

Weapons Qualification Range Renovation

Multipurpose Machine Gun (MPMG) Range

Camp Edwards at Joint Base Cape Cod

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Key Messages

- An MPMG Range at Camp Edwards would provide Soldiers the necessary, modernized training capabilities to meet mission training objectives, while reducing Soldier travel time from the closest MPMG range in Vermont (270 miles). *(The MAARNG is committed to providing the best training available to ensure our Soldiers are well prepared for combat missions and are away from their families for as little time as possible.)*
- The MAARNG has extensively coordinated the MPMG environmental process, including mitigation activities, with multiple state and federal agencies, including the MA Division of Fisheries and Wildlife, the Environmental Management Commission, MA Department of Environmental Protection, US Environmental Protection Agency and the Impact Area Groundwater Study Program. Additionally, the state and Federal environmental review processes have been fully engaged with a MA Environmental Policy Act Certificate received in July 2020. *(The Guard has and will continue to work with its environmental programs as well as state and federal environmental regulatory agencies to ensure all training at Camp Edwards is protective of the environment.)*
- Camp Edwards has extensive environmental oversight and partnerships to ensure the compatibility of military training activities with the quality of groundwater and wildlife habitat. There is an extensive process for approval of construction, use, and maintenance of small arms ranges, other Army training, and land management.
- The MAARNG has a dedicated Environmental Affairs Program charged with environmental health, regulatory compliance, and conservation for sustainable military training within a healthy ecosystem. Long-term management planning and conservation actions are developed and implemented with a broad base of partner agencies and organizations with the goal of demonstrable net benefit for natural communities, rare species, and other sensitive resources.
- As reviewed in the Single Supplemental Environmental Impact Report certificate, a greenhouse gas analysis was completed for the project closing with the statement from the MEPA office that "The lifetime sequestration provided by the land preservation, forestry management MPMG-specific mitigation activities will mitigate the project's GHG emissions and the one-time loss of carbon associated with land clearing." Actions at Camp Edwards, including larger construction projects, are incorporated into a landscape level conservation planning effort – specifically the Sikes Act required Integrated Natural Resources Management Plan on which the MA Division of Fisheries and Wildlife and US Fish and Wildlife Service are signatories. Effective conservation must be holistic and address a multitude of challenges and conservation threats. Climate change presents many short term and long terms threats and challenges to land managers and conservationists. We focus on climate resilience and incorporating resiliency into conservation planning and management. Keeping our communities safe and ecosystem healthy can only be done through sound conservation management including forestry and prescribed fire. Wildfire

risks are already increasing due to climate change, especially in highly flammable environments such as the pine barrens of southeastern Massachusetts and New Jersey. Additionally, major stressors such as drought, storms, and forest pests are increasing in frequency and severity due to climate change. The area being cleared for the range development and the surrounding areas are low quality, even aged, and over-stocked pitch pine – oak that is overall unhealthy and not supporting the rare species of the pine barrens due to centuries of land use history. Pine barrens are dependent on disturbance, particularly with the land use history of southeastern Massachusetts. The areas surrounding KD Range are very densely overgrown, which excludes rare plants and animals and creates an unhealthy forest condition with low growth rates. Introducing habitat management (forestry and prescribed fire) increases solar exposure, reinvigorates and restores vegetation, and leads to significantly increased growth rates, which long-term will lead to overall increased growth and carbon capture in addition to improving habitat and reducing fire hazard. The clearing of the range, especially in light of the extensive mitigation through both land protection and habitat management, helps meet multiple goals for building climate resilience within a pine barrens environment. Developing a mosaic of habitats for a variety of early successional species while developing much healthier forests through sound conservation management is critical to protecting people and communities while also preserving our coastal pine barrens and making Cape Cod more resilient to the primary and secondary climate change impacts.

- This project does not constitute major operational changes to training on Camp Edwards. It simply consolidates existing 5.56 and 7.62 machine gun firing under the US Army’s most recent training and certification standards. Modification of the existing “Known Distance” or KD range will allow required qualification using these weapons at a single approved location.

Background

In 2015, the Massachusetts National Guard was authorized a MILCON (DOD federally funded Military Construction) project to construct a Multi-Purpose Machine Gun Range (MPMG) on Camp Edwards at the current KD Range. The approximately \$11.5 million project consists of \$9.7 million for range construction and \$1.8 million for targetry.

An MPMG is where soldiers train and qualify with automatic weapons, primarily the M249 and M240 and .50 caliber. The project consists of eight firing lanes, which are 800 meters long with automated targets. All ammunition used on this range would be copper ammunition, no lead ammunition will be fired. Currently, the Massachusetts National Guard doesn’t have a location to meet the training requirements set forth by the Department of the Army and must travel to either Camp Ethan Allen in Vermont (270 miles away) or Ft. Drum to complete necessary training. Constructing an MPMG at Camp Edwards reduces soldier travel time while maximizing the time available for conducting higher quality, mission-essential training activities at Camp Edwards.

The MAARNG is proposing to build the MPMG on the current KD Range due to its flat topography and because its surface danger zone (the area that any fired bullet could possibly travel) is entirely within the boundary of Joint Base Cape Cod. KD Range was in use for many years as a small arms range and now primarily supports unmanned aerial vehicle training. KD Range encompasses approximately 40 acres. To accommodate the MPMG, the MAARNG would have to clear up to 170 acres of habitat for the range

footprint, facilities, utility extensions, access, and firebreaks to maintain or improve the habitat while reducing wildfire hazard.

Over the past five years, the MAARNG has coordinated with multiple state and federal agencies including MA DFW's Natural Heritage and Endangered Species Program to ensure that adverse impacts to natural resources (including state-listed endangered species) were avoided or mitigated, and the Environmental Management Commission, which has oversight of the approximately 15,000-acre Camp Edwards Training Site (also known as the Upper Cape Water Supply Reserve), where the MPMG would be built. The MAARNG developed a comprehensive mitigation strategy, in which the MPMG construction is included. Mitigation for the project will be on a 4 to 1 ratio (four acres mitigation for every acre impacted) and a direct transfer of 260 acres of land to Crane Wildlife Management area, which abuts the base.

Environmental review of the project began in May 2018, and is reviewed under both the *National Environmental Policy Act* (NEPA) and the *Massachusetts Environmental Policy Act* (MEPA). The MEPA process was completed in July 2020 when the MAARNG received a certificate signed by the Massachusetts Secretary of Energy and Environmental Affairs that determined the Single Supplemental Environmental Impact Report (Single Supplemental EIR) submitted for the project **adequately and properly complies** with MEPA and its implementing regulations. The NEPA process is ongoing; an Environmental Assessment was completed and submitted in August 2020 for a 30-day public comment period, which ends September 8, 2020.

As part of the preliminary planning process, Camp Edwards conducted a test fire at KD Range on August 14, 2015 to simulate noise from the proposed MPMG range. Bordering neighborhoods were notified and asked for input. As a result of this test, the MAARNG shifted the location of the MPMG range north to reduce potential noise in bordering neighborhoods.

Other surveys included an Archeological Survey in 2016 (no "finds" reported), habitat condition surveys, and numerous wildlife surveys including surveys and searches for federal and state listed rare species and more general surveys such as bees and breeding birds.

Q&As

How much will the project cost?

The approximately \$11.5 million project consists of \$9.7 for range construction and \$1.8 million for targetry. The project is funded through Military Construction (MILCON) funds.

When is the project expected to be complete?

Pending environmental agency approval, initial construction is planned for late 2020 and the project would be scheduled for completion approximately two years later.

How long have you been working on this initiative?

An MPMG type range has been in discussion since 2012. In 2015, Camp Edwards began the preliminary planning process for this range. Environmental review of the project began in May 2018 under the National Environmental Policy Act (NEPA) and the Massachusetts Environmental Policy Act (MEPA), both of which require a public process. During the entire process, the MAARNG has provided updates to the Environmental Management Commission and its advisory bodies, which meet publically several times per year.

Where is the MPMG going to be located?

The proposed location for the MPMG is planned for the current KD Range. The existing KD Range, which presently covers 40 acres would be expanded to accommodate the MPMG range.

What weapons will soldiers train with on the MPMG?

Weapons used will primarily be the M249 (5.56mm) and M240 (7.62mm) machine guns. A standard MPMG range supports the use of machine guns (M249, M240, and M2 (.50 caliber), shotguns, pistols, and the MK19 grenade launcher. This range was designed to support the only M249 and M240 machine guns. The ability to expand the range to allow for the potential use of the M2 or MK19 (practice rounds) in the future was one of the evaluation criteria for site selection. All weapons systems proposed for usage on the MPMG will have to go through the EMC process for approval.

What ammunition will be used on the MPMG?

The M249 uses 5.56mm copper rounds. The M240 uses 7.62mm copper rounds. All ammunition shot on the MPMG range will be copper-only ammunition. The Department of Defense has moved entirely to copper ammunition for many of its weapons systems. No lead ammunition is authorized—or available—for use on this range.

What is the Environmental Management Commission and how does it provide oversight?

The Environmental Management Commission was established in 2002 to provide oversight of the Upper Cape Water Supply Reserve, which is contiguous with the northern 15,000 acre training area of Camp Edwards. The Commission is comprised of the commissioners of the Department of Fish and Game, the Department of Environmental Protection and the Department of Conservation and Recreation. The Commission oversees compliance with, and enforcement of, the Environmental Performance Standards specifically created through the MEPA process to protect the resources in the Reserve. The EMC's Environmental Officer (EO) is tasked with monitoring military and civilian use of the Reserve and has

unrestricted access to all data and information from the various environmental and management programs. The EO also has full access to all points the Reserve and conducts inspections at any time in order to monitor, oversee, evaluate and report to the EMC on the environmental impact of military training and other activities. The EO coordinates and consults with the MAARNG on projects, initiatives and issues.

Aside from the MEPA/NEPA process, what is the process to approve ranges at Camp Edwards?

All active small arms ranges are approved by the Environmental Management Commission (EMC) in accordance with Chapter 47 of the Acts of 2002 and its associated Environmental Performance Standards (EPSs) and in coordination with the MAARNG. Small arms range design and *Operations, Maintenance, and Monitoring Plans* (OMMPs) are approved by the EMC. Once approved, the range can become active for live fire. The range design and the OMMP are developed to reduce environmental impacts to the greatest extent possible with adaptive management and continuous review and approval.

Once constructed, what happens at the range? Monitoring?

After construction is complete and live firing begins, the MAARNG, along with the EMC's EO, ensures the range is functioning as designed and the Operations, Maintenance and Monitoring plans are approved and implemented. In the Operations, Maintenance and Monitoring Plan, the MAARNG will establish a monitoring schedule where samples will be taken of the range's soil and groundwater to ensure protection of groundwater resources. The MAARNG samples its other active small arms ranges to ensure the health of the habitat and groundwater.

How will the groundwater be protected?

All operational ranges on Camp Edwards are managed to minimize harmful impacts to the environment within the Upper Cape Water Supply Reserve. The MPMG is designed to have individual impact berms behind each target. These impact berms are designed to recover the expended copper to the maximum extent practicable. These berms will also assist in the recovery of copper for recycling, prevention of fragmentation and ricochets and prevention of subsurface percolation of residue associated with range operations. The MPMG will also have an Operational Maintenance and Monitoring Plan that will require the MAARNG to conduct regular groundwater and soil sampling to determine if range operations are protective of the environment.

What is the impact to the habitat? How will this project be mitigated?

Army infrastructure development occurs within a framework of conservation land management and long-term planning. While habitat is being removed for the range, this impact has been planned for and addressed within the conservation management at Camp Edwards. The focus of Army conservation is to manage for healthy ecosystems and rare species populations so that even large scale training support projects do not result in significant ecological impact. A long-term mitigation and Net Benefit plan has been developed with the MA Division of Fisheries and Wildlife and the overall conservation management is guided by the MAARNG's Integrated Natural Resource Management Plan for Camp Edwards. The INRMP provides for sustainable land management integrating regional conservation issues and trends, Army training needs, on-site resource monitoring results, and active habitat management. The loss of habitat for the range is being directly offset by significant habitat improvement over many hundreds of acres and a perpetual conservation management requirement.

The MAARNG has already implemented much of the habitat and rare species mitigation tactics, including a 4:1 mitigation ratio for rare species habitat improvement (four acres preserved for every acre impacted) and an expanded Crane Wildlife Management area through direct land transfer of 260 acres. A total of 542 acres of habitat restoration was completed as mitigation in FY2019 with an additional 157 funded in FY2019. Additional mitigation and Net Benefit for rare species is addressed through long-term surveys and monitoring of rare plants and animals and overall ecosystem health indicators. This allows for adaptive management and demonstration of ecological impacts from development and habitat management.

Why can't the MPMG be built at another MAARNG facility?

Camp Edwards is the only MAARNG training site with an active range complex and the ability to accommodate the amount of land required for the MPMG range footprint and Surface Danger Zone. All other MAARNG facilities are either Armories, Maintenance Shops or Training Facilities and do not have the land required to accommodate the range.

How can you consider building this at Camp Edwards?

All training must be compatible with environmental protection and as we have done for all other small arms ranges at Camp Edwards, Best Management Practices are established and the range is run with an Operation, Maintenance and Monitoring plan to ensure protection of the environment. The Operation, Maintenance and Monitoring Plan is approved by the Environmental Management Commission's Environmental Officer.

What is a Surface Danger Zone? Why do you need more than 5,000 acres for it?

The Surface Danger Zone is an Army model for potential bullet impacts from range use calculating a 1 in a million probability of bullet impact from direct fire and ricochet. The SDZ is an administrative safety boundary and not part of the project implementation. It is a model and map used to ensure areas of potential hazard are closed during range use and that ranges are sited properly during the planning phase.

What is being done to protect the environment/plants/animals, etc?

The MAARNG has been proactively implementing mitigation actions for the project since early 2019. The mitigation plan has been in development in partnership with MADFW since 2018 to ensure comprehensive planning and sufficient mitigation as discussed above. Long-term surveys of plants and animals have provided strong understanding of the natural resources at Camp Edwards, which facilitates planned and effective conservation. The overall training site is managed for constantly increasing ecosystem health and long-term sustainability with Army training. Long-term planning of both range development and conservation ensure efficient use of resources and minimization of environmental impacts. Our active habitat restoration and management is combined with active research and monitoring to ensure we are meeting objectives and improving the environment.

Southeastern Massachusetts and Camp Edwards host a globally rare pitch pine and scrub oak barrens natural community with a large number of rare plants and animals that use it. The barrens ecosystem is dependent on frequent natural disturbances or active management such as conservation forestry and prescribed fire. The rare flora and fauna of the community decline if the barrens become overgrown and transition into forest. Based on the history of Cape Cod most remnant forests are the result of

heavy logging followed by neglect and are generally unhealthy from crowding and at risk of pests and pathogens. Management for a barrens ecosystem restores rare species populations and results in healthier trees and woodlands.

Building the MPMG will cause an increase in traffic, especially over the aging Bourne and Sagamore bridges.

Range operations could result in increased traffic from units traveling to Camp Edwards to utilize the MPMG Range, other small arms ranges and training lands and facilities; however, these impacts are not anticipated to be significant given the proposed training would only occur sporadically throughout the training year.

Building the MPMG is “militarizing” Cape Cod.

Camp Edwards has been in use continuously since training began in the area in 1911. Small arms range training is a historical—and current—use of Camp Edwards. Camp Edwards currently operates six small arms ranges and numerous areas that support soldier training activities such as land navigation, bivouacs, and engineer/infantry/artillery skills training.

Was the Massachusetts Environmental Policy Act process completed?

Yes. An expanded Notice of Project Change to the Final Area Wide Environmental Impact Report for Massachusetts National Guard Properties at JBCC–MPMG was published on February 10, 2020 and a Single Supplemental Environmental Impact Report was published for agency and public review on June 10, 2020. On July 7, 2020 a certificate from the Secretary of Energy and Environmental Affairs determined the proposed MPMG adequately and properly complied with MEPA and its implementing agencies.

Has the public been involved? Is there any public awareness?

The MAARNG first determined the need for an MPMG range in 2012 as part of its Range Complex Master Planning process. The MAARNG first discussed the range in 2012 at a public meeting of the Science Advisory Council. Plans for the MPMG were presented at public meetings of the Environmental Management Commission and its two advisory councils (the Science and Community advisory councils) in 2015, 2016, 2018, and 2019. The Upper Cape towns have appointed representatives sitting on the Community Advisory Council. Information on the range was also presented annually in the MAARNG’s Annual State of the Reservation Report beginning in 2015 when a noise study was conducted at KD Range, near the base boundary that included a mailing to the 700 homes near the base boundary requesting feedback from residents.. A subsequent live fire noise study was completed in 2019 to accommodate the moving of the proposed range northward to reduce noise impacts. Both MEPA and NEPA have a public process.

Will there be any impact to residences near the base?

During construction residents may notice temporary increased traffic due to construction vehicles and some noise associated with construction activities. When range operations begin, residents may see additional convoys transporting soldiers and equipment to the base and may hear some noise from weapons firing. The MAARNG will establish a noise notification protocol to provide public notification of upcoming training events, particularly the .50 caliber activity. It will also create a noise complaint hotline

that will be available to the public. Noise testing will be conducted once the range is fully operational and noise minimization measures would be considered if needed.

What about impacts to endangered species on the base such as box turtles or moths?

The Conservation and Management Plan was developed in collaboration with the MA Division of Fisheries and Wildlife to address overall rare species protection and long-term Net Benefit. Project design was developed to avoid and minimize impacts to rare species, such as avoiding potential rare plant locations. Field surveys were conducted to evaluate potential or certain rare species occurrence and compare to surrounding areas. Pre-construction and construction phase protective measures have been developed, approved, and are already underway for species such as the eastern box turtle. The project area itself is an insignificant impact to rare species that do occur due to current habitat conditions, overall project size within the Camp Edwards landscape, and mitigation offsets. Mitigation for this range has provided an opportunity for much larger scale pine barrens habitat restoration and species protection than would previously have been achievable.

How will the public be informed in the future?

As the MPMG project moves forward, the MAARNG will continue to provide updates at the Environmental Management Commission (and advisory council) meetings. Information on the MPMG may also be found on the Massachusetts National Guard's Environmental & Readiness Center's website: <https://www.massnationalguard.org/ERC/index.html>