

Program Advisory Committee Meeting: Natural Resource Management

April 5th 2018

Attendees:

Wayne Jalbert Chairperson Hancock Associates
Eric Baldwin Massachusetts Environmental Police
Ryan O'Donnell Ipswich River Watershed Association
Laraine Harring Student representative grade 11
Mrs. Harring Parent Representative
CTE instructors
Paul Crofts
Jill Rasmus
Laura Gallant

1. Introductions
2. Old Business
3. Co-op review
4. New ATV course through MEP
5. Equipment needs: Repairs and on-site transport (gator or ATV)
6. Project updates and overnight trips
7. Space and new projects
8. Frameworks review: Outdoor safety strand

Meeting minutes

Introductions

New introductions and background of members. All above members were present except the parent representative was John Harring a Billerica policeman and father of Laraine Harring.

General overview of NRM and projects were presented to the new PAC members (go over in more detail at next PAC meeting).

Wayne Jalbert (chair) emphasized the benefits of vocational education and the overall impressiveness of NRM, the expansion of co-op and internships, and the college entry rates.

Old Business

Last meetings minutes were reviewed and the section of program review forms, some were still problematic (specifically building and safety codes) making it difficult for them to be signed due to liability issues. Some of these items were thought to fall outside of the purview of the advisory board.

Bias checklist was signed

Old minutes approved and accepted

Co-op Review

New coop and internship placement was reviewed and the board discussed the possibilities if we wanted to expand. Fish and Wildlife and Department of Conservation and Recreation were mentioned. Several members pointed out that there was a seasonality to some work experience, for example, fish stocking was only done over a few days in April. Board discussed if there was a possibility of students getting short opportunities for coop. Also discussed was the possibility of having students attend workshops; the kind attended by town planners and DPWs that implement town strategies to better manage resources. An example was the coastal resiliency workshops, a state sponsored initiative. (Later Lisa Berube said she would consider this but stated the difficulty of setting up such practices).

Under discussion was the large amount of office work that goes with any career in NRM, and members discussed a 10% fieldwork to 90% office work ratio. CTE teachers highlighted that the ratio for students was 90% fieldwork to 10% office work as students enjoy and are excited by this. This is a little bit of an issue for students entering the workplace and finding there is a lot of paperwork.

Other points of concern was that work crews are often disbanded during bad weather and there wasn't a process for this to be taken into consideration when students on coop were put in this position. (Later addressed by Lisa Berube that students could return to school on those days).

An issue was raised about that there was no protocol for students to leave a coop placement early if they did not like the experience or were overwhelmed by it. It was suggested that there should be an 'exit strategy' outlined in the student handbook about giving notice.

Another issue arose about workers comp and that shorter placements might make this problematic, but there was another form of voluntary insurance for interns. This was unclear and it was agreed that it should be researched.

Overall it was thought that coops could be expanded and that the definition of work experience should be expanded.

New ATV Course through MEP

Eric Baldwin introduced the ATV certification course for grade 10 students and emphasized that all student's parent should be made aware of what it involved and that permission slips would be needed. He will bring a MEP ATV and tracked vehicle for students to see. It was said that it would be beneficial for NRM to acquire an ATV and gator to use as part of their everyday work but especially as a complement to the ATV course. This course complements the MassBoat certification.

This led into further discussion about certifications such as CPR/AED through Heartsaver and CIG. It was discussed that for CPR we need another certified instructor and that the CIG course was worthwhile and should be funded at the student level and the instructor level. Chainsaw certification was discussed and members did not feel that chainsaws were that important to our program although they are mentioned in the frameworks.

Equipment needs: Repairs and on-site transport (gator or ATV)

As mentioned above there was unanimous consensus that NRM should have its own gator and ATV as these vehicles are an industry standard and that students often needed to transport large amounts of equipment. ATVs are used at places that students do coop such as Trustees at Crane Beech. Some

delicate optical instruments did not benefit from being hand carried and manhandled to and from site and would benefit from being carried in a gator. The optical instrumentation is more valuable than a gator and that transporting them in gators would save money by not having to replace expensive equipment.

Wayne Jalbert offered to calibrate all out optical instrumentation (autolevels, transits, TSTs and EDMs) free of charge, and also see if he could replace older rechargeable batteries that would not hold a charge and replace some of the chargers. He also said that we should make a list of equipment shortages and give it to board members to see if there was possibilities of equipment donations. Eric Baldwin stated that there are State surplus depots with equipment in storage.

Drones were enthusiastically debated. Some concerns about FCC regulations were raised. It was thought that waivers could be sought to permit us to fly drones around school. (Beverly airport, Correctional Facility, and MIT). John Harring said that it could be possible for his police department to come to school and offer a drone demonstration. It was agreed that if a drone program could be started it would need grant funding and that the grant must include instructor training. The prospect of getting drones was enthusiastically received.

Also under discussion was that hydrology courses did not have a YSI meter, Ryan O'Donnell suggested that one could be useful but that they were expensive and delicate. Getting a YSI or dissolved oxygen probe should be further researched. The program was in desperate need of pH meters.

Project updates and overnight trips

New NRM projects were presented by Paul Crofts and Jill Rasmus. The orchard project was moving along and students were doing a topographic survey and a soil attenuation assessment to determine drainage. Their preliminary analysis is that there was much soil damage during the initial clearance and that soils would need remediation.

Wildlife was entering a new phase with small mammal capture, Eric Baldwin reassured instructors that this form of trapping was fine on school property and did not break any state wildlife regulations. It was stated that tagging animals would be an interesting expansion and that we should explore the equipment and materials needed.

Wetland management and conservation was at a new phase as winter ended. Wayne Jalbert said he could give us his expert advice on wetland laws and regulations if we were to expand some projects and that agriculture did not make all activities in the wetland exempt. Instructor invited him to tour the campus which he accepted to do in the near future. It was also noted that it was impossible to spend the \$3000 FFA grant as NRM had no facility to grow and nurture the wetland plants they could buy.

Space and New Projects

Wayne Jalbert also discussed that he could come to school and discuss the installation and zoning of septic systems which would fit into the junior hydrology course.

Sophomore hydrology has expanded to do much more physical hydrology as well as biological and chemical analysis of the Ipswich River and that students had worked with Ryan O'Donnell to train river watch volunteers in March. They will be attending Middleton Earth Day and IRWA paddle-a-thon in June.

This year's planned overnight fieldtrip was discussed and well received. Members thought this experience was an awesome addition to our program and that students would be planning the curriculum, safety and provisioning of the trip. Laraine Haring thought it a shame that grade 11 did not have this experience and if something could be planned for them in the future. Eric Baldwin suggested that a comprehensive list of phone numbers should be created in the advent of any emergency.

Also presented was a planned trip to Appleton farms and how the NRM program is attempting to use more agricultural material in their curriculum, especially in the creation of fertile soils from manure, but that there was no system currently in school to do this.

Farm to school was presented and that the project had ground to halt. One factor was the removal of the offer of the digester/composter for food waste. The other that there was no productivity coming from the greenhouses. Discussed was the possibility of making an aquaponics lab that could be shared by several different majors, but that NRM needed growing space to become productive.

The windmill aerators were demonstrated and that auto body were doing the pain jobs before they were installed.

Frameworks Review: Outdoor safety strand

Paul Crofts projected the frameworks to be reviewed and they were discussed in terms of the work that is being and is planned on being done in the NRM program. Board members thought that the frameworks were adequate and that specific safety issues were addressed in the OSHA 10 certification program.

Meeting concluded

