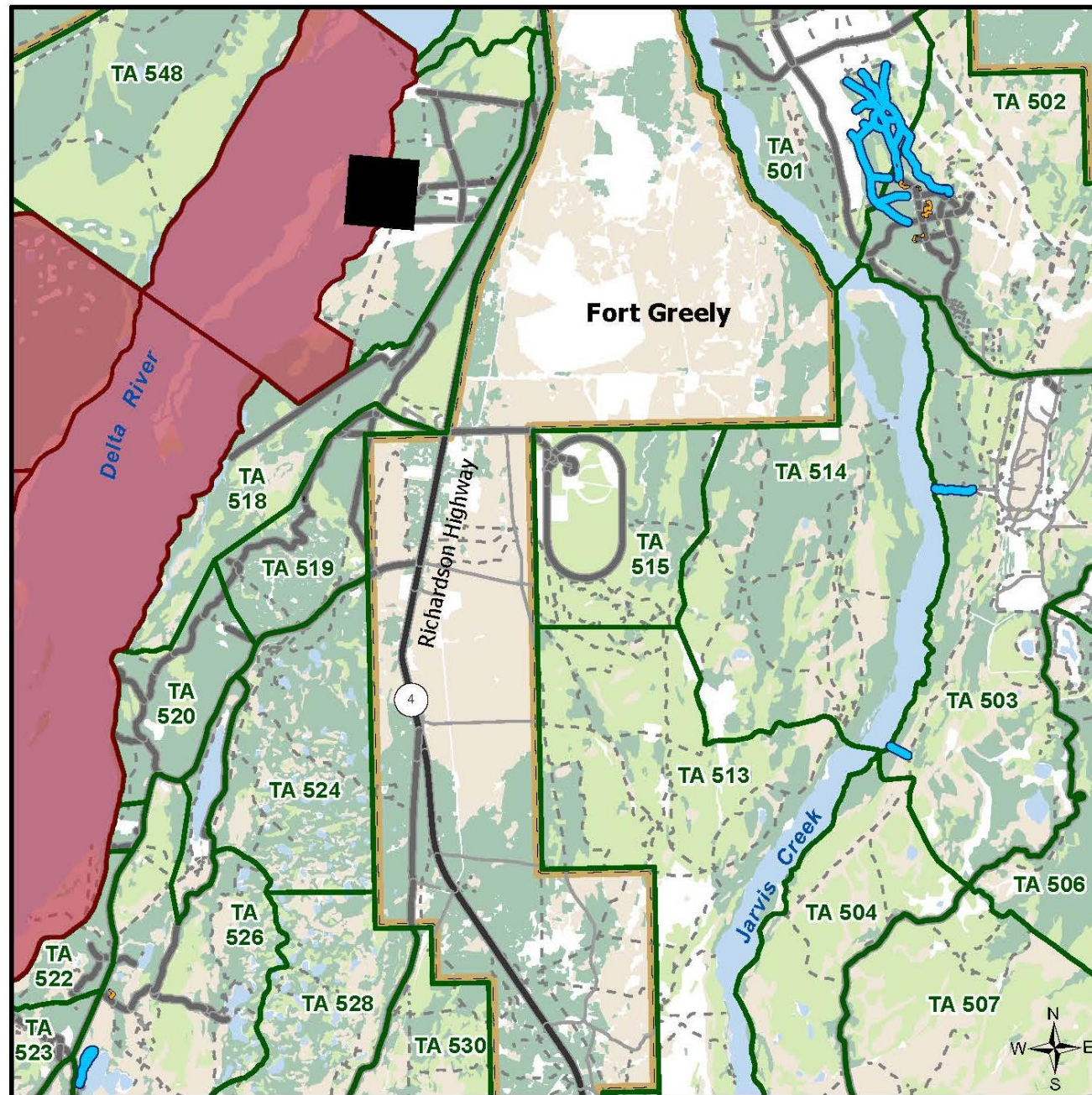
Forest

Open Woodland

Scrub

Miles
0 2.5 5

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Range Control GIS



LRAM 2021

LRAM Projects

LRAM Projects

Roads

Interstate

Primary

Secondary

Tertiary

Unimproved/Trail

Training Area

Impact Area

Off Limits

Military Installation

Water Feature

Vegetation

Forest

Open Woodland

Scrub

Miles
0 0.42 0.85 1.7

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LRAM 2021



LRAM Projects

LRAM Projects

Roads

Interstate

Primary

Secondary

Tertiary

Unimproved/Trail

Training Area

Impact Area

Off Limits

Military Installation

Water Feature

Vegetation

Forest

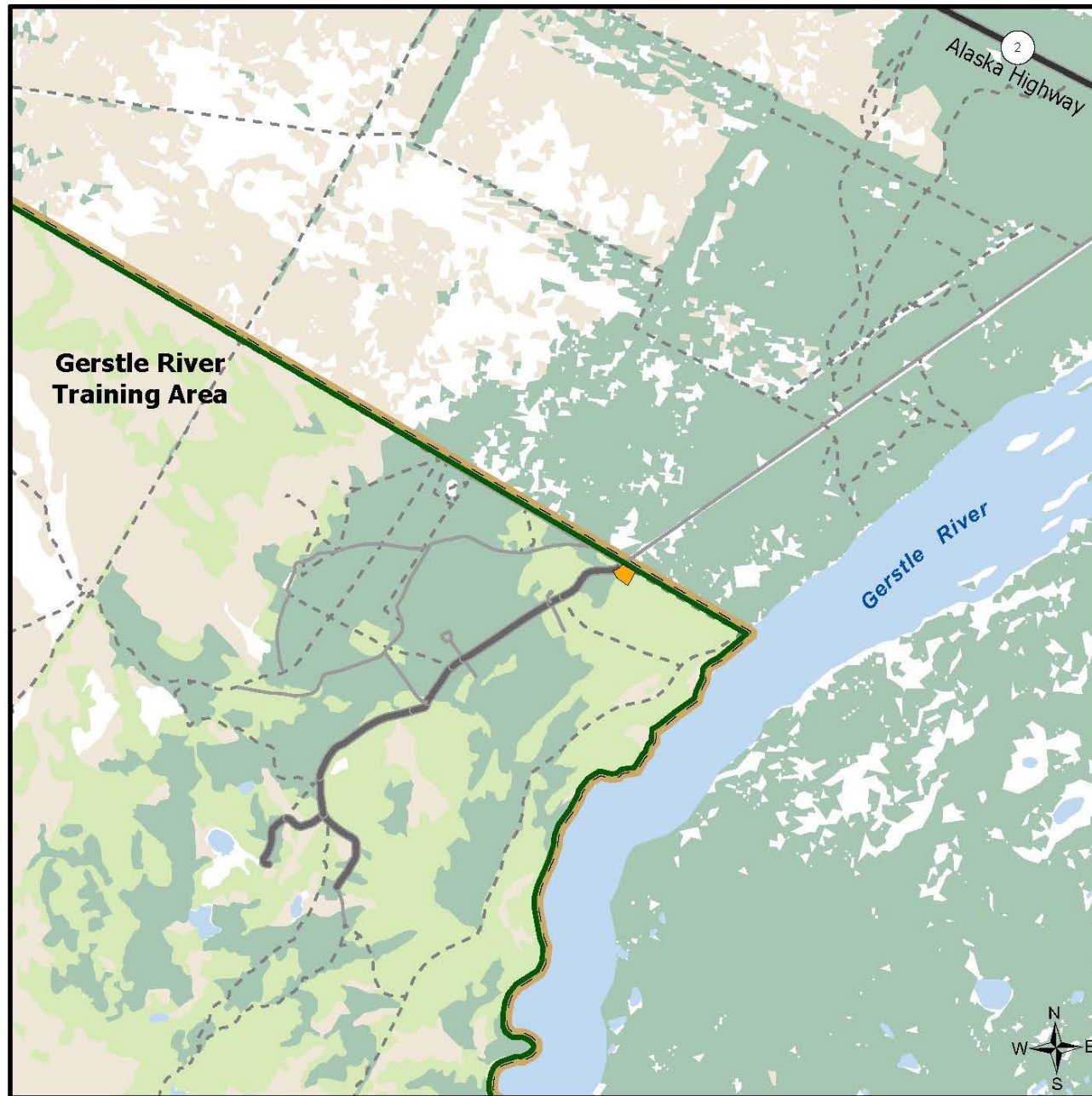
Open Woodland

Scrub

Miles
0 0.1 0.2 0.4

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LRAM 2021



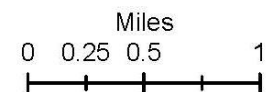
- LRAM Projects
- LRAM Projects

Roads

- Interstate
- Primary
- Secondary
- Tertiary
- Unimproved/Trail
- Training Area
- Impact Area
- Off Limits
- Military Installation
- Water Feature

Vegetation

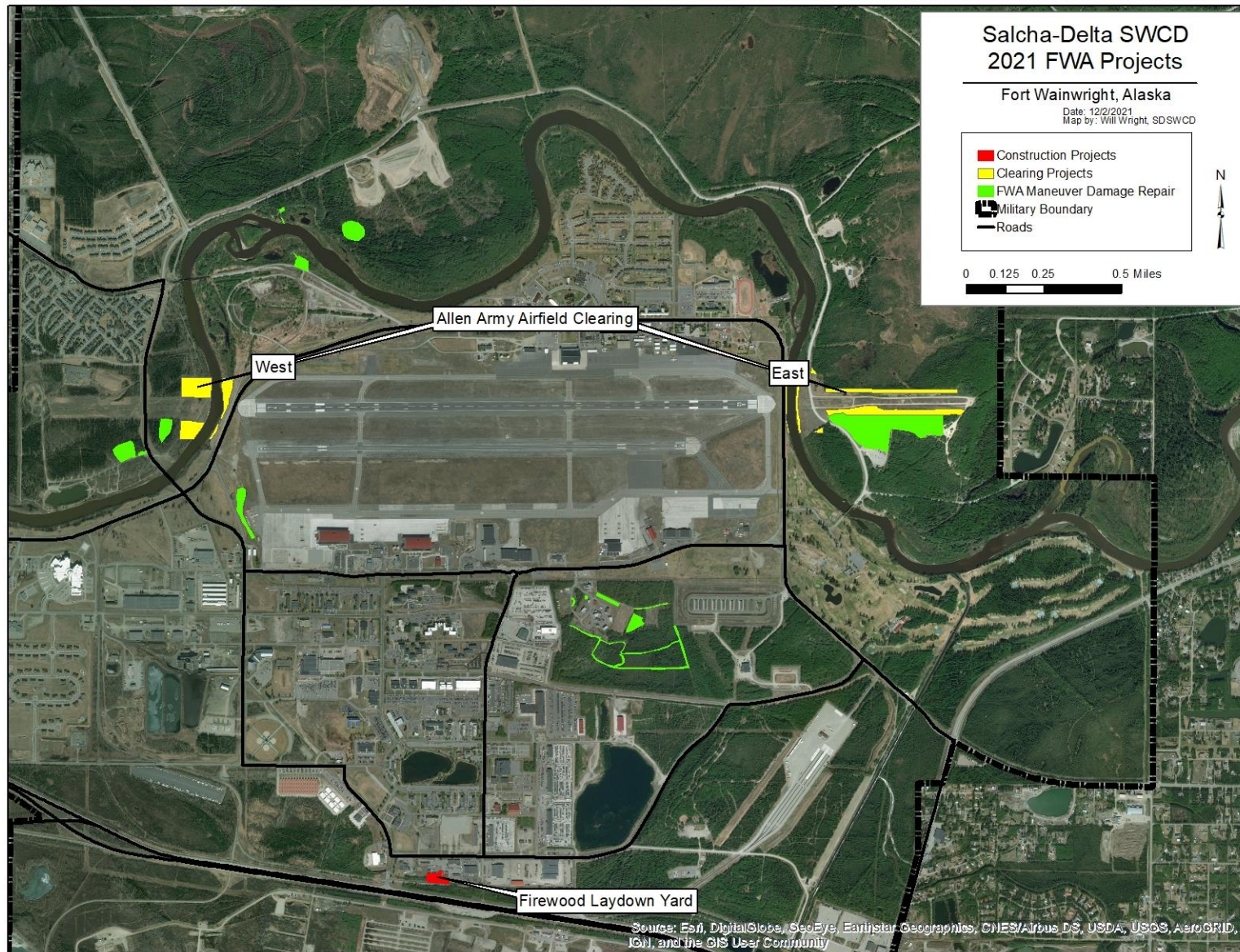
- Forest
- Open Woodland
- Scrub



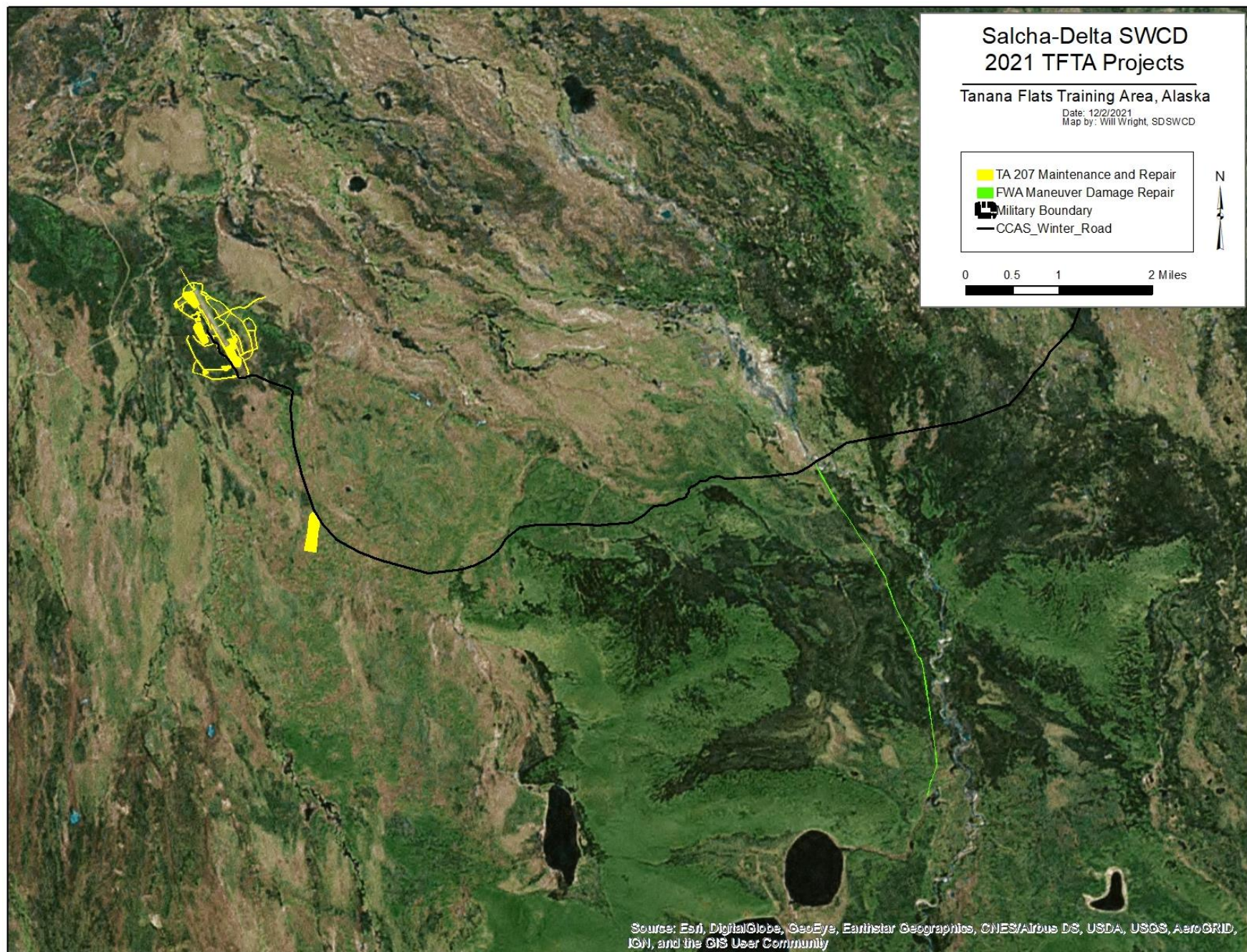
Prepared by Fort Wainwright
Range Control GIS

The following describe SDSWCD LRAM 2021 completed tasks.

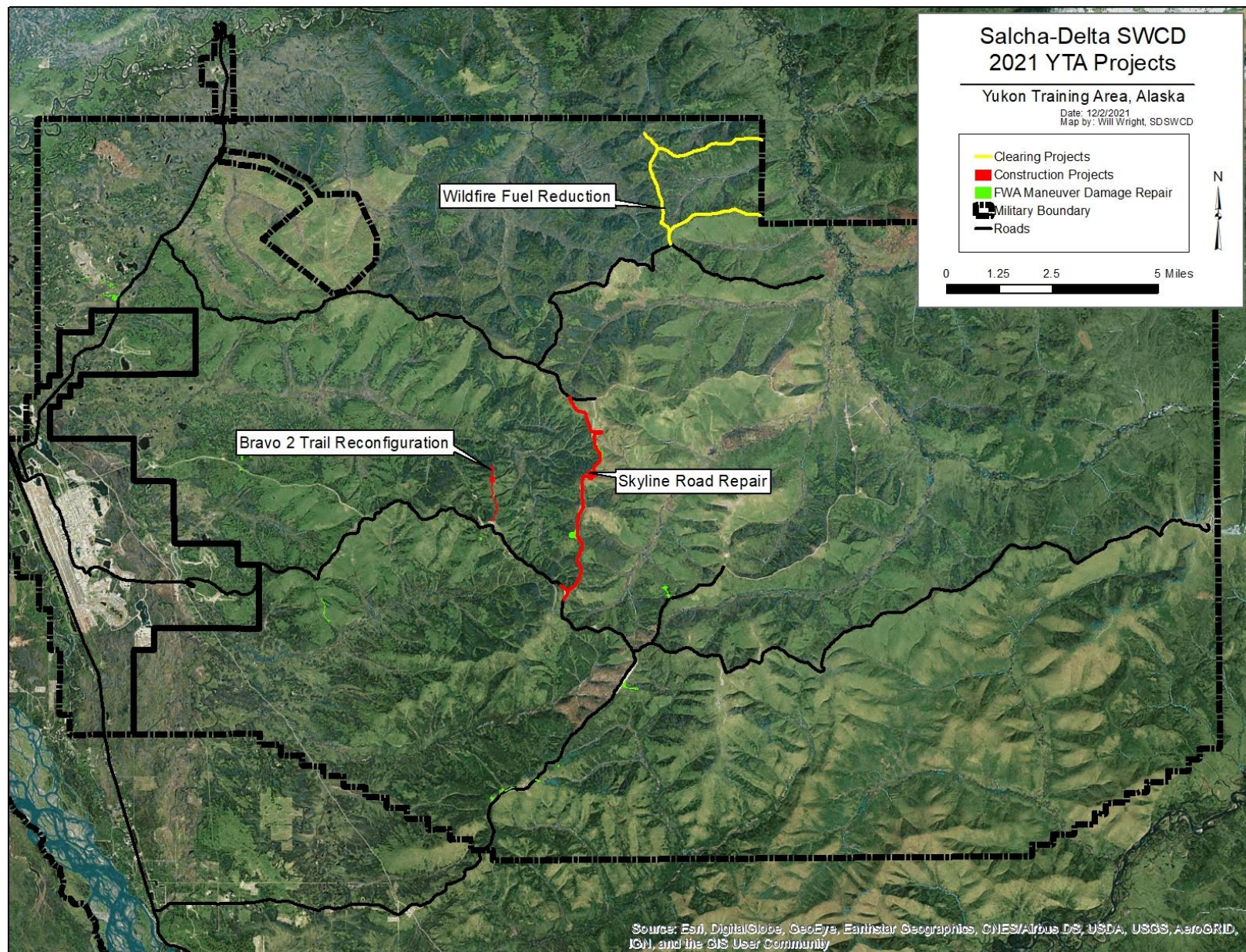
Maneuver Damage Repair: Treated 80.6 acres for general range maintenance on Fort Wainwright, in the YTA, and TFTA. Treatment included brush removal, hydroaxing, and minor dirt work.



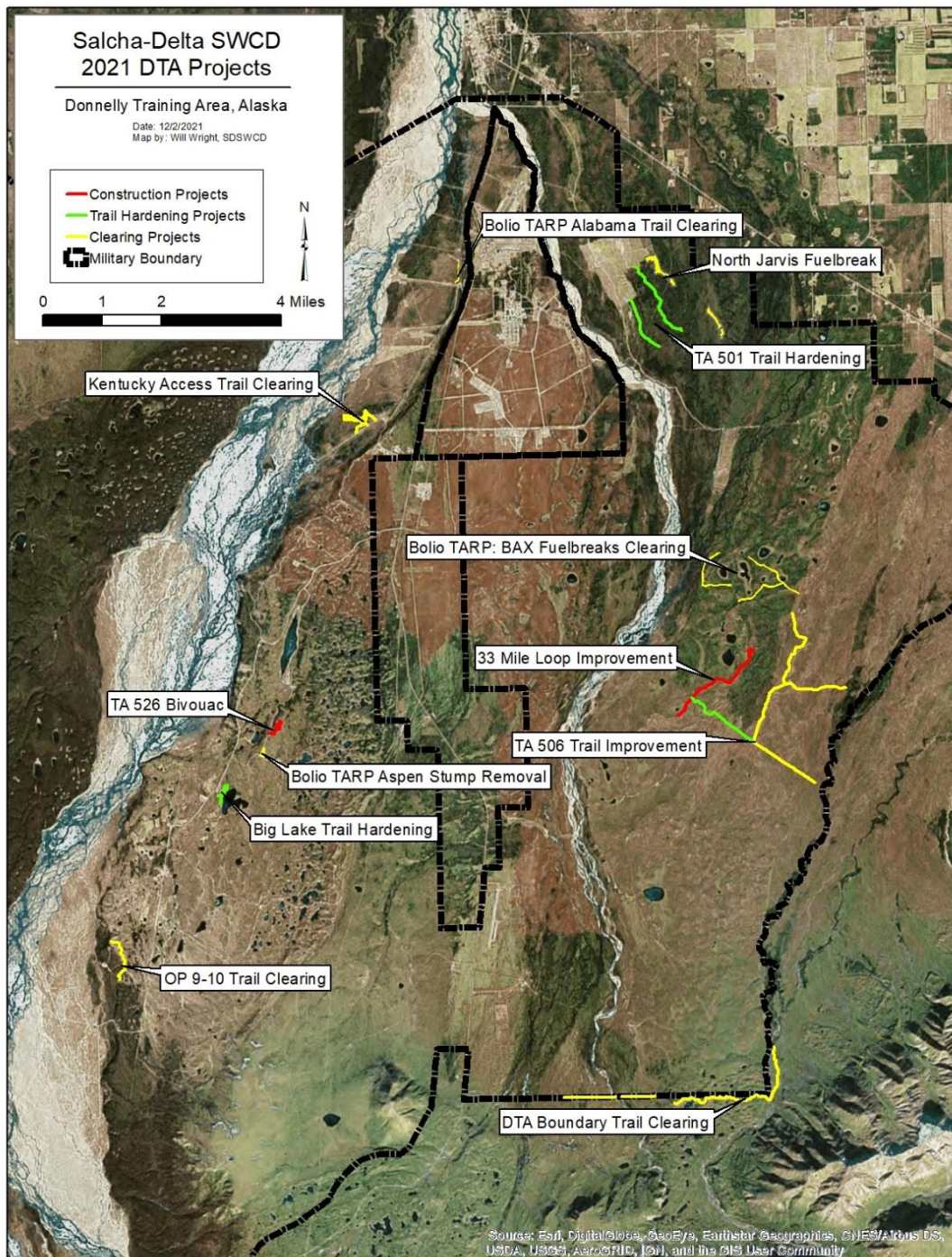
Firewood Laydown Yard: Cleared and gravel hardened 1.2 acres on Fort Wainwright. *Ladd Army Airfield Clearing:* Cleared 19.8 acres at the east and west ends of Ladd Army Airfield in order to improve the flight approaches.



TA 207 Maintenance and Repair: Cleared and brushed 124.2 acres in the vicinity of Clear Creek Assault Strip and along the newly constructed winter road in the Tanana Flats Training Area.



Bravo 2 Reconfiguration: Finished clearing and prepared road base on 1.4 miles of trail. It is planned that a future project will improve this trail with a gravel base. *Skyline Road Repair:* Improved 6.1 miles of Skyline Road from junction with Quarry Road to junction with Beaver Creek Road, including widening and several significant reroutes. Also re-routed 0.4 miles of Quarry Road at the junction to improve safety and reduce grades. *Wildfire Fuel Reduction:* Cleared 45.9 acres of firebreak along historical trails in TA 306, north of North Beaver Creek Road.



526 Bivouac: Hardened 2963 foot trail with pullouts with 1.5 feet of gravel.

33 Mile Loop Improvement: Improved 2 miles of existing trail with 1.5 feet of gravel and a short reroute in order to avoid a steep hill.

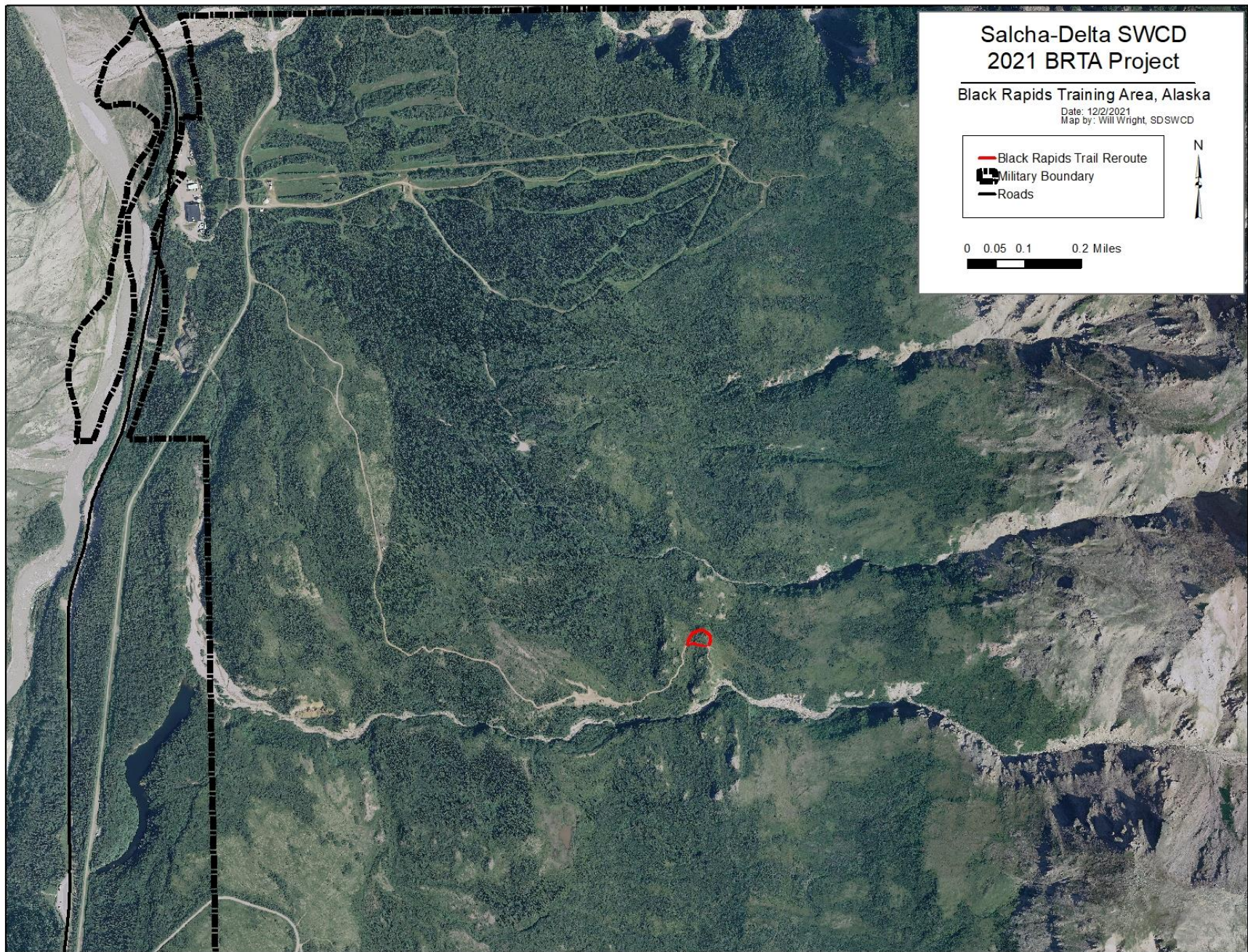
Big Lake Trail Hardening: Applied 1 foot of gravel to 2025 of trail in DTA 526.

TA 501 Trail Hardening: Hardened 2.5 miles of trail with 1.5 feet of gravel.

TA 506 Trails Improvement: Improved 1.4 miles of existing trail with 2 feet of gravel. Cleared 5 miles of trail to a width of 60 feet (36.4 acres). It is planned that a future project will improve these trails with a gravel base.

Bolio TARP: Cleared 0.9 miles of trail between OP 9 and 10 in DTA, cleared 2.1 miles of trail in Kentucky Range, cleared 4.2 miles of trail just outside the military boundary to facilitate recreational access without having to enter military land.

North Jarvis Fuelbreak: Cleared 1.6 acres, thinned 10.3 acres, and selectively removed spruce from 69.2 acres in DTA 502.



Base Camp Trail Reroute: Rerouted 400 foot section of trail in order to avoid a very steep and eroded section. Closed and re-vegetated the old trail.

RTLA 2021 Completed Tasks

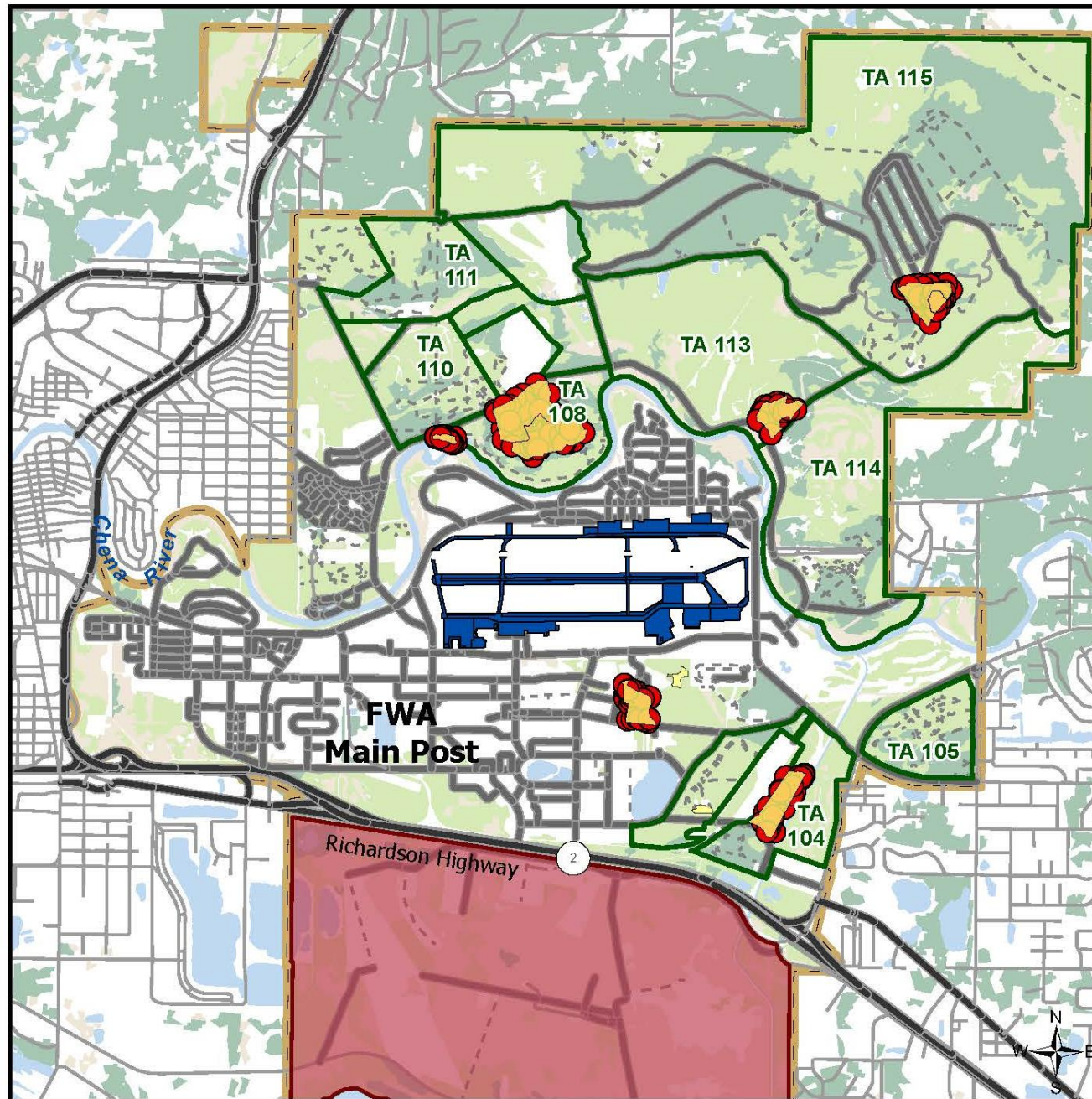
The following describe the CEMML RTLA 2021 completed tasks. The tasks are first described by area divided into (1) Fort Wainwright Main Post, YTA, TFTA and (2) DTA, GRTA, BRTA, WCTA. The tasks are then displayed, by area, as maps or graphics in the subsequent pages.

Fort Wainwright Main Post, YTA, and TFTA

Survey crew completed 1430 data points representing 1846 acres of training lands. This data was used to calculate Land Condition rating, Accessibility, Sufficiency for primary use, and suggest future maintenance needs. Also in production is a GIS assessment of training land use, as recorded in the Range Facility Management Support System (RFMSS). All data has been analyzed and the RTLA 2021 annual report is in progress and will be completed by January 31, 2022.

DTA, GRTA, BRTA, and WCTA

Survey crew completed Sustainable Range Program RTLA; data was collected utilizing four different types of assessments: Land Condition (10,999 acres), Maneuverability (10,999 acres), Trail Condition and Rating (115 miles), and Military Maneuver Exercise Monitoring (data was pulled directly from the Range Facility Management Support System webpage). All data has been analyzed and the RTLA 2021 annual report was completed January 31st, 2022.



RTLA 2021

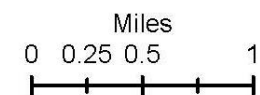
- RTLA Points
- RTLA Polygons

Roads

- Interstate
- Primary
- Secondary
- Tertiary
- Unimproved/Trail
- Training Area
- Impact Area
- Airfield
- Military Installation
- Water Feature

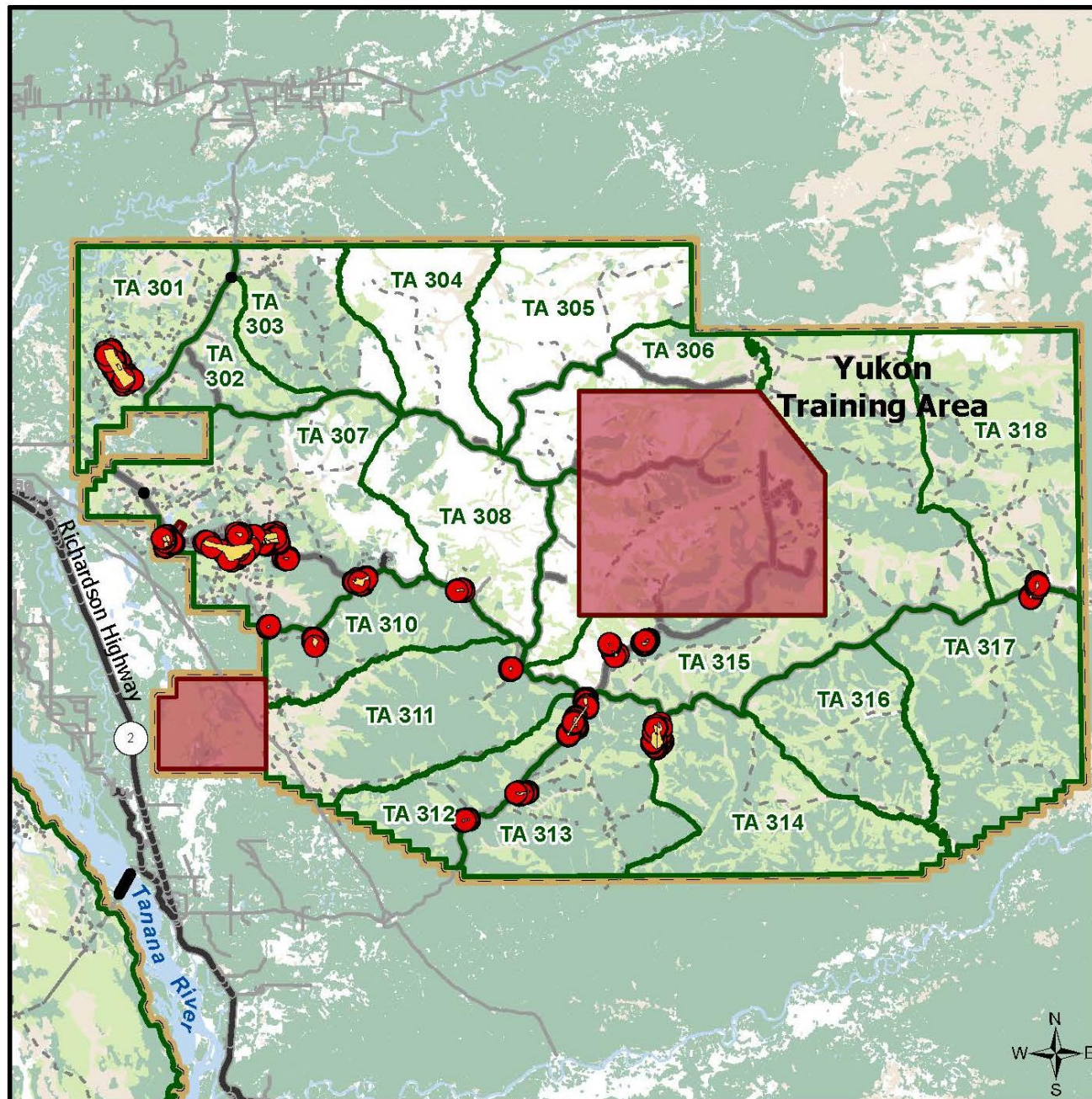
Vegetation

- Forest
- Open Woodland
- Scrub



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RTLA 2021



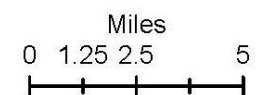
- RTLA Points
- RTLA Polygons

Roads

- Interstate
- Primary
- Secondary
- Tertiary
- Unimproved/Trail
- Bridge
- Training Area
- Impact Area
- Military Installation
- Water Feature

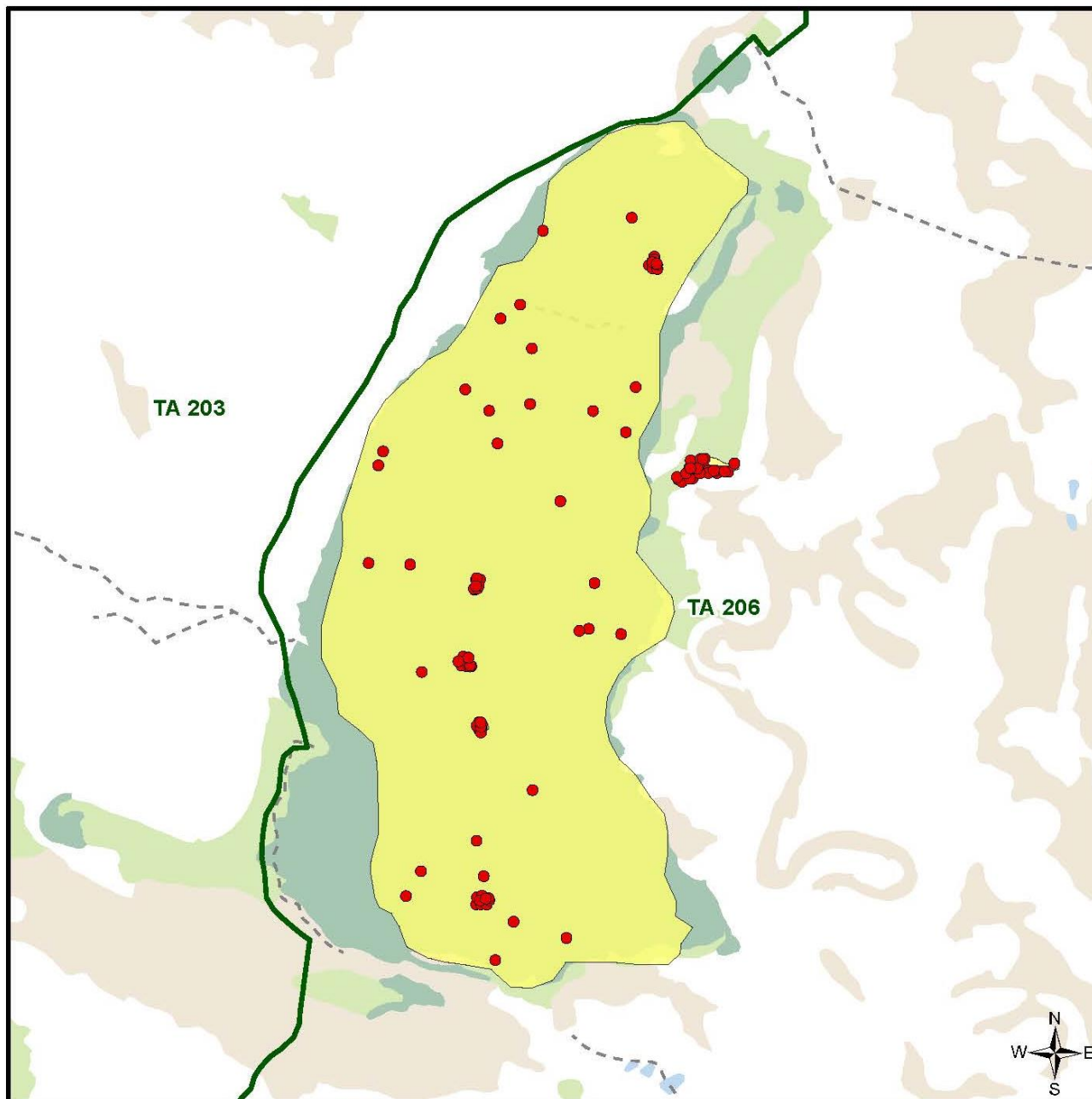
Vegetation

- Forest
- Open Woodland
- Scrub



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RTLA 2021



- RTLA Points
- RTLA Polygons

Roads

- Interstate
- Primary
- Secondary
- Tertiary
- - - Unimproved/Trail

- Training Area

- Impact Area

- Military Installation

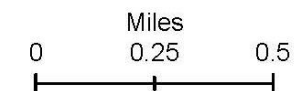
- Water Feature

Vegetation

- Forest

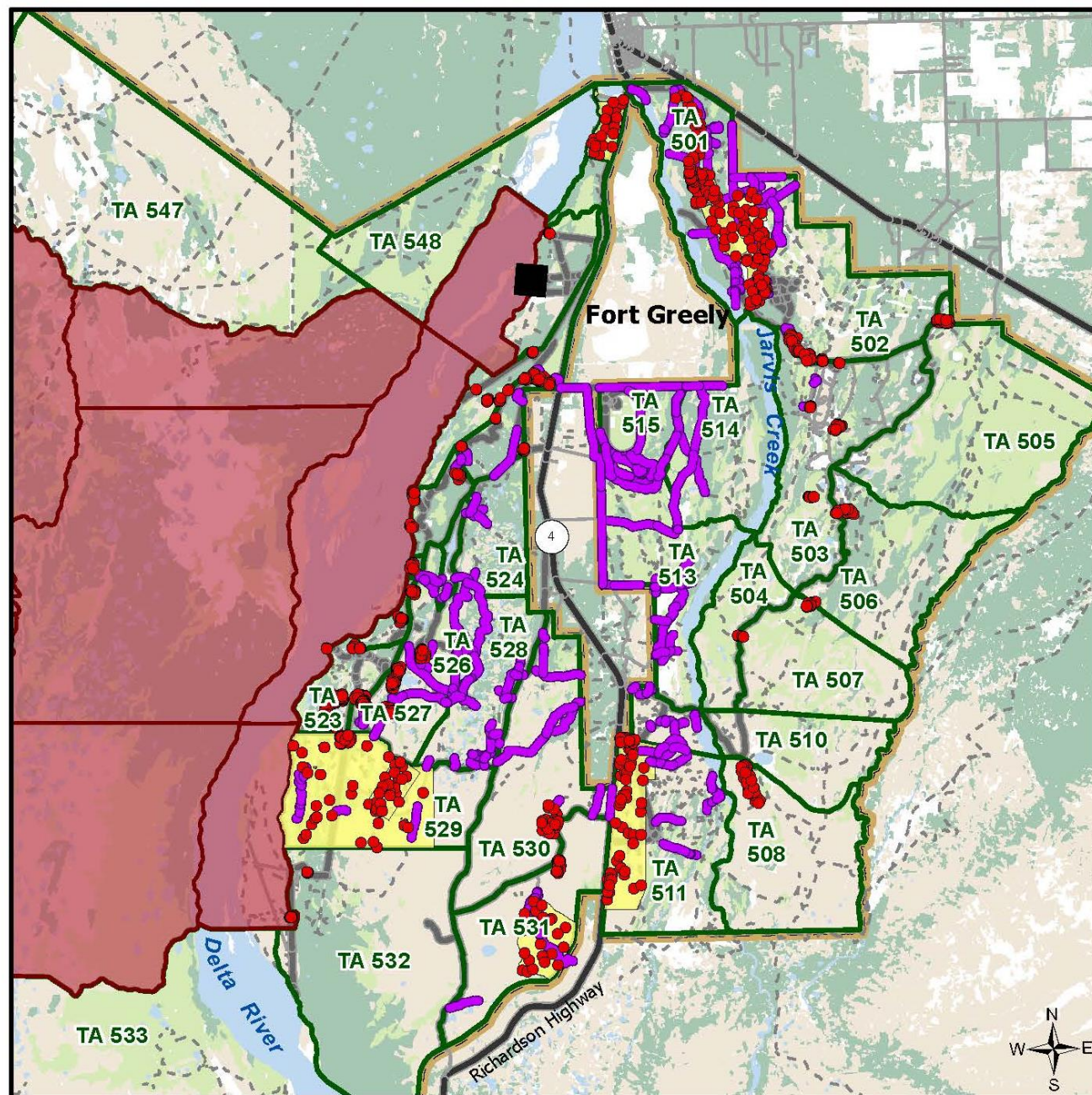
- Open Woodland

- Scrub



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RTLA 2021



- RTLA Points
- RTLA Polygons
- Trails Surveyed

Roads

- Interstate
- Primary
- Secondary
- Tertiary
- Unimproved/Trail
- Training Area
- Impact Area
- Military Installation
- Water Feature

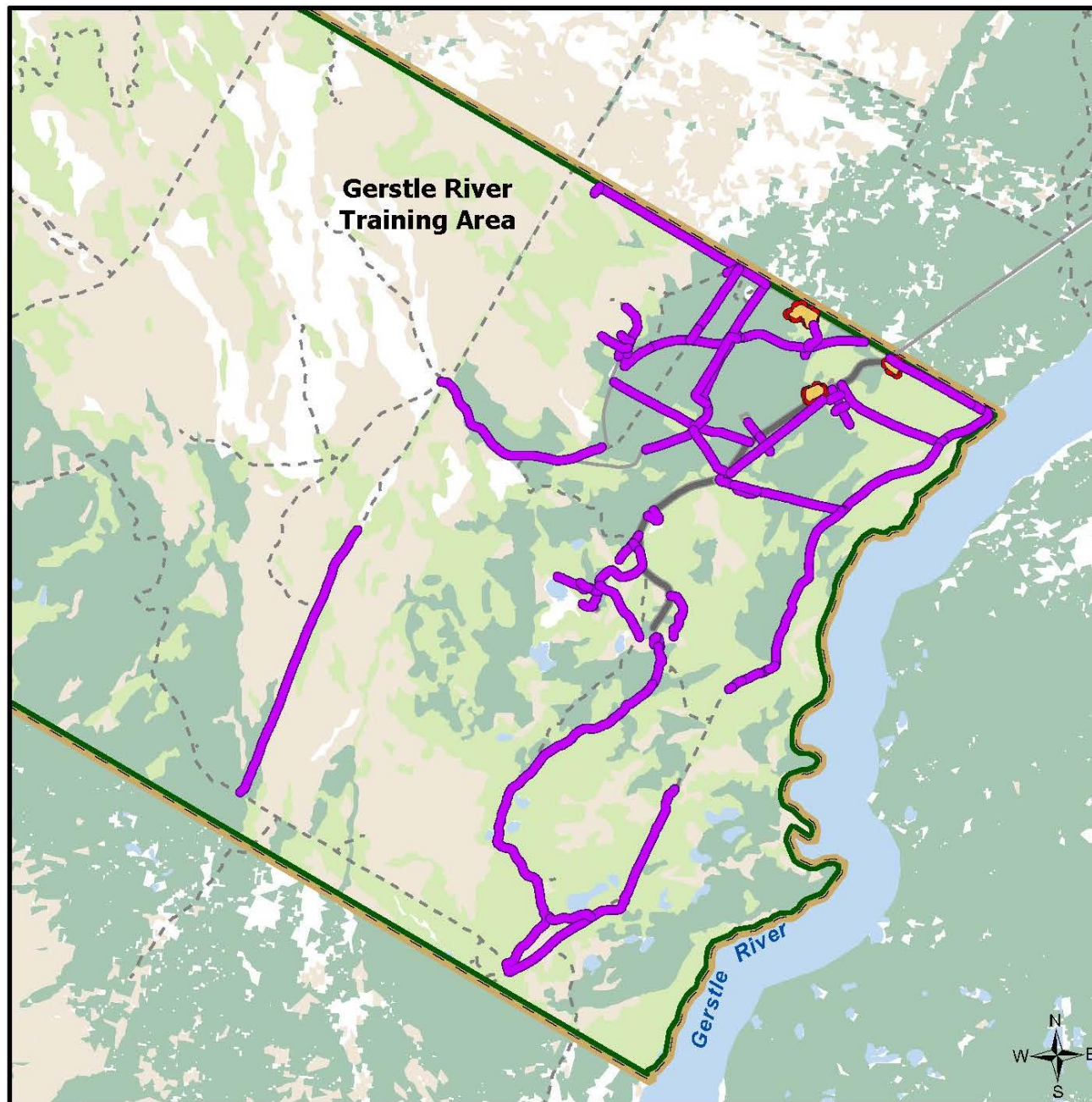
Vegetation

- Forest
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Range Control GIS

RTLA 2021



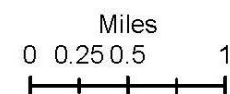
- RTLA Points
- RTLA Polygons
- Trails Surveyed

Roads

- Interstate
- Primary
- Secondary
- Tertiary
- - - Unimproved/Trail
- ▭ Training Area
- ▭ Impact Area
- ▭ Military Installation
- ▭ Water Feature

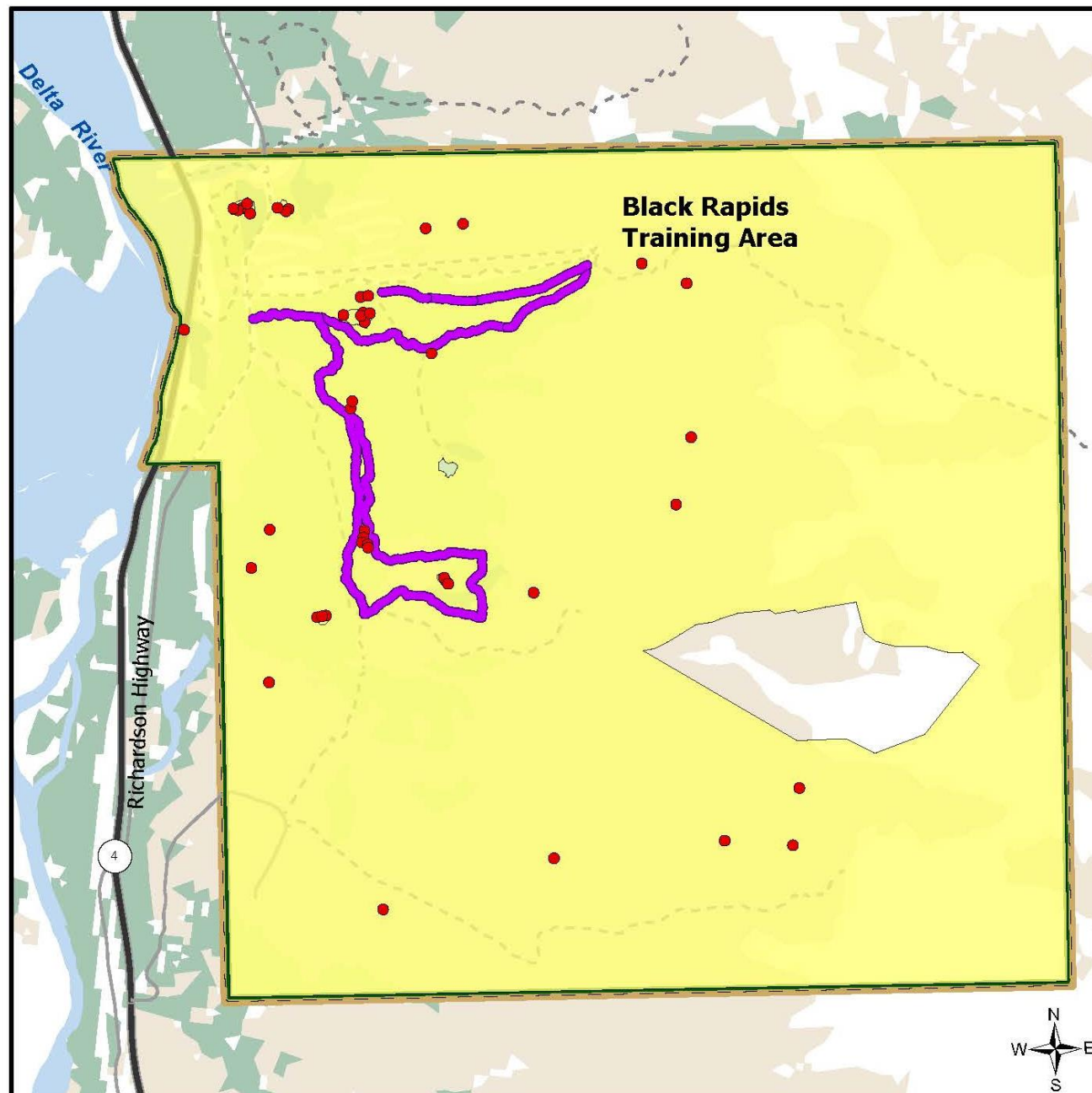
Vegetation

- ▭ Forest
- ▭ Open Woodland
- ▭ Scrub



Prepared by Fort Wainwright
Range Control GIS

RTLA 2021



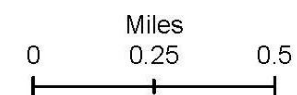
- RTLA Points
- RTLA Polygons
- Trails Surveyed

Roads

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- - - Unimproved/Trail
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- Open Woodland
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Range Control GIS



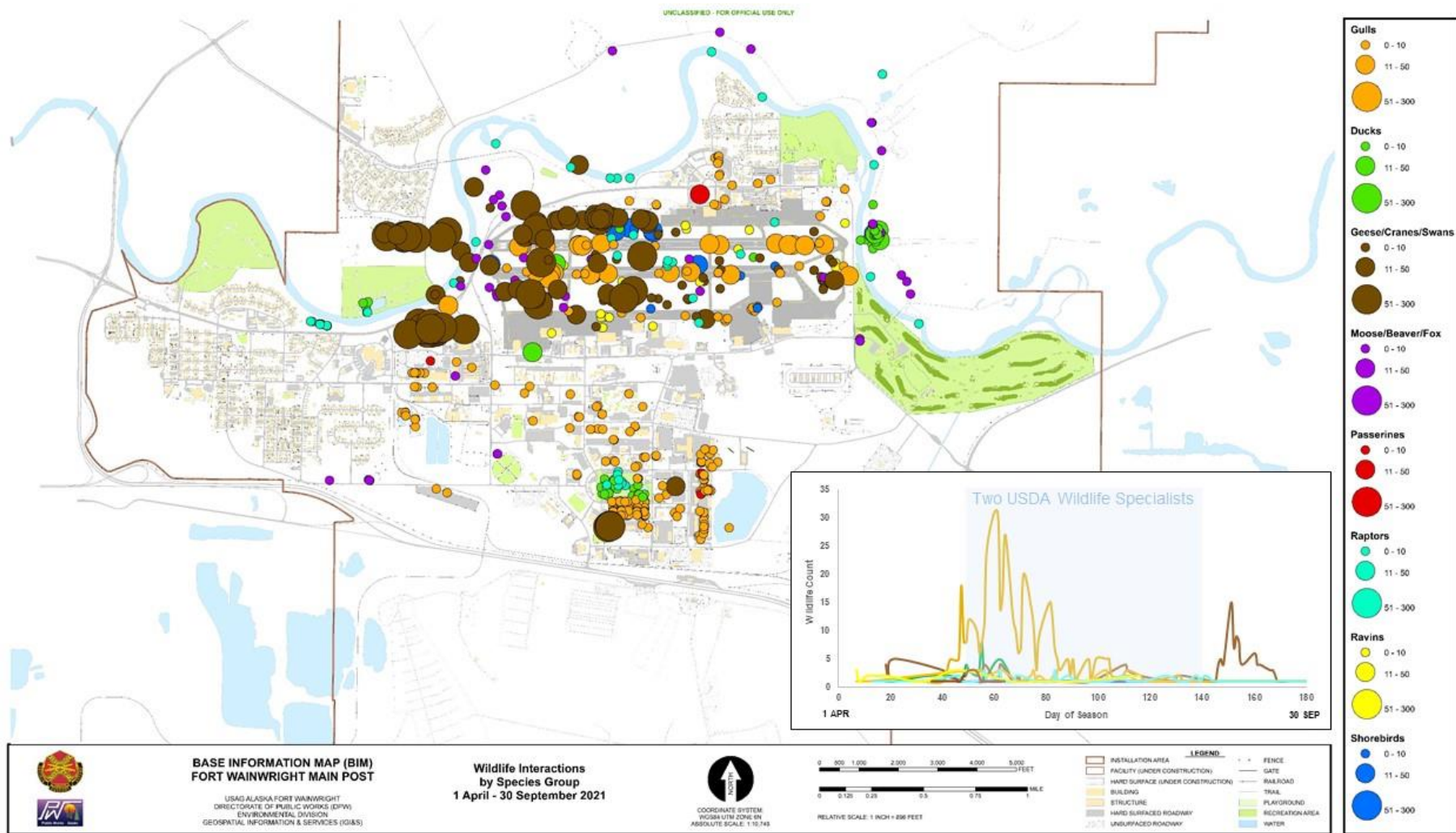
The Blair Lakes winter access trail was assessed before and after moose hunting season to quantify recreational vehicle damage to a newly created trail. 24 kilometers of electrical resistivity tomography measurements were made along the Road route. Results are part of the SERDP funded effort that was completed in July, 2021.

Fish and Wildlife

Fish and wildlife is a broad category encompassing game species, non-game species, fisheries management, migratory birds, wildlife strike hazards, fish and wildlife habitat, wildlife viewing, lake staking, raptor nesting, and more. Various Fish and Wildlife work is done to more broadly improve fish and wildlife knowledge. Due to recent funding realities, fish and wildlife work is now mainly dedicated to permitting requirements which in turn supports the military mission. Therefore, the following section is shorter than in years past.

USAG Alaska DPW Environmental, in cooperation with Ladd Army Airfield and Allen Army Airfield operations, entered into an agreement with U.S. Department of Agriculture Animal and Plant Health Inspection Service Wildlife Services (APHIS WS) to manage permits and migratory birds on Main Post FWA in 2018. APHIS WS is contracted to work towards the goals of (1) reducing the number of birds attracted to the airfield, (2) assisting USAG Alaska to reduce Migratory Bird Treaty Act (MBTA) violations, specifically for nesting Cliff Swallows (*Petrochelidon pyrrhonota*) and Mew Gulls (*Larus canus*), and (3) conduct bird surveys and input on habitat management around the airfield. The Ladd and Allen Army Airfield Wildlife Aircraft Strike Hazard (WASH) Programs are designed to help minimize the risk of a strike to fixed- and rotary-winged aircraft or human health and safety posed by populations of hazardous wildlife on and around Ladd and Allen Army Airfields. An integrated approach of techniques, tactics, and entities is used to support the overall WASH Program.

The following describe the USAG Alaska fish and wildlife 2021 completed tasks. The tasks are displayed as maps or graphics with a brief description. For more information or higher resolution maps or graphics for each completed, ongoing, or future tasks, please contact the USAG Alaska Natural Resource office. For a detailed explanation and history of each program, please refer to the [USAG Alaska INRMP](#).



The USDA conducted 5665 dispersal events on 30 bird species and 3 wildlife species from 1 April to 30 September 2021.