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**Environmental Management Commission  
Building 1805  
Camp Edwards, Massachusetts  
December 5, 2011  
2:00 p.m.**

**Meeting Minutes**

<b><u>Members:</u></b>	<b><u>Organization:</u></b>	<b><u>Telephone:</u></b>	<b><u>E-Mail:</u></b>
Commissioner Mary Griffin	EMC/DF&G	617-626-1550	
Commissioner Ed Lambert	EMC/DCR	617-626-1250	
Commissioner Kenneth Kimmell	EMC/DEP	617-292-5856	

  

<b><u>Environmental Officer:</u></b>	<b><u>Organization:</u></b>	<b><u>Telephone:</u></b>	<b><u>E-mail:</u></b>
Mark Begley, Executive Director	EMC	508-968-5127	Mark.begley@state.ma.us

  

<b><u>Attendees:</u></b>	<b><u>Organization:</u></b>	<b><u>Telephone:</u></b>	<b><u>E-Mail:</u></b>
Mimi McConnell	CAC	508-428-9573	
LTC Richard Bertone	MA ARNG	508-968-5890	Richard.bertone@us.army.mil
MAJ Shawn Cody	MA ARNG	508-968-5834	Shawn.cody@us.army.mil
LTC Mike Speth	NGB	508-968-5936	Mike.speth@us.army.mil
MAJ Michael Koski	MA ARNG	508-968-5888	Michael.koski@us.army.mil
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Dr. Mike Ciaranca	E&RC	508-968-5154	Michael.ciaranca@us.army.mil
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H. Carter Hunt	MassDevelopment	508-563-2785	chunt@massdevelopment.com
Monica Mullen	Senator Murray	508-746-9332	monica.mullin@masenate.gov
George Brennan	Cape Cod Times		

**Handouts Distributed at Meeting:**

1. Presentation: Environmental & Readiness Center Update
2. Presentation: Soldier Validation Lane
3. Presentation: Sierra/Tango Range and the M855A1 Enhanced Performance Round
4. EMC Draft Meeting Minutes: May 11, 2011

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### **Agenda Item #1. Chairman's Comments**

Environmental Management Commission (EMC) Chair Mary Griffin convened the meeting at 2:00 p.m. with general comments. She introduced Commissioner Edward Lambert, the Department of Conservation and Recreation and said that Commissioner Ken Kimmel, Department of Environmental Protection, will be delayed a few minutes.

### **Agenda Item #2. Member Comments**

There were no comments from the members.

### **Agenda Item #3. Review of Meeting Minutes**

Commissioner Lambert made a motion to approve the minutes from the May 11, 2011, EMC meeting, and Commissioner Griffin seconded the motion. The minutes were approved unanimously, as written.

### **Agenda Item #4. Advisory Council Report**

Ms. McConnell, CAC member, stated that there were discussions at the last CAC meeting on the Notice of Violation (NOV) issued May 2011 from previous activities on Juliet, Kilo, and Tango Ranges with the STAPP water and issues are being rectified with EPA, EMC and DEP. There has been OMMP refinement with the STAPP system cover monitoring.

Mr. Begley noted that there were similar discussions at the last SAC meeting.

### **Agenda Item #5. Massachusetts Army National Guard Updates and Range Request – Dr. Mike Ciaranca, Massachusetts National Guard**

#### **Army National Guard Update**

Dr. Ciaranca, deputy director of the E&RC, discussed programmatic changes and staff changes. He stated that Mr. Hap Gonser, Impact Area Groundwater Study Program (IAGWP) program manager, resigned and will be replaced with MAJ. Shawn Cody, MA National Guard.

Dr. Ciaranca noted that the 2011 Draft *State of the Reservation Report* is in progress and will be delivered in a CD format on December 1, unless a hard copy is requested.

Mr. Begley commented that the grassland bird tours were very successful this past spring and there are plans for next year for more rare species tours.

Mr. Kelly, natural resources manager, stated that bird tours were highly successful and would most likely have them again in 2012. Whip poor whils are an interest with a smaller tour group.

Commissioner Griffin commented that she would be interested in a whip poor whil tour.

Mr. Kelly stated that there was paraplegic deer hunt activity coordination with MA Department of Fish and Wildlife (DFW) and there were four participants and one successful participant. The archery deer hunt was being conducted November 16 – November 19, there were three deer taken. Shotgun will be conducted December 5 – December 10 and primitive fire arms December 15 – December 17. He said that the Guard has been working in partnership with the DFW and the US Fish and Wildlife Service (FWS) as part of the New England Cottontail Grant and Partnership to keep the New England Cottontail from being

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listed as endangered on the Federal Endangered Species List. During 2011 there were 14 rabbits collared and tracked, 11 rabbits were confirmed New England Cottontail and awaiting results on remaining animals. The rabbits were tracked for an average of 3.24 months (0.23 – 7.77 months range) and obtained locations four times a week day and night. One rabbit is still being tracked. Trapping, collaring, and pellet searches will commence again during the winter months.

Mr. Kelly stated that there were monitoring research plots, 41 vegetation plots, 39 bird plots for the range training land assessment plots. There were 2,780 invasive plants removed this past season from the base. The natural resources office continues to survey for the very rare American burying beetle – 60 trap nights.

Mr. Kelly stated that there was recently prescribed fire training with 25 attendees. There was a chain saw course with 15 attendees. There were 20 attendees at the wild fire training course. Students ranged from MA National Guard students, Department of Conservation and Recreation, National Park Services, and fire departments.

Commissioner Griffin asked who were the partners at the fire training. Mr. Kelly replied that the National Park Services and local fire departments from Massachusetts.

Dr. Ciaranca stated that there is a Site Consolidation Plan Update and Joint Land Use Study Update being reviewed by the MMR Military Civilian Community Council (MCCC). The Joint Land Use Study update would be done in partnership with the Guard and Cape Cod Commission.

Mr. Begley stated that the Site Consolidation Plan will include the northern 15,000 acres in the update.

Dr. Ciaranca stated that the wind turbines at the Cape Cod Air Force Station are operating. There was a ribbon cutting ceremony for the two new wind turbines at the Cape Air Force Station on October 25, 2011.

Dr. Ciaranca stated that NStar is conducting a SEMA project infrastructure upgrades on base with pole replacement and a new switching station. There will be road work conducted where the easements are located with gates on the western side of the base. Mr. Begley noted that several miles of additional redundant roads were eliminated. The road work will eliminate erosion, Dr. Ciaranca said.

Mr. Begley stated that road construction was reduced by 50 percent by not disturbing the habitat during the project upgrades.

Dr. Ciaranca stated that there was a Notice of Violation (NOV) issued in May 2011 from previous activities on Juliet, Kilo, and Tango Ranges with the STAPP water and issues, which are being rectified with EPA, EMC, and DEP. There has been OMMF refinement with structure, metrics and monitoring with the STAPP system cover and a Sustainable Range Program will be included.

Commissioner Kimmell asked for a review of the steps that lead to the NOV. Dr. Ciaranca replied that operational controls and range control has a Standard Operating Procedures (SOP) in their range regulations (Chapter 10) that deals with STAPP system requirements that includes notification. There is now a Sustainable Range Program Working Group which includes the post commander, deputy post commander and operations officer, integrated training area management program, and environmental section. Contracts are now in place and organization chart for better communication.

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Commissioner Griffin inquired about frequency of inspections and monitoring of water collecting on the STAPP system cover. Dr. Ciaranca replied that there are biweekly inspections required which the OMMP addresses.

Mr. Begley noted that Chapter 10 includes the schedule of inspections and monitoring of the STAPP system in the operations manual.

Commissioner Lambert asked if the NOV resulted from the SOP not being detailed enough or non compliance with procedures that were already in place.

Dr. Ciaranca stated neither. There has been changing staff frequently and with minor adjustments that can be resolved.

Commissioner Lambert asked if there was any adverse impact. Dr. Ciaranca replied no there was not any adverse impact to the environment.

Mr. Begley stated that with staff turnover there will be a briefing package for continuity to understand that everything will be addressed immediately.

Commissioner Kimmell asked what has changed with staff turnover. Dr. Ciaranca replied there will be SOPs for all aspects of operation and continuity a “smart book” with responsibilities.

Mr. Begley reiterated the importance of a “smart book” to be clear with the responsibilities.

Commissioner Kimmell asked what would be different with the procedures in the future.

Dr. Ciaranca stated that the SOP for operating the STAPP system within the range and continuity books for all responsible parties.

Commissioner Griffin asked about the SOP documents.

Mr. Begley stated that initially there was a lack of clarity in a few of the sections of the SOP documents. There should have been greater focus on what needed to be done with STAPP water buildup. He communicated his comments on revising the SOP and there was a meeting to work out the issues with the National Guard. There are a few details to work out, but he is confident the SOP documents can be improved.

Commissioner Griffin inquired about the waste disposal contracts for removal of water being addressed. Dr. Ciaranca replied that the contracts are in place and timing of removal is being addressed.

Commissioner Kimmel asked if the continuity document could include some certification when the staff changes read and sign off.

Commissioner Griffin agreed that a sign off would be helpful for responsibilities.

Commissioner Kimmell stated that a combination of a briefing and certification for training would be beneficial.

Ms. McConnell asked if there are any further updates on EPA’s penalties. Dr. Ciaranca stated that there will be an upcoming meeting to discuss the matter.

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### **Request for Pilot Period Extension: Juliet, Kilo, and Tango Ranges**

The MAARNG requests that the EMC authorize their Executive Director, Mark Begley to extend the Pilot Period for Juliet, Kilo, and Tango Ranges through December 31, 2012 or until such time that all environmental monitoring and other OMMP requirements are appropriately implemented and can be jointly reviewed by the EMC and the MANG.

Commissioner Griffin, Department of Fish and Game, motioned that there is a request by the National Guard for an extension on the Pilot Period for Juliet, Kilo, and Tango Ranges through December 31, 2012 or until such time that all environmental monitoring and other OMMP requirements are appropriately implemented.

Commissioner Lambert seconded the motion and Commissioner Griffin supported the motion.

Commissioner Griffin asked if the Commissioners would like to discuss.

Commissioner Kimmell stated that he understands the extension of the Pilot Period until December 31, 2012, but would like clarification on the second clause: “until such time that all environmental monitoring and other OMMP requirements are appropriately implemented.”

Mr. Begley explained that in the past there was a similar vote for the Pilot Period and the Guard believed that they could meet the requirements and all outstanding issues before the deadline or date agreed upon. Dr. Ciaranca stated that it would be along the lines of a continuous, consistent sampling period where there were no “snafus.”

Mr. Begley said that it is unlikely the Guard would want the Pilot Period to end before December 31, 2012. Dr. Ciaranca stated that for example in June 2012 if everyone was satisfied and it was discussed with EPA a request to revisit it may be addressed.

Commissioner Lambert stated that the motion could be read to go past December 31, 2012. He suggested limiting the motion through December 31, 2012 and that Mr. Begley will keep the EMC apprised of any non-compliance during the next twelve-month period.

Commissioner Kimmell moved that the motion be approved with the understanding that the Pilot Period be extended through December 31, 2012. Commissioner Lambert seconded the motion and Commissioner Griffin supported the motion.

### **Comments on Guard Update**

Ms. Mullen, Senator Murray’s office, asked if the hunts are open to the public and if the paraplegic hunt is a guided tour. Dr. Ciaranca replied that the hunt is a guided tour. Mr. Kelly commented that ID cards are required to participate in the hunts.

Commissioner Griffin stated that the paraplegic hunt is sponsored by DFW and partners for opportunities for hunting with people with disabilities.

**Agenda Item #6. Progress Report on Camp Edward’s Soldier Validation Lane – LTC Richard Bertone, Massachusetts Army National Guard**

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LTC Bertone stated that he is very pleased with the training capabilities at Camp Edwards and Soldier Validation Lane (SVL) which is a model for success. SVL greatly improves training capability on Camp Edwards. The SVL became online as of October 15 and there are continuing improvements. The SVL consists of reconfigurable and portable structures (Connex containers). There are criteria for placement of cans with regulatory coordination. SVL meets compatible military training. SVL incorporates the counter IED training lane into a collective training lane capable of training our soldiers to standard for combat mobilization.

Commissioner Kimmell asked if the training would simulate being deployed for the soldiers. LTC Bertone replied that is correct.

Commissioner Griffin asked if there are a percentage of acres that was recently cleared since the tour the EMC had previously. LTC Bertone replied that none had to be cleared, but minor mower operations maintenance to keep the fire breaks and road open that criteria was established under the EPSs.

Mr. Begley noted that after the MEPA process was reviewed and Natural Heritage had commented and a certificate was issued.

Dr. Ciaranca stated that the criteria of the checklist were part of the Notice of Project Change.

LTC Bertone stated that there is less of a footprint being used for training with the SVL. He said that the next steps are continual lane improvements: culverts, mud block walls, set dressing, and additional containers.

Ms. Mullen asked if the SVL is an addition to the villages. Mr. Begley replied the villages were part of the previous eXportable Combat Training Capability training, they had been removed, and these lanes were based in part on experience with the XCTC training.

Mr. Begley noted that the SVL includes the Improvised Explosive Defeat lane with culverts and a simulated drainage pipes.

**Agenda Item #7. Proposed use of Sierra and Tango Ranges with the Army's new copper and steel bullet – Dr. Mike Ciaranca, Massachusetts Army National Guard**

Dr. Ciaranca gave a brief summary of the proposed use of the new copper and steel bullet M855A1 Enhanced Performance Round at Sierra and Tango Ranges. He said that Tango Range is a 25m range and Sierra East and West Ranges are 800m pop up range.

Dr. Ciaranca stated that the Sierra Range (2006-present) is a modified record of fire range (MRF) required qualifying soldiers for deployment. Tango Range (2007 –present) has a STAPP system and zeroing weapon. The STAPP system at Tango Range would be removed to use the copper bullets on the berm. The STAPP system could be moved to another range if needed at a later date.

Dr. Ciaranca stated that the primary guiding laws and regulations are Chapter 47 the Acts of 2002, Environmental Performance Standards (EPS) EPS 19: Range Performance Standards. The EPSs require that a specific range plan that prevention and minimization of the releases of metals or other compounds, providing for the recovery of projectiles, and ultimately managing small arms ranges to minimize harmful impacts to the environment within the Camp Edwards Training Area/Upper Cape Water Supply Reserve and United States EPA: Administrative Order 2 (1997) requirements.

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Dr. Ciaranca gave a brief summary of the line of sight analysis (LOS) alternative analysis to use alternative ammunition copper bullets which consisted of three phases: Phase I GIS and site specific evaluation (topography). Phase II: on site laser evaluation (point of aim and point of impact). Phase III: live fire evaluation (projectile distribution). LOS findings were down range targets not obscured by backstop berms. Bullets can be captured and prevented from ricocheting off or going into the range floor. Phase III validated the predicted projectile impact distribution and dispersion.

Dr. Ciaranca gave a brief summary of the alternative ammunition (copper) M1855A1 (5.56mm) enhanced performance round (EPR). The benefits of copper are a significant performance improvement greater consistency, longer distances, hard and soft targets. Environmental benefits are lead free projectile. Allows use of training ranges with lead restrictions. Removes lead hazard from manufacturing environment. Eliminates (nationally) – 2,000 metric tons of lead from the environmental yearly.

Dr. Ciaranca stated that there will be range monitoring and maintenance, which will include baseline monitoring of the groundwater and soils and recovery and recycling of the steel/copper.

Dr. Ciaranca stated that the petition to USEPA to modify Safe Drinking Water Act Administrative Order 2 to allow for returning to live fire on Sierra Range petition was submitted: 11 October 2011. Petition to the EMC under the provisions of the general EPSs and EPS 19 petition submitted: 26 October 2011. Information was presented at the following meetings: SAC-2 November 2011, CAC-17 November 2011, and now EMC-5 December 2011.

Dr. Ciaranca stated to complete MEPA requirements for using lead ammunition, there is an outstanding SEIR; however, a request for an Advisory Opinion will be sent to MEPA suggesting that the SEIR may not be needed first to return to copper ammunition on Sierra Range. To complete range design there the LOS analysis indicated 19 back stop berms would be needed. To complete the overall Range Management Plan there will be monitoring and metrics with operation of the range. Also, there will be reconstruction of Sierra and Tango Ranges to accommodate the copper bullet.

Dr. Ciaranca stated that a MEPA request for advisory opinion was submitted on 18 November 2011. The Range Management Plan – Draft submitted to EMC staff on 16 November 2011.

Dr. Ciaranca stated that the EPSs require a range management plan that provides for the prevention and minimization of the release of metals or other compounds, provides for the recovery of projectiles, and ultimately provides for managing small arms ranges to minimize harmful impacts to the environment within the Camp Edwards Training Area/Upper Cape Water Supply Reserve.

The SAC on November 2, 2011 moved to support the use of the non-toxic combat ammunition on Camp Edwards ranges, particularly the M855A1 Enhanced Performance Round on the conditions that additional information is provided on materials newly introduced with the bullet and a detailed OMMP that addresses future monitoring and metals recovery.

The CAC on November 17, 2011 moved to support the use of non-toxic lead-free combat ammunition on Camp Edwards ranges, particularly the M855A1 enhanced performance round on the conditions that additional information is provided on materials newly introduced with the bullet, and a detailed OMMP that addresses future monitoring and metals recovery. A further addition to the motion was a provision that the berm system, the maintenance program, and metals recovery program is to the satisfaction of Mr. Begley, the Executive Director of the EMC.

## **Request**

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The MAARNG requests that the Environmental Management Commission support the use of the M855A1 (Copper) Enhanced Performance Round. The Guard would further request that you authorize the EMC's Executive Director Mark Begley to issue one or more approval letters in accordance with the Environmental Performance Standard 19, other applicable EPSs, and following any MEPA requirements for use of this bullet on Sierra and Tango Ranges.

Commissioner Lambert asked for a recommendation from Mr. Begley whether the EMC should adopt the proposed use of the M855A1 (copper) enhanced performance round for a pilot period understanding that there are changes that need to be made to the ranges to determine what would be reasonable in terms of assessing the change after a period of time, which seems to be a positive change. Commissioner Lambert said that he can't imagine it producing any long term problems, but given that it is new asked if the recommendation is for a certain time period and to embrace the concept and move forward.

Mr. Begley said that he would recommend approval and that a pilot period be appropriate. He said that because of the unknowns it makes a lot of sense to have a pilot, which would closely assess how it is going and ultimately make some recommendations later on for an updated Operations, Maintenance, and Monitoring Plan (OMMP). He stated the Army's copper bullet is new, chemically it looks good, but there will be field experience and a learning curve during the first year.

Commissioner Griffin asked if there would be a recommendation for the time period for the pilot.

Mr. Begley stated that it depends on two factors: one when the bullet is arriving and when the range is completed. It makes sense to have for at least one to two years.

Dr. Ciaranca recommended a year or two pilot period from the first round of copper bullet use.

Commissioner Lambert asked if the recommendation would be consistent with the advice of the advisory councils.

Mr. Begley and Dr. Ciaranca suggested it was. There had been some additional research as suggested by the Science Advisory Council. The Community Advisory Council, in their motion, wanted to make sure there was an OMMP that specifically included recovery and monitoring and that Mr. Begley review the plans and they were acceptable to him on the EMC behalf.

Commissioner Kimmell asked if there has been any research done about the use of copper bullets and interaction with water supply.

Dr. Ciaranca stated that United States Geological Survey (USGS) has provided background information focused on lead and copper and mobility and interaction with the environment. The findings were copper's mobility was low like the other metals but is less toxic. Copper testing results will be provided in the Annual Report.

Mr. Begley stated that pH effects metal mobility and to keep a neutral pH and to use lime. He said that pH controls would be used not only for monitoring of the groundwater, but to have lysimeters take samples a few feet below the surface before it travels into the groundwater and making sure the pH controls and other steps are being taken to prevent travel to the groundwater. He noted that the SAC inquired about the source term and how much is there and with greater recovery there will be less of a concern.

Commissioner Griffin asked who would be monitoring during the pilot period.



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Mr. Begley stated that the OMMP would have a chapter on monitoring that would include soil samples, lysimeter and groundwater, which would be conducted by the MANG.

LTC Bertone recommended a two year pilot period.

*Motion*

Commissioner Kimmell made a motion for approval of a two year pilot period for the use of the M855A1 (Copper) Enhanced Performance Round.

Commissioner Lambert seconded the motion with the caveat that information will be collected prior to the two year period and the data collected does not otherwise suggest a problem.

Commissioner Griffin supported the motion and stated that in the Annual Report there will be an update on the status of the pilot period.

**Agenda Item #8. Other Business/Public Comment**

There was no other business or public comment.

**Agenda Item #9. Adjourn**

The next meeting was not scheduled. The meeting adjourned at 3:30 p.m.