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Memo

DocuSigned by: Ron Kamahele 79F14793D1E24D3... April 6, 2018

DocuSigned by: Doug Markussen 42013577A9454D4... April 6, 2018

To: Doug Markussen, EHSRM & Ron Kamahele, Human Resources

From: Kathy Burek-Huntington DocuSigned by: Kathy Burek Huntington 631FDC556850477... April 5, 2018

CC: Dr. Jenn Burns, Krystal Haase, and Cindy Detablan

Date: April 4, 2018

Re: Volunteer activities under Federal award NA17NMF4390097; UAA Grant number G00011752-244085 and M/CS 146785

Volunteers are an essential part of the necropsy process for the handling of carcasses as they allow qualified and experienced professionals to delegate routine tasks so that their time is spent more efficiently and effectively. It is also mutually beneficial in that we make a big effort to educate the volunteers what we are doing, why and what the follow up will be on these important cases. Many people interested in pursuing careers in medicine (human or veterinary), biology or conservation can benefit greatly from these experiences.

DUTIES: The level of experience of a volunteer often dictates their role in a necropsy. The following is a list of possible duties for the student volunteers.

1. Record keeping: This volunteer will be "clean" and not participate in any of the actual handling of the carcass. They can fill out the necropsy forms, keep track of collected samples in a checklist, or bring sterile sample collection materials to the prosector while not contaminating the datasheets and other equipment. Volunteers will be instructed on how to handle sterile materials and will be expected to maintain those practices for future necropsies. Previous knowledge of medical terminology is preferred for filling out necropsy forms but not necessary, as the volunteer would be expected to write down observations made by myself.

2. Dissection: More experienced volunteers will be involved in the dissection and disposal of the carcass. This can involve use of scalpel blades, forceps, scissors, and possibly saws. Students will be trained on the physical risks associated with these instruments before being allowed to participate. Proper PPE including aprons, gloves, eyewear, and masks will be provided by AVPS / UAA grant commodities. Some boots are available, but students will be asked to bring others, if needed, and to have other clothing and shoes to change into after the necropsy. Proper use and instruction of safety equipment will be given beforehand. Volunteers will be trained to use scalpel blade removers and instructed on the proper disposal of sharps using the provided

sharps containers. PPE will be provided to those volunteers dedicated to “clean” tasks, as well.

3. Post-necropsy handling of samples will, in some cases, be carried out by properly trained volunteers. These volunteers will need access to the Conoco-Phillips Integrated Science Building at UAA where the freezers are located to properly archive tissues. In addition to helping manage the freezers at UAA, volunteers involved in post-necropsy handling will be a part of shipping samples to different laboratories for analysis. These volunteers will be given proper instruction on how to safely package and ship animal specimens and follow proper labeling for these samples. The AVPS technician will have the primary responsibility for these tasks.

DATE RANGE: Necropsies can occur any time of the year, but the main stranding season is from April through end of October.

SITES FOR NECROPSIES: The sites of necropsies can vary depending on the size of the carcass and how far it is located away from Anchorage.

Most other necropsies will be performed at the UAA necropsy laboratory in the Ecosystem-Biomedical Health Laboratory (EBL)building. All safety procedures mentioned above for the USFWS lab will also be done at the EBL laboratory. Some necropsies are time sensitive and long lasting and access will be needed on weekends and late into the night.

With Sea Otters, necropsies are conducted in the Marine Mammal Management lab at the U.S. Fish & Wildlife regional office in Anchorage. This lab is in great working condition, is well ventilated, and has a working fume hood. USFWS takes safety very seriously and all volunteers have proper techniques demonstrated to them and they must also demonstrate their ability to perform these tasks. They are also shown where laboratory Standard Operating Procedures and MSDS sheets can be found for that facility. We will rarely use this facility, with the preference being the EBL laboratory.

If a larger carcass cannot be shipped to the laboratory, it will be necropsied on site, depending on where the stranding occurred. This can involve a drive down the road, a boat ride to the site, a commercial aircraft or a chartered float plane. In rare instances, a helicopter may have to be chartered. All chartered air vessels must be OAS certified and any volunteer or employee needs to have gone through the A-312 Water Ditching and Survival Training offered through the Office of Aviation Services. Volunteers will not be permitted to participate in field necropsies unless they have prior necropsy experience in the lab and have been properly trained on how to use equipment correctly.

HAZARDS and RISK AVOIDANCE:

The safety of personnel and volunteers is of utmost importance to AVPS. No necropsy or specific sample is worth risking the well-being of an individual due to negligence or lack of proper training. It is in our best interest to train volunteers according to their tasks so that no harm may befall an individual under our responsibility. We take this matter seriously and make our volunteers aware of risks before they begin work with us.

1. **PHYSICAL HAZARDS:**
    a. There are physical hazards associated with the work, including cuts from instruments, back strain from lifting, tripping over equipment or uneven ground in the field, and getting on and off boats or planes. Risks from these exposures to hazards can also be aggravated by long hours of work. Volunteers will be provided with proper training of lifting techniques, proper use of dissection instruments, and briefings from trained professionals regarding transportation protocols. There will also be regularly scheduled break intervals to avoid accidents caused by fatigue. First Aid Kits will be brought in case of injury out in the field, in addition to survival gear and food

rations. If there is any risk of exposure to bears in a remote area, bear protection personnel experienced in this task will be part of the team. These are usually provided through OLE personal with NMFS.

2. **BIOHAZARDS:**
    a. There are biomedical hazards associated with working around animals that have died of unknown causes; this may include infectious diseases. Volunteers will be trained on how to use personal protective equipment (PPE) effectively. AVPS will provide all necessary PPE. Volunteers will also be made aware of any zoonotic diseases that may be of concern for a given case.
3. **CHEMICAL HAZARDS:**
    a. Some chemical hazards will be present in both the lab and field settings, including formaldehyde and ethanol. MSDS sheets can be provided to volunteers upon request.
        i. 10% neutral buffered formalin: A SOP on use of formalin has been submitted. During necropsy, the minimal amount of formalin will be used and will be covered at all times unless samples are being added. The formalin will be in a stable area out of the route of traffic to avoid any spillage. In emergency cases, spill kits and containment supplies are always brought with formalin. Formalin will be transported in airtight closed containers. Only AVPS employees or other trained professionals who have taken HAZWOPER 24 hour training will be responsible for the transportation of formalin.
        ii. 90% ethanol (ETOH) is used to sterilize instruments and tissues by flaming them. A minimal amount is used and a lid is always placed near the ethanol for containment. Only AVPS employees or experienced volunteers will be involved in flaming. Containers of water are always situated nearby.

All volunteers will be directly supervised by Dr. Burek, Sonia Kumar or veterinarians included in this project who have employee status including Martha Delaney and others yet to be determined.