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**Science Advisory Council  
to the  
Environmental Management Commission  
Building 1206, West Inner Road  
May 16, 2024  
6:00 p.m.  
Meeting Minutes**

**SAC Members:**

Paul Cavanagh  
Tara Nye Lewis  
Phil Gschwend  
Denis LeBlanc

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**Attendees:**

Matthew Porter  
Michael Ciaranca  
Emily Kelly  
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**Organization:**

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**Handouts Distributed at Meeting:**

1. Science Advisory Council Draft Meeting Minutes, September 28, 2023
2. Environmental Management Commission Environmental Officer Update, May 2024
3. State of the Reservation Report, 16 May 2024
4. Camp Edwards Update, 16 May 2024

**Agenda Item #1. Welcome and Agenda – Mr. Paul Cavanagh, SAC Chair**

Science Advisory Council (SAC) Chair Paul Cavanagh welcomed everyone to the SAC meeting.

**Agenda Item #2. Camp Edwards Update and State of the Reservation Report Training Year 2023 – Mr. Matthew Porter, Camp Edwards Base Operations Manager, MAARNG**

Mr. Porter gave a presentation on the Massachusetts Army National Guard's Annual State of the Reservation Report for Training Year 2023.

- The MAARNG produces an Annual State of the Reservation Report; the report is divided into five sections and covers military training activities and military and civilian usage, small arms range monitoring, environmental program management, remediation program activities, and miscellaneous military and civilian activities.
- It was noted how Soldiers are counted and reported as they move through the training area and the different civilian organizations using Camp Edwards training area. Usage numbers for military and civilian personnel differs from year to year depending on training requirements. Data points presented included total copper ammunition fired and lead ammunition fired and how that fluctuated over time and why, small arms ranges monitoring, rare species counts and deer and turkey hunting, and fire management.
- The report is distributed online, copies or a notice of availability is sent to town managers and Select boards on Cape Cod and the Barnstable County Commissioners, a Notice of Availability is

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placed in the Environmental Monitor, a copy is distributed to the Jonathan Bourne Public Library, and it is made available at Camp Edwards outreach events.

Mr. Porter asked what additional methods could the MAARNG utilize to ensure wider distribution of the report? Suggestions included placing the report in the State Library of Massachusetts, although if a PDF is uploaded, the document must be 100 percent accessible. Members suggested a “20-year update” presented with longer-term data included.

Mr. Gschwend said that in relation to fire management/prescribed burns it useful to explain how decisions in when and where to burn are made and that should be demonstrated. Mr. Pinaud said that could be presented at the next meeting.

Ms. Lewis asked if greenhouse gas produced by burns at Camp Edwards can be broken down into towns so the towns could take that figure and add it to their figure for greenhouse gas, giving them an accurate estimate of the total greenhouse gas emission number. Mr. Porter said that number probably could be calculated and could look at getting that to the towns if they are interested.

Mr. Porter also noted MAARNG and US Army have reached out to the Academy of Sciences to fund a study concentrated on mobility of metals specific to Camp Edwards’ soils. They will be nominating subject matter experts in different fields.

Mr. Porter presented an update on Camp Edwards.

- Camp Edwards tours began May 17 and run through October.
- The Best Warrior Competition was held; Cyber Yankee training was held from May 6 to May 17, which consisted of more than 250 soldiers conducting an unclassified cyber defense exercise. He also discussed upcoming weekend and annual training at Camp Edwards.
- 2024 Wildland Fire implementation: prescribed burns were conducted on 620 acres over 11 burn days. Prescribed burns will continue until the season ends on June 30. In Spring 2025, approximately 1,602 acres over 15 burn days are planned.
- The Range Operations Control Area (ROCA) are facilities needed to support range operations and improve safety on small arms ranges. Massachusetts Environmental Policy Act Certificate was issued on April 22, 2024.
- Mr. Porter said the MAARNG will keep moving forward with the MPMG range.
- Ad Hoc Committee and Projectile Removal: the MAARNG is proposing to conduct projectile removal on one small arms range every two years for an eight year cycle to help prevent significant bullet on bullet impact, projectiles leaving the pocket via ricochet, and projectile fragmentation. The science supports that schedule. This was presented to the SAC Ad Hoc Committee at their meeting on November 9. At the Ad Hoc meeting, it was suggested a lysimeter be added under a projectile pocket; a lysimeter will be added on India and Tango ranges under bullet pockets. Mr. Ciaranca and Mr. Pinaud also calculated precipitation recharge at projectile pockets at approximately 374 gallons per year recharge.

SAC members discussed the need to have the sense of the water flux, and what chemicals could get to the water table, and what a worst-case scenario could be. Additional lysimeters could be helpful. SAC members were interested in getting detail of type and lysimeter placement, noting that new lysimeter types are being used, some of which may be controlled remotely.

- Mr. Ciaranca will send the monitoring/lysimeter scope to Mr. LeBlanc.

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- Research should be conducted into the different lysimeter types to address Mr. Gschwend's points.

**Agenda Item #3: Environmental Officer Update – Mr. Leonard Pinaud, EMC Environmental Officer**

Mr. Pinaud, Environmental Management Commission (EMC) Environmental Officer (EO), summarized the activities related to the Upper Cape Water Supply Reserve (the Reserve).

- Ms. Mimi McConnell, Community Advisory Council member, was honored for her decades of work devoted to the environment at Joint Base Cape Cod through the Community Working Group and ultimately as a CAC member and Chair. She received a citation from the Governor of Massachusetts, citations from the Massachusetts Senate and House, a citation from the EMC Commissioners, received a Minuteman Statue and Commendation Medal from the Massachusetts National Guard, and from the Impact Area Groundwater Study Program, a piece of bedrock drilled from under JBCC.
- Fourteen range inspections were completed during from October 23, 2023 to May 24, 2024. The inspections were completed before, during and after active training.
- Twelve non-standard training requests/exceptions to policy were granted, which are for training that is outside the Environmental Performance Standards. The request is reviewed by the MANG's Environmental & Readiness Center and the EMC to ensure there are no adverse effects.
- Prescribed burns were conducted over 620 acres on Camp Edwards over 13 days.
- The ROCA (Range Operations Control Area) filing was sent to the SAC and CAC and the certificate was signed by the Secretary of the Executive Office of Energy and Environmental Affairs.
- The Integrated Operations, Maintenance and Monitoring Plan is being reviewed.
- There are vacant seats on the SAC and the CAC. For the CAC vacancies, he has reached out to the Town of Falmouth for a nomination. Nominations for an At-Large member vacancy is moving forward. He will be meeting with the Commissioner of Department of Fish and Game and they will discuss vacancies on the SAC and CAC.

Mr. Gschwend asked how do you determine if a small arms range is in good shape? Are the training exception requests for a different space?

- The Environmental Officer confirms Soldiers are operating and maintaining the range in compliance with the OMMP, following the requirements of the OMMP, and looks at the condition of the berms.
- Training exception requests are for a non-standard use of a small arms range. The requests go through Camp Edwards, the Environmental & Readiness Center and the Environmental Officer to ensure that they would follow the Environmental Performance Standards; if the requests do not, they may be modified or declined.

**Agenda Item #4: Review of SAC Minutes and Approval - Mr. Paul Cavanagh, SAC Chair/SAC Members**

- Mr. Cavanagh said that in the draft September 28, 2023, meeting minutes on Page 1, final bullet, the word "Bourne" is misspelled; in the attendee list Tom Degnan's name in the email list is misspelled.
- Mr. Cavanagh made a motion to accept the meeting minutes as corrected, and Ms. Lewis seconded the motion. All were in favor.

**Agenda Item #5: Public Comment – Mr. Paul Cavanagh, SAC Chair**

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There was no public comment.

**Agenda Item #6: Adjourn** – *Mr. Paul Cavanagh, SAC Chair*

The meeting adjourned at 8:06 p.m.

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## **Science Advisory Council Action Items**

### **May 16, 2024**

#### **Action Items:**

1. Mr. Ciaranca will check if DoD is developing a 9mm copper projectile. Completed-not in active development.
2. Ms. Lewis asked if greenhouse gas produced by burns at Camp Edwards can be broken down into towns so the towns could take that figure and add it to their figure for greenhouse gas, giving them an accurate estimate of the total greenhouse gas emission number. This question will be passed on to Mr. McCumber.
3. Mr. Ciaranca will send the monitoring/lysimeter scope to Mr. LeBlanc. Completed.
4. Research should be conducted into the different lysimeter types to address Mr. Gschwend's points.
5. Mr. Pinaud will forward information to the SAC about virtual meetings vs. the Massachusetts Open Meeting Law. Completed.