

**Science Advisory Council
to the
Environmental Management Commission
Building 5221, Regional Training Institute
June 16, 2022
6:00 p.m.
Meeting Minutes**

CAC Members:

Paul Cavanagh
Denis LeBlanc
Tara Nye Lewis

Organization:

SAC
SAC
SAC

Telephone:

508-492-8827
508-490-5030
508-362-3828

E-Mail:

conservationscientist@yahoo.com
dleblanc@usgs.gov
Tara.lewis@capecodcommission.org

EMC Staff:

Leonard Pinaud

Organization:

EMC

Telephone:

508-946-2871

E-Mail:

Leonard.pinaud@mass.gov

Attendees:

MAJ Alex McDonough
COL Matthew Porter
BG Chris Faux
Jake McCumber
Paulo Baganha
Rob Crevey
Kathleen Kolva
Shawn Cody
Emily Kelly
Matt Cronin
Rosemarie Cronin

Organization:

MA ARNG
MA ARNG
MA ANG
MA ARNG/NR
MA ARNG
MAARNG
MA ARNG
IAGWSP
E&RC
Citizen
Citizen

Telephone:

774-286-1373
508-789-8375
339-202-3913
339-202-9343
508-958-2709
317-525-0691
413-575-7353
508-320-6906
339-202-9341
781-588-7314

E-Mail:

Alexander.v.mcdonough.mil@army.mil
Matthew.n.porter.mil@army.mil
Christopher.m.faux.nfg@army.mil
Jacob.c.mccumber.nfg@army.mil
Paulo.a.baganha.mil@army.mil
Robert.j.crevey.nfg@army.mil
Kathleen.a.kolva.civ@army.mil
Shawn.c.cody.civ@army.mil
emily.d.kelly2.nfg@army.mil
Mjcronin14@verizon.net

Handouts Distributed at Meeting:

1. Joint Community Advisory Council and Science Advisory Council Draft Meeting Minutes, October 8, 2020
2. Science Advisory Council Draft Meeting Minutes, June 3, 2021
3. Environmental Management Commission Environmental Officer Update, June 2022
4. Impact Area Groundwater Study Program PFAS Investigation Update, June 16, 2022
5. Camp Edwards Update, June 16, 2022
6. Tango Range Presentation, 2022

Agenda Item #1. Welcome

Science Advisory Council (SAC) Chair Paul Cavanagh welcomed everyone and introduced the SAC members. present at the meeting: Tara Lewis and Denis LeBlanc.

Agenda Item #2: Review of SAC Minutes and Approval

- Ms. Lewis asked that her phone number and email address be updated.
- Mr. LeBlanc moved to accept the June 3, 2021, meeting minutes, and Ms. Lewis seconded the motion. All were in favor of the minutes as written with corrections.
- The October 8, 2020, Joint SAC and Community Advisory Council minutes were carried over for a vote at the next SAC meeting where there is a quorum of members who attended that meeting.

Agenda Item #3: Public Comment – Paul Cavanagh, SAC Chair

Mr. Cronin, a resident of North Falmouth stated: I have some concerns about the project with the range. As you know, we've had problems from the base with the water for years. Now you want to cut down 200 acres of trees, which doesn't seem to be a very environmental necessity. There is a lot of open range on the base here. Why can't it be located in another area? Number 2, reading the notes, how often do the troops qualify?

MAJ McDonough replied that they qualify annually.

Mr. Cronin said: That being the case, there are ranges up at Fort. Devens. People have to commute here to do the firing; they could equally go to that range. I don't see the necessity of the range in the first place.

Ms. Cronin, a resident of Pocasset, stated: Since we have had all these Superfunds, get rid of the (inaudible), whatever you call it here. Why are we doing this now? I just don't think it's good for Cape Cod and I kind of agree with Matt. They can go to Devens or somewhere else for their training. I'm really very upset about it, and I'm sorry there aren't more people here. I know the notice was published quite clearly, but to be honest with you, I subscribe to the Cape Cod Times, very few people do at this stage, with journalism the way it is. Somehow we should have had better publicity about the meeting. I appreciate you including the public in it. I think it is very important that you do that.

Mr. Cronin asked if an US Environmental Protection Agency (US EPA) study has been done on this. Mr. Pinaud replied the US EPA is doing a Sole Source Aquifer Study; their timeline is currently through the end of 2022. Mr. Cronin asked if there should be a moratorium on building the range. Mr. Pinaud responded that the range has been designed, but not built because approval is required for it to be built. Mr. Cronin asked if the EMC is waiting for the US EPA's approval. Mr. Pinaud responded that the EMC is waiting for US EPA to make a decision on the Sole Source Aquifer study that they are doing.

Agenda Item #4: Environmental Officer Update – 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).

- The Annual State of the Reservation Report covers all activities at Camp Edwards and the Reserve including where and how often soldiers train, ammunition used and where it is fired, the environmental cleanup programs and information on water supply.
- The EMC has a dedicated website on Mass.gov that includes its activities and meeting agendas and minutes. The goal is to get a wide audience of people to know about the website.
- Non-compliance with the Environmental Performance Standards (EPSs) General Performance Standard. The MAARNG self-reported to the EMC that an unauthorized training item was used. There was no adverse environmental effect associated with that; so, the EMC responded to the MAARNG that the self-report was acceptable.
- The next CAC meeting is on June 30, 2022; the EMC will meet on July 19, 2022.
- Five seats were filled on the CAC; an orientation was held for new members.
- Twenty-three range inspections were completed between January and the current day.

SAC members discussed the information and asked questions.

- Mr. Cavanagh suggested that digital documents be submitted to the State Library of Massachusetts. As opposed to the Executive Office of Environmental Affairs website, the State Library has permanent addresses for digital documents, making them easy to find.

The SAC currently has five members but is allowed up to nine. There are technically four vacancies that could be filled. Are there particular niches or areas of expertise that are required or needed?

- Chapter 47 of the Acts of 2002 specifies that SAC members be subject matter experts in areas like public health, groundwater or wildlife habitat. The EMC is actively working with Boards and

Commissions to fill positions on the CAC and SAC. Prospective members must go through an application process, but the EMC EO can reach out to them to explain what the EMC does and ask if they are interested.

Agenda Item #5: Impact Area Groundwater Study Program Update – Shawn Cody, Program Manager, Impact Area Groundwater Study Program

Mr. Cody, Impact Area Groundwater Study (IAGWSP) Federal Program Manager, gave an update on the IAGWSP's per-and polyfluoroalkyl substances (PFAS) investigation.

- PFAS was an emerging contaminant in 2013; in 2019 IAGWSP began sampling its Open Burning/Open Detonation (OB/OD) sites for Aqueous Fire Fighting Foam (AFFF), none was found; it was found at the military contractor ranges (called the J Ranges) that were used for years.
- The US EPA health advisory is 70.0 ng/L, which is currently being changed. The Department of Defense (DoD) will change its numbers when the US EPA promulgates theirs. The Massachusetts Department of Environmental Protection (MassDEP) set a number of 20 parts per trillion (ppt).
- IAGWSP took 243 water samples throughout its existing networks of wells. There were zero exceedances for the lifetime health advisory. There were 16 exceedances for the MassDEP limit.
- The J2 Northern Range is the only range with a potential receptor: a drinking water supply well for the Upper Cape Water Supply Cooperative system. IAGWSP will continue to monitor those wells and is adding more wells to define the nature and extent. The hits found were not from fire fighting foam but is PFNA and PFDA. It may be from Teflon or Scotch Guard on some components that were used at the military contractor test ranges.
- The treatment systems already in place (three are on the way to the drinking water well), treating with ionization and granulated activated carbon, which is a good combination to remove the PFAS and PFOA out of the water system.
- Six screens were detected between 2.2 and 5.9 ng/L (ppt). Twenty-three total screens in other wells were sampled and all were non-detect. IAGWSP will try to determine where the PFAS came from; they are working with MassDEP and US EPA on a work plan. There is an approximately three-year travel time to the drinking water well. IAGWSP will sample sentinel wells and install additional wells between the drinking water well and the area where the hits were found.

SAC members discussed the information and asked questions.

Are there wells post treatment, so you could see what's happening before they go through treatment and then the concentration levels after?

- They are tested both influent and effluent.

What are the wells listed in relation to? When you talk about the plume, you are not talking about the PFAS plume, but you are talking about the plume that is being remediated?

- IAGWSP sampled Gibbs OB/OD site and sampled a monitoring well network within the plume (those 243 wells are designed to be within the plume)
- IAGWSP has not defined the PFAS plume, the plume referred to is an existing plume of contamination: RDX and perchlorate. IAGWSP assumes if it is found way down gradient, the source areas are probably the same.

Is it only seen at the toe of the plume?

- There are some deep at the source and shallow at the source; it's through the skeleton of the plume at different depths. IAGWSP is doing some particle backtracking and tests to find out where it came from.

Treatment systems are within the body of the plume, not on the water supply wells? There's no carbon on the water supply wells?

- Treatment is within the plume. There is no carbon on the water supply wells. The Upper Cape Water Supply Cooperative was briefed in May; they are aware of what is going on. They have detected no PFAS in their wells.

Is the PFAS on base fairly typical?

- IAGWSP looked for AFFF at the OB/OD sites and found a different chemical family, which is not typical of the rest of Cape Cod, which is mostly AFFF.

Agenda Item #6: Camp Edwards Update - Matthew Porter, Camp Edwards Base Operations Manager, MAARNG; MAJ Alex McDonough, Plans and Training Officer, MAARNG; Jake McCumber, Natural Resources and Training Lands Manager, MAARNG

MAJ McDonough provided a Camp Edwards update to the SAC.

- Staff changes at Camp Edwards and the Impact Area Groundwater Study Program were announced and the public outreach program and the Camp Edwards tours were discussed.
- The biggest training activity at Camp Edwards during 2021 was Operation Viking 2021, with 250 soldiers from the 412 Civil Affairs Battalion.
- Training during 2022 includes Operation Viking 2022, from July 17 to July 30 with approximately 500 soldiers. They will utilize Air Station Cape Cod airfield as their drop zone and will be flying C130s, C5s and some C17s. Patriot Crucible is an event that provides collective training to soldiers. This year the primary training audience is the engineer battalion.
- The STAPP systems on Juliet and Kilo ranges were dismantled in October 2020. The systems were removed after the MAARNG moved from using lead ammunition to the copper Enhanced Performance Round (EPR). The insides of the system were recycled, and the ranges have been placed in caretaker status.
- Camp Edwards continues its range monitoring program. The last samples were taken in Fall 2021, and the data shows that range management continues to be protective of the environment.
- The Multi-Purpose Machine Gun Range is pending the US EPA's Sole Source Aquifer Review; both the EMC and the MAARNG are working closely with US EPA to answer any questions so they can complete their review. Once that review is complete, the EMC process will continue.

Mr. McCumber provided an update on Natural Resources and Training Lands Management.

- Updates included information on annual and long-term monitoring and surveys.
- The youth and general turkey hunts held in April/May and last fall's deer hunts. An overarching road maintenance and clam shrimp management plan/permit was developed with MassWildlife; there is coordination and planning for road maintenance priorities and in-house puddle improvement.
- Natural communities identification and mapping is ongoing with US Fish and Wildlife Service.
- There has been substantial development for the Wildland Fire program; as of early June, 306 acres burned, 11 burn operations and 20 position task book evaluations for three agencies were completed.
- Habitat rehabilitation and restoration is ongoing including BA-3 barrens and maneuver restoration, dig sites rehabilitation, and Range Area West 3/East 3.
- The program is monitoring the Southern pine beetle: monitoring, and conducting resilience planning, partnership development, and preparedness through habitat restoration.

- Broad public outreach has been a dominant focus since summer 2021 including public tours of the training site, public grassland bird tours, and clubs/group presentations on rare species and conservation.

SAC members discussed the information and asked questions.

Are you keeping a tab on invasive species?

- Yes, Calamagrostis continues to be a problem and is starting to colonize range berms. Within the Reserve there are not too many issues. Program staff map invasives each year and treat as they can. The grasslands have the most invasives issues. Invasives there include knapweed, bittersweet and autumn olive. Those invasives are very adapted and come back after burning. The program contracts for well managed (inaudible) to get those under control. The best results come from combining herbicide loading and fire. Smaller areas are being treated more aggressively with that combination and getting better responses.

Mr. Kronin asked if the land management group has initiated any impact study on clear cutting of 200 acres.

- Mr. McCumber developed a robust mitigation plan and went through the Massachusetts Endangered Species Act review. The impacts are minimal because it is a pine barrens. Over \$1.2 million in habitat mitigation work is associated with that range and other ranges the MAARNG wants to build in the next 10 years. That habitat mitigation covered over 1,000 acres. Environmental is very involved in the design phase of these projects to ensure they are sustainable, fit into the MAARNG's conservation and provides for soldiers.

Agenda Item #7: Tango Range Design and Operations, Maintenance and Monitoring Plan - Matthew Porter, Camp Edwards Base Operations Manager, MAARNG; MAJ Alex McDonough, Plans and Training Officer, MAARNG

MAJ McDonough presented information on the Tango Range Design and Operations, Maintenance and Monitoring Plan (OMMP).

- The MAARNG must comply with Environmental Performance Standard (EPS) 19, which requires the MAARNG to receive approval of the range design and the OMMP from the EMC. The SAC and CAC provide input to the EMC Commissioners and briefings from the MAARNG; the EMC vote on whether to approve that design and give the EMC EO the authority to approve the OMMP. The OMMP governs the use of the range and how that range is monitored and maintained.
- Tango Range was originally a 10-lane STAPP Range for use with lead ammunition. The Army has changed to the copper EPR. Tango Range was redesigned into a 32-lane range and was moved 25 meters to the north to prevent a Surface Danger Zone (SDZ) conflict with Sierra Range, allowing the ranges to be used simultaneously. Tango Range's berm was rebuilt to withstand the EPR, which "hits a lot harder" than lead rounds.
- Soldiers zero their weapons on Tango Range and then move on to Sierra Range where they qualify with their weapons. Zeroing weapons is time consuming. To meet throughput requirements-to get at least 270 soldiers qualified per day-the higher number of lanes on Tango Range is required.
- The OMMP is pending and has been redeveloped to account for EPR use.
- The MAARNG's request to the EMC will be to authorize the EMC EO to approve the redesign of Tango Range and rewrite of the OMMP for the redeveloped Tango Range at Camp Edwards.

SAC members discussed the presentation and asked questions.

Mr. Cavanagh asked Mr. Pinaud what his take was.

- Tango Range has been an operational active range for many years; it is not a new range. The range was redesigned and redeveloped to comply with the EPS due to new ammunition. All the EMC's comments have been incorporated in the 90 percent design and drafts of the OMMP have been reviewed. The MAARNG must bring this to the EMC and if the EMC chooses, the EMC EO can review the design to 100 percent and review the final OMMP. If that is done and approved, the range can be utilized for annual training.
- The EMC has authorized around a half dozen units to use the range to ensure projectiles are hitting the berm where they are supposed to and that the range is well designed. In Mr. Pinaud's opinion, it is well designed.

Agenda Item #8: Vote – SAC Members

Mr. Cavanagh made a motion to recommend to the EMC that they authorize its EO to approve the redesign and rewrite of the OMMP for the redeveloped Tango Range at Camp Edwards. Ms. Lewis seconded the motion. All were in favor unanimously.

Agenda Item #9. Adjourn

The meeting adjourned at 7:45 p.m.