
**Environmental Management Commission
Building 3139
June 8, 2016
1:00 p.m.**

Meeting Minutes

Members:

<u>Members:</u>	<u>Organization:</u>	<u>Telephone:</u>
Commissioner George Peterson	EMC/DFG	617-626-1550
Commissioner Martin Suuberg	EMC/DEP	617-292-5856

Environmental Officer:

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Attendees:

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Handouts Distributed at Meeting:

1. EMC Draft Meeting Minutes: November 13, 2014
2. Environmental and Readiness Center Current Activities
3. Echo Range Combat Pistol (CP) / Military Police (MP) Firearms Qualification Course (QC)
4. Natural Resources and ITAM Program Overview

Agenda Item #1. Welcome and Environmental Management Commission Minutes -

Commissioner Peterson convened the Environmental Management Commission (EMC) at 1:00 p.m.

Commissioner Suuberg made a motion to approve the minutes from the November 13, 2014, EMC meeting, and Commissioner Peterson seconded the motion. The minutes were approved unanimously, as written.

Mr. Harding, Community Advisory Council (CAC) chair, thanked the EMC Commissioners for being involved in protecting the water and resources on Joint Base Cape Cod (JBCC). He noted that he represents the Mashpee Wampanoag Tribe and has been involved on base for over twenty years in various committees and looks forward to working with the Commissioners.

Ms. McConnell gave a brief history of JBCC and stated that in 1997 the Master Plan was created with the support of the 22 members of the Community Working Group which protected the northern 15,000 acres and the water supply. The Memorandum of Agreement was signed in 2001 and Chapter 47 of the Acts of 2002 was signed into law in March 2002, she noted. She looks forward to working with the EMC Commissioners on the Community Advisory Council.

Agenda Item #2 Echo Range: Combat Pistol/Military Police Qualification Range – Camp Edwards and Dr. Mike Ciaranca, *Environmental and Readiness Center, MAANG*

Dr. Ciaranca stated that the Commissioners were on JBCC before the meeting for a helicopter field tour of the Upper Cape Water Supply Reserve. He noted that the Commissioners were also shown Echo.

Dr. Ciaranca stated that the military has a need for an Echo Range Combat Pistol (CP)/Military Police (MP) Firearms Qualification Course (QC).

Dr. Ciaranca stated that the MAARNG would like to ask the Environmental Management Commission for their approval in returning to Echo Range a live fire status.

Dr. Ciaranca stated that the Echo Range objectives are to return to live fire using lead projectiles at Echo Range in accordance with USEPA's Administrative Order 2 (A02) and the Environmental Performance Standards (EPSs) as set forth in Chapter 47, the Acts of 2002. The MAARNG will design a range that meets qualification standards, captures projectiles, leaves projectiles mostly intact, and allows projectiles to be easily harvested from the range while protecting the environment through monitoring (soils, porewater, and groundwater) and active range management (metals removal).

Dr. Ciaranca explained that two distinct pistol courses are proposed for the range. The first is Combat Pistol Qualification Course where projectiles are fired at pop-up targets. Projectiles pass through pop-up targets striking backstop berm. The second is Military Police (MP) Firearms Qualifications Course where projectiles are fired at a fixed target and strike the backstop berm. The MAARNG is proposing to use lead ammunition on Echo Range because lead-free rounds for the M9 combat pistol are currently not available within the Department of Defense inventory. Soldiers need to train using the exact weapons/ammunition they will use in combat.

Dr. Ciaranca said that Echo Range was used to train and test soldiers on the skills necessary to identify and engage infantry targets with pistols. In 2006, it was designed (2004 Army Standard) to meet the training and qualification requirements with combat pistols (i.e. M9), 9mm. The range was never completed due to a shift in focus to Juliet and Kilo ranges. There are 15 firing lanes outfitted with pop-up targetry, 7 per lane, and troop support facilities. Soldiers engage pop-up targets in sequences triggered by the range operator. The majority of the firing takes place at the firing line. For the MP course firing can occur as close as 7 meters at a fixed target.

Dr. Ciaranca said that in the past, the MAARNG force structure was approximately 15,000 versus 6,000 soldiers today with the average past use of Echo Range at 42,333 rounds/year. Including outside agency use, the anticipated future use is 84,101 rounds/year assuming all needing to qualify with a combat pistol are doing so annually at Camp Edwards.

Dr. Ciaranca discussed the series line of site analyses and test fires the MANG conducted to evaluate several concepts to help determine a range design that will be in compliance with regulatory requirements and be protective of the environment. The MANG has a draft range design that provides for a 95% plus projectile capture rate. The range will be constructed so that it utilizes a backstop berm as the primary projectile capture area. The backstop berm will be constructed of 6 inch minus core material (native), have landscape fabric as a demarcation line, and a projectile capture medium that would be 1/8th minus sand (road sand), capped with top soil that slows projectiles and would allow for vegetation and slope stabilization. The Single Individual Target (SIT) frontal berms would be designed for extreme low shot projectiles. The SIT concrete coffer will be covered with sand and capped with top soil. The SIT target mechanism will be protected with Dura-Blok™. The range floor will have large rocks removed, and will be graded and covered with 8 inches of top soil.

Dr. Ciaranca explained that the MANG will conduct soil, pore-water and groundwater sampling as part of the OMMP for Echo Range. The MANG will conduct baseline soil and groundwater sampling on the range prior to and after construction to establish baseline conditions.

Dr. Ciaranca said that the range would follow current OMMPs for standard range operations such as safety, responsibilities, inspections and the like. Camp Edwards will work with the EMC and EPA to identify requirements for the periodic removal of metals from small arms range soils. Projectile (metals) removal requirements will be based on factors such as the results of monitoring, numbers of rounds fired, the period in which they were fired. During periodic projectile removal, an assessment of the effectiveness of bullet containment and removal would be undertaken, i.e., compare weight of projectiles fired vs. projectiles (metals) recovered.

Dr. Ciaranca discussed compliance actions with EPA Administrative Order and the EPS 19 such as use of bullet traps and munitions-capturing material, development of guidance for the operation and maintenance of the ranges, and preventing or minimizing releases of metals or other compounds related to the normal and approved operation of each small arms range.

Dr. Ciaranca reported that the Echo Range presentation was given to the SAC on April 27, 2016. The SAC members discussed the need for early warning system that is more effective than lysimeters such as using a split tube sampler for core sampling. Members felt the management plan as presented is very protective, and a sand berm will provide easier projectile removal and environmental sampling (coring).

Dr. Ciaranca stated that the SAC voted to recommend that the Environmental Management Commission permit the return to live fire using lead projectiles at Echo Range in accordance with US Environmental Protection Agency Administrative Order 2 and the Environmental Performance Standards as set forth in Chapter 47 of the Acts of 2002.

Dr. Ciaranca said that the Echo Range presentation was given to the Community Advisory Council on May 4, 2016. The members concurred with the input provided by the SAC. The CAC voted to recommend that the Environmental Management Commission permit the return to live fire using lead projectiles at Echo Range in accordance with US Environmental Protection Agency Administrative Order 2 and the Environmental Performance Standards as set forth in Chapter 47 of the Acts of 2002.

Dr. Ciaranca said that the next steps are to petition the EPA to modify Administrative Order 2. The MANG will consult with the Natural Heritage and Endangered Species Program if necessary.

Dr. Ciaranca reiterated key points: the MANG has proven shortfall and need for this type of range based on its force structure; the range is appropriate and necessary to complete required training for MANG Soldiers; the range design will meet the requirements of the EPS and the EPA's Administrative Order 2; the pistols have a maximum muzzle velocity of 1,200 to 1,300ft/second that aids in significantly reducing fragmentation: test firing has shown that projectiles can be contained and recovered to a high degree 95%+; the geochemistry of the soil serves to retard metals migration, i.e., slow mobility; and the presence of lead in groundwater from small arms activity has not been found to occur and in the context of small arms range activity at Camp Edwards, lead does not represent a significant threat to the drinking water.

Dr. Ciaranca stated that in conclusion adaptive and active range management has been and is critical to Small Arms Range and mission sustainability, human health and safety and environmental protection at Camp Edwards. He said the Environmental Performance Standards, specifically EPS 19, as set for in Chapter 47 the Acts of 2002, provides for external oversight and authority for range development and operations on Camp Edwards.

Echo Range and MANG Request

Dr. Ciaranca stated with unanimous support of the Science and Community Advisory Councils and in accordance with the Environmental Performance Standards and the United States Environmental Protection Agency Administrative Order 2 the Massachusetts National Guard requests that the Environmental Management Commission grant their Environmental Officer the authority to approve the Design and Operation Maintenance and Monitoring Plan for Echo Range.

Commissioner Suuberg stated that the Small Arms Range Working Group (SARWG) consists of Camp Edwards, MassDEP, and EPA. Dr. Ciaranca replied that the origins of the SARWG was through EPA when returning to live fire to focus on range development. Actions are periods of metal removal and final types of environmental monitoring on Echo Range.

Commissioner Peterson stated that the SAC found sand and not vegetative cover to be acceptable for the design of the back berm. Dr. Ciaranca replied that there was a sand core under the top soil. Mr. Pinaud stated that the SAC liked the design but discussed the frequency and approach for harvesting projectiles.

Commissioner Suuberg stated that when voting on the request that the last line reflects that the Design and Operation Maintenance and Monitoring Plan for Echo Range will reflect additional input that comes from the SARWG. Dr. Ciaranca replied that yes, the SARWG will further discuss monitoring for that range.

Commissioner Peterson asked for an explanation of the split core soil sample. Mr. Gregson replied that split spoon samplers are ideal for surface sampling or sampling at various depths. Split spoon samplers split apart along the length of the tube to allow for a true cross section evaluation and gentle sample removal.

Commissioner Peterson asked if EPA has a timeframe. Dr. Ciaranca replied that there is a draft request to modify EPA's administrative order. Ms. Dolan noted the timeframe could take approximately three months.

Commissioner Suuberg motioned to grant the EMC's Environmental Officer the authority to approve the Design and Operation and Maintenance and Monitoring Plan for Echo Range and Commissioner Peterson seconded the motion. All were in favor of the motion.

Agenda Item #3. Massachusetts National Guard Current Activities – Dr. Mike Ciaranca,
Environmental and Readiness Center

Dr. Ciaranca stated that Len Pinaud, Acting Environmental Officer, has been working on base for several years and the transition has been seamless.

Mr. Pinaud said that he has been the Acting Environmental Officer since June 2015. He noted that there have been two CAC meetings and three SAC meetings within that period of time. There are vacancies on both the CAC and SAC. A few members have retired and he is working on replacements and appointments. Mr. Pinaud said he has completed a number of inspections in the training areas and ranges. Test Fires were conducted at Echo Range for capture and containment of projectiles. At KD Range, which is a potential site of multi-purpose machine gun range (MPMG), there was a noise study with preliminary results to be evaluated to site a MPMG at KD Range. A few nonstandard training requests for Sierra Range were completed, he said.

Mr. Pinaud stated that State of the Reservation Report was completed by the E&RC and it is a good document with hard copies available.

Mr. Pinaud said he worked with Camp Edwards regarding EPSs for refueling (EPS 15.3.3) and Seasonal Road Closures. EPS 15.3.3 limits the volume of fuel that can be brought out into the Reserve but doesn't always work for all of the activities in the Reserve. He noted that there are lessons learned and the EPSs could be changed. Mr. Pinaud stated that there may be a proposal to change the EPSs for refueling.

Mr. McCumber stated that seasonal road closures are a protection for seasonal amphibian migrations but there is a narrower window from April through May that would allow for training activities at the end of May and June that would still be protective of the amphibians.

Dr. Ciaranca discussed current activities including ongoing communication with the community such as the annual prescribed fire notification to the residents of Forestdale (Sandwich). The annual State of the Reservation Report for Training Year 2015 was issued on 11 February, 2016. Dr. Ciaranca said that trespass reduction has been a joint effort among Camp Edwards, the Impact Area Ground Water Study Program, the EMC, and Environmental and local police including gates, cameras, signage and combined efforts.

Dr. Ciaranca provided an update on the small arms ranges. EPA and the EMC conducted an inspection of Juliet, Kilo and Tango ranges on 13 May 2016; there were no major findings. Dr. Ciaranca said that he has been working with EPA on a Pilot Period Close Out Report (for Juliet, Kilo and Tango ranges) and a request to modify Administrative Order 2 to modify the ban on firing lead ammunition, to allow for the continued use of Juliet, Kilo and Tango ranges, and to recognize the state of Massachusetts's Environmental Management Commission as the oversight body for small arms range activity and development at Camp Edwards.

Dr. Ciaranca said that periodic metals removal is being contracted for Juliet Range. Tango Range decommissioning is being planned.

Dr. Ciaranca reported that the non standard training use, "Individual Movement Technique," was very successful, and the OMMP will be updated to reflect it as a standard use for the range.

Dr. Ciaranca gave a summary of the Percussion Activated Neutralizer (PAN) at Camp Edwards. The PAN is used to disrupt explosive devices with emphasis on improvised explosive devices (IEDs). The proposed use is in a training environment only (no live IEDs). Only blanks or water can be used for training with

the PAN at Camp Edwards. Dr. Ciaranca explained that the pan uses MK34-1000FT Pyrotechnic lead as an initiator and wire leads for .50 caliber. Both leads are initiated with D80/ESI. The typical PAN usage will be up to 180 shots/year for Massachusetts soldiers. There's the potential for up to 250 shots/year including out of state soldiers. The MK34 "Shock Tube" is internally coated with HMX. Each 1,000 feet roll contains 0.011429lbs of HMX internal coating. In general, each shot uses 100 feet of Shock Tube, which is equivalent to .0011429lbs HMX/Shot.

Dr. Ciaranca said that the PAN will be used in the Cantonment Area adjacent to the Explosive Ordnance Device building and at Mobile Operation on Urban Terrain Site Calero and in the Reserve on the Soldier Validation Lane.

Blank ammunition for small arms and simulated munitions may be used in areas outside of the small arms ranges, using only blank ammunition and simulated munitions identified on an approved list of munitions. Joint review and approval for inclusion on the list shall be through the Environmental and Readiness Center (E&RC) and the EMC.

Commissioner Peterson asked if the PAN fires a projectile. Dr. Ciaranca replied yes and request is for the blank rounds: MK276 (AA64), Low Velocity Blank, 12 GA; MK278 (AA66), Non-lethal Blank, 12 GA; MK277 (DWEC), Enhanced Blank, 12 GA M174 (Used in Breech of MK2 MOD1); .50 Cal Blank (Electric initiated); MK2 can be used with/without steel projectile.

Mr. McCumber gave a brief natural resources update for the major winter/spring initiatives and ongoing planned projects. He led the creation of the New England Bat Coordination Group and hosted the first interagency meeting (includes MA DCR and MA DFW among many other agencies and NGOs).

Mr. McCumber said they completed restoration work on Demo-2 and BP-1 and established a RAWS weather station to inform fire planning, range use and wildlife research.

Mr. McCumber stated the New England cottontail recovery and Northern long-eared bat research and monitoring have been the major priority. JBCC is the number one property for the remaining range of New England cottontail. Detection dogs are being trained to sniff out pellets to collect for DNA, which will be more efficient. He noted that there will be a month of bat mist netting kicked off in June for summer (25 nights) and fall (10 nights) to capture and put transmitters on the bats for tracking.

Mr. McCumber stated that annually there are vernal pool surveys. There are grassland birds' surveys through a DOD legacy grant which includes migratory connectivity research and breeding bird surveys (annual). Mr. McCumber said that the rare moth survey, an intensive update of the 1996 to 1998 effort, will take two years.

Mr. McCumber gave an update on prescribed fire: 36 acres of high priority New England Cottontail habitat were burned. He is planning to burn 500 to 600 acres this fall. There is a 1-week regional fire training for partner agencies on JBCC this fall.

Commissioner Peterson inquired about there being fewer New England Cottontails and if we're seeing more fishers. Mr. McCumber replied yes and that will stabilize in the future, therefore, they are not being tracked.

Agenda Item #4. Public Comment

Ms. McConnell noted that the original Master Plan covered the entire base, Camp Edwards is 15,000 acres, but we have to be mindful of what happens on the rest of the base. She is aware that Mass Development has private interest in the Cantonment area and we should be watching what is proposed..

Mr. Peterson stated that he would like training continue and the water source be protected, protective of the water source.

Commission Suuberg stated that transparency and communication is very important. He thanked everyone and looks forward to future meetings.

Agenda Item #5. Adjourn

The meeting adjourned at 2:35 p.m.