
**Science Advisory Council to the Environmental Management Commission Meeting
Building 1805
Camp Edwards, Massachusetts
September 20, 2018
5:30 p.m.**

Meeting Minutes

<u>Members:</u>	<u>Organization:</u>	<u>Telephone:</u>	<u>E-Mail:</u>
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<u>Environmental Officer:</u>	<u>Organization:</u>	<u>Telephone:</u>	<u>E-Mail:</u>
Len Pinaud, Environmental Officer	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>
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Handouts Distributed at Meeting:

1. SAC Meeting Minutes for May 10, 2018
2. Environmental Management Commission Read Ahead Fall 2018
3. Environmental Officer Update Environmental Management Commission September 2018
4. Massachusetts National Guard Environmental and Readiness Center Update; Natural Resources Update
5. Draft Guidelines and Procedures for the Administration of the EMC and Advisory Councils September 2018

Agenda Item #1. Welcome – Dr. Paul Cavanagh, Science Advisory Council Chair

Dr. Cavanagh thanked everyone for attending the Science Advisory Council (SAC) meeting.

Agenda Item #2: Review of SAC Meeting Minutes and Approval - Science Advisory Council

The draft May 10, 2018 SAC meeting minutes were reviewed. Dr. Cavanaugh stated that on page 4, second paragraph, add in the Bourne Conservation “Commission” and delete “Management.”

Mr. Schall moved to accept the May 10, 2018 SAC meeting minutes and Dr. Duggan seconded the motion. All were in favor of the minutes as written with the correction.

Agenda Item #3: Environmental Officer Update – Len Pinaud, Environmental Officer, EMC

Mr. Pinaud discussed the Cat Road Clam Shrimp violation, which was presented at the last Environmental Management Commission (EMC) meeting. The EMC Commissioners asked for Mr. Pinaud to follow up when all the Natural Resources work has ended in compliance with the Natural Heritage and Endangered Species Program (NHESP). Mr. McCumber explained that an engineering unit filled a puddle to improve the road and did not realize that the puddle contained the Clam Shrimp, leading to the violation. Mr. Gschwend asked if there is anything in place to prevent future incidents. Mr. McCumber said that part of the Conservation Management Plan (CMP) will state that the puddles can be driven through, but not filled or altered without approval. Dr. Ciaranca stated that the Soldier Field Card will be updated to reflect that road work cannot be done without prior approval.

Mr. Pinaud said that he and Dr. Ciaranca updated the Approved List of Munitions and an official letter was submitted to ensure everyone is referencing the correct, updated list.

Mr. Pinaud stated that the inspection forms for the India, Juliet, Kilo, and Lima ranges have been updated over the past six months. The form was field tested by Mr. Pinaud and Range Control. There were some small issues with the ranges but those were fixed. The inspection forms were successful, he noted.

Mr. Pinaud stated that Secretary Beaton and staff attended a tour of the Camp Edwards Ranges on August 29, 2018. He said that Dr. Ciaranca, E&RC, Natural Resources, Range Control and Army Corp of Engineers coordinated the tour.

Mr. Pinaud stated that there was an issue with some protection of contaminants in Sentry wells for the Upper Cape Water Supply Cooperative wells, August 2018. He displayed the well locations WS-1, WS-2, WS-3, and Sentry wells. Mr. Pinaud said that in May 2018 the explosive compound RDX was detected in groundwater samples collected by the Upper Cape Regional Water Cooperative from sentry wells C-1S (0.43 µg/L) and C-4S (0.27 µg/L). The Massachusetts Contingency Plan Groundwater 1 standard for RDX is 1 µg/L (ppb) and the Environmental Protection Agency Health Advisory is 0.6 µg/L.

The Impact Area Groundwater Study Program resampled sentry wells C-1S and C-4S for explosives and perchlorate. No explosives were detected; however perchlorate was detected at low, estimated values in C-1S (0.043-J µg/L) and C-4S (0.018-J µg/L), below the Massachusetts Maximum Contaminant Level (MMCL) for perchlorate of 2 µg/L. Travel time from the sentinel wells to the water supply wells is approximately 3 years. The Cooperative water supply wells WS-1, WS-2 and WS-3 were sampled for explosives and perchlorate on August 6, 2018 with no detections.

Mr. Pinaud said he has requested the monitoring wells (MW) 330 and 345 be sampled. No explosives were found in MW 330; .022 µg/L J-flagged for perchlorate. MW 345 had no explosive detections.

Mr. Pinaud said that MassDEP is planning on increasing the frequency of the sampling on the wells in the area. There is a long term monitoring plan and the next step is to sample for RDX and perchlorate on a frequency that allows for an early warning. He said the Impact Area Groundwater Study Program is actively monitoring the situation and the Cooperative's long-term monitoring program for the wells would be changed to make sure information is provided in a timely fashion.

Agenda Item 4: EMC By Laws Discussion and Review - Len Pinaud, Environmental Officer

Mr. Pinaud reminded the SAC that the EMC Commissioners directed him to revise and update the 2002 EMC By Laws to be consistent with Chapter 47 of the Acts of 2002 and current Open Meeting Law (OML). Mr. Pinaud said that the Revised Guidelines and Procedures document was drafted and distributed to the EMC, SAC and CAC in June 2018. The following revisions were made: the document name was changed from “By Laws” to “Guidelines and Procedures” to be consistent with Chapter 47. The articles were reorganized for better flow; the agency names were updated, and the text changed to be consistent with Chapter 47 throughout document. The term of Chair/Vice Chair was changed from 1 year to 2 years, and the meeting frequency was changed from four times per year to two times per year to reflect the current meeting schedule. In addition, significant changes were made to Article IV Meetings, to be OML compliant. Mr. Pinaud said he added the ability to participate in meetings remotely, per OML.

Mr. Gschwend asked what would remote access consist of. Mr. Pinaud said that acceptable means of remote participation include telephone, internet or satellite enabled audio and video conferencing, or any other technology that enables the remote participant and all persons present at the meeting location to be clearly audible to one another. The Chair of the EMC, CAC or SAC meeting must ensure that certain minimum requirements are met if a member is participating remotely. There has to be a quorum and the Chair has to be physically present at the meeting.

Dr. Cavanagh referred to the term for Chair and Vice Chair, and said the SAC has only had two chairs since the Council was established. He suggested that at the next meeting a new chair be nominated.

Dr. Cavanagh asked when the comments are due for the Draft By Laws. Mr. Pinaud said that he can continue to accept comments until the end of September.

Dr. Duggan asked if the Draft changes address the Ad Hoc meetings. Mr. Pinaud replied yes, the revised Draft does address the Ad Hoc in Article V – Section d. Committees. Dr. Duggan stated that as long as the Council agrees there should be an Ad Hoc Committee the Chair doesn’t have to be present at the meeting. Mr. Pinaud said that the Ad Hoc is subject to the OML but members of the Ad Hoc Committee are selected through appointment by the EMC or majority vote.

Agenda Item 5: Camp Edwards Update – Dr. Michael Ciaranca, E&RC, MAARNG

Dr. Ciaranca discussed NHESP permitting and the property transfer for the Eversource Switching Station; the Article 97 legislation required for the transfer has passed. Dr. Cavanagh asked if the property transfer includes an easement. Dr. Ciaranca replied it does not.

Dr. Ciaranca said that the Soldiers Field Card was updated during 2018 to include several additions: no unauthorized road trail, or horizontal engineering work, tree scarring must be avoided, and to contact the Natural Resource Office for preventative mitigation measures.

Dr. Ciaranca stated that Echo Range is near completion. CPT McDonough said that there was an issue with the lifters on the targets. The target manufacturer, Meggitt Training Systems, did an assessment of the targets and found a simple solution using silica packets to absorb moisture in the pins, he noted. In addition, the antenna on Sierra Range is too high and interferes with the targets on Echo Range. There may be an issue with the communications boards continuously transmitting data, which will be fixed.

Dr. Ciaranca said that netting was installed at Lima Range and the firing line fencing was fixed.

Dr. Ciaranca reported that the Request for Proposal for the design for the Multi-purpose Machine Gun Range has been issued. NEPA/MEPA will begin following the design award. Dr. Ciaranca stated that all the Environmental Performance Standards (EPSs) and requirements for range development have been provided within the RFP.

Dr. Ciaranca discussed the Reserve/Training Area Refueling EPS 15.3.3, which states:
“No storage or movement of fuels for supporting field activities, other than in vehicle fuel tanks, will be permitted except in approved containers no greater than five gallons in capacity.”

Dr. Ciaranca said the MAARNG has completed two Proofs of Concept and been granted seven exceptions to policy. All exceptions and the Proofs of Concept were successfully implemented. The next steps are to finish developing the map and Standard Operating Procedures (SOP), develop the new EPS language, and propose the EPS change to the SAC, CAC and EMC in Spring 2019.

Mr. McCumber gave an update on the Natural Resources Program activities. He said that the program is continuing bat monitoring. The program is in final negotiation for the CMP for the Agassiz’s Clam Shrimp. The species is much more widespread than originally thought; they have doubled the known locations in four new towns and seven new properties, he noted. Mr. McCumber stated that the Whip-poor-will projects are ongoing with data monitoring to continue in the spring.

Mr. McCumber stated that there is a proposed listing of Walsh’s Digger bee (*Anthophora walshii*) and Eastern hognose snake (*Heterodon platyrhinos*). He noted that they are working with MassWildlife on the proposed state listing. Mr. McCumber stated that there is snake monitoring and disease study. Mr. McCumber noted that recently there was one bee’s nest documented in the grasslands that is classified as endangered species.

Mr. McCumber reported three prescribed burn days with 148 acres burned (April, June), one wildfire of 5 acres in April; the cause was electrical. The program has a goal of four training burns and three management burns in the fall.

Mr. McCumber stated that for mechanical restoration there was a Range Area West (RAW) 4 thinning timber harvest, 14 acres southwest corner of the Impact Area where there is continuous pitch pine and BP20 ITAM restoration. Mr. McCumber stated that for chemical restoration there were Calamagrostis treatment in coordination with MassWildlife. There is a frost bottom state-listed plan protection in training area actively seeking chemical treatment. Mr. Gschwend asked what type of chemical treatment will be used. Mr. McCumber stated it is glyphosate. Mr. Gschwend asked if there is a risk to the groundwater. Mr. McCumber said the treatments are targeted—mostly wiping it onto the plant. Dr. Duggan asked if it is possible to keep track of how many pounds are used every year. Mr. McCumber said that is reported in the Annual Report and to the State.

Mr. McCumber said there was a Division of Fisheries and Wildlife Board tour in August, Cape Cod Bird Club in September, Introduction to Wildland Firefighting Course in September, a meeting was held with the Barnstable County League of Sportsman Clubs on 26 April and one is scheduled for 25 October.

Mr. McCumber stated that the Deer Hunt scheduled dates are: Youth: 29 September, Paraplegic: 1-3 November, Archery scouting: 5-6 November, Archery: 8-10 November, Military: 30 November - 01 December, Shotgun: 3-8 December, and Muzzleloader: 14-15 December.

Agenda Item 6: Ad Hoc Committee Update – Dr. Phil Gschwend, MIT

Dr. Gschwend gave an update on the Ad Hoc Committee meeting held on August 18. He said the meeting attendees included Dr. Ciaranca, Mr. Pinaud, Dr. Duggan, Mr. Clausen, Mr. LeBlanc, Ms. Kelly, and Dr. Gschwend, Chair. He said that the data collection was discussed and data will help anticipate if there will be unacceptable transport of any contaminant, such as antimony, to the groundwater below. There needs not only to be monitoring for antimony or copper but research about what it is about the vertical system that would or would not let the chemicals transport down. What are the processes that enable the chemicals to move, he said

Dr. Gschwend stated that there are two major areas involved: the first is in what form the chemical really exists when it is in the environment; what do we need to know about the water chemistry to anticipate what is the nature of the species in the water and how likely is it to transport. He said data is needed to anticipate unacceptable transport.

Dr. Gschwend stated that Mr. Clausen noted that there have been some studies on the speciation of different metals, as well as studies done on Cape Cod sands and how they do or don't transport through the system. What is the form of the contaminant that is actually being carried and what is the nature of the soil that is flowing through does it make sense that it is or is not sticking, depending on the conditions. Certain kinds of data are required on a range of parameters including pH and dissolved oxygen; what are the other competing chemicals, such as chloride, sulfate, etc. The water composition should be measured and the various constituents that are a concern moving to the groundwater. If the composition of the water is known, we can estimate what is the likely predominate species that is moving through the subsurface.

Dr. Gschwend stated that the Ad Hoc committee's recommendation was to capture the type of range of information to understand the speciation in metals; what is competing, and the dissolved organic carbon that is moving downward. He said we need to know the dissolved organic carbon in addition to the antimony, etc. to understand, make observations, and be in position to anticipate ahead of time.

Dr. Gschwend stated that there was discussion about capturing the total amount of antimony that must have been used historically. Dr. Ciaranca stated that Mr. Clausen proposed a portion of work this year and funding for the speciation next season.

Dr. Ciaranca stated that after data collected and contract for sampling the next meeting will be scheduled before the spring 2019 SAC meeting.

Agenda Item 7: Public Comment – Dr. Paul Cavanagh, SAC Chair

There was no public comment.

Agenda Item #8. Adjourn

The meeting was adjourned at 7:15 p.m.