

# SECRETARY OF THE ARMY ENVIRONMENTAL AWARDS 2022

## MAINE ARMY NATIONAL GUARD NATURAL RESOURCES CONSERVATION, SMALL INSTALLATION

Over the past two years, the Maine Army National Guard (MEARNG) Environmental (ENV) and Facilities staff have achieved the monumental: creating an entirely new training site out of a wilderness. Encompassing 5,430 acres, Woodville Training Site (WTS) opened this year with brand new live fire ranges soon to be operational, correcting a significant gap in the MEARNG's training capabilities. Out of rough, undeveloped forests and over 1000 acres of wetlands, the ENV staff have enabled and guided the placement of ranges and roads while simultaneously building the natural resources structures that mutually embed conservation and mission goals. Over the past two years, the ENV staff successfully completed nearly 4,200 pages of permit applications and federal authorization requirements almost entirely in-house, allowing 56 acres of new construction to proceed, to include a light demolition range, small arms range, battalion-sized bivouac/billeting facilities, and over seven miles of roads. Critically, these training resources have been sited with minimal habitat impacts and an eye to future development plans. Indeed, because the WTS location was once used for commercial forestry, the MEARNG's training use of the land enhances stewardship and habitat quality, including critical habitat for endangered Atlantic salmon and Canada lynx.



Program Management



Technical Merit



Orientation to Mission



Transferability



Stakeholder Interaction



Program Impact



WTS is now operational through the efforts of ENV staff, who completed 88% of the permit and authorization work required in-house, submitting some 4,159 pages of permits and authorizations, to meet compliance for state and federal agencies including US Army Corps of Engineers (USACE) and US Fish and Wildlife Service (USFWS). This effort was above and beyond their regular duties for ongoing natural resources conservation for the MEARNG. The result of the combined permitting and training site design work, however, has transformed WTS from undeveloped land into a truly viable ecosystem where conservation and mission can be mutually reinforced into the future. WTS was initially crossed by a network of old logging roads that were designed for temporary and frozen winter use. With over 1000 acres of wetlands on site, these roads intersected wetlands and provided poor access to WTS lands. Using these roads for intensive military training would have caused ecological harm. The planned development of the training site has unlocked that intersection of roads and wetlands, with seven miles of new roads constructed to incorporate water crossings and open-bottom culverts preferred by wildlife and returning water to natural channels.



WTS has been designed to protect the watershed and promote critical habitat, with the training resources sited strategically to avoid negative impacts and deconflict wildlife. Daily calls and weekly meetings helped to keep all components aligned, with the Environmental Program Manager, Engineering Project Manager, Natural Resource Manager, Training Site Manager, and Environmental GIS Specialist acting as key integrators among all the MEARNG directorates. This communication helped the MEARNG to remain nimble as the installation design plans adapted to new information, new needs, and budget fluctuations. Further integration with the ITAM Coordinator and Construction Project Manager has allowed WTS to embed environmental processes and awareness into all operations from the onset. Together, the



branches launching WTS have emphasized in-house efforts, small-scale directed project funding, sustainment, repair, and modernization (SRM) funding, and range modernization funding vehicles to support design and planning. Indeed, the MEARNG's success in opening WTS for operations this year is even more notable because the establishment of this training site was not supported by significant budget allocations; a one-time influx of State funding allowed for the land acquisition, but did not extend to the environmental work or construction required to build out the training site. The cost savings of in-house permitting and fieldwork projects are enormous. The money that has been saved by in-house environmental compliance work has been redirected to construction and development of the training site resources. This approach saves time as well; survey and permitting issues inevitably arise in the course of construction, but the ENV staff are now incredibly experienced at managing these issues on their own. This offers the MEARNG flexibility and adaptability that would not be possible if outside contractors were needed whenever obstacles arose.



The other key element of WTS's success is the strong relationships that the ENV staff built with Maine's Tribes and regulators, including USFWS, USACE, Maine Department of Environmental Protection (MEDEP), Maine Department of Inland Fisheries and Wildlife (MEDIFW), and the Maine Land Use Planning Commission (MELUPC). ENV staff sought out direct input and support from these agencies, fostering collaboration with all stakeholders being invested in WTS's success. With these agencies, the ENV staff are developing the new Integrated Natural Resources Management Plan (INRMP) for WTS, which represents a unique opportunity to build the training site and its environmental program together, from the beginning, with full regulatory buy-in.



As the MEARNG delved into creating WTS, the opportunity for habitat enhancement and impact avoidance was clear. Higher quality wetlands and watershed conservation have been priorities, allowing other suboptimal wetland areas to be converted to ranges or other training resources. Wetland and habitat impacts have been minimized and an in-kind wetland mitigation proposal was accepted by USFWS, permanently preserving 145 acres of high value wetlands and 145 acres of adjacent upland buffer within the training site. This compensation plan represents a savings on the order of \$650,000 over MEDEP and USACE's In Lieu Fee program.



Woodville Training Site is located south of the Canada lynx's preferred boreal forest habitat, but lynx are still present on site. Construction and operations planning and natural resource management, including timber harvest, all incorporate protection and enhancement of lynx and their habitat.



Over the past two years, natural resources projects on the training site have emphasized repairing or limiting erosion to enhance riparian habitat especially. New culverts and crossings have been constructed where streams had washed out old logging roads or where beaver dams had created damaging floods. The USFWS-recommended Stream Simulation design is being used to maintain or restore natural hydrology and habitat connectivity. This is especially



An example of the conditions facing the ENV personnel at WTS. Above, beavers had blocked undersized and “hung” culverts, which caused the road crossing to erode away during spring snow melt. Below, the same site after restoration. A new road has been constructed with storm water turn-outs and an open-bottom box culvert that allows habitat passage and is sized for anticipated future flood flows.



important on the post to maintain and enhance potential habitat for endangered Atlantic salmon. All of WTS is designated as critical habitat for this species, though a novel eDNA test during stream surveys last year confirmed that the salmon is not currently present. There are beaver dams and low-oxygen stream segments separating WTS from the river where salmon travel, and it is possible that these areas function as a barrier for the salmon entering the WTS waters; the training site, however, will continue to manage and preserve, and even improve, the critical habitat watershed. Abatement of beaver dams is one practice, for instance, being incorporated into the INRMP. Open bottom box culverts or bridges that allow aquatic wildlife to pass through habitat are being installed at all stream and wetland crossings, with natural stream bottoms used to maintain proper site hydrology to support salmon needs. Stormwater runoff from all roads, structures, ranges and parking lots are being built to retain pre-construction hydrology and treat runoff for temperature, sediment, and nutrient effects.

As a former commercial forestry parcel, WTS

has no shortage of woods; indeed, the training site is located within an approximately 16-million-acre swath of forested land. To protect potentially present Northern Long Eared Bats (NLEB) and migratory birds, the training site is following USFWS guidance to clear trees and prioritize tree clearing in the winter when the bats and birds would be absent. Timber harvesting goals are being incorporated into the INRMP so that the MEARNNG can support future development of



training resources in balance with habitat for Canada lynx, bears, and moose that rely upon the training site's habitat.

Canada lynx, an endangered species, has been seen on the post; WTS lies just south of lynx's designated Critical Habitat. Based on environmental assessments, the development of training ranges is not expected to adversely impact the lynx, and the creation of more forest edge habitat in the course of range construction is actually an improvement for lynx habitat needs.

Based on the research that has been completed to support permits and land use authorizations, and the practices being implemented now and standardized in the INRMP, WTS stands to be a sort of exemplar for the ways that military land use and environmental stewardship go hand-in-hand. Active management of the site is improving forest health, with more effective clearing and propagation practices that enhance habitat. Active management is also improving wetlands quality throughout the training site, as erosion issues are corrected and prevented. Because the site was already disturbed, moreover, the MEARNG is in the ideal position to build for its training needs and then improve upon the undeveloped areas.



The MEARNG mission is the entire reason that WTS is a training site at all. Several years ago, the MEARNG's assessment of its force readiness revealed significant deficiencies in training capabilities with its current installations and travel requirements, resulting in many units struggling to meet required training levels. Many units were unable to complete training qualifications because the state simply didn't have appropriate ranges; as a result, units were forced to travel to other states or remain under-trained. The time spent traveling negatively impacts the amount of time available to train soldiers.

The only solution to this issue was the construction of appropriate ranges and training areas to meet training requirements that could accommodate battalion-sized training, weapons qualification, and heavy maneuvers. The training site is also being planned and developed to support future training needs, including the expansion of the newly constructed small arms range to a 1500-meter QTR and permanent infrastructure improvements to serve two Battalion-size elements of 640 soldiers each and a range support complex with cantonment. With the ENV staff's skills in permitting, the MEARNG is in position to respond quickly when funding is available for these resources, being shovel-ready to commence as the training site now continues the planning and permitting processes for the next several hundred acres slated for development.

All of this training expansion is directly enabled by the efforts of the ENV staff and the work they have done to clear the site for development and establish a management plan for the future. The integration of environmental stewardship into all aspects of the training site is



Members of 2nd Platoon, 136 EN CO install roof sheathing on a SEA Hut constructed at the Woodville Training Site as part of their TY21 annual training.



reflected in the natural resources compliance protocols launched on day one of operations. The ENV staff developed a Permit Conditions Checklist for both Construction and Operations & Maintenance branches, which are in turn incorporated into all associated contracts. The checklists are easy to follow and designed to make environmental compliance simpler for every directorate. The EPAS program also uses the checklist to ensure that construction projects are meeting permit requirements. Permit conditions affecting training were likewise incorporated into the new Range and Training Site Standard Operating Processes (SOP), and wetland compensation parcels have been blazed and marked for foot traffic only. These measures effectively avoid environmental impacts from ever occurring.



As a result of this focused effort over the past two years, the light demolition and 25-meter range were constructed in FY21 and opened for use this year. These ranges now allow for 640-plus personnel to qualify in their weapons training and in all equipment currently in use for the MEARNG. In fact, WTS may become a destination for other state Guard units in the region, as it will be the only training site in New England offering unrestricted demolition training. Ranges were constructed with preventive measures to avoid future compliance-related interruptions. For instance, to enable use of demolition charges containing RDX, the MEARNG will incorporate lime into surface soils during training; the lime will break down the RDX materials to prevent migration of those components off the range or into the watershed. This simple preventive measure protects the MEARNG from potentially significant remediation in the future and affirms the MEARNG's credibility with state regulators. It also protects Atlantic salmon habitat and the aquifer the training site shares with a bottled water company.



With so many moving pieces to establish this training site, the Environmental staff and their partners in other directorates have been diligent about capturing all their documentation to create a comprehensive repository that will serve not only the current oversight needs, but also the environmental management needs in the future. The WTS NEPA Environmental Assessment and in-progress INRMP are two vehicles through which all data and documentation is being aggregated and operationalized. All materials are also captured in the MEARNG's GIS database. This coordinated approach with Environmental permit and authorization processes serving to structure and document coordination and planning is one that any other Guard could adopt when tackling a new property acquisition and building a major training site from scratch. The emphasis on front-end planning and compliance, moreover, has streamlined the construction process and introduction of training. The training site has begun supporting environmental education for Soldiers and in the community as well, providing an internship opportunity this year for a local university student who has conducted natural resources surveys and education and outreach on post. The intern is developing kiosks highlighting Canada lynx protective measures and natural resources modules that can be incorporated into soldier environmental briefings.



WTS is in a sparsely developed area, with approximately 250 residents living in two townships totaling just under 100 square miles. The community outreach involved in this effort, therefore, has been focused on the level of municipalities and state agencies. Permits for the needed construction were required from the state to comply with Maine's equivalent of the NEPA process; permitting was also required with USACE whenever wetlands are impacted, in consultation with USFWS. Maine also has a wetlands and significant wildlife habitat protection law that applies. The ENV staff have conducted four rounds of public outreach with the support of local town offices, including online public notice and outreach during the pandemic.

The ENV staff engaged with these stakeholders early and often, meeting with the state environmental regulator and state zoning boards at every stage of WTS's development. With this outreach, the response of the public has been notably favorable. Supporting the readiness of the MEARNG's soldiers is a commitment shared by these stakeholders and communities, and the training site is a valuable resource for the community and an enhancement to the region's ecological quality.