
**Science Advisory Council to the Environmental Management Commission Meeting
Building 1805
Camp Edwards, Massachusetts
March 23, 2016
5:30 p.m.**

Meeting Minutes

<u>Members:</u>	<u>Organization:</u>	<u>Telephone:</u>	<u>E-Mail:</u>
Dr. Paul Cavanagh	SAC	860-416-3978	conservationscientist@yahoo.com
Tara Nye	SAC	508-428-0469	tnye@horsleywitten.com
Phil Gschwend	SAC	617-253-1638	pmsgschwe@mit.edu

<u>Environmental Officer:</u>	<u>Organization:</u>	<u>Telephone:</u>	<u>E-Mail:</u>
Len Pinaud, Acting Executive Director	EMC	508-946-2871/508-968-5127	Leonard.pinaud@state.ma.us

<u>Attendees:</u>	<u>Organization:</u>	<u>Telephone:</u>	<u>E-Mail:</u>
MAJ John Bagaglio	MA ARNG	774-696-7493	John.s.bagaglio@mail.mil
CPT Alexander McDonough	MA ARNG	774-286-1373	Alexander.v.mcdonough.mil@mail.mil
LTC Joseph "Scott" Zuffanti	MA ARNG	508-968-5802	Joseph.s.zuffanti.mil@mail.mil
Rob Voegtlin	Range Control	508-776-1301	capecodmarine@yahoo.com
Jane Dolan	US EPA		Dolan.jane@epa.com
Paul Rendon	JBCC	774-327-0643	Paul.rendon@massmail.state.ma.us
Emily Kelly	E&RC	508-968-5146	emily.d.kelly2.nfg@mail.mil
Sally Hartmann	E&RC	508-968-5145	sally.a.hartmann.nfg@mail.mil
Dr. Mike Ciaranca	E&RC	508-968-5121	michael.a.ciaranca.nfg@mail.mil
Jake McCumber	MA ARNG CE	508-968-5848	Jacob.c.mccumber.nfg@mail.mil

Handouts Distributed at Meeting:

1. Draft SAC Meeting Minutes for November 6, 2014
2. Draft SAC Meeting Minutes for November 4, 2015
3. Environmental and Readiness Center Update
4. Natural Resources Update
5. Echo Range Update
6. Echo Range Fact Sheet

Agenda Item #1. Chairperson's Comments – Dr. Paul Cavanagh, Science Advisory Council chair

Dr. Cavanagh stated that there is not a quorum for the meeting; therefore, the Science Advisory Council (SAC) will listen to the informational presentations, but will not vote. He noted that Mr. Bob Miles, SAC member, has submitted his resignation.

Agenda Item #2: Massachusetts Army National Guard Updates – Dr. Mike Ciaranca, Environmental & Readiness Center

Dr. Ciaranca discussed personnel changes since the SAC last met on 4 November 2015. Dr. Ciaranca updated the SAC on Community Involvement including the Military Civilian Community Council

meeting in February 2016; the Cape Cod Canal Transportation Study to assess the traffic patterns at both bridges on the Cape Cod Canal; and the Best Warrior Competition hosted by Camp Edwards in April (State) and in June (National). The Best Warrior Competition determines who is the best enlisted soldier and non-commissioned officer through tests of individual skills, weapons qualification and physical training.

Dr. Ciaranca reported that the State of the Reservation Report final report was issued on 11 February 2016. Comments are being accepted and will be incorporated in next year's report.

Dr. Ciaranca discussed the status of the Bourne landfill's leachate connection to the 102nd Intelligence Wing's (IW's) sewerage system. He pointed out the conservation land use for Article 97 requires two thirds of the legislature vote to approve the easement to attach the pipe. The Division of Fisheries and Wildlife (DFW) is requiring mitigation in the form of land. Bourne is purchasing a parcel of land and will continue the process with the Massachusetts Department of Environmental Protection and the Natural Heritage and Endangered Species Program.

Mr. Pinaud asked if would be any loss of land in the Reserve. Dr. Ciaranca replied that there would be no loss of land in the Reserve and any disturbance to the land when done will only be an underground leaching pipe. There will be no loss of useable land, but the law provides for mitigation with DFW for the parcel extracted out of the Reserve.

Mr. Gschwend asked if the base has discussed with the town of Bourne who will be responsible when and if there are problems with leaching into the Canal. Dr. Ciaranca replied those will be discussed with the regulatory agencies and discussions are ongoing with the Massachusetts Department of Environmental Protection (MassDEP) wastewater department. Mr. Gschwend said if there is a problem in the future he is concerned that the military will be responsible for fixing it. Dr. Ciaranca replied that he is certain that the 102nd IW will document responsibility in the agreement. Mr. Gschwend asked Mr. Pinaud if MassDEP would have any responsibility if there is a problem. Mr. Pinaud replied that the topic of responsibility would be discussed. Mr. Gschwend identified an action item in the review of the meeting minutes for more information.

Dr. Ciaranca reported that Eversource is cutting trees along its powerline easements. Natural Resources office staff has informed them that there is tree at pole 29, which needs to be cut either before May 1 or after September 3 so as not to impact the Northern Long-Eared Bats.

Dr. Ciaranca discussed continuing trespassing issues; Dr. Ciaranca stated that there have been initiatives by Camp Edwards and the Impact Area Groundwater Study Program (IAGWSP) to protect their infrastructure and an Eversource/NSTAR project on base which provided \$70,000 in funding for Department of Defense required signage, improved gates with extensions, and cameras for monitoring access points. CPT McDonough stated that there is a partnership with the environmental police to share information in order to deter trespassers.

Mr. Pinaud asked if anyone has approached the trespassers on ATVs. CPT McDonough said that many of the ATVs do not have plates, therefore, it is difficult to identify them. Dr. Ciaranca said that if the trespassers are caught their bikes will be impounded and fines issued.

Dr. Ciaranca reported a violation of the Environmental Performance Standards (EPS) on 7 November 2015, which involved paintball use without prior authorization at the individual movement technique (IMT) lane (non-live fire).

Dr. Ciaranca updated the SAC on the Small Arms Ranges including the US Environmental Protection Agency (EPA) inspection of Juliet, Kilo, and Tango ranges with no major findings. The Massachusetts Army National Guard submitted a draft Pilot Period Close Out Report and request to modify EPA Administrative Order 2 to allow for the continued use of Juliet, Kilo, and Tango ranges and to recognize Environmental Management Commission (EMC) as the oversight body for small arms range activity and development at Camp Edwards. Originally, the Pilot Period was to be for 17 months; however, it has run for approximately 9 years.

Ms. Dolan stated that EPA is in the process of reviewing the request to modify AO2. There is currently no timeline for approval.

Mr. Gschwend asked what criteria is reviewed for approval. Ms. Dolan replied the record of maintenance and lines of evidence since the Pilot Period started.

Dr. Ciaranca said that the toe berm boxes were will be installed on Juliet Range soon; the boxes on Kilo Range need to be placed. A scope of work for periodic metals removal is being contracted for Juliet Range. Tango Range is the least used STAPP range and decommissioning is being planned. Dr. Cavanagh asked if Tango Range will be still be used for copper rounds. Dr. Ciaranca stated that the STAPP system at Tango Range will only be decommissioned. CPT McDonough replied that there is a conflict with firing on Tango Range while Sierra Range is being used because the surface danger zone overlaps into Tango Range. The firing line at Tango will be moved back with the conversion.

Dr. Ciaranca discussed a non-standard training use proposed for Sierra Range: Individual Movement Technique (IMT). CPT McDonough stated that one of the training objectives of a state battalion is with live fire alternating with moving forward--called an IMT rush. An alternate course of fire has been designed for Sierra Range using four lanes. The first two lanes will be behind barricades, the third one behind battle position, and the fourth one using a standing position. The idea is to have a practice with live fire setting and techniques. Dr. Ciaranca noted that the technique was evaluated to ensure projectiles were striking the back stop berm. He said they would like to update Sierra Range's Operation, Maintenance and Monitoring Plan to reflect IMT as a standard use of the range.

Mr. Gschwend asked what a copper round consists of chemically other than copper. MAJ Bagaglio said that there is a steel penetrator and copper body. Mr. Gschwend asked if there is any alloy or antimony. Dr. Ciaranca replied no. MAJ Bagaglio said that there is a propellant that is slightly different than standard M855 and a report is available. Dr. Ciaranca said that the antimony primer base is coming out of the inventory but there is still a penetrator, copper jacket and slug on the top

Dr. Ciaranca presented information on the proposed 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. There is the potential for 180 to 250 shots/year, which equates to 0.21-0.29lbs HMX/year.

Mr. Gschwend asked if HMX was already being shot there. Dr. Ciaranca replied no. MAJ Bagaglio said the HMX is safer, time delayed and self-contained. Mr. Gschwend said is there an explosive with HMX inside the tube. MAJ Bagaglio said there is a 1/16 diameter plastic tube that is pre-rolled with the initiator and blank. Mr. Gschwend asked what happens after being used. MAJ Bagaglio replied they are disposed of because there is only one shot per the tube. Dr. Ciaranca said that equates to 0.21-0.29lbs. HMX/year. Mr. Gschwend said that is a lot.

Dr. Ciaranca stated that the PAN will be used in the Areas Cantonment Area adjacent to the Explosive Ordnance Device (EOD) building and Mobile Operations on Urban Terrain (MOUT) Site Calero and in the Camp Edwards Training Area/ Upper Cape Water Supply Reserve on the Soldier Validation Lane. The blank rounds used in the PAN are the 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 MK2MODI) and .50 Cal Blank (Electric Initiated). The MK2 can be used with/without steel projectile. In accordance with the EPSs, 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 the approved list of munitions. Joint review and approval for inclusion on the list shall be through by the Environmental & Readiness Center (E&RC) and the EMC.

Mr. Gschwend asked how much HMX survives the use and with disposal are you worried about 100 grams a year going into the landfill. Ms. Dolan replied that she doesn't think it survives and there isn't much found in the groundwater.

Mr. Gschwend asked if the other constituents are a concern. Ms. Dolan replied that the information is available on the EPA website for the compounds of concern. She said it's reasonable to assume there's no environmental risk. Mr. Gschwend identified action item in review of the meeting minutes for more information on disposal.

Mr. McCumber provided an update on Natural Resources including completed projects such as the Intensive New England Cottontail pellet searches and trapping (low success); a camera trap effort (mainly fishers); owl surveys (point counts and passive acoustic pilot) and the Christmas Bird Count. He reported 31 deer harvested during the deer hunt. Restoration work was completed on Demo-2. Invasives were removed from the Cantonment area grasslands utilizing AmeriCorps volunteers. A RAWs weather station was established to inform fire planning, range use, and wildlife research. The ongoing/planned projects for the spring/summer include rabbit monitoring and bat surveys. In-house acoustic monitoring has been done since February. Mist netting and roost searching is contracted for summer and fall. The Natural Resources office organized and hosted a New England bat coordination meeting. The first Northern long eared bat detection this spring was on March 13. Vernal pool surveys will be conducted. There's a grassland birds legacy grant funding grasshopper sparrow recaptures, meadowlark and upland sandpiper captures and satellite tags. Staff are also conducting breeding bird surveys and a rare moth survey. Fifty acres will be targeted for prescribed fire in the southwest Impact area buffer for a high priority New England Cottontail burn.

Mr. Gschwend asked if there have been any tick surveys. Mr. McCumber said that it is a concern but there haven't been any surveys. Prescribed burns have had an impact on the tick population. Mr. Gschwend identified action item in review of the meeting minutes regarding more tick information.

Dr. Cavanagh stated that the U.S. Army Center for Health Promotion and Preventive Medicine (CHPPM) had done a tick survey at Camp Edwards a number of years ago. Dr. Ciaranca said that there were Cape and Island tick surveys that included deer tick surveys on base. Findings were one in three ticks were positive for Lyme disease in a study with Barnstable County Extension. Dr. Cavanagh asked if CHPPM was still conducting any tick studies on base. Mr. McCumber replied none of which he's aware; they could show public health benefits from the prescribed fires.

Mr. Pinaud asked if the fishers are being studied. Mr. McCumber said that they have been colonizing the Cape for a while.

Agenda Item 3: Echo Range: Combat Pistol/Military Police Qualification Range – Camp Edwards and Dr. Mike Ciaranca, Environmental and Readiness Center, MANG

Dr. Ciaranca stated that Echo Range will be presented when there is a quorum at the next meeting.

Agenda Item #4. Review of SAC Meeting Minutes – Science Advisory Council

Dr. Cavanagh stated that the minutes will be reviewed and approved at the next meeting.

Agenda Item #5: Public Comment

There was no public comment.

Agenda Item #6. Adjourn

The meeting was adjourned at 6:30 p.m.