NMFS MARINE MAMMAL HEALTH AND STRANDING RESPONSE PROGRAM

Arctic Marine Mammal Disaster Response Guidelines Appendices

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service

Appendix List

Appendix 1: Regional Contact Information

Appendix 1 - Regional Contact Information - Bering Strait Region

Region	Location	Language
Bering Strait	St. Lawrence Island: Gambell and Savoonga	Siberian Yupik
Bering Strait	Shishmaref, Diomede, Wales, Brevig Mission, Teller, King Island, Nome, Mary's Igloo, Solomon, White Mountain, Golovin	Iñupiaq (Bering Strait dialect), Central Yupik, and Russian
Bering Strait	Eastern Russian Communities	Russian, Siberian Yupik, and Chukchi
Bering Strait	Stebbins, Saint Michael, Elim, Koyuk, Shaktoolik, Unalakleet	Central Yupik

Organization Type	Name	Contact Information
Stranding Agreement Holder	UAF Alaska Sea Grant Marine Advisory Program	Gay Sheffield (907) 443-2397 Mobile: (907) 434-1149 gay.sheffield@alaska.edu
Co-Management Group	Eskimo Walrus Commission	(907) 443-4380 ewc@kawerak.org
Oil Spill Response Organization	Alaska Chadux Corporation	Response Manager (907) 348-2313 cdaugherty@chadux.com
Regional Native Corporation	Bering Straits Native Corporation	Nome Corporate (907) 443-5252 (800) 478-5079 info@beringstraits.com
Regional Native Non-Profit Organization	Kawerak, Inc.	(907) 443-4265 sub.dir@kawerak.org
Local Emergency Response	Local Emergency Planning Committee	(907) 443-8522 dcanarelli@nomealaska.org

Appendix 1 - Regional Contact Information - Bering Strait Region

Media Outreach	Contact
KNOM Radio	Submit a community announcement: http://www.knom.org/wp/show-directory/community-announcements/
Nome Nugget	(907) 443-5235 ads@nomenugget.com
Informational flyers to communities	See Community Contact Information
UAF Alaska Sea Grant Marine Advisory Program	Gay Sheffield (907) 443-2397 Mobile: (907) 434-1149 gay.sheffield@alaska.edu
KICY Radio	(800) 478-5429 (907) 443-2213 office@kicy.org

Appendix 1 - Regional Contact Information – North Slope Borough

Region	Location	Language
North Slope Borough	All Communities	Iñupiaq

Organization Type	Name	Contact Information
Stranding Agreement Holder	North Slope Borough Department of Wildlife Management	(907) 852-0350 nsbwildlifedepartment@north.slope.org
Co-Management Group	Alaska Eskimo Whaling Commission	(907) 852-2392
Co-Management Group	Ice Seal Committee	President Billy Adams (907) 852-0350 billy.adams@north-slope.org
Oil Spill Response Organization	Alaska Clean Seas	(907) 659-3207 planning@alaskacleanseas.org
Oil Spill Response Organization	North Slope Borough Oil Spill Response	(907) 852-0489 lokeni.lokeni@north-slope.org
Regional Native Corporation	Arctic Slope Regional Corporation	Utqiaġvik, Alaska 99723 (907) 852-8633
Regional Health Organization	North Slope Borough Department of Health and Social Services	(907) 852-0366 doreen.leavitt@north-slope.org
Regional Native Organization	Inupiat Community of the Arctic Slope	(907) 852-4227 executive@inupiatgov.com
Local Emergency Response	Local Emergency Planning Committee	(907) 852-0248 frederick.brower@north-slope.org

Media Outreach	Contact
KBRW Radio	(907) 852-6811
Arctic Sounder Newspaper	(907) 770-0820 ads@reportalaska.com
NSB-DWM Newsletter	(907) 852-0350 leslie.pierce@north-slope.org
Informational flyers to communities	See Community Contact Information

Appendix 1 - Regional Contact Information –Northwest Arctic Borough

Region	Location	Language
Northwest Arctic	All Communities	Iñupiaq

Organization Type	Name	Contact Information
Regional Native Organization	Northwest Arctic Borough	Dickie Moto (907) 442-8210 dmoto@nwabor.org
Co-Management Group	Alaska Beluga Whale Committee	Willie Goodwin, Chairman (907) 412-1248 argagiaq@gmail.com
Regional Native Corporation	NANA	Anchorage, AK 99501 (907) 265-4100
Regional Native Non-Profit Organization	Maniilaq	(907) 412-0361 charris@maniilaq.org
Tribal Organization	Native Village of Kotzebue	(907) 442-5303 kotzebueira@gmail.com
Local Emergency Response	Local Emergency Planning Committee	cjones@nwabor.org
Local Emergency Response	NWAB 24 Hour Emergency Contact	(907) 442-8217 Mobile: (907) 412-2038 ebrown@nwabor.org

Media Outreach	Contact
KOTZ Radio	(907) 442-3434 rhensley@kotz.org
Arctic Sounder	(907) 770-0820 ads@reportalaska.com
Informational flyers to communities	See Community Contact Information

Appendix 1 - Regional Community Contact Information – Bering Strait Region

Organization Type	Community Name	Tribal Contact	City Contact
Community	Brevig Mission	Native Village of Brevig Mission P.O. Box 85039 Brevig Mission, AK 99785 (907) 642-4301 tc.kts@kawerak.org	City of Brevig Mission P.O. Box 85021 Brevig Mission, AK 99785 mayor_kts@yahoo.com
Community	Diomede	Native Village of Diomede IRA Council P.O. Box 7079 Diomede, Alaska 99762 (907) 686-2175 tc.dio@kawerak.org	City of Diomede P.O. BOX 7039 Little Diomede, AK 99762 (907) 686-3071 dio.city@yahoo.com
Community	Elim	Native Village of Elim P.O. Box 70 Elim, Alaska 99739 (907) 890-3737 tc.eli@kawerak.org	City of Elim P.O. Box 39009 Elim, AK 99739
Community	Gambell	Gambell IRA Council P.O. Box 90 Gambell, Alaska 99742 (907) 985-5346	City of Gambell P.O. Box 189 Gambell, AK 99742 (907) 985-5112 cityofgambell@yahoo.com
Community	Golovin	Chinik Eskimo Community P.O. Box 2020 Golovin, Alaska 99742 (907) 779-2214 tc.glv@kawerak.org	City of Golovin P.O. Box 62059 Golovin, AK 99762 Mayor: (907) 779-3681

Appendix 1 - Regional Community Contact Information – Bering Strait Region

Organization Type	Community Name	Tribal Contact	City Contact
Community	King Island	King Island Native Community P.O. Box 682 Nome, Alaska 99762 (907) 443-2209 tc.ki@kawerak.org	King Island Native Corporation P.O. Box 992 Nome, AK 99762 (907) 443-5494
Community	Koyuk	Native Village of Koyuk P.O. Box 53030 Koyuk, Alaska 99753 (907) 963-3651 tc.kka@kawerak.org	City of Koyuk P.O. Box 53029 Koyuk, AK 99753 (907) 963-3441 cityofkoyuk@hughes.net
Community	Mary's Igloo	Mary's Igloo Traditional Council P.O. Box 546 Teller, Alaska 99778 (907) 642-3731 tc.mi@kawerak.org	Mary's Igloo Native Corporation P.O. Box 650 Teller, AK 99778 (907) 642-2308 migloonativecorp@gmail.com
Community	Nome	Nome Eskimo Community P.O. Box 1090 Nome, Alaska 99762 Phone: (907) 443-2246	City of Nome P.O. Box 281 Nome, AK 99762 (907) 443-6663 tmoran@nomealaska.org
Community	Savoonga	Native Village of Savoonga IRA Council P.O. Box 120 Savoonga, Alaska 99785 (907) 984-6414 tc.sva@kawerak.org	City of Savoonga P.O. Box 40 Savoonga, AK 99769 (907) 984-6614 cityofsva@yahoo.com

Appendix 1 - Regional Community Contact Information – Bering Strait Region

Organization Type	Community Name	Tribal Contact	City Contact
Community	Shaktoolik	Native Village of Shaktoolik IRA Council P.O. Box 100 Shaktoolik, Alaska 99771 (907) 955-3701 tc.skk@kawerak.org	City of Shaktoolik P.O. Box 10 Shaktoolik, AK 99771 (907) 955-3441 skkcity@arctic.net
Community	Shismaref	Native Village of Shishmaref IRA Council P.O. Box 72110 Shishmaref, Alaska 99772 (907) 649-3821 tc.shh@kawerak.org	City of Shishmaref P.O. Box 83 Shishmaref, AK 99772 (907) 649-3781 cityofshhclerk@gci.net
Community	Solomon	Solomon Traditional Council P.O. Box 2053 Nome, Alaska 99762 (907) 443-4985 tc.sol@kawerak.org	Solomon Native Corporation P.O. Box 243 Nome, AK 99762 (907) 443-7526
Community	St.Michael	Native Village of St. Michael IRA Council P.O. Box 59050 St. Michael, Alaska 99659 (907) 923-2304 tc.smk@kawerak.org	City of Saint Michael P.O. Box 59070 St. Michael, AK 99659 (907) 923-3222 relachik@yahoo.com
Community	Stebbins	Stebbins Community Association P.O. Box 71002 Stebbins, Alaska 99671 (907) 934-3561 tc.wbb@kawerak.org	City of Stebbins P.O. Box 22 Stebbins, AK 99671 (907) 934-3451 stebbinscity@yahoo.com

Appendix 1 - Regional Community Contact Information – Bering Strait Region

Organization Type	Community Name	Tribal Contact	City Contact
Community	Teller	Teller Traditional Council P.O. Box 567 Teller, Alaska 99778 (907) 642-3381 tc.tla@kawerak.org	City of Teller P.O. Box 548 Teller, AK 99778 (907) 642-3401 cityofteller@gmail.com
Community	Unalakleet	Native Village of Unalakleet IRA Council P.O. Box 100 Shaktoolik, Alaska 99771 (907) 955-3701 tc.skk@kawerak.org	City of Unalakleet P.O. Box 28 Unalakleet, AK 99684 Phone: (907) 624-3531 counk@alaska.com
Community	Wales	Native Village of Wales P.O. Box 549 Wales, Alaska 99783 (907) 664-3062 tc.waa@kawerak.org	City of Wales P.O. Box 489 Wales, AK 99783 (907) 664-3501 cityofwalesclerk@yahoo.com
Community	White Mountain	White Mountain IRA Council P.O. Box 84090 White Mountain, Alaska 99784 (907) 638-3651 tc.wmo@kawerak.org	City of White Mountain P.O. Box 130 White Mountain, AK 99784 (907) 638-3411

Appendix 1 - Regional Community Contact Information - North Slope Borough

Organization Type	Community Name	Tribal Contact	City Contact
Community	Anaktuvuk Pass	Native Village of Anaktuvuk Pass P.O. Box 21065 Anaktuvuk Pass, AK 99721 (907) 661-2575 akp@inupiatgov.com	City of Anaktuvuk Pass P.O. Box 21030 Anaktuvuk Pass, AK 99721-0030 (907) 661-3612 klwagner@cityofakp.org
Community	Atqasuk	Native Village of Atqasuk P.O. Box 91108 Atqasuk, AK 99791 (907) 633-2575 icasatq@hughes.net	City of Atqasuk P.O. Box 91119 Atqasuk, AK 99791 (907) 633-6811 cityofatqasuk@hotmail.com
Community	Kaktovik	Native Village of Kaktovik P.O. Box 130 Kaktovik, AK 99747 (907) 640-2042 nvkaktovik@starband.net	City of Kaktovik P.O. Box 27 Kaktovik, AK 99747 Contact Nora Jane Burns, Mayor (907) 640-6313 office@cityofkaktovik.org
Community	Nuiqsut	Native Village of Nuiqsut P.O. Box 89169 Nuiqsut, AK 99789 (907) 480-3010 native.village@astacalaska.net	City of Nuiqsut P.O. Box 89148 Nuiqsut, AK 99789 (907) 480-6727 cityofnuiqsut@gmail.com

Appendix 1 - Regional Community Contact Information - North Slope Borough

Organization Type	Community Name	Tribal Contact	City Contact
Community	Point Hope	Native Village of Point Hope P.O. Box 109 Point Hope, AK 99766 (907) 368-2330 peggy.frankson@tikigaq.org	City of Point Hope P.O. Box 169 Point Hope, AK 99766-0169 (907) 368-2537 akphogov@hotmail.com
Community	Point Lay	Native Village of Point Lay P.O. Box 59031 Point Lay, AK 99759 (907) 833-2575 pointlay@inupiatgov.com	Not Available
Community	Utqiaġvik (formerly known as Barrow)	Native Village of Barrow Iñupiat Traditional Government P.O. Box 1130 Utqiaġvik, AK 99723 (907) 852-4411 ebrower@nvbarrow.net	City of Utqiaġvik P.O. Box 629 Utqiaġvik, AK 99723 (907) 852-5211 receptionist.receptionist@utqiagvik.us
Community	Wainwright	Native Village Wainwright P.O. Box 22 Wainwright, AK 99782 (907) 763-2535 wainwright@inupiatgov.com	City of Wainwright P.O. Box 9 Wainwright, AK 99782 (907) 763-2815 wainwrightcity@gmail.com

Appendix 1 - Regional Community Contact Information - Northwest Arctic Borough

Organization Type	Community Name	Tribal Contact	City Contact
Community	Ambler	Native Village of Ambler P.O. Box 47 Ambler, AK 99786 (907) 445-2196 tribemanager@ivisaappaat.org	City of Ambler PO Box 9 Ambler, AK 99786 (907) 445-2122 amblercity@gmail.com
Community	Buckland	Native Village of Buckland P.O. Box 67 Buckland, AK 99727 (907) 494-2171 tribeclerk@nunachiak.org	City of Buckland PO Box 49 Buckland, AK 99727 (907) 494-2121 cityofbuckland@gmail.com
Community	Deering	Native Village of Deering P.O. Box 36089 Deering, AK 99736 (907) 363-2138 tribeadmin@ipnatchiaq.org	City of Deering PO Box 49 Deering, AK 99736 (907) 363-2136 cityofdeering@yahoo.com
Community	Kiana	Native Village of Kiana P.O. Box 69 Kiana, AK 99749 (907) 475-2109 tribedirector@katyaaq.org	City of Kiana PO Box 150 Kiana, AK 99749 (907) 475-2136 cityclerk@cityofkiana.org
Community	Kivalina	Native Village of Kivalina P.O. Box 50051 Kivalina, AK 99750 (907) 645-2153 tribeadmin@kivaliniq.org	City of Kivalina P.O. Box 50079 Kivalina, AK 99750 (907) 645-2137 kivalinacity@aol.com
Community	Kobuk	Native Village of Kobuk P.O. Box 51039 Kobuk, AK 99751 (907) 948-2203 tribeadmin@laugvik.org	City of Kobuk P.O. Box 51020 Kobuk, AK 99751 (907) 948-2217 kobukcity@yahoo.com

Appendix 1 - Regional Community Contact Information - Northwest Arctic Borough

Organization Type	Community Name	Tribal Contact	City Contact
Community	Kotzebue	Native Village of Kotzebue P.O. Box 296 Kotzebue, AK 99752-0296 (907) 442-3467 nicole.stoops@qira.org, alex.whiting@qira.org	City of Kotzebue P.O. Box 46 Kotzebue, AK 99752 (907) 442-3401 lgreene@kotzebue.org
Community	Noatak	Native Village of Noatak P.O. Box 89 Noatak, AK 99761 (907) 485-2173 tribeadmin@nautaaq.org	Not Available
Community	Noorvik	Noorvik Native Community P.O. Box 209 Noorvik, AK 99763 (907) 636-2144 tribemanager@nuurvik.org	City of Noorvik P.O. Box 146 Noorvik, AK 99763 (907) 636-2100 cityofnoorvik@gmail.com
Community	Selawik	Native Village of Selawik 59 North Tundra St. Selawik, AK 99770 (907) 484-2165 tribeadmin@akuligaq.org	City of Selawik P.O. Box 99 Selawik, AK 99770 (907) 484-2132 city_of_selawik@hotmail.com, cos1@gci.net
Community	Shungnak	Native Village of Shungnak P.O. Box 64 Shungnak, AK 99773 (907) 437-2163 tribeclerk@issingnak.org	City of Shungnak P.O. Box 59 Shungnak, AK 99773 (907) 437-2161 beverly_griest25@hotmail.com

Appendix 2: Arctic Marine Mammal Resources for Disaster Response

Contact Information for Federal and State Emergency Personnel are listed in the Unified Plan, https://dec.alaska.gov/spar/perp/plans/uc.htm

Table 1 – Alaska Marine Mammal Stranding Agreement Holders

No.	Holder/Member	Organization/Name	Contact Name	E-mail	Office Phone No.	Cell Phone No.	Alternate Phone No.	Location	HAZWOPER Training (Y/N)
National Marine Fisheries Service Statewide 24-hour Stranding Hotline: (877) 925-7773 or (877) 9-AKR-PRD									
National Marine Fisheries Service Protected Resources Office: (907) 586-7235 (Juneau); (907) 271-5006 (Anchorage)									
1	Stranding Agreement Holder	Alaska SeaLife Center	Carrie Goertz	carrieg@alaskasealife.org	(907) 224-6326	n/a	(888) 774-7325	Seward, AK	Yes
2	Stranding Agreement Holder	Alaska Veterinary Pathology Services	Kathy Burek	avps.khb@gmail.com	(907) 696-3704	(907) 242-2566	n/a	Eagle River, AK	Yes
3	Stranding Agreement Holder	Alaska Whale Foundation	Fred Sharpe	fsharpe@sfu.ca	(360) 808-0579	same	n/a	Petersburg, AK	No
4	Stranding Agreement Holder	Aleut Community of St. Paul	Pamela Lestenkof	pmlestenkof@tgspi.com	n/a	n/a	n/a	St. Paul Island, AK	No
5	Stranding Agreement Holder	North Slope Borough Department of Wildlife Management	Raphaela Stimmelmayr	raphaela.stimmelmayr@north-slope.org	(907) 852-0350	n/a	n/a	Utqiaġvik, AK	Yes
6	Stranding Agreement Holder	University of Alaska Fairbanks Alaska Sea Grant Marine Advisory Program	Gary Freitag	gary.freitag@alaska.edu	(907) 228-4551	907-617-8990	n/a	Ketchikan, AK	No
7	Stranding Agreement Holder	University of Alaska Fairbanks Alaska Sea Grant Marine Advisory Program	Gay Sheffield	Gay.sheffield@alaska.edu	(907) 443-2397	(907) 434-1149	(907) 443-6249	Nome, AK	Yes
8	Stranding Agreement Holder	University of Alaska Fairbanks Alaska Sea Grant Marine Advisory Program	Kate Wynne	Kate.wynne@alaska.edu	n/a	(907) 539-2758	n/a	Juneau, AK	No
9	Stranding Agreement Holder	University of Alaska Sitka	Jan Straley	jan.straley@uas.alaska.edu	(907) 747-7779	(907) 738-6629	(907) 738-6629	Sitka, AK	No
10	Stranding Agreement Holder	National Park Service, Glacier Bay National Park	Chris Gabriele	Chris_Gabriele@nps.gov	(907) 697-2664	n/a	n/a	Gustavus, AK	No
11	Stranding Agreement Holder	University of Alaska Fairbanks Alaska Sea Grant Marine Advisory Program	Melissa Good	Melissa.good@alaska.edu	(907) 581-1876	n/a	n/a	Dutch Harbor, AK	No
12	Stranding Agreement Holder	Rachel Berngartt	Rachel Berngartt	rachelinjuneauak@gmail.com	(907) 463-5022	(907) 957-5022	n/a	Juneau, AK	Yes
13	Stranding Agreement Holder	UAF Museum of the North	Link Olson	link.olson@uaf.edu	(907) 474-6946	n/a	n/a	Fairbanks, AK	No
14	Stranding Agreement Holder	Petersburg Marine Mammal Center	Barry Bracken	bbsea@gci.net	(907) 772-3736	(907) 518-0019	n/a	Petersburg, AK	No

Table 1 continued- Alaska Marine Mammal Stranding Network

No.	Holder/Member	Organization/Name	Contact Name	E-mail	Office Phone No.	Cell Phone No.	Alternate Phone No.	Location	HAZWOPER Training (Y/N)
15	Stranding Agreement Holder	Chichagof Conservation Council	Gordon Chew	gordon_chew@msn.com	(907) 736-9200	n/a	n/a	Tenakee Springs, AK	No
16	Stranding Agreement Holder	AK Consortium of Zooarchaelogists	Rhea Hood	Rhea_hood@nps.gov	(907) 644-3460	n/a	n/a	Anchorage, AK	No
17	Active Stranding Partner under MMPA 109(h)	USFWS	Doug Holt Marc Webber	Doug_holt@fws.gov Marc_webber@fws.gov	(907) 842-8414 (907) 226-4605	(907) 299-6429	n/a	Dillingham, AK Homer, AK	No
18	Active Stranding Partner under MMPA 109(h)	USFS	Susan Oehlers	soehlers@fs.fed.gov	(907) 784-3359	n/a	n/a	Yakutat, AK	No
19	Active Stranding Partner under MMPA 109(h)	Alaska Department of Fish and Game	Lauri Jemison Justin Jenniges	Lauri.jemison@alaska.gov Justin.jenniges@alaska.gov	(907) 842-1559 (907) 465-6473	n/a (907) 209-3922	n/a	Dillingham, AK Juneau, AK	No
20	Active Stranding Partner under MMPA 109(h)	Alaska State Parks	Preston Kroes Kevin Murphy	Preston.kroes@alaska.gov Kevin.murphy@alaska.gov	(907) 486-6339 (907) 465-2483	(907) 715-8798 (907) 942-4376	n/a	Kodiak, AK Juneau, AK	No
21	Active Stranding Partner under MMPA 109(h)	Sun'aq Tribe of Kodiak	Kelly Krueger	kkrueger@sunaq.org	(907) 486-4449	n/a	n/a	Kodiak, AK	No
22	Active Stranding Partner under MMPA 109(h)	Traditional Council of St. George	Dennis Lekanof Mandy Malavansky	Dj_lekanof@hotmail.com mandym@gci.net	(907) 859-2447 (907) 859-2205	n/a	n/a	St. George, AK	No

Table 2 - Groups that Have Arctic Marine Mammal Handling Experience and Behavior Experts

Resource	Location	Contact Info	Capacity
Alaska SeaLife Center	Seward, AK	Wildlife Response Hotline: (888) 774-7325	Capture, rehabilitation, and tagging of pinnipeds and small cetaceans. Oiled Wildlife Response Team. Rehabilitation permit under MMHSRP.
Alaska Zoo	Anchorage, AK	(907) 341-6427 plampi@alaskazoo.org	Pinnipeds, polar bears
UAF Alaska Sea Grant Marine Advisory Program	Nome, AK	(907) 434-1149 gay.sheffield@alaska.edu	Capture and tagging of pinnipeds
North Slope Borough Department of Wildlife Management	Utqiaġvik, AK	(907) 852-0350	Capture and tagging of pinnipeds, tagging cetaceans
Alaska Department of Fish and Game Arctic Marine Mammal Program	Fairbanks, AK	(907) 459-7214 lori.quakenbush@alaska.gov	Capture and tagging of pinnipeds; tagging cetaceans
National Marine Mammal Laboratory/Alaska Fisheries Science Center	Seattle, WA	(206) 526-4045 John.Bengtson@noaa.gov (206) 526-4032 Robyn.Angliss@noaa.gov	Staff with capture and tagging of pinnipeds; tagging cetaceans
National Marine Fisheries Protected Resources Division	Juneau, AK	(907) 586-7235	Staff with capture and tagging of pinnipeds; tagging cetaceans. PRD research permits list previously trained community members and other agency staff.
Alaska Eskimo Whaling Commission	Utqiaġvik, AK	(907) 852-2392	Bowhead behavior experts and tagging
Alaska Beluga Whale Committee	Kotzebue, AK	(907) 412-1248 argagiaq@gmail.com or kjfrost@hawaii.rr.com	Beluga whale behavior experts and some commissioners have tagging training
Alaska Ice Seal Committee	Utqiaġvik, AK	(907) 852-0350 Billy.Adams@north-slope.org; Mike.pederson@north-slope.org	Ice seal behavior experts, some commissioners have training in capture/handling and tagging
United States Fish and Wildlife Service Marine Mammals Management	Anchorage, AK	(907) 786-3800 (800) 362-5148	Polar bear and walrus capture and handling
Eskimo Walrus Commission	Nome, AK	907-443-4380 ewc@kawerak.org	Walrus behavior experts

Table 3 – Resources Available for Marine Mammal Rehabilitation

Resource	Location	Contact Info	Notes
Alaska SeaLife Center	Seward, AK	Wildlife Response Hotline: (888) 774-7325	At ASLC in Seward: Up to 100 pinnipeds in dry holding. 2-3 week rehab cycle. Remote rehabilitation: 4 mobile rehab/treatment enclosures ~12-16 pinnipeds for 4-12 weeks. ~20 oiled pinnipeds can be permanently placed. Stranding Agreement holder.
Alaska Zoo	Anchorage, AK	(907) 341-6427 plampi@alaskazoo.org	Immediate capacity: 22 pinnipeds in dry holding. Capacity in 48 hours: 50 pinnipeds in dry holding. Not a Stranding Agreement holder.

Table 4 - Potential Facilities for Wildlife Response Activities

Region	Organization	Facility	Location	Contact Name	Contact Information	Response Activity	Detail
North Slope	North Slope Borough Department of Wildlife Management	Arctic Research Facility (ARF)	Utqiaġvik, Alaska	North Slope Borough Department of Wildlife Management	(907) 852-0350 Cell: (907) 750-5486 raphaela.stimmelmayr@north-slope.org	Necropsy (limited)	Field sub-sampling facility
North Slope	North Slope Borough Department of Wildlife Management	Barrow Arctic Research Center (BARC)	Utqiaġvik, Alaska			Necropsy, 1 freezer currently in use	Necropsy suite
North Slope	North Slope Borough	North Slope Borough Oil Spill Response	Utqiaġvik, Alaska	North Slope Borough Oil Spill Response	(907) 852-0489 lokeni.lokeni@north-slope.org	Equipment storage, potential space to sample/necropsy animals	Connexes for contract
North Slope	Ukpeaġvik Iñupiat Corporation (UIC)	Naval Arctic Research Laboratory (NARL)	Utqiaġvik, Alaska	NARL, UIC	(800) 347-0049 (907) 852-4460	Equipment storage, meeting room/staging, potential space to sample/necropsy animals	Research campus with warehouses, offices, etc. Connexes.
North Slope	Arctic Slope Regional Corporation (ASRC) Energy Services (AES)	Unknown	Utqiaġvik, Alaska	ASRC	Response Operations (907) 339-6200 info@asrcenergy.com	Equipment storage, potential space to sample/necropsy animals	Connexes for contract
North Slope	Alaska Clean Seas	ACS Base	Prudhoe Bay, Alaska	Alaska Clean Seas	1 Spine Road, P.O. Box 340022 Prudhoe Bay, AK 99734-0022 (907) 659-3207 planning@alaskacleanseas.org	Limited small equipment storage	Totes
North Slope	Alaska Clean Seas	Building U-8	Prudhoe Bay, Alaska			Rehabilitation, necropsy	Has electricity, running hot water, currently set up for bird response.
North Slope	Alaska Clean Seas	EOA SRT Building at MCC	Prudhoe Bay, Alaska			Rehabilitation, necropsy	Has electricity, running hot water.
North Slope	Alaska Clean Seas	Santa Fe Pad (A4W1)	Prudhoe Bay, Alaska			Rehabilitation, necropsy, equipment storage	Concrete floor, electricity, no running water
North Slope	Alaska Clean Seas	ACS WOA SRT	Prudhoe Bay, Alaska			Rehabilitation, necropsy, equipment storage	Concrete floor, electricity, running water, no reliable hot water
North Slope	Alaska Clean Seas	Trucks with fresh water	Prudhoe Bay, Alaska			Rehabilitation, necropsy	Could be contracted
Northwest Arctic	Alaska Airlines	Airport Freezers	Kotzebue, Alaska	Alaska Airlines	(907) 442-3474	Storage of samples	Have large freezers, unknown quantity
Northwest Arctic	National Guard	Hangar	Kotzebue, Alaska	National Guard	(907) 442-3447	Rehabilitation, necropsy, equipment storage	Have large generally empty hangar with electricity

Table 4 continued : Potential Facilities for Wildlife Response Activities

Region	Organization	Facility	Location	Contact Name	Contact Information	Response Activity	Detail
Northwest Arctic	Northwest Arctic Borough	Connexes	Kotzebue, Alaska	Northwest Arctic Borough	(907) 442-2500 KGallahorn@nwabor.org	Equipment storage, potential space to sample/necropsy animals	Connexes for contract
Northwest Arctic	USFWS Selawick National Wildlife Refuge	Unknown	Kotzebue, Alaska	USFWS	(907) 442-3799 selawik@fws.gov	Equipment storage, potential space to sample/necropsy animals	Buildings with unknown capacity
Bering Strait	UAF Alaska Sea Grant Marine Advisory Program	UAF NW Campus Science Lab	Nome, Alaska	Gay Sheffield	(907) 443-2397 ggsheffield@alaska.edu	Limited Necropsy Limited equipment storage Limited storage of samples	Necropsy, chest freezers, lab with space to sample/necropsy animals
Bering Strait	Alaska Airlines	Airport Freezers	Nome, Alaska	ADF&G Division of Wildlife Conservation	(907) 443-2711	Storage of samples	Have large walk-in freezers, unknown quantity
Bering Strait	Norton Sound Economic Development Corporation	Freezers	Nome, Alaska	Charlie Lean, Director of Fisheries	(907) 304-1488	Storage of samples	Have large freezers, unknown quantity
Statewide	Alaska SeaLife Center	Mobile Wildlife Response	Alaska	24-hour ASLC Security	24-hour Phone: (907) 224-6342 Cell: (907) 362-2262	*In situ* (on site) cleaning and rehabilitation	MTREs (2 in Seward, 2 in Prudhoe) and additional connex response units available May 2018 (vet clinics, staff housing, food preparation, and utility)
Seward	Alaska SeaLife Center	Alaska SeaLife Center	Seward, Alaska	Wildlife Stranding Hotline	24/7 Phone (888) 774-7325	Rehabilitation, diagnostics, necropsy, sample storage, food preparation, food storage, animal care (surgery and treatment)	25 separate enclosures (some with pools—varying sizes), one year of food on hand with ability to get more, -80F freezers (8) for sample storage, large walk-in freezer and 3 chest freezers (food), separate necropsy walk-in freezer, necropsy lab, additional dry holding available (outdoor space, and indoor labs: up to 100 pinnipeds)
Anchorage	Alaska Zoo	Infirmary, Commissary, Cub House, Elephant House, Old Polar Bear Facility	Anchorage, Alaska	Shannon Jensen	(907) 341-6421 Cell: (907)244-2175 sjensen@alaskazoo.org 4731 O'Malley Road, Anchorage, AK 99507	Necropsy, sample storage, rehabilitation, food preparation and storage	Necropsy lab, 2 chest freezers, 6 chain link pens, 1 large concrete area, 1 outdoor area (8 small pinnipeds in condos, and 6 in outdoor area), keep 6 months of food on hand with ability to order more, dry holding in dens and warehouse

Table 5 - Veterinarians with Arctic Marine Mammal Experience

Organization	Location	Contact Name	Contact Information
Alaska Veterinary Pathology Services	Eagle River, AK	Dr. Kathy Burek	(907) 242-2566 avps.kbh@gmail.com
North Slope Borough Department of Wildlife Management	Utqiaġvik, AK	Dr. Raphaela Stimmelmayr	Cell: (907) 750-5486 Office: (907) 852-0350 raphaela.stimmelmayr@north-slope.org
Alaska SeaLife Center	Seward, AK	Dr. Carrie Goertz	(907) 224-6326 carrieg@alaskasealife.org
Alaska SeaLife Center	Seward, AK	Dr. Pamela Tuomi	(907) 224-6340 pamt@alaskasealife.org
Alaska SeaLife Center	Seward, AK	Dr. Kathy Woodie	(907) 224-6374 kathyw@alaskasealife.org
Alaska Biosystems, contracted by National Marine Fisheries Service	Juneau, AK	Dr. Kate Savage	(907) 586-7209 kate.savage@noaa.gov
Bridge Veterinary Services	Juneau, AK	Dr. Rachel Berngartt	(907) 463-5022 rachelinjuneauak@gmail.com
Alaska Department of Fish and Game	Fairbanks, AK	Dr. Kimberlee Beckmen	(907) 459-7257 kimberlee.beckmen@alaska.gov
Pet Stop	Anchorage, AK	Dr. Riley Wilson	Office: (907) 522-1006 Cell: (907) 240-8296 petstop@gci.net

Appendix 3: Oiled Wildlife Example Best Management Practices (BMPs)

Appendix 3: Oiled Wildlife Best Management Practices (BMPs)

Section 7 Federal Agency Action – Endangered Species Act

204s – Applicable BMPs to Fish, Wildlife, Habitat, Historical, and Cultural Resources

BMP – 1 Watch for and avoid collisions with wildlife and report all distressed or dead birds/marine mammals/whale sharks/rays to Wildlife

BMP – 2 Avoid disturbing vegetation and beaches with foot traffic/boats/equipment or consult a qualified biologist to minimize impact

BMP – 3 Manage waste in compliance with the Waste Management Plan

BMP – 4 Maintain compliance with the Decontamination Plan where applicable

BMP – 5 All onshore work should be conducted during daylight hours except within 24 hours of projected oil landfall. If night operations are necessary, confine operations to landward of the intertidal zone.

BMP – 6 Utilize existing access/egress areas and roadways

BMP – 7 Use low-pressure tire vehicles (e.g. ATVs, Gaters) or consult with a qualified biologist to minimize impact

BMP – 8 If feasible and per appropriate guidance, restore beach topography, if altered, to natural beach profile by 2000 hours each day

BMP – 9 Minimize removal of clean sediments

BMP – 10 Avoid hovering or landing of aircraft near posted bird sites

BMP – 11 If a marine mammal is observed trapped or entangled in a boom(s), notify NMFS for instructions

BMP – 12 Install and monitor under water equipment/booms to prevent fish/wildlife entrapment

BMP – 13 Do not block major egress points in channels, rivers, passes, and bays

BMP – 14 Marine mammal observers on the ignition vessel will monitor 3 areas prior to the burn (the area in front of the trawlers, oil concentrated in the boom, and any oil trailing behind the boom).

BMP – 15 A survey should be conducted in the burn area after the burn is complete and all dead animals should be counted and if possible collected

BMP – 16 No flights below 500 feet over wildlife refuges/management areas

BMP – 17 No dispersant application within 2 nautical miles of sighted marine mammals

BMP – 18 Staging areas and waste collection areas should be examined prior to set up and should be located off beaches, dunes, scrub and other vegetated areas.

BMP – 19 All heavy equipment should be as low on the beach as possible and avoid the high tide/wrack line while conducting clean-up activities. Keep heavy equipment away from wrack line unless oiled

BMP – 20 Activities that may require removal of forested and shrub or scrub habitat should be minimized

BMP – 21 If bears are observed during staging activities, contact the Environmental Unit

BMP – 22 Remove all trash or anything that would attract wildlife from work areas daily

BMP – 23 Stakes or flagging should not be removed or destroyed anywhere on the beach or dune

BMP – 24 Work with Operations Unit to mitigate impacts to subsistence activities from clean-up efforts.

Appendix 4: Equipment List per Response Activity

Appendix 4: Equipment Lists Per Response Activity

Quantities indicated are per team to collect samples from 50 pinnipeds (with 10% added for waste); teams may be field or facility based, and 25 live pinnipeds for rehabilitation activities. Note these lists do not include transportation needs such as 4-wheel drive vehicles, ATV's, snowmachines, and aircraft. These are suggested equipment lists of materials that should be on hand before an oil spill event. This list is not all inclusive and there may be additional items not listed and/or things here that may never be used during an event.

Hub Community Comprehensive Equipment List:

Includes supplies needed for External Oil Sampling, Field Dead Recovery, Field Rescue, Necropsy and (some aspects of) Rehabilitation.

Most communities will have limited to no housing facilities, fresh water or additional food supplies for responders; as such plan on bringing tents/bedding, fresh water and food.

Item	Amount
100 piece multi-color cable ties (thomas and betts)	2 bags/100
1/2" braided rope	100 ft
Heavy duty Polyethylene tarps, 16' x 20'	5ea
Heavy duty Polyethylene tarps, 20' x 30'	2 ea
Heavy duty Polyethylene tarps, 12' x 16'	2 ea
heavy duty body bags, 36" x 96" long, w/straps, weight 800 lbs	1 case (10 bags)
heavy duty body bags, 48" x 100" long, w/straps, weight 450 lbs	1 case (6 bags)
Foam sheet, closed cell, 2" thick, 4ft x 10 ft	2 ea
XL dog crates	10
Toxiban suspension, 240 ml	3 cases/12
Isotonic oral fluids, 1 l bottles	36 ea
Foal stomach tube, 3/8" OD x 7' long	2 ea
Non-irritating surgical lubricant 4.5 oz tube	2 ea
Dawn soap	1 case
Digital Camera	1 per team
Memory cards for digital camera	
dry erase board	1 per team
dry erase markers	3 per team
Waterproof paper (alternate to dry erase board)	
Clipboards, redi-rite stainless w/pencil compartment	3 ea
Sharpie marker, fine point	5 boxes/12
Waterproof copy paper ("rite in the rain"), 8.5" x 11", 200 sheets	2 boxes/ 200 sheets
Keson open-reel measuring tape 100'/30 M	2 ea
Trash bags, 6 mil, 55 gal, RED	box/50

Hub Community Comprehensive Equipment List Continued

Item	Amount
100 quart Ice chest	1 ea
70 quart ice chest	2 ea
5 gallon buckets, w/lid	10 ea
Paint stick (by Laco)	box/10
DaltonID Rototags, Jumbotag, various colors	100 tags
Dalton ID Rototag, Jumbotag applicator	2 ea
Powder-free Nitrile gloves, small	1 case
Powder-free Nitrile gloves, medium	1 case
Powder-free Nitrile gloves, large	1 case
3M N95 particulate respirator mask, reg	1 case (12 boxes of 20)
goggles, CREWS stryker adjustable	20 ea
Tyvek suits, medium	2 cases/25
Tyvek suits, Large	2 cases/25
Tyvek suits, XL	2 cases/25
Yellow rain slickers-small	3 ea
Yellow rain slickers-medium	3 ea
Yellow rain slickers - large	3 ea
Yellow rain slickers - X Large	3 ea
Yellow rain slickers- XX large	3 ea
Rubber boots- size 5 (Servus 16" boots, steel toe)	2 pair
Rubber boots- size 7 (Servus 16" boots w/steel toe)	2 pair
Rubber boots- size 9 (Servus 16" boots w/steel toe)	2 pair
Rubber boots- size 11(Servus 16" boots w/steel toe)	2 pair
Rubber boots- size 13(Servus 16" boots w/steel toe)	2 pair
wooden tongue depressors 6in	pack/100
Fiberglass cloth or cotton cloth gauze	
mosquito forceps	
US Plastic Corp reclosable white block bags, 5"x8"	case 1000
Tyvek tags, blank, white, 3" x 4" approx.	5 packs/100
Aluminum foil food grade double matte sided if possible, 12" x 1000 ft	1 roll
Evidence strips 6 1/2" x 1 1/4", 100 strips	1 pack/100
US Plastic Corp reclosable white block bags, 9" x 12"	case 1000
US Plastic Corp reclosable bag, 13" x 18"	case 500
2 ml freestanding cryule (cryovial) w/cap, sterile, w/ white block	1 case
RNAlater RNA stabilization reagent (Qiagen), Cat 76104	50 ml
Viral transport media	2 boxes of 50 vials
Whirlpak write-on clear sampling bags, 4 oz	1 pack/500
Tyvek tags, blank, white, 3" x 4" approx.	5 packs/100

Hub Community Comprehensive Equipment List Continued

Item	Amount
Biopsy punches, Miltex 6 mm ref 33-36	2 boxes/50
Scalpel blades, size #60	2 boxes/500
Scalpel handles/dissecting blade handle size #8, gray	1 box/5
Blood tubes, glass, Red/gray tiger serum, 10 ml	1 flat of 100 tubes
Blood tubes, glass, green sodium heparin, 10 ml	1 flat of 100 tubes
Blood tubes, glass, lavender whole blood w/EDTA, 5 ml	1 flat of 100 tubes
Glass, closed-top jar w/teflon lid, 250 ml solvent rinsed (I-chem brand), V321-0520	100 ea
Sharps containers, large (2+ gallon)	1 ea
Sharps containers, small (5 quarts or more)	1 ea
Teflon screwtop vials with snap-in tabs 15ml	100 ea
Plumber's teflon tape	3 rolls
Conical vials 15ml	4 flats/50
Sterile syringes, 10ml, Monoject brand	50 ea
Sterile syringes, 20 ml Monoject brand	50 ea
Sterile syringes, 60 ml Monoject brand	20 ea
Dichloromethane	2L (x2)
Whirl-Pak bags 15ml with white label	1 pack/500
9mil reclosable bag w/ white block 6" x 9"	box 1000
40ml amber borosilicate Closed-cap vials 300series	1 case 72
Sharpie marker, fine point	5 boxes/12
Sharpie marker, extra fine point	5 boxes/12
Mechanical pencils	2 boxes/10
Monoject hypodermic needles 18 G x 1 ½"	1 box/100
Monoject hypodermic needles 20G x 1 ½"	1 box/100
Monoject hypodermic needles 22G x 1 ½"	1 box/100
Monoject hypodermic needles 23G x 1"	1 box/100
Butterfly catheter infusion sets, 19G x 3/4" needle, luer adapter	1 box/50
Butterfly catheter infusion sets , 22G x 3/4" needle, luer adapter	1 box/50
Culture swab ™ plus Amies gel w/o charcoal (becton-dickinson#220116)	1 box/50
Culture swabs - with sponge	1 box/50
Sterile swabs	1 box/50
Knives 9" blade, plastic handle	5 ea
Knives 12" blade, plastic handle	3 ea
Electric knife sharpener	1 ea
Gator I folding saw, 10" (Ben Meadows)	1 ea

Hub Community Comprehensive Equipment List Continued

Item	Amount
5 ' folding table	3 ea
Formalin 10% buffered, 5 gal cube	1 ea
Biohazard tags, 3 1/4" x 6" vinyl, pkg 25	3pk/25
Evidence security tape, red 108' roll Evidentcrimescene.com	1 roll
Evidence box sealing tape, 2" wide	1 roll
Evidence box sealing tape, 3" wide	1 roll
5 " dissecting forceps	5 ea
Scissors, Mayo, 5 1/2" straight	5 ea
Scissors, poultry shears	3 ea
6" flexible plastic english/metric ruler	3 ea
Sani-safe boning hook w/orange handle	3 ea
Hemostat forceps	3 ea
VHF radio	1 per team
Satellite phone	1 per team
Extra gasoline	1 per team
Bear Spray	1 each team

Supply List for Collection of External Oil Samples

To be cached in each community outside of the hub community and to be deployed with field teams collecting external oil samples**.** This supply list assumes the carcass(es) will be left in the field.

Item	Amount
Digital Camera	1
memory cards for digital camera	1
dry erase board	1
dry erase markers	2
Waterproof copy paper ("rite in the rain"), 8.5" x 11", 200 sheets	2 boxes/ 200 sheets
Clipboards, redi-rite stainless w/pencil compartment	1
Sharpie marker, fine point	2
Paint stick (by Laco)	2
DaltonID Rototags, Jumbotag, various colors	50
Dalton ID Rototag, Jumbotag applicator	1
Powder-free Nitrile gloves, large	1 box
Tyvek suits to fit team members	2 each person
wooden tongue depressors 6in	55
Sterile cotton gauze individually wrapped squares	55
mosquito forceps	1
Reclosable plastic bags, 5"x8"	55
Tyvek tags, blank, white, 3" x 4" approx.	55
Aluminum foil food grade	55 sheets or 1 roll
Evidence strips 6 1/2" x 1 1/4", 100 strips or 1 roll	1 pack/100 strips or 1 roll
VHF radio	1 per team
Satellite phone	1 per team
Extra gasoline	1 per team
Bear Spray	1 each
Bear Guard	1 per team
heavy duty body bags, 36" x 96" long, w/straps, weight 800 lbs	1 case (10 bags)

Supply List for Collection of Carcasses

To be cached in each community outside of the hub community and to be deployed with field teams recovering carcasses.

Item	Amount w/Team
100 piece multi-color cable ties (thomas and betts)	1 bag/100
1/2" braided rope	100 ft
Heavy duty Polyethylene tarps, 16' x 20'	2
Heavy duty Polyethylene tarps, 20' x 30'	1
Heavy duty Polyethylene tarps, 12' x 16'	
heavy duty body bags, 36" x 96" long, w/straps, weight 800 lbs	1
heavy duty body bags, 48" x 100" long, w/straps, weight 450 lbs	1
Digital Camera	1
Memory cards for digital camera	1
Waterproof copy paper ("rite in the rain"), 8.5" x 11", 200 sheets	as appropriate
Clipboards, redi-rite stainless w/pencil compartment	3 ea
Sharpie marker, fine point	3
Keson open-reel measuring tape 100'/30 M	1
Paint stick (by Laco)	2
Powder-free Nitrile gloves, large	1 box
Tyvek suits to fit team members	2 each person
Steel toe rubber boots to fit team members	1 each person
VHF radio	1 per team
Satellite phone	1 per team
Extra gasoline	1 per team
Bear Spray	1 each team
Bear Guard	1 per team
heavy duty body bags, 36" x 96" long, w/straps, weight 800 lbs	1 case (10 bags)

Supply List for Reconnaissance

Prior to mobilizing for a response, ensure that all equipment is ready and in working condition. Capture and recovery materials, depending on scope of activity, may include:

Item
Communication equipment - portable phones and/or radios
Data recording equipment – GPS unit, maps, data forms, pens, labels
Spotting scope, binoculars
Nets - type varies by species and location of capture
Cages and transport boxes - type varies by species, with frame and/or foam
Stretchers and/or slings - specifically designed to support the species
Large, body size garbage bags, body bags, or large pillowcases
Cane pole or wooden stake/flagging tape (to mark the carcass, if needed-see below)
Rope or other materials to secure carcass from refloating
Water sprayers, buckets, sponges, towels, blankets, etc.
Herding boards
Medical kit - as directed by Vet staff
Personal protection equipment (PPE) and a first aid kit for humans. In addition to PPE required by the Safety Officer to protect personnel from oil exposure, appropriate attire for capture teams includes closed-toed shoes or boots, long-sleeve shirts, long pants, rain gear, coveralls, and organizational identification (e.g., clothing labeled with insignia or logo). Consider bear guard or gun

Supply List for Field Rescue

Quantities reflected are per team to collect 5 pinnipeds (estimated daily max); assumption is there is a larger "stockpile" vs. taken out on a daily basis.

Item	Amount w/ Team
100 piece multi-color cable ties (thomas and betts)	2 bags/100
1/2" braided rope	100 ft
Foam sheet, closed cell, 2" thick, 4ft x 10 ft	as needed
XL dog crates	as needed
Nets	as needed
Digital Camera	1
Memory cards for digital camera	1
Waterproof copy paper ("rite in the rain"), 8.5" x 11", 200 sheets	20?
Clipboards, redi-rite stainless w/pencil compartment	1
Sharpie marker, fine point	3
Paint stick (by Laco)	2
Powder-free Nitrile gloves, large	1 box
Tyvek suits to fit team members	2 each person
Steel toe rubber boots to fit team members	1 each person
VHF radio	1 per team
Satellite phone	1 per team
Extra gasoline	1 per team
Bear Spray	1 each team
Bear Guard	1 per team

Supply List for Field or Facility Necropsy

Quantities reflected are per team/per animal, assumes external oil sample has already been taken. If external oil sample has not been taken, also include Supply List for External Oil Samples. Tailor PPE clothing and footwear to team specifications.

Item	Amount
100 piece multi-color cable ties (thomas and betts)	2 bags/100
1/2" braided rope	100 ft
heavy duty body bags, 36" x 96" long, w/straps, weight 800 lbs	1 case (10 bags)
heavy duty body bags, 48" x 100" long, w/straps, weight 450 lbs	1 case (6 bags)
Digital Camera	1 per team
dry erase board	1 per team
dry erase markers	3 per team
Memory cards for digital camera	10
Waterproof copy paper ("rite in the rain"), 8.5" x 11", 200 sheets	2 boxes/ 200 sheets
Clipboards, redi-rite stainless w/pencil compartment	3 ea
Sharpie marker, fine point	5 boxes/12
Trash bags, 6 mil, 55 gal, RED	box/50
100 quart Ice chest	1 ea
70 quart ice chest	2 ea
5 gallon buckets, w/lid	10 ea
Powder-free Nitrile gloves, small	1 case
Powder-free Nitrile gloves, medium	1 case
Powder-free Nitrile gloves, large	1 case
Tyvek suits, medium	2 cases/25
Tyvek suits, Large	2 cases/25
Tyvek suits, XL	2 cases/25
Rubber boots- size 5 (Servus 16" boots, steel toe)	2 pair
Rubber boots- size 7 (Servus 16" boots w/steel toe)	2 pair
Rubber boots- size 9 (Servus 16" boots w/steel toe)	2 pair
Rubber boots- size 11(Servus 16" boots w/steel toe)	2 pair
Rubber boots- size 13(Servus 16" boots w/steel toe)	2 pair
Yellow rain slickers-small	3 ea
Yellow rain slickers-medium	3 ea
Yellow rain slickers - large	3 ea
Yellow rain slickers - X Large	3 ea
Yellow rain slickers- XX large	3 ea
3M N95 particulate respirator mask, reg	1 case (12 boxes of 20)

Supply List for Field or Facility Necropsy Continued

Item	Amount
goggles, CREWS stryker adjustable	20 ea
US Plastic Corp reclosable white block bags, 5"x8"	case 1000
Tyvek tags, blank, white, 3" x 4" approx.	5 packs/100
Aluminum foil food grade double matte sided if possible, 12" x 1000 ft	1 roll
Evidence strips 6 1/2" x 1 1/4", 100 strips	1 pack/100
US Plastic Corp reclosable white block bags, 9" x 12"	case 1000
US Plastic Corp reclosable bag, 13" x 18"	case 500
2 ml freestanding cryule (cryovial) w/cap, sterile, w/ white block	1 case
RNAlater RNA stabilization reagent (Qiagen), Cat 76104	50 ml
Viral transport media	2 boxes of 50 vials
Whirlpak write-on clear sampling bags, 4 oz	1 pack/500
Tyvek tags, blank, white, 3" x 4" approx.	5 packs/100
Biopsy punches, Miltex 6 mm ref 33-36	2 boxes/50
Scalpel blades, size #60	2 boxes/500
Scalpel handles/dissecting blade handle size #8, gray	1 box/5
Blood tubes, glass, Red/gray tiger serum, 10 ml	1 flat of 100 tubes
Blood tubes, glass, green sodium heparin, 10 ml	1 flat of 100 tubes
Blood tubes, glass, lavender whole blood w/EDTA, 5 ml	1 flat of 100 tubes
Glass, closed-top jar w/teflon lid, 250 ml solvent rinsed (I-chem brand), V321-0520	100 ea
Sharps containers, large (2+ gallon)	1 ea
Sharps containers, small (5 quarts or more)	1 ea
Teflon screwtop vials with snap-in tabs 15ml	100 ea
Plumber's teflon tape	3 rolls
Conical vials 15ml	4 flats/50
Sterile syringes, 10ml, Monoject brand	50 ea
Sterile syringes, 20 ml Monoject brand	50 ea
Sterile syringes, 60 ml Monoject brand	20 ea
Dichloromethane	2L (x2)
Whirl-Pak bags 15ml with white label	1 pack/500
9mil reclosable bag w/ white block 6" x 9"	box 1000
40ml amber borosilicate Closed-cap vials 300series	1 case 72
Sharpie marker, fine point	5 boxes/12
Sharpie marker, extra fine point	5 boxes/12
Mechanical pencils	2 boxes/10
Monoject hypodermic needles 18 G x 1 ½"	1 box/100

Supply List for Field or Facility Necropsy Continued

Item	Amount
Monoject hypodermic needles 20G x 1 ½"	1 box/100
Monoject hypodermic needles 22G x 1 ½"	1 box/100
Monoject hypodermic needles 23G x 1"	1 box/100
Butterfly catheter infusion sets, 19G x 3/4" needle, luer adapter	1 box/50
Butterfly catheter infusion sets , 22G x 3/4" needle, luer adapter	1 box/50
Culture swab ™ plus Amies gel w/o charcoal (becton-dickinson#220116)	1 box/50
Culture swabs - with sponge	1 box/50
Sterile swabs	1 box/50
Knives 9" blade, plastic handle	5 ea
Knives 12" blade, plastic handle	3 ea
Electric knife sharpener	1 ea
Gator I folding saw, 10" (Ben Meadows)	1 ea
5 ' folding table	3 ea
Formalin 10% buffered, 5 gal cube	1 ea
Biohazard tags, 3 1/4" x 6" vinyl, pkg 25	3pk/25
Evidence security tape, red 108' roll Evidentcrimescene.com	1 roll
Evidence box sealing tape, 2" wide	1 roll
Evidence box sealing tape, 3" wide	1 roll
5 " dissecting forceps	5 ea
Scissors, Mayo, 5 1/2" straight	5 ea
Scissors, poultry shears	3 ea
6" flexible plastic english/metric ruler	3 ea
Sani-safe boning hook w/orange handle	3 ea
Hemostat forceps	3 ea
VHF radio	1 per team
Satellite phone	1 per team
Extra gasoline	1 per team
Bear Spray	1 each team
Bear Guard (if in field)	1 per team

Supply List for Rehabilitation Facility

Assumes external oil sample has already been taken. Quantities reflect a target readiness level for 25 live pinnipeds. This is not a comprehensive list. Defer to marine mammal rehabilitation experts (i.e. the Alaska SeaLife Center, or others as designated by NMFS) for comprehensive rehabilitation supply needs. The consumables listed assume a resupply timeframe of 2 weeks.

Item	Amount
100 piece multi-color cable ties (thomas and betts)	2 bags/100
1/2" braided rope	100 ft
Kiddie pools- large blue, or appropriate shallow water pools	20 ea
Large, deep pool (e.g., K-D pool)	2
Toxiban suspension, 240 ml	1 case/12
Isotonic oral fluids, 1 l bottles	36 ea
Foal stomach tube, 3/8" OD x 7' long	2 ea
Non-irritating surgical lubricant 4.5 oz tube	2 ea
Dawn soap	1 case
Digital Camera	2
dry erase board	2
dry erase markers	3
Memory cards for digital camera	5
Waterproof copy paper ("rite in the rain"), 8.5" x 11", 200 sheets	2 boxes/ 200 sheets
Clipboards, redi-rite stainless w/pencil compartment	3 ea
Sharpie marker, fine point	3 boxes/12
Trash bags, 6 mil, 55 gal BLACK for unoiled solid waste	2 boxes/50
Trash bags, 6 mil, 55 gal CLEAR for oiled solid waste	2 boxes/50
5 gallon buckets, w/lid	2 ea
Paint stick (by Laco)	box/10
DaltonID Rototags, Jumbotag, various colors	30 tags
Dalton ID Rototag, Jumbotag applicator	2 ea
Powder-free Nitrile gloves, small	1 case
Powder-free Nitrile gloves, medium	1 case
Powder-free Nitrile gloves, large	1 case
Tyvek suits, medium	2 cases/25
Tyvek suits, Large	2 cases/25
Tyvek suits, XL	2 cases/25
Rubber boots- size 5 (Servus 16" boots)	2 pair
Rubber boots- size 7 (Servus 16" boots)	2 pair
Rubber boots- size 9 (Servus 16" boots)	2 pair
Rubber boots- size 11(Servus 16" boots)	2 pair
Rubber boots- size 13(Servus 16" boots)	2 pair

Supply List for Rehabilitation Facility Continued

Item	Amount
Yellow rain slickers-small	3 ea
Yellow rain slickers-medium	3 ea
Yellow rain slickers - large	3 ea
Yellow rain slickers - X Large	3 ea
Yellow rain slickers- XX large	3 ea
3M N95 particulate respirator mask, reg	1 case (12 boxes of 20)
goggles, CREWS stryker adjustable	20 ea
2 ml freestanding cryule (cryovial) w/cap, sterile, w/ white block	1 case
RNAlater RNA stabilization reagent (Qiagen), Cat 76104	50 ml
Viral transport media	2 boxes of 50 vials
Blood tubes, glass, Red/gray tiger serum, 10 ml	1 flat of 100 tubes
Blood tubes, glass, green sodium heparin, 10 ml	1 flat of 100 tubes
Blood tubes, glass, lavender whole blood w/EDTA, 5 ml	1 flat of 100 tubes
Sharps containers, large (2+ gallon)	1 ea
Sharps containers, small (5 quarts or more)	1 ea
Sterile syringes, 10ml, Monoject brand	50 ea
Sterile syringes, 20 ml Monoject brand	50 ea
Sterile syringes, 60 ml Monoject brand	20 ea
Mechanical pencils	2 boxes/10
Monoject hypodermic needles 18 G x 1 ½"	1 box/100
Monoject hypodermic needles 20G x 1 ½"	1 box/100
Monoject hypodermic needles 22G x 1 ½"	1 box/100
Monoject hypodermic needles 23G x 1"	1 box/100
Butterfly catheter infusion sets, 19G x 3/4" needle, luer adapter	1 box/50
Butterfly catheter infusion sets , 22G x 3/4" needle, luer adapter	1 box/50
Culture swab ™ plus Amies gel w/o charcoal (becton-dickinson#220116)	1 box/50
Culture swabs - with sponge	1 box/50
Sterile swabs	1 box/50
5 ' folding table	3 ea
Hemostat forceps	3 ea
100 piece multi-color cable ties (thomas and betts)	2 bags/100
1/2" braided rope	100 ft
Kiddie pools- large blue, or appropriate shallow water pools	20 ea
Large, deep pool (e.g., K-D pool)	2
Toxiban suspension, 240 ml	1 case/12
Isotonic oral fluids, 1 l bottles	36 ea

Supply List for Rehabilitation Facility Continued

Item	Amount
Foal stomach tube, 3/8" OD x 7' long	2 ea
Non-irritating surgical lubricant 4.5 oz tube	2 ea
Dawn soap	1 case
Digital Camera	2
dry erase board	2
dry erase markers	3
Memory cards for digital camera	5
Waterproof copy paper ("rite in the rain"), 8.5" x 11", 200 sheets	2 boxes/ 200 sheets
Clipboards, redi-rite stainless w/pencil compartment	3 ea
Sharpie marker, fine point	3 boxes/12
Trash bags, 6 mil, 55 gal BLACK for unoiled solid waste	2 boxes/50
Trash bags, 6 mil, 55 gal CLEAR for oiled solid waste	2 boxes/50
5 gallon buckets, w/lid	2 ea
Paint stick (by Laco)	box/10
DaltonID Rototags, Jumbotag, various colors	30 tags
Dalton ID Rototag, Jumbotag applicator	2 ea
Powder-free Nitrile gloves, small	1 case
Powder-free Nitrile gloves, medium	1 case
Powder-free Nitrile gloves, large	1 case
Tyvek suits, medium	2 cases/25
Tyvek suits, Large	2 cases/25
Tyvek suits, XL	2 cases/25
Rubber boots- size 5 (Servus 16" boots)	2 pair
Rubber boots- size 7 (Servus 16" boots)	2 pair
Rubber boots- size 9 (Servus 16" boots)	2 pair
Rubber boots- size 11(Servus 16" boots)	2 pair
Rubber boots- size 13(Servus 16" boots)	2 pair
Yellow rain slickers-small	3 ea
Yellow rain slickers-medium	3 ea
Yellow rain slickers - large	3 ea
Yellow rain slickers - X Large	3 ea
Yellow rain slickers- XX large	3 ea
3M N95 particulate respirator mask, reg	1 case (12 boxes of 20)
goggles, CREWS stryker adjustable	20 ea
2 ml freestanding cryule (cryovial) w/cap, sterile, w/ white block	1 case

Appendix 5:

5-A: Search Effort Log

5-B: NOAA's Level A Data Form (Front, Back, and Definitions)

5-C: NOAA's Chain of Custody Form and Subsample Form

5-D: Oiled Marine Mammal Data Log – Live Animals

5-E: Oiled Marine Mammal Data Log - Dead Animals

5-F: NOAA's Photograph Log

5-G: Oiled Marine Mammal Evidence Log

5-H: Oiled Marine Mammal Intake Form

5-I: Oiled Marine Mammal Progress Form

Appendix 5-A: Search Effort Log

Search Effort Log

Please record all beaches searched *even if no animals are found.*

Spill Name: _____ Date: _____
Searchers: _____

Note: Time should include all time spent on the beach, even when backtracking. North and south endpoints should be GPS pts. If not, please provide a good description of the area covered. For collected animals, put GPS location here.

	Beach Name	Start Time	End Time	North/West Extreme (Lat/Long)	South/East Extreme (Lat/Long)	Total Distance Searched	Method (by boat, foot, ATV, truck, scan)	Mammals Collected Note: (live/ dead, GPS, ID #)
A								
B								
C								
D								
E								
F								
G								
H								

Appendix 5-B: NOAA's Level A Data Form (Front)

MARINE MAMMAL STRANDING REPORT - LEVEL A DATA

FIELD #: _____ **NMFS REGIONAL #**: _____ (NMFS USE) **NATIONAL DATABASE#**: _____ (NMFS USE)

COMMON NAME: _____ **GENUS**: _____ **SPECIES**: _____

EXAMINER Name: _____ Affiliation: _____

Address: _____ Phone: _____

Stranding Agreement or Authority: _____

LOCATION OF INITIAL OBSERVATION

State: _____ County: _____

City: _____

Body of Water: _____

Locality Details: _____

_____

Lat (DD): _____ . _____ N

Long (DD): _____ . _____ W

☐ Actual ☐ Estimated

How Determined: (check ONE)

☐ GPS ☐ Map ☐ Internet/Software

OCURRENCE DETAILS ☐ Restrand GE# _____

Group Event: ☐ YES ☐ NO (NMFS Use)

If Yes, Type: ☐ Cow/Calf Pair ☐ Mass Stranding # Animals: _____ ☐ Actual ☐ Estimated

Findings of Human Interaction: ☐ YES ☐ NO ☐ Could Not Be Determined (CBD)

If Yes, Choose one or more: ☐ 1. Boat Collision ☐ 2. Shot ☐ 3. Fishery Interaction

☐ 4. Other Human Interaction:_____

How Determined (Check one or more): ☐ External Exam ☐ Internal Exam ☐ Necropsy

☐ Other: _____

Gear Collected? ☐ YES ☐ NO Gear Disposition: _____

Other Findings Upon Level A: ☐ YES ☐ NO ☐ Could Not Be Determined (CBD)

If Yes, Choose one or more: ☐ 1. Illness ☐ 2. Injury ☐ 3. Pregnant ☐ 4.Other:_____

How Determined (Check one or more): ☐ External Exam ☐ Internal Exam ☐ Necropsy

☐ Other: _____

INITIAL OBSERVATION

Date: Year: _____ Month: _____ Day: _____

First Observed: ☐ Beach or Land ☐ Floating ☐ Swimming

CONDITION AT INITIAL OBSERVATION (Check ONE)

☐ 1. Alive ☐ 4. Advanced Decomposition

☐ 2. Fresh dead ☐ 5. Mummified/Skeletal

☐ 3. Moderate decomposition ☐ 6. Condition Unknown

LEVEL A EXAMINATION ☐ Not Able to Examine

Date: Year: _____ Month: _____ Day: _____

CONDITION AT EXAMINATION (Check ONE)

☐ 1. Alive ☐ 4. Advanced Decomposition

☐ 2. Fresh dead ☐ 5. Mummified/Skeletal

☐ 3. Moderate decomposition ☐ 6. Unknown

INITIAL LIVE ANIMAL DISPOSITION (Check one or more)

☐ 1. Left at Site ☐ 6. Euthanized at Site

☐ 2. Immediate Release at Site ☐ 7. Transferred to Rehabilitation:

☐ 3. Relocated Date: Year:_____ Month:_____Day:___ Facility:_____

☐ 4. Disentangled ☐ 8. Died during Transport

☐ 5. Died at Site ☐ 9. Euthanized during Transport

☐ 10. Other:_____

CONDITION/DETERMINATION (Check one or more)

☐ 1. Sick 7. Location Hazardous

☐ 2. Injured ☐ a. To animal

☐ 3. Out of Habitat ☐ b. To public

☐ 4. Deemed Releasable ☐ 8. Unknown/CBD

☐ 5. Abandoned/Orphaned ☐ 9.Other_____

☐ 6. Inaccessible _____

MORPHOLOGICAL DATA

SEX (Check ONE) **AGE CLASS** (Check ONE)

☐ 1. Male ☐ 1. Adult ☐ 4. Pup/Calf

☐ 2. Female ☐ 2. Subadult ☐ 5. Unknown

☐ 3. Unknown ☐ 3. Yearling

☐ Whole Carcass ☐ Partial Carcass

Straight length:_____ ☐ cm ☐ in ☐ actual ☐ estimated

Weight:_____ ☐ kg ☐ lb ☐ actual ☐ estimated

PHOTOS/VIDEOS TAKEN: ☐ YES ☐ NO

Photo/Video Disposition: _____

_____

TAG DATA Tags Were:

Present at Time of Stranding (Pre-existing): ☐ YES ☐ NO

Applied during Stranding Response: ☐ YES ☐ NO

ID#	Color	Type	Placement* (Circle ONE)	Applied	Present
			D DF L LF LR RF RR	☐	☐
			D DF L LF LR RF RR	☐	☐
			D DF L LF LR RF RR	☐	☐

* D= Dorsal; DF= Dorsal Fin; L= Lateral Body
LF= Left Front; LR= Left Rear; RF= Right Front; RR= Right Rear

CARCASS STATUS (Check one or more)

☐ 1. Left at Site ☐ 4. Towed: Lat_____Long_____ ☐ 7. Landfill

☐ 2. Buried ☐ 5. Sunk: Lat_____Long_____ ☐ 8. Unknown

☐ 3. Rendered ☐ 6. Frozen for Later Examination ☐ 9. Other_____

SPECIMEN DISPOSITION (Check one or more)

☐ 1. Scientific collection ☐ 2. Educational collection

☐ 3. Other:_____

Comments: _____

_____

NECROPSIED ☐ NO ☐ YES ☐ Limited ☐ Complete

☐ Carcass Fresh ☐ Carcass Frozen/Thawed

NECROPSIED BY: _____

Date: Year: _____ **Month:**_____ **Day:**_____

NOAA Form 89-864; OMB Control No.0648-0178; Expiration Date 01/31/2017 PLEASE USE THE BACK SIDE OF THIS FORM FOR ADDITIONAL REMARKS

Appendix 5-B: NOAA's Level A Data Form (Back)

ADDITIONAL REMARKS

ADDITIONAL IDENTIFIER: _____ (If animal is restranded, please indicate any previous field numbers here)

DISCLAIMER

THESE DATA SHOULD NOT BE USED OUT OF CONTEXT OR WITHOUT VERIFICATION. THIS SHOULD BE STRICTLY ENFORCED WHEN REPORTING SIGNS OF HUMAN INTERACTION DATA.

DATA ACCESS FOR LEVEL A DATA

UPON WRITTEN REQUEST, CERTAIN FIELDS OF THE LEVEL A DATA SHEET WILL BE RELEASED TO THE REQUESTOR PROVIDED THAT THE REQUESTOR CREDIT THE STRANDING NETWORK AND THE NATIONAL MARINE FISHERIES SERVICE. THE NATIONAL MARINE FISHERIES SERVICE WILL NOTIFY THE CONTRIBUTING STRANDING NETWORK MEMBERS THAT THESE DATA HAVE BEEN REQUESTED AND THE INTENT OF USE. ALL OTHER DATA WILL BE RELEASED TO THE REQUESTOR PROVIDED THAT THE REQUESTOR OBTAIN PERMISSION FROM THE CONTRIBUTING STRANDING NETWORK AND THE NATIONAL MARINE FISHERIES SERVICE.

PAPERWORK REDUCTION ACT INFORMATION

PUBLIC REPORTING BURDEN FOR THE COLLECTION OF INFORMATION IS ESTIMATED TO AVERAGE 30 MINUTES PER RESPONSE, INCLUDING THE TIME FOR REVIEWING INSTRUCTIONS, SEARCHING EXISTING DATA SOURCES, GATHERING AND MAINTAINING THE DATA NEEDED, AND COMPLETING AND REVIEWING THE COLLECTION OF INFORMATION. SEND COMMENTS REGARDING THIS BURDEN ESTIMATE OR ANY OTHER ASPECT OF THE COLLECTION INFORMATION, INCLUDING SUGGESTIONS FOR REDUCING THE BURDEN TO: CHIEF, MARINE MAMMAL AND SEA TURTLE CONSERVATION DIVISION, OFFICE OF PROTECTED RESOURCES, NOAA FISHERIES, 1315 EAST-WEST HIGHWAY, SILVER SPRING, MARYLAND 20910. NOT WITHSTANDING ANY OTHER PROVISION OF THE LAW, NO PERSON IS REQUIRED TO RESPOND, NOR SHALL ANY PERSON BE SUBJECTED TO A PENALTY FOR FAILURE TO COMPLY WITH, A COLLECTION OF INFORMATION SUBJECT TO THE REQUIREMENTS OF THE PAPERWORK REDUCTION ACT, UNLESS THE COLLECTION OF INFORMATION DISPLAYS A CURRENTLY VALID OFFICE OF MANAGEMENT AND BUDGET (OMB) CONTROL NUMBER.

NOAA Form 89-864; OMB Control No.0648-0178; Expiration Date 01/31/2017

Appendix 5-B: NOAA's Level A Data Form (Definitions)

DEFINITIONS OF TERMS FOR LEVEL A VERSION 2007

ADMINISTRATIVE INFORMATION

Field #: Assign each stranding event a unique identifier. Format is open to each agency's requirements; however, please remain consistent within your agency.

NMFS Regional #: Leave this blank. NMFS will assign a regional number consistent with the National Marine Mammal Stranding Database.

National Database #: Leave this blank. NMFS will assign a national database number consistent with the National Marine Mammal Stranding Database.

Common Name: The common name of the stranded animal. If identity is not determined to species, describe the level to which the remains can be identified. (Example: unknown, pinniped/cetacean, otariid/phocid, or odontocete/mysticete, delphinid/phocoenid, etc.)

Genus/Species: This is the Latin name for the animal in standard binomial nomenclature. If either genus or species is not identifiable, fill in the appropriate blank with "UNKNOWN."

Examiner: Name of the examiner who is submitting the report. This should be the individual who is responsible for preparing the entire level A stranding report, not necessarily the note taker or a public citizen who first reported the animal

Affiliation: Affiliation of the examiner who is submitting the report. This could be the same organization as listed below under "Stranding Agreement or Authority", a Designee organization (designee of an Stranding Agreement holder), the agency of a federal, state, or local government official authorized under MMPA Section 109(h), public, citizen or none.

Address: Mailing address of the examiners Stranding Agreement organization or government agency office.

Phone: Daytime (Work) phone number where the examiner may be reached for further comment. NOTE: Please include only business addresses and phone numbers, to prevent the release of personal information to the public.

Stranding Agreement or Authority: Stranding Agreement holder or agency through which the examiner has been authorized to take marine mammals or marine mammal parts. If the examiner is the member of a "Designee Organization" record the name of the Stranding Agreement holder under whom the examiners organization is designated. If the examiner is operating under 109(h) authority, include the name of the government organization.

LOCATION OF INITITAL OBSERVATION

State, County, and City: The standard state, county, and city names for the stranding location. For floating carcasses (U.S. waters between 3 and 200 miles offshore), fill State with "EEZ" and closest state. This should include boroughs, parishes, provinces, islands, commonwealths, and territories.

Body of Water: The major ocean basin closest to the site where the animal was observed stranded (e.g., Atlantic Ocean, Gulf of Mexico, Pacific Ocean, Gulf of Alaska) and describe the specific location in "Locality Details".

Locality Details: Using known landmarks (access point, mile markers, street addresses etc), describe the precise locality where the animal was found. Compass bearings and relative distances are useful but GPS coordinates are preferred. For animals swimming or floating, this should include the referencing the associated ocean, sea, gulf, bay, inlet, estuary, or river.

GPS Coordinates: Documentation in decimal degrees is **required.** NOTE: Negative longitude represents the Western Hemisphere, positive longitude represents the Eastern Hemisphere, negative latitude represents the Southern Hemisphere, and positive latitude represents the Northern Hemisphere. Note that most GPS units can be set to display latitude and longitude in the decimal degree format and there are many lat/long conversion websites on the internet.

Actual or Estimated: Indicate if the latitude/longitude coordinates are exact (from a GPS unit) or an estimate (based on a map, website, previous strandings, known lat/longs for landmarks, etc.).

How Determined: Indicate how the latitude/longitude coordinates were obtained. Check the box that represents method of data collection:

- **Global Positioning System (GPS)**
- **Map**
- **Software program/Internet website**

OCCURRENCE DETAILS - The occurrence details help define the reason for the response and details associated with the stranding event.

Restrand - Check this box if the animal has previously stranded, either responded to by your organization or another. The animal may have tags from a rehabilitation facility, or may have recognizable and distinctive features. If this box is checked, you should indicate the previous field numbers assigned to this animal (by your facility or others), if known, on the back of the form in the space marked "Additional Identifiers."

GE # - Leave this blank. NMFS will assign a regional designation to represent the "Group Event Number".

Group Event - A group event is a stranding event which involves two or more animals, either simultaneously or over a period of time.

If Yes - identify the type of group event. These designations are not exclusive, more than one option may be selected:

Cow/Calf Pair – this would be two animals stranding where one is the mother and the other is the offspring (a mom/pup pair would also qualify).

Mass Stranding - this is 2 or more cetaceans that simultaneously strand, other than cow-calf pairs.

- **Number of Animals** - Indicate the number of cetaceans involved in the mass stranding, and whether this count is an "Actual" or "Estimate"count.

NOTE: Animals may be involved in other types of group events that will be determined after the Level A data sheet is filled out and submitted. These animals will be assigned a **"Group Event Number (GE#)"** and the group event fields will be incorporated into a separate database in the National Database by the Regional Stranding Coordinator or by the Onsite Coordinator if the case of Unusual Mortality Event. Examples of these types of events include:

- "*hazmat or oil spill*" - any animal affected by a spill of oil or another hazardous material;
- "*pre-event investigation*" - animals sampled after a group event is suspected, but before it has been officially designated as an Unusual Mortality Event by the Working Group on Marine Mammal Unusual Mortality Events (WGMMUME);
- "*unusual mortality event*" - any animal part of a die-off that has been officially designated as a UME by the WGMMUME; and
- "*repeat event*" - animals stranding during a die-off that has been designated as a repeat event by the WGMMUME.

If you wish, you may update your Level A datasheet for your records to reflect the Group Event number that will be listed in the National Database after the Regional Stranding Coordinator has verified the entry.

Findings of Human Interaction - This field does not represent cause of stranding or cause of death. These data should not be used out of context or without verification.

Check "Yes" if there are any signs or evidence of human interaction (HI), whether or not you believe they were the cause of death. If you check "Yes," use the back of this form in ADDITIONAL REMARKS to further explain the nature of the injury (or evidence) and how it was assessed and determined to be human related. If possible, document injuries or marks with photographs or sketches/drawings. Describe the injury or mark, the type of fishing gear recovered the location of any wounds (gunshot, fishing gaff, knife incision, line or net entanglement, etc.). Note any external markings or color patterns and if the injury or mark could be determined as antemortem or postmortem (i.e., if animal

seen with injury when alive or by histological confirmation). Also, describe any relevant circumstances regarding the interaction (e.g., whether the interaction was witnessed). Please indicate if you used the Protocol developed by the Virginia Aquarium and Cape Cod Stranding Network entitled "2006 *Protocol for Examining Marine Mammal for Signs of Human Interaction*" and attach a copy of the completed Form to the Level A Data sheet. Also indicate if you have attended training on this protocol.

Check "No" if the animal was examined and there was no indication of human interaction. Check

"Check Could not Be Determined (CBD)" if there is insufficient evidence to indicate an interaction, the animal was not thoroughly examined, the animal was too decomposed for a thorough examination, there may have been signs of something that may have been a human interaction but you can't tell for sure, or the observer does not feel competent to determine this type of injury (do not guess).

If you checked "Yes", check the box that most accurately details the type of human interaction:

Boat Collision - Check if there are any signs of boat or ship collision such as propeller wounds or blunt trauma from a boat hull.

Shot - Check if there are any signs of gunshots. Add in the comments how this was determined (metal detector, bullet found, etc.)

Fishery Interaction - Check if there are any signs of fishery interaction such as wounds related to fishing gear, or fishing gear attached to the animal.

Other Human Interaction - If you checked "Yes" and there were signs of human interactions other than those listed, please describe in this blank. This could include signs of as ingested plastic, debris entanglement, wounds from other weapons besides firearms (arrows, harpoons, etc.), non-boat vessel related injuries (car or train collision, etc.), mutilation, etc. Use the back of this form under "ADDITIONAL REMARKS" to continue your description, if necessary.

How Determined - If you checked "Yes" or "No", describe how the signs of human interaction were determined:

- **External Exam** – The entire external surface of animal is visually assessed for signs of HI. If the entire surface could not be examined, please state why and which parts were looked at (e.g., large whale could not be turned over, only dorsal surface examined)
- **Internal Exam -** The response included an examination of some or all of the body cavity. However, the condition of the animal or other factors precluded the collection and analysis of samples from internal organs. Please indicate in the

ADDITIONAL REMARKS section the systems examined and not examination as well as examination findings.

- **Necropsy –** a necropsy was done, detailed information was documented, and internal tissues were collected for analysis. Please refer to the definitions and check whether the necropsy was limited or complete in the section below entitled "SPECIEMEN DISPOSITION."
- **Other –** other obvious signs of HI including presence of gear, and eye witness account of a human interaction.

Gear Collected - Check "Yes" if you collected fishery gear from the animal (hook, line, net, etc.). Check "No" if you did not collect any gear, or if there was no gear to collect.

Gear Disposition - If you checked "Yes", use this line to indicate what was done with that gear (i.e. sent to NMFS Enforcement or Regional Stranding Coordinator), or where the gear is housed.

Other Findings Upon Level A - Check "Yes" if there are any signs or evidence of other (non-human related interaction) findings related to the stranding, whether or not you believe they were the cause of death; check "No" if there was no indication of other factors; check "CBD" if there is insufficient evidence to indicate. Non-human related injuries or disease may include signs of infectious or parasitic disease and signs of trauma from beaching, conspecific interactions/aggression, interspecific interactions, scavengers and predators, etc. See above definition of external and internal exam for more description. Also, document if the animal was pregnant and in other findings – include comments.

If Yes, choose one or more – check the box that most accurately details the other factors:

- **Ilness**
- **Injury**
- **Pregnant**
- **Other** (indicate what was found)

How Determined (check one or more) – if you noted other findings than HI signs, check how this was determined (please use the back of this form in ADDITIONAL REMARKS section to include more detail):

- **External Exam** (see above for definition)
- **Internal Exam** (see above for definition)
- **Necropsy** (see above for definition)
- **Other** – document the process

INITIAL OBSERVATION

Date - Enter the date the stranded animal was first observed by any witness. This is the earliest known date of observation of the stranded animal.

First Observed - Check the appropriate box that indicates the how the animal was initially observed:

- **Beach or Land**
- **Floating (in the water)**
- **Swimming.**

Condition at Initial Observation - Check the appropriate box that indicates the physical state of the animal or carcass on the date of the initial observation:

- **Alive (Code 1):** Check this box if the animal was alive at the initial observation.
- **Fresh Dead (Code 2):** Check this box if the carcass was in good condition (fresh/edible). Normal appearance, usually with little scavenger damage; fresh smell; minimal drying and wrinkling of skin, eyes and mucous membranes; eyes clear; carcass not bloated, tongue and penis not protruded; blubber firm and white; muscles firm, dark red, well-defined; blood cells intact, able to settle in a sample tube; serum unhemolyzed; viscera intact and well-defined, gut contains little or no gas; brain firm with no discoloration, surface features distinct, easily removed intact.
- **Moderate Decomposition (Code 3):** Check this box if the carcass was in fair condition (decomposed, but organs basically intact). Carcass intact, bloating evident (tongue and penis protruded) and skin cracked and sloughing; possible scavenger damage; characteristic mild odor; mucous membranes dry, eyes sunken or missing; blubber blood-tinged and oily; muscles soft and poorly defined; blood hemolyzed, uniformly dark red; viscera soft, friable, mottled, but still intact; gut dilated by gas; brain soft, surface features distinct, dark reddish cast, fragile but can usually be moved intact.
- **Advanced Decomposition (Code 4):** Check this box if the carcass was in poor condition (advanced decomposition). Carcass may be intact, but collapsed; skin sloughing; epidermis of cetaceans may be entirely missing; often severe scavenger damage; strong odor; blubber soft, often with pockets of gas and pooled oil; muscles nearly liquefied and easily torn, falling easily off bones; blood thin and black; viscera often identifiable but friable, easily torn, and difficult to dissect; gut gas-filled; brain soft, dark red, containing gas pockets, pudding-like consistency.
- **Mummified/Skeletal (Code 5)**: Check this box if mummified or skeletal remains. Skin may be draped over skeletal remains; any remaining tissues are desiccated.
- **Unknown:** Check this box if the stranded animal was dead at the time of initial observation but information on the condition of the carcass is unavailable.

LEVEL A EXAMINATION

Date – Enter the date of examination that the animal was responded to and examined by your organization to collect Level A data (location, condition, signs of human interaction, species, sex, age class, length, weight, and any other visual observations). Complete morphometrics and necropsy could be taken later.

Not Able to Examine - Check this box if you were unable to examine the animal. Some examples would be: the animal was inaccessible (at the bottom of a cliff, on an island, floating, etc.); the animal washed out with the tide before you responded; manpower/time constraints made a response impossible; etc.

Condition at Examination - Check the appropriate box that indicates the physical state of the animal or carcass on the date of the Level A examination:

- **Alive (Code 1):** Check this box if the animal was alive at the initial observation.
- **Fresh Dead (Code 2):** Check this box if the carcass was in good condition (fresh/edible). Normal appearance, usually with little scavenger damage; fresh smell; minimal drying and wrinkling of skin, eyes and mucous membranes; eyes clear; carcass not bloated, tongue and penis not protruded; blubber firm and white; muscles firm, dark red, well-defined; blood cells intact, able to settle in a sample tube; serum unhemolyzed; viscera intact and well-defined, gut contains little or no gas; brain firm with no discoloration, surface features distinct, easily removed intact.
- **Moderate Decomposition (Code 3):** Check this box if the carcass was in fair condition (decomposed, but organs basically intact). Carcass intact, bloating evident (tongue and penis protruded) and skin cracked and sloughing; possible scavenger damage; characteristic mild odor; mucous membranes dry, eyes sunken or missing; blubber blood-tinged and oily; muscles soft and poorly defined; blood hemolyzed, uniformly dark red; viscera soft, friable, mottled, but still intact; gut dilated by gas; brain soft, surface features distinct, dark reddish cast, fragile but can usually be moved intact.
- **Advanced Decomposition (Code 4):** Check this box if the carcass was in poor condition (advanced decomposition). Carcass may be intact, but collapsed; skin sloughing; epidermis of cetaceans may be entirely missing; often severe scavenger damage; strong odor; blubber soft, often with pockets of gas and pooled oil; muscles nearly liquefied and easily torn, falling easily off bones; blood thin and black; viscera often identifiable but friable, easily torn, and difficult to dissect; gut gas-filled; brain soft, dark red, containing gas pockets, pudding-like consistency.
- **Mummified/Skeletal (Code 5)**: Check this box if mummified or skeletal remains. Skin may be draped over skeletal remains; any remaining tissues are desiccated.
- **Unknown:** Check this box if the stranded animal was dead at the time of initial observation but information on the condition of the carcass is unavailable.

INITIAL LIVE ANIMAL DISPOSITION - Indicate what action(s) was/were taken to handle a live animal (NOTE: check all that apply at the time of completing the Level A examination):

- **Left at Site:** Check if the animal was reported, and was confirmed stranded by a reliable source and acknowledged by the Regional Coordinator, but no response

was made; or the animal was observed by the response team, but no other actions were taken.

- **Immediate Release at Site:** Check if the animal was reported and treated or evaluated, but was not removed from the site.
- **Relocated:** Check if the animal was evaluated or treated, was removed from the site of stranding, and was transported and released at another site without being admitted to an authorized rehabilitation facility.
- **Disentangled:** Check if the animal had entangling gear removed and was released/swam away.
- **Euthanized at Site:** Check if the animal was found alive but was euthanized by an authorized entity.
- **Died at Site:** Check if the animal was found alive and died before transport to an authorized rehabilitation facility or relocation.
- **Transferred to Rehabilitation:** Check if the animal was transported to an authorized rehabilitation facility.
    - **Date** - Fill in the date of the transfer
    - **Facility** - Fill in the name of the authorized rehabilitation facility to which the animal was transferred.
- **Died during Transport**: Check if the animal was found alive and died during transport to a care facility.

- **Euthanized during Transport:** Check if the animal was found alive and was euthanized during transport to an authorized rehabilitation facility by an authorized entity.

- **Other:** Check if the disposition of the live animal differs from the options listed above and document here.

CONDITION/DETERMINATION - Indicate the condition of the animal at the time of the response This question should help provide your reasoning for the disposition that was selected. (NOTE: Check all that apply).

- **Sick:** Check if the animal appears sick or is behaving oddly, with no external signs of injury.
- **Injured**: Check if the animal shows evidence of physical injury.
- **Out of Habitat**: Check if the animal was found in area not typical for its species. This could include atypical location and time of year for its known life history. Generally an out of habitat case involves a free swimming animal that is reported in an area outside it's normal habitat, tends to remain there for a period of time, and may need intervention to return to it's normal habitat (e.g. a bottlenose dolphin in a freshwater river that doesn't leave on its own accord, an ice seal in Florida, or a humpback whale in an embayment). This does not include a typical live stranding of an offshore species close to the beach.
- **Deemed Releasable:** Check if the animal shows no outward signs of illness or injury.
- **Abandoned/Orphaned:** Check if the animal is a cetacean calf found stranded on

the beach without an adult female, or a pup/calf that has been monitored and determined to be abandoned. The length of time that the animal should be observed without intervention may be up to 48 hours and varies by region; check with your Regional Stranding Coordinator for your regional policy.

- **Inaccessible:** Check if the animal is in an inaccessible location and therefore was not closely examined (condition could not be determined). Examples of inaccessible locations include: at the base of a cliff, areas with dangerous surf conditions, mudflats, islands, ice, etc.
- **Location Hazardous**
  - **To Animal -** Check if the animal is in a location that is deemed hazardous to its health and welfare (i.e. up a freshwater river, pinnipeds found inland, etc.)
  - **To Public -** Check if the animal is in a location that is deemed hazardous to the public (i.e. a crowded public beach, a marina, etc.)
- **Unknown/CBD**: Check if the animal could not be examined or if the condition could not be determined.
- **Other:** Describe any other situation not addressed above.

MORPHOLOGICAL DATA

SEX (Check One): Check the box indicating the animal's sex, or check "Unknown" if unable to determine.

AGE CLASS (check One): Check the box indicating the animal's age class. If possible, use information based on reproductive organs, teeth or accepted length/age data:

- **Adult**: This age class would be used for an animal that is judged or found upon necropsy to be sexually mature.
- **Subadult**: This age class would be used for a animal that is judged to be greater than one year old, but not yet mature.
- **Yearling**: This age class would be used for an animal that is judged to be approximately one year old, using length or time of year.
- **Pup/Calf:** This age class would be used for a stranded animal that is smaller than yearling size, or in a population where it would be younger than one year old.
- **Unknown**: This age class would be used for an animal if you are unable to determine its age.

Whole Carcass: Check the box if the carcass is sufficiently intact for the Level A morphometric data (straight length, weight) to be collected.

Partial Carcass: Check the box if the carcass is **not** sufficiently intact for the Level A morphometric data (straight length, weight) to be collected. If you measure the remains of the carcass, the metric (weight or length) must be entered as "estimated". Also record what part is missing in the ADDITIONAL REMARKS section on the back of this form. If neither length nor weight is measured, enter **"zero"** in the respective blanks.

Straight Length - Record the straight length (not contoured) of the animal on the date of initial examination.

- **cm** = centimeters (preferred)
- **in** = inches
    - **actual =** Check if this was an actual measurement (physical measurement)
    - **estimated =** Check if this was an estimated measurement (visual measurement). For example, if the carcass is not intact (e.g. flukes degraded or severed, head missing, etc. and record what part is missing in the ADDITIONAL REMARKS section on the back of this form.
- **Weight** - Record the weight of the animal on the date of initial examination. Please check if this was an actual or estimated measurement.
    - **kg** = kilograms (preferred)
    - **lb** = pounds
    - **actual** = Check if this was an actual measurement (physical measurement)
    - **estimated =** Check if this was an estimated measurement (visual measurement) or if the carcass was not intact. Record what part is missing in the ADDITIONAL REMARKS section on the back of this form.

PHOTOS/VIDEO Taken - Check "Yes" or "No" to indicate whether visual media was taken of this stranding event.

- **Photo/Video Disposition** - If photos or video were taken of the event, use this line to indicate where these documents are housed.

TAG DATA

Present at Time of Stranding (Pre-exisiting) - Mark **"YES"** if tags or identification markings were pre-existing (present on the animal at the time of stranding).

Applied During Stranding Response - Mark **"YES"** if tags or identification markings were applied by the stranding response organization (i.e. prior to release at stranding or relocation site, to prevent a carcass from being double-counted, etc.).

NOTE: If no tags were present or applied, the responder should check **"NO"** for both boxes and skip the rest of the section.

Document details about the type, color, and placement of identification tags, brands, or markings:

ID# - Write the number(s) of the identifying tag(s), brand(s), or other applied marking(s), if applicable.
Color - Using basic color-names, indicate the identifying color of tags where applicable.
Type - List the type of tag, brand, or other applied marking. For example, radio, PIT, plastic, roto, spaghetti, satellite, freeze brand, bleach mark, paint, etc.
Placement - Circle (ONE) the location of each applied/present marking:
D = dorsal body
DF = dorsal fin

L = lateral body
LF = left front flipper/appendage
LR = left rear flipper/appendage
RF = right front flipper/appendage
RR = right rear flipper/appendage
Applied = Check "Applied" for each of the tags, brands, or other makings that were applied after the animal stranded, as part of the stranding or rescue response. If the animal was rehabilitated and released with tags or markings, you may update this part of the Level A form after they are applied.
Present = Check "Present" for each of the tags, brands, or other markings that were already present when the animal stranded.

CARCASS/SPECIMEN DISPOSITION

CARCASS STATUS (Check all that apply) - Check the following boxes to indicate how the carcass was disposed:

- **Left at site** - Check this box if the carcass, including skeleton, was left where it was found to decompose.
- **Buried** - Check this box if most of the carcass, including skeleton, was buried.
- **Rendered** - Check this box if the carcass, including skeleton, was rendered.
- **Towed** - Check this box if the carcass, including skeleton, was towed to sea. Fill in the latitude and longitude of the position where the carcass was left.
- **Sunk** - Check this box if the carcass, including skeleton, was sunk. Fill in the latitude and longitude of the position where the carcass was sunk..
- **Frozen for later examination** - Check this box if all or most of the carcass and/or skeleton was retained and frozen for later examination.
- **Landfill** - Check this box if the carcass, including skeleton, was sent to a landfill or other waste facility.
- **Unknown** - Check this box if the fate of the carcass is unknown or if the carcass was lost.
- **Other** – Check this box if the fate of the carcass is other than what is listed above and document here.

SPECIMEN DISPOSITION (Check all that apply) – Check the following boxes to indicate if nondiagnostic specimens were collected for scientific, educational, or other purposes (i.e., skin for genetics, blubber for contaminants, bones for collection, etc.). The disposition (both transitory and final) of these specimens should be recorded on the back of the form under "ADDITIONAL REMARKS." Please check with your NMFS regional stranding coordinator regarding marine mammal parts authorizations prior to retention and transfer.

- **Scientific collection** - check this box if specimens from the live animal or carcass, including skeletal parts, were retained for scientific research**.**
- **Educational collection** - check this box if specimens from the live animal or carcass, including skeletal parts, were retained for educational purposes.

- **Other** - check this box if the fate of specimens from the live animal or carcass, including skeletal parts, was other than that above and briefly indicate the disposition.
- **Comments** - List comments regarding disposition of the specimen (i.e., identifying which tissues were collected and retained, differentiating where tissues were sent, etc.).

NECROPSY - Indicate "YES" if a necropsy was completed to obtain Level-C data.

- **Limited Necropsy** - A partial necropsy includes a detailed exam of the carcass in which some of the organs or systems are examined, collected, and analyzed according to established protocols, but either the condition of the animal or other factors limits a complete necropsy. Please indicate in the **ADDITIONAL REMARKS** section the systems examined and not examination as well as examination findings.
- **Complete necropsy** - A complete necropsy consists of a detailed exam where the majority of organs are examined, collected (i.e., if feasible, this could include tissues for histopathology) and analyzed according to established protocols. This will include documenting any internal lesions, bruising, or broken/fractured bones, and examining the entire GI tract for lesions, foreign material, gear, and other natural contents (e.g. food), and the lungs/bronchi. A necropsy report is generated and disseminated to the pathologist on record.
- **Carcass Fresh** = Check if the necropsy was conducted on a fresh carcass (not frozen before examination).
- **Carcass Frozen/Thawed** = Check if the necropsy was conducted on a carcass that was frozen and thawed.

NECROSPIED BY - List the name and contact information of the primary person/facility who conducted the necropsy.

Date – List the date when the necropsy was done.

BACK OF FORM

ADDITIONAL IDENTIFIERS: Include any additional information related to the Field ID number or identification of the stranding event. Examples include: previous Field ID numbers if this animal previously stranded; ID numbers assigned by other organizations (including authorized rehabilitation facilities to which the animal is transferred), former identification numbers from scientific research projects, etc.

ADDITIONAL REMARKS: Include comments, and list other data sheets that may have been completed such as human interaction, morphometrics, necropsy, rehabilitation disposition, etc. Include further details or comments on any of the Level A data fields from the front of the sheet.

Appendix 5-C: NOAA's Chain of Custody Form (Front)

CHAIN OF CUSTODY RECORD				**Case Number:**
DATE AND TIME OF COLLECTION:	AGENCY/FACILITY AFFILIATION:		SEIZED/COLLECTED BY:	
SOURCE OF EVIDENCE/PROPERTY (person and/or location) TAKEN FROM: RECEIVED FROM: FOUND AT:			DEFENDANT/COMPANY NAME AND REMARKS:	
ITEM NO:	DESCRIPTION OF EVIDENCE/PROPERTY/SAMPLE (include seizure tag numbers, field/stranding identification numbers, facility identification name/number, and species)			
ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA: FEDEX U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	
ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA: FEDEX U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	

Appendix 5-C: NOAA's Chain of Custody Subsample Form (Front)

CHAIN OF CUSTODY RECORD *SUBSAMPLE FORM*				**Case Number:**
DATE AND TIME OF COLLECTION:	AGENCY/FACILITY AFFILIATION:		SEIZED/COLLECTED BY:	
SOURCE OF EVIDENCE/PROPERTY			DEFENDANT/COMPANY NAME AND REMARKS:	
ITEM NO:	DESCRIPTION OF EVIDENCE/PROPERTY/SAMPLE (include seizure tag numbers, field/stranding identification numbers, facility identification name/number, and species)			
ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA: FEDEX U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	
ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA: FEDEX U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	

Appendix 5-C: NOAA's Chain of Custody Form (Back)

ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA: FEDEX U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	
ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA: FEDEX U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	
ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA: FEDEX U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	
ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA: FEDEX U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	
ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA: FEDEX U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	
ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA: FEDEX U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	
ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA: FEDEX U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	
ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA: FEDEX U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	

Appendix 5-C: NOAA's Chain of Custody Form (Directions)

Stranding Response: Guidelines for Chain of Custody and Evidence Handling

(Draft 3.11.2011)

Introduction

Stranding responders may be asked to incorporate chain of custody (COC) and special sample and data handling procedures in cases or events that have potential legal implications. These guidelines are intended to provide instructions for common scenarios. Law enforcement from your federal or state agencies can assist with questions and should be consulted whenever necessary. Although the COC and evidence handling may seem daunting at first, the primary objectives are good record keeping and security, with the goal of preserving the integrity and validity of materials. These principles are good practices in stranding investigation regardless of the circumstances. There are two sections in these guidelines: chain of custody and handling of evidence.

I. Chain of custody

Chain of custody is a written record of the origin of evidence and provides a list of people that have had possession of that evidence. The COC record can be used for various purposes, such as to address concerns as to whether items were tampered with or otherwise altered in a manner that is relevant to a given case. Evidentiary items that stranding responders may encounter include: carcasses, biological/diagnostic samples, data sheets and electronic photographic data. Generally, any material collected from a case should be documented under COC. *If you are unsure if an item is considered to be evidence, be conservative and document it*. The best COC record is clearly written and thoroughly documents the history of an evidence item, starting with the collector or initial recipient, and as it passes from person to person, i.e. there are no "breaks" in the chain. Anyone that takes possession of evidence or alters evidence (such as someone who runs an analysis on a sample or performs a necropsy) should appear has having received that evidence on the COC record. The only exception is shipping of samples and couriers (e.g. FedEx delivery personnel), which is covered in a subsequent section. The COC passes from person to person, not facility to facility, e.g. it is not appropriate for one person within a facility to accept custody of an item and another person to release it. *The same person that is the last recipient must be the person who releases the item(s)*.

A COC record format has been developed for stranding response and blank forms are attached to this document. There are both written and electronic fill-in versions of two forms, a **Primary Form** and a **Subsample Form**. The **Primary Form** should be used to document the animal (alive or carcass) and any items collected in the field, such as external samples, fishing gear, field data sheets, and photographs. The **Subsample Form** is used for anything collected from items listed on the primary form, such as clinical samples or necropsy samples. Data sheets can be listed in either form as appropriate depending on when the datasheet is completed. Make sure the number of pages are indicated for each data sheet (see example below). Typically, an animal will have one primary form and one or more subsample forms. You may use the written or electronic forms, although electronic forms are preferred (for legibility purposes). Try to avoid combinations of written and typed entries for the descriptive fields (all except for the release/receipt fields). If you make a mistake, line through the error (single line) add the correction and initial the change. Never scratch out, erase, use white out, or otherwise obscure entries. This rule applies to COC records as well as any other documents, e.g. stranding forms, and is good scientific practice. Use a pen for all written entries, black or blue ink. *Write clearly and legibly*.

Who starts a Primary COC record? Ideally, it is the person who is the initial stranding responder. Subsample forms are started by a hospital manager, veterinarian, or person leading necropsy, i.e. someone primarily responsible for collecting samples/data. If an animal is collected by a member of the public or someone unfamiliar with COC, the person who receives the animal may initiate the COC and enter the relevant information in the "received from" field. **Only one person initiates the COC record.** The following are example forms to illustrate how to fill out a COC record. The first example is the Primary Form for a dead, stranded bottlenose dolphin.

CHAIN OF CUSTODY RECORD

Case Number:

DATE AND TIME OF COLLECTION:	AGENCY/FACILITY AFFILIATION:	SEIZED/COLLECTED BY:
12/12/2010, 1430	NOAA Fisheries, SE Fisheries Science Center	James Smith

SOURCE OF EVIDENCE/PROPERTY (person and/or location)	DEFENDANT/COMPANY NAME AND REMARKS:
TAKEN FROM: RECEIVED FROM: FOUND AT: Grand Isle, Louisiana 29 degrees 14.437'N / 89 degrees 58.806'W	BP Deepwater Horizon Spill Incident (MC252)

ITEM NO:	DESCRIPTION OF EVIDENCE/PROPERTY/SAMPLE (include seizure tag numbers, field/stranding identification numbers, facility identification name/number, and species)
1	JXM2010121201, Tursiops truncatus carcass
2	External swab collected from dorsum of carcass
3	External swab collected from ventrum of carcass
4	Field photographs (DVD) copy 1 of 2
5	Field photographs (DVD) copy 2 of 2
6	**Original data sheet (Level A Data – 2 pages)**

ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA:
1-5	James Smith, NOAA Fisheries	*James Smith*	12/12/2010	FEDEX U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	
	Allison Doe, Ocean World	*Allison Doe*	12/12/2010	

ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA:
				FEDEX U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	

The shaded fields document any transfer of items and who released or received them. **IMPORTANT: The first person to release any items should be the same person as listed in the "Seized/collected by" field at the top of the form.** The numbers of items transferred are entered in the left column. In this simple example, all items were given from the initial responder, James Smith, to Allison Doe. The parties sign the form and the delivery method (in person) is circled.

Case number: This number is assigned by law enforcement, it is left blank unless otherwise instructed.

Date and time of collection: Enter the complete date and time (use military format or indicate am/pm)

Agency/affiliation: Affiliation of the person initiating the form.

Seized/Collected by: Person initiating the form. Do NOT enter multiple people.

Source of evidence/property: Includes any information relevant to the source of evidence. "Taken from" generally is left blank as it applies to a law enforcement action. "Received from" is filled out if some else was the primary source of the item, for example if a member of the public brought in an animal or item. "Found at" includes the physical location and coordinates of the stranding.

Defendant/Company name: For the Northern Gulf = "BP Deepwater Horizon Spill Incident (MC252)"

Item number: All items are given sequential individual numbers. If possible, avoid assigning items a single number.

Description of evidence: Include the stranding identification number, any

The next action that may happen is submission of a sample for analysis. In the example above, the primary stranding responder, James Smith, has transferred everything to Allison Doe at a facility where necropsy is to be performed. Among the items were two external swabs that were collected to determine the identity of an unknown substance on the carcass. Allison needs to ship these samples to a laboratory. **The original primary COC record should remain with the main evidentiary item, typically the live animal or the carcass.** The COC is copied, and then the items are signed as released on both the original and copied forms. The signed copy is sent with the sample to the laboratory. A notation is then entered on the original COC record. This procedure is done the same for the Subsample Form, as shown in the next section. Here is what the bottom of the forms should look like:

Original (still at the same facility as the animal)

ITEM NO: 1-5	FROM: (PRINT NAME, AFFILIATION) James Smith, NOAA Fisheries	RELEASE SIGNATURE *James Smith*	RELEASE DATE: 12/12/2010	DELIVERED VIA: FEDEX U.S. MAIL ~~IN PERSON~~ OTHER:
	TO:(PRINT NAME, AFFILIATION) Allison Doe, Ocean World	RECEIPT SIGNATURE *Allison Doe*	RECEIPT DATE: 12/12/2010	
ITEM NO: 2,3	FROM: (PRINT NAME, AFFILIATION) Allison Doe, Ocean World	RELEASE SIGNATURE *Allison Doe*	RELEASE DATE: 12/20/2010	DELIVERED VIA: (FEDEX) U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION) Shipped to Environmental labs on 12/20/2010	RECEIPT SIGNATURE	RECEIPT DATE:	

Copy signed for release (sent with sample and signed upon receipt)

ITEM NO: 1-5	FROM: (PRINT NAME, AFFILIATION) James Smith, NOAA Fisheries	RELEASE SIGNATURE *James Smith*	RELEASE DATE: 12/12/2010	DELIVERED VIA: FEDEX U.S. MAIL ~~IN PERSON~~ OTHER:
	TO:(PRINT NAME, AFFILIATION) Allison Doe, Ocean World	RECEIPT SIGNATURE *Allison Doe*	RECEIPT DATE: 12/12/2010	
ITEM NO: 2,3	FROM: (PRINT NAME, AFFILIATION) Allison Doe, Ocean World	RELEASE SIGNATURE *Allison Doe*	RELEASE DATE: 12/20/2010	DELIVERED VIA: (FEDEX) U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION) Jane Johnson, Environmental Labs	RECEIPT SIGNATURE *Jane Johnson*	RECEIPT DATE: 12/21/2010	

The courier, FedEX in this example, does not sign for custody. Sealing of evidence will be covered in the next section. This is how the COC is split to accommodate sending items to various people/locations. The end result should be that the original COC has notations of where all items are or were sent. The copy sent out with sample now serves as the COC record for that specific sample. If the animal is transferred, then the original primary COC record goes with it and a copy is retained at the facility as the record for any samples remaining in-

house. If the animal is released into wild, retained as a long-term captive, or if the carcass disposed of, keep the COC record with the animal's record unless otherwise instructed.

The **Subsample Form** is used whenever material is derived from an item on the Primary Form. Typical examples are clinical samples, e.g. blood, collected from a live animal, necropsy samples, or division of a sample into smaller quantities. Simply put, if you collect anything from a live or dead animal, initiate a Subsample COC. Continuing with the example of the dolphin, here is how the Subsample Form would be filled out when this animal is necropsied. A subsample form is started by the necropsy lead and all items collected at necropsy are entered.

CHAIN OF CUSTODY RECORD
SUBSAMPLE FORM

Case Number:

DATE AND TIME OF COLLECTION: 12/12/2010, 0800	AGENCY/FACILITY AFFILIATION: Ocean World	SEIZED/COLLECTED BY: Allison Doe

SOURCE OF EVIDENCE/PROPERTY	DEFENDANT/COMPANY NAME AND REMARKS:
Necropsy samples collected from JXM2010121201, Tursiops truncatus	BP Deepwater Horizon Spill Incident (MC252)

ITEM NO:	DESCRIPTION OF EVIDENCE/PROPERTY/SAMPLE (include seizure tag numbers, field/stranding identification numbers, facility identification name/number, and species)
1.	Formalinized tissues set 1 of 2
2.	Formalinized tissues set 1 of 2
3.	Tissue samples in I-chem (bile, liver, kidney, blubber)
4.	Tissue samples in foil (liver, lung, kidney, heart)
5.	Stomach contents, enteric contents in I-chem
6.	Necropsy photographs (DVD) copy 1 of 2
7.	Necropsy photographs (DVD) copy 2 of 2
8	**Original data sheet (Necropsy form – 5 pages, Sample collection checklist – 1 page)**

ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA:
1	Allison Doe, Ocean World	Allison Doe	12/13/2010	FEDEX / U.S. MAIL / IN PERSON / OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	
	Shipped to University Pathology on 12/13/2010			
ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA:
3	Allison Doe, Ocean World	Allison Doe	12/15/2010	FEDEX / U.S. MAIL / IN PERSON / OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	
	Shipped to NIST Hollings Laboratory		12/15/2010	

Date and time of collection: Date and time of necropsy.

Collected by: Necropsy lead: veterinarian, pathologist, or biologist.

Source: Include any specific identifers for the animal and species.

As in the previous example, specific items are signed as released and their disposition is noted on the original COC subsample record (shown here) and a signed released copy (not shown) is sent with the sample(s). Based on this COC record, all items except for items 1 and 3 should still be in Allison Doe's possession. **The original COC subsample record should stay with the necropsy record at the facility unless otherwise instructed.**

A similar approach is used for clinical samples from a live animal. Here is an example if the dolphin above was a live rehabilitation case:

CHAIN OF CUSTODY RECORD
SUBSAMPLE FORM

Case Number:

DATE AND TIME OF COLLECTION: 12/12/2010	AGENCY/FACILITY AFFILIATION: Ocean World	SEIZED/COLLECTED BY: Dr. Eric Smith
SOURCE OF EVIDENCE/PROPERTY: Clinical samples collected from JXM2010121201, Tursiops truncatus, name "Dolphin."		DEFENDANT/COMPANY NAME AND REMARKS:

ITEM NO:	DESCRIPTION OF EVIDENCE/PROPERTY/SAMPLE (include seizure tag numbers, field/stranding identification numbers, facility identification name/number, and species)
1.	Serum sample
2.	Serum sample (cryovial)
3.	Blood smear (5x)
4.	Blow hole culture

ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA:
1, 3 (1 of 5)	Dr. Eric Smith, Ocean World		12/12/2010	(FEDEX) U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	
	SHIPPED TO USA PATHOLOGY SERVICES			
ITEM NO:	FROM: (PRINT NAME, AFFILIATION)	RELEASE SIGNATURE	RELEASE DATE:	DELIVERED VIA:
4	Dr. Eric Smith, Ocean World		12/12/2010	(FEDEX) U.S. MAIL IN PERSON OTHER:
	TO:(PRINT NAME, AFFILIATION)	RECEIPT SIGNATURE	RECEIPT DATE:	
	SHIPPED TO USGS WILDLIFE HEALTH CENTER			

A subsample form can be used for individual samples, or multiple samples on a given day. **If the form includes a single sample that is to be sent out, then the original subsample form should be sent with the sample as no items on that form would be left in possession of the collector (a copy should be retained in the animal's**

record). Another possible exception is shown here. It is standard that some types of samples, such as blood smears or cytology slides, are collected in many replicates. It is acceptable to list the number of replicates and how many are released. In this example, serum and one blood smear are sent for clinical pathology, and one serum sample and four blood smear slides are retained at the facility. A live clinical case likely will have many subsample forms for its duration in rehabilitation.

In summary, here are the steps for COC and shipping items:

1. Copy the original COC record (Primary Form or Subsample Form) that has the item on it.
2. Sign a release of the sample on BOTH the copy AND the original.
3. Note where the item was shipped on the original form and keep the original.
4. Send the signed copy with the shipped sample(s).
5. The person receiving the sample signs the copy and keeps the COC as a the record for that sample(s).

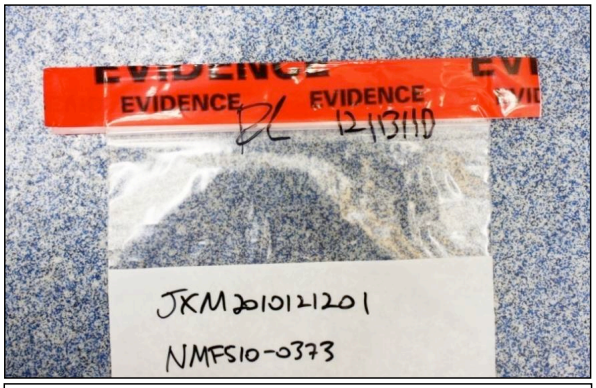
Helpful practices for COC records within facilities/organizations:

1. Have the fewest people possible serve as evidence custodians, and make sure that these individuals are familiar with the guidelines. Evidence can be signed over to one or two designated custodians within an organization, which facilitates transfer of custody.
2. Keep track of anyone who leaves your organization that is listed as a holder of evidence, especially if it will be difficult to reach them. Be sure that they sign over custody to another staff member before they leave. This measure is especially important when temporary personnel are brought in.
3. Do not create gaps in the COC record. **If you are not the last person to have custody of a sample, then you cannot release it.** Chain of custody is from individual to individual, not from organization to organization.
4. Be aware that anyone that assumes custody of evidentiary material is subject to be called upon for legal purposes, such as to verify custody and handling of a sample. This responsibility should not be taken lightly.

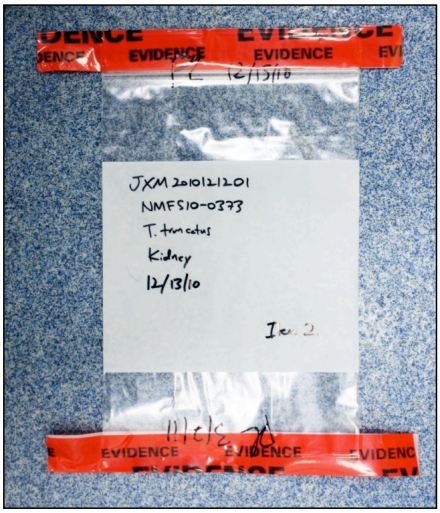
II. Handling of evidence

Sealing samples/evidence

When evidence is collected, it should be preserved in a way that ensures integrity during storage and shipment. All items should be clearly labeled/tagged with identifiers, contents, date of collection, and evidentiary item number. The collector that is the primary evidence holder, i.e. the person listed in the "seized/collected by" field of the COC should seal the sample using tamperproof tape as soon as possible after collection, and *before it is released to the next person*. Tamperproof tape is initialed and dated in manner that would be visibly disrupted if the item was opened/accessed. Here are some examples:



Plastic bags of all shapes and sizes are commonly used to hold evidentiary items/biological samples. The opening should be completely sealed as shown here, and initialed and dated along the edge. Any tampering would be clearly visible. Clean and dry the surface before applying tape. Take time to seal containers thoroughly, avoiding wrinkles, to reduce accidental loss of the seal.



If a sample is accessed, and the seal broken, it should be resealed and the action noted in laboratory notes. For bags, an unsealed part of the bag should be cut open, and then resealed. In this example, the bag was originally sealed on 12/13/2010 and then accessed and resealed on 3/2/11. The original seal is left intact. Note that the evidentiary item number is included on the container label.

Jars are sealed by wrapping tape around the lid or around the entire jar, as shown. The initials and date overlap an area that would be broken if opened.

Helpful practices for sealing evidence

1. Place small items and items that are difficult to seal, such as blood tubes and slides, in a bag and seal the bag.
2. Clean and dry surfaces thoroughly before applying tape and avoid wrinkles and exposed adhesive surfaces.
3. If sealed items are to be frozen, place them in a second bag before freezing. The second bag will reduce potential damage to the tape and the likelihood of accidental loss of the seal after freezing.
4. Use the red/black rolled evidence tape (shown in the photo examples) for frozen samples. The individual strips of tamperproof tape and other brands tend to come off during freezing.

Photographic evidence

Most photographic evidence is in a digital format. Use designated cameras and photo cards. A placard that includes identifiers, such as stranding number and pathology accession numbers, date, and a scale should appear in the photos. It is a good practice to begin each case with a photo placard labeled "start" and the time, and end the photographic series for a case with a placard labeled "end" and the time. **It is critical that photos remain unaltered and sequential.** Do not delete any photos on the camera. The contents of the photocard should be transferred directly to a non-rewritable CD or DVD. The transfer must be direct. Do not transfer photos to a computer hard drive and then to a disk, and do not open the files prior to making copies. Most computers will do this with a card reader and CD/DVD burner. Transfer the complete contents of the disk, do not delete or alter photos for any reason. You can always note the relevant image numbers in the record. Make a minimum of two copies and check to make sure that the photos were successfully written onto the disc. The disks serve as the official photographic evidence. After these official copies have been made and confirmed, it is permissible to copy data onto a hard drive, print images, and format and reuse the electronic photo card.

Security

All items collected as evidence should be stored in a secure, locked area. Freezers containing evidence should be locked. Only keyed locks, not combination locks, should be used. It is best if three or fewer people are designated key holders and primary evidence custodians for a given facility.

Oiled Marine Mammal Data Log: LIVE Animals

Oil Spill Name:				Facility:						
Intake Log Number (L-xxxx)	Date Collected (m/d/y)	Time Coll'ted (24 hr)	Collector Name	Collection Location (Beach Name)	GPS Coordinates (N)	GPS Coordinates (W)	Level A/ Field #	Date Arrived (m/d/y)	Time Arrived (24 hr)	Species

Last updated 1 June 2013

Front Side of Page _____ of _____

Oiled Marine Mammal Data Log: LIVE Animal (continued from front side)

Oil Spill Name:				Facility:								
Intake Log Number (L-xxxx)	Date Processed (m/d/y)	Time Processed (24 hr)	Processor Name	Species	Level A Field #	Tag Color/#	% Oiled	Sample/ Photo Taken? (Y/N)	Disposition Date (m/d/y)	Disposition Status (R,D,E,T)	Release Tag #	Morgue ID

Last updated 1 June 2013

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Oiled Mammal Data Log: DEAD Animals

Oil Spill Name:				Facility:									
Intake Log Number (D-xxxx)	Date Collected (m/d/y)	Time Coll'ted (24 hr)	Collector Name	Collection Location (Beach Name)	GPS Coordinates (N)	GPS Coordinates (W)	Level A/ Field #	Date Arrived (m/d/y)	Time Arrived (24 hr)	Date Proc'ed (m/d/y)	Time Proc'ed (24 hr)	Processor Name	Species

Last updated 1 June 2013

Front Side of Page _____ of _____

Appendix 5-E: Oiled Marine Mammal Data Log - Dead Animals (Back)

Oiled Marine Mammal Data Log: DEAD Animals (continued from front side)

Oil Spill Name:						Facility:									
Intake Log Number (D-xxxx)	Condition	Scavenging	Oiling Status	% Oiled	Depth Oiled	Sample/ Photo Taken? (Y/N)	Level A/ Field #	Tag #	Age	Sex	SL (cm)	AG (cm)	Morgue ID	Necropsy (Y/N)	Pathologist Name	**Notes** (any other observations, contamination by petroleum products such as plastic or another specimen)

Back Side of Page _____ of _____

Last updated 1 June 2013

Appendix 5-F: NOAA's Photograph Log

Oiled Marine Mammal Photograph Log

Oil Spill Name:				Memory Card ID:		
Date (m/d/y)	**Time (24 hr)**	**Log or Level A/ Field #**	**Photo #**	**Description**	**OK? (Y/N)**	**Photographer Name**

Last updated 1 June 2013

Page _____ of _____

Oiled Marine Mammal Property Room Evidence Log

Oil Spill Name:				Facility:					
Entered		Removed		Seizure Information			Article Description	Disposition (Action)	Entered By (Name)
Date (m/d/y)	Time (24 hr)	Date (m/d/y)	Time (24 hr)	Level A/ Field #	Date (m/d/y)	Seized By (Name)			

Last updated 1 June 2013

Page _____ of _____

Appendix 5-H: Oiled Marine Mammal Intake Form

Oiled Marine Mammal Intake Form

Spill Name:			Log Number:	
CAPTURE	Capture Date/Time:		Capture Location:	
	Level A Field ID:		Collector:	
PROCESSING	Intake Date/Time:		Species:	
	Tag Color/#:		Examiner's Signature:	
EXT. OIL ID	Signs of Oiling	Oil Visible Skin Burns Smell	Area Oiled	Head Body Multiple Entire
	Oil Color	Black Brown Clear Other	Depth of Oiling	Deep Moderate Surface
	% Oiled	<2% 2-25% 26-50% 51-75% 76-100%	Samples	Hair Swab Photo
PHYSICAL EXAM	Weight/Temp.	_____ Kg _____ °F	Age	Pup Sub-adult Adult Unknown
	Std Length/Girth	_____ cm _____ cm	Sex	Male Female
	Heart Rate	WNL _____ beats/min	Body Condition	Normal Thin Emaciated
	Resp. Rate	WNL _____ breaths/min	Attitude	BAR QAR Nonresponsive Seizing
	Dehydration	None Mild Moderate Severe	CRT/mm color	_____ Sec Pink Pale White Purple
	Human Interaction	☐ Yes ☐ No ☐ CBD Type: Boat Collision Shot Fisheries Other: _____		
	Neurologic	NSF Other:		
	Head/Mouth	NSF Other:		
	Eyes/Ears	NSF Other:		
	Heart/Lungs	NSF Other:		
	Gastrointestinal	NSF Other:		
	Musculoskeletal	NSF Other:		
	Integument	NSF Other:		
	Comments:			
TX-DX	Blood taken? ☐ Yes ☐ No HCT LTT RTT GTT		Toxiban? ☐ Yes ☐ No	Time: _____
	Pre-wash Exam: _____ Veterinarian Signature	Wash Date:	Weight:	Bloodwork Attached ☐
DISPOSITION	Disposition Exam: _____ Veterinarian Signature	Exam Date:	Weight:	Bloodwork Attached ☐
	Disposition Date:	Disposition Location:	Disposition: Released Died Euthanized Transferred Retained	
	Necropsy Exam: _____ Veterinarian Signature	Necropy Date:	Necropsied by:	
	Flipper Tag No.:	Location: RF LF RH LH	Radio/Satellite Tag:	

TAG #: _____ SPECIES: _____

Appendix 5-I: Oiled Marine Mammal Progress Form

Oiled Marine Mammal Daily Progress Form

Spill Name _____ Log # _____ Tag Color/# _____ Species _____

Date	Treatment and Progress Notes	Init.

Appendix 6: Marine Mammal External Oil Sampling Protocol

Appendix 6: Marine Mammal External Oil Sampling Protocol

Supplies

- Sampling instrument
  - *Visibly Oiled* = Wooden spatula (e.g., individually paper-wrapped tongue depressor)
  - *Not Visibly Oiled* = 4" x 4" fiberglass cloth or cotton cloth gauze, mosquito forceps, isopropyl alcohol
- Solvent-rinsed glass jar with a Teflon-lined lid (e.g, I-Chem 300 Series jars)
- Aluminum foil
- Waterproof labels (e.g., Avery 5522 weatherproof white labels)
- Evidence tape
- Permanent Sharpie marker
- Zip-lock baggies

Take extensive pictures, follow the Appendix 11. Record photographs in Appendix 11: NOAA's Photograph Log
If supplies are not pre-staged, protocol can be completed with gauze, aluminum foil and a sharpie

Procedure

1. Take sample from fur/skin; always sample armpits, flippers, neck and anus areas as well.
   a. *Visibly Oiled* = Scrape visible oil from fur/skin with wooden spatula (tongue depressor)
   b. *Not Visibly Oiled* = Rub affected area with a 4x4 fiberglass or cotton cloth (or gauze) with sterile forceps or hemostats that have been cleaned with isopropyl alcohol.
2. Place sample in I-Chem jar and close lid
   a. *Visibly Oiled* = Break off spatula and discard un-oiled portion (avoid touching /contaminating oil sample with nitrile gloves)
   b. *Not Visibly Oiled* = Drop cloth into jar
   c. **NOTE:** If jar is not available, wrap sample/spatula in aluminum foil (dull side to sample)
3. List identifying information on waterproof label to place on the glass jar (or foil packet):
   a. Spill name
   b. Date/time of sampling
   c. Intake log number (or Level A/Field ID # if field processed)
   d. Other animal identification number if available (such as Field ID #/tag #/color)
   e. Species
4. Fill out Custody Seal and apply it across the lid of the jar and onto the sides of the glass
   a. If using foil, use the label to seal the folded ends of the packet, then place into Zip-lock bag
5. Lock sample in a -20°C (or colder) freezer
   a. If processed in the field, keep sample refrigerated or on ice until it can be stored
6. Fill out NOAAs Oiled Marine Mammal Freezer Log with sample information
7. Indicate oil sample collected on Oiled Marine Mammal Data Log and Intake Form

All evidence should be securely stored and refrigerated/frozen until the Wildlife Branch Director provides further instructions. If samples are to be sent for analysis, a Chain of Custody Form is required.

Appendix 7: Oil Marine Mammal Tissue Sampling

Appendix 7: Oiled Marine Mammal Tissue Sampling Protocol
Cover Sheet

Procedure considerations:

- ✓ **Know Before You Go:** ask NMFS or Group Supervisor if additional samples (beyond those listed in this protocol) need to be collected (e.g. for food safety). If non-ICS event, ask where samples need to be sent. For Food Safety Sample Collection protocol, NMFS staff can contact State of Alaska, Alaska Section of Epidemiology, Environmental Public Health Program Manager (See Appendix 1, current contact information).

- ✓ **Photo Documentation is extremely important**. Please follow the Appendix 11 to thoroughly document the internal and external condition of the animal. Record the photographs in the Appendix 11: NOAA's Photograph Log

- ✓ **Record/Keep Community Member Narrative:** If you received the carcass/samples from a community member, fill out Appendix 9, and keep this information with the necropsy report.

- ✓ **When feasible, collect 4 duplicates of each sample**. Generally, 3 samples will be used for diagnostics, and 1 for archive.

- ✓ **Follow Data Collection Protocol:** Necropsy reports are filed and all samples handled and stored using appropriate chain-of-custody protocols discussed in the Data Collection sections of the Arctic Marine Mammal Disaster Response Guidelines, and provided by the trustee representative.

- ✓ **Keep Continuous Inventory of Samples**— volume/quantity/mass of the samples collected. Update this inventory each time you sub-sample. This allows for streamlined decision making and prioritization of analysis.

- ✓ **Carcass Disposal:** Several circumstances might prohibit the collection and storage of a complete carcass, including large or remote carcasses or lack of available refrigeration. Leaving carcasses allows for post-secondary oiling via scavenging and should be avoided. The Group Supervisor (or NMFS stranding coordinator if non-ICS event) will consult local tribal and city government for appropriate disposal options (see Appendix 1).

Appendix 7: Oiled Marine Mammal Tissue Sampling Protocol

Supplies

- ✓ Solvent-rinsed glass containers with Teflon-lined lids for tissues
- ✓ Solvent-rinsed Teflon sheets for tissues
- ✓ Aluminum foil (if Teflon sheets are not available)
- ✓ Sterile syringes and needles
- ✓ Amber glass vials or glass vials covered with foil with Teflon lids (for bile, urine)
- ✓ Teflon screw top vials (for blood storage and urine)
- ✓ Stainless steel scalpels, knifes, forceps
- ✓ Isopropyl alcohol (99.9% pesticide free IPA) to rinse instrument
- ✓ Wooden tongue depressors (can be used to handle tissues if necessary)
- ✓ Whirl-pak bags or Zip-lock freezer bags
- ✓ Permanent marker or pen (Industrial Sharpie)
- ✓ Evidence/Custody tape and labels

All instruments used in handling (e.g., scalpels, forceps, cutting boards) or storing (e.g., jars, foil) samples must be made of a non-contaminating material (stainless steel, glass, Teflon, or aluminum). Take extensive pictures, following the Appendix 11; record photographs in Appendix 11 NOAA's Photograph Log

Comments on Tissue Collection for PAH Analysis

- Tissues to collect (in decreasing order of preference): Bile; urine; whole blood; stomach and intestinal contents; blubber/fat; liver; kidney; lung; intestine; brain; muscle
- Samples taken for analysis should only be collected from **alive** or **freshly dead animals**
  - If a necropsy cannot be performed within 24 hours, carcass should be frozen for later sampling
- Recommended **minimum sample size** is **10-20 g of tissues** (approx. 1-2 tablespoons) and **5 ml for fluids** (blood, urine, bile, feces, stomach contents)
  - However, collect whatever amount is present
- Fluids such as blood, urine, and bile should be collected using sterile syringes or pipettes and transferred to Teflon vials (blood) or amber glass vials (bile, urine)
- Use powder-free nitrile gloves (vinyl gloves are an acceptable alternative)
- Cutting tools should be cleaned and rinsed with isopropyl alcohol between tissues
  - If heavily oiled, instruments can be cleaned with detergent (e.g., Dawn), rinsed with water, and then rinsed with alcohol.
- Samples are stored preferably in solvent-rinsed Teflon-lined glass jars, labeled, and secured with evidence tape/custody seal.
  - If glass jars are not available, samples can be placed in Teflon sheets or aluminum foil and stored in whirl-paks/freezer bags.
- If samples/tissues have come in contact with a contaminating material (e.g. plastic bag), collect and store a representative example of that material (e.g. plastic bag) using the above methods
- Duplicate hydrocarbon and histology samples whenever possible.
- Each sample must be labeled with spill name, date/time of sampling, log number (or Level A/Field ID # if field processed), other animal ID if available (e.g., Field ID #/tag #/color) and species
  - List identifying information on waterproof label to place on the glass jar (or sheet)
- Samples should be chilled immediately on ice then frozen ASAP in -20ºC in a locked freezer. All evidence should be securely stored and refrigerated/frozen until the Wildlife Branch Director provides further instructions. If samples are transferred to a different location or sent for analysis, a Chain-of-Custody form is required.

Appendix 8: Oiled Marine Mammal Necropsy Form

Appendix 8: Oiled Marine Mammal Necropsy
Cover Sheet

Procedure considerations:

- ✓ **Know Before You Go:** ask NMFS or Group Supervisor if additional samples need to be collected (e.g. for food safety). If non-ICS event, ask where samples need to be sent. For Food Safety Sample Collection protocol, NMFS staff can contact State of Alaska, Alaska Section of Epidemiology, Environmental Public Health Program Manager (See Appendix 1, current contact information).

- ✓ **Photo Documentation is extremely important**. Please follow the Appendix11 to thoroughly document the internal and external condition of the animal. Record the photographs in the Appendix 11.

- ✓ **Record/Keep Community Member Narrative:** If you received the carcass/samples from a community member, fill out Appendix 9, and keep this information with the necropsy report.

- ✓ **When feasible, collect 4 duplicates of each sample**. Generally, 3 samples will be used for diagnostics, and 1 for archive.

- ✓ **Follow Data Collection Protocol:** Necropsy reports are filed and all samples handled and stored using appropriate chain-of-custody protocols discussed in the Data Collection sections of the Arctic Marine Mammal Disaster Response Guidelines, and provided by the trustee representative.

- ✓ **Keep Continuous Inventory of Samples**— volume/quantity/mass of the samples collected. Update this inventory each time you sub-sample. This allows for streamlined decision making and prioritization of analysis.

- ✓ **Carcass Disposal:** Several circumstances might prohibit the collection and storage of a complete carcass, including large or remote carcasses or lack of available refrigeration. Leaving carcasses allows for post-secondary oiling via scavenging and should be avoided. The Group Supervisor (or NMFS stranding coordinator if non-ICS event) will consult local tribal and city government for appropriate disposal options (see Appendix 1).

Appendix 8: Oiled Marine Mammal Necropsy Form

Oiled Marine Mammal

Gross Necropsy Report

Spill Name:			
Animal Log #			
Tag #			
Species:			
Sex:	**Age:**		
Weight:	kg. (estimate/actual)		
SON:	emaciated 1 2 3 4 5 6 7 obese		
Measurements:	DFG cm	Blubber mm	
SL cm	AG cm	UG cm	XG cm

Form completed by:	Date:	
Enforcemnent Officer:		
Strand/Capture location:		
Collecters Name:		
Intake date:		Euthanasia
Death date:	Time:	☐yes
Post mortem date:	Time:	☐no

Carcass Classification: **Frozen**: ☐ yes ☐ no

2- fresh, 3-moderate decomp, 4-advanced decomp, 5- mummified

Photographs: ☐

Radiographs: ☐

Clinical signs/diagnosis	
Antibiotics given	
Pertinent lab results	

GROSS NECROPSY ABNORMALITIES:

HYDROCARBON ANALYSIS SAMPLES

bile	kidney	blubber/fat
blood	muscle	other:
urine	lung	
liver	intestine	

MICROBIOLOGY

Lung	☐
Liver	☐
other	☐

SWABS: other

HISTOLOGY SAMPLES

lung	thyroid	ileum	kidney	mammary gland	muscle
trachea	tonsil	colon	ureter	adrenal	gonad
heart	tongue	pancreas	urinary bladder	skin	prostate
aorta	esophagus	spleen	urethra	eye (L/R)	uterus
pulmonary artery	stomach	liver	blubber	fat--site:	vagina
thymus	duodenum	gall bladder	bone marrow		cervix
salivary gland	jejunum	brain	spinal cord	whole repro	penis
other:					

LYMPH NODES:

colonic	gastric
sublumbar	hepatic
inguinal	mediastinal
axillary	submandibular
mesenteric	tracheobronchial
prescapular	

Cause of death (preliminary diagnosis):

Examiner: Examiner's signature: Date:

Appendix 9: Community Member Narrative

Appendix 9: Community Member Narrative

1) Please use the following form to capture the narrative describing the circumstances of the observation/carcass/sample provided by the community member. Keep this narrative with animal's record (e.g. necropsy, etc.)
2) Ensure that someone from the region is assigned to follow-up and provide details about the process and results (in laymen's terms) to the hunter.

Note: Personal contact information is to be kept confidential and retained by the stranding agreement holder, or designated local organization (e.g. Northwest Arctic Borough in Kotzebue) located in the regional hub; personal contact information is not to be distributed to NMFS or other organizations. All follow-up questions etc. for the community member are to be directed through the local stranding agreement holder, or their designee, unless specific permission is obtained from the community member that they may be contacted by other organizations.

Name: _____ Phone: _____

Email: _____ Address:_____

Time of Observation: _____ Date of Observation: _____

Do they represent and organization? If yes, please list name: _____

Location of observation (use landmarks and lat/long if possible):

_____

_____

Record the observation as verbatim as possible in the community member's own words. If you are filling out this form on the behalf of the community member, and you add any of your own content, please put these additions in parentheses. Add onto back of form if more space is needed:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Did the community member give you samples or a carcass? Circle One: Yes No

If Yes, briefly describe the samples/carcass:

_____

_____

Are there any associated media (recording, video, photo)? Circle one: Yes No
If yes, please describe the media that you have:

_____

_____

Does the community member consent to allowing use of their media to document response effort/diagnostic purposes/outreach? Circle one: Yes No

If consent is given, please record where the media was sent and to whom:

Email or mailing address: _____

Name of person in possession of media: _____

Community Member Follow-up Information

Date Contacted: _____
Name of person contacting community member: _____

Brief Description of Details:

_____

_____

_____

_____

Appendix 10: Draft Euthanasia Protocol

Appendix 10: Draft Euthanasia Protocol - In development

Appendix 11: Oiled Marine Mammal Photography Protocol

Appendix 11: Oiled Marine Mammal Photography Protocol

Supplies

- ✓ Digital camera with dedicated memory card.
- ✓ Dry erase board (or piece of paper)
- ✓ Dry erase marker (or Sharpie)
- ✓ NOAA Photograph Log
- ✓ NSB Photo Documentation Guide (attached)

Procedure

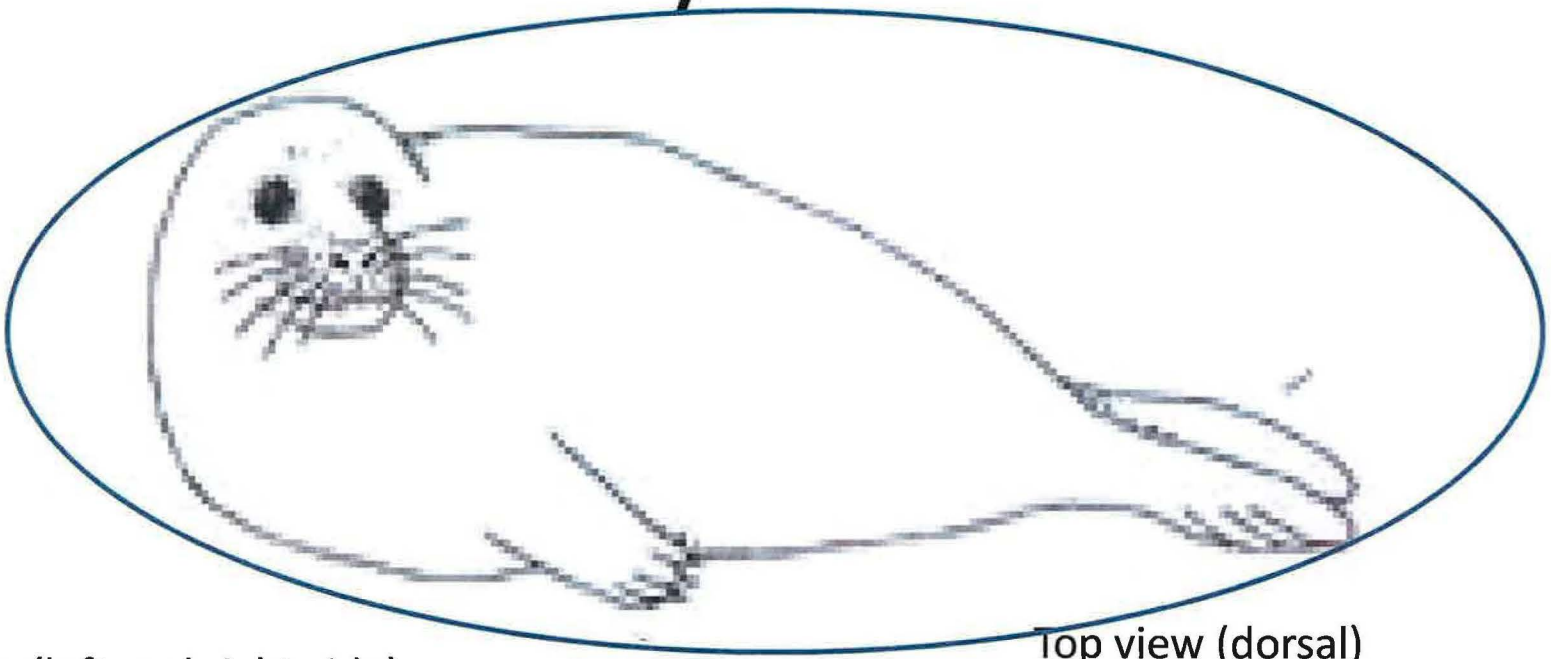
1. List identifying information on dry erase board/paper a. Spill name
   b. Date/time of photograph
   c. Intake log number (or Level A/Field ID # if field processed)
   d. Other animal identification number if available (such as Field ID #/tag #/color)
   e. Species
   f. Name of facility (or beach name if field processed) where photo is taken
2. Take photo of the animal's entire body (internal and external) showing the best view of the oiled area(s) refer to NSBDWM Photo Documentation Guide for example. These photos are necessary for UME and other disaster response events to fully document the entire affected animal,
   a. If the animal is too large to photograph in a single image, take a photo that clearly illustrates the area oiled and an identifying tag or other device.
   b. Once a picture has been taken it must remain on the memory card and cannot be modified in any way (this includes downloading images from the card to a computer).
   *__No photographs should be deleted from the memory card.*__
3. Record the photo on the NOAA Photograph Log
   a. Include all photos taken on the Log, including mistakes and/or bad photos.
4. Indicate photograph taken on Oiled Marine Mammal Data Log and Intake Form
5. Secure the camera and memory card in a locked evidence cabinet
   a. When the memory card is full, use a stand-alone DVD recorder (not a computer) to create a backup copy.
   b. Once a backup copy is created, place the memory card and DVD in an envelope labeled with the spill name and the range of log numbers for the animals imaged on the card.
   c. Place new memory card into camera for additional use.

North Slope Borough Department of Wildlife Management (NSBDWM)
Photo Documentation Procedure

Photo-Documentation ICE Seal and Walrus

Outline for Beach Survey Crews and Interns for NSB Marine Mammal Health Research Program 2012

Body shot :

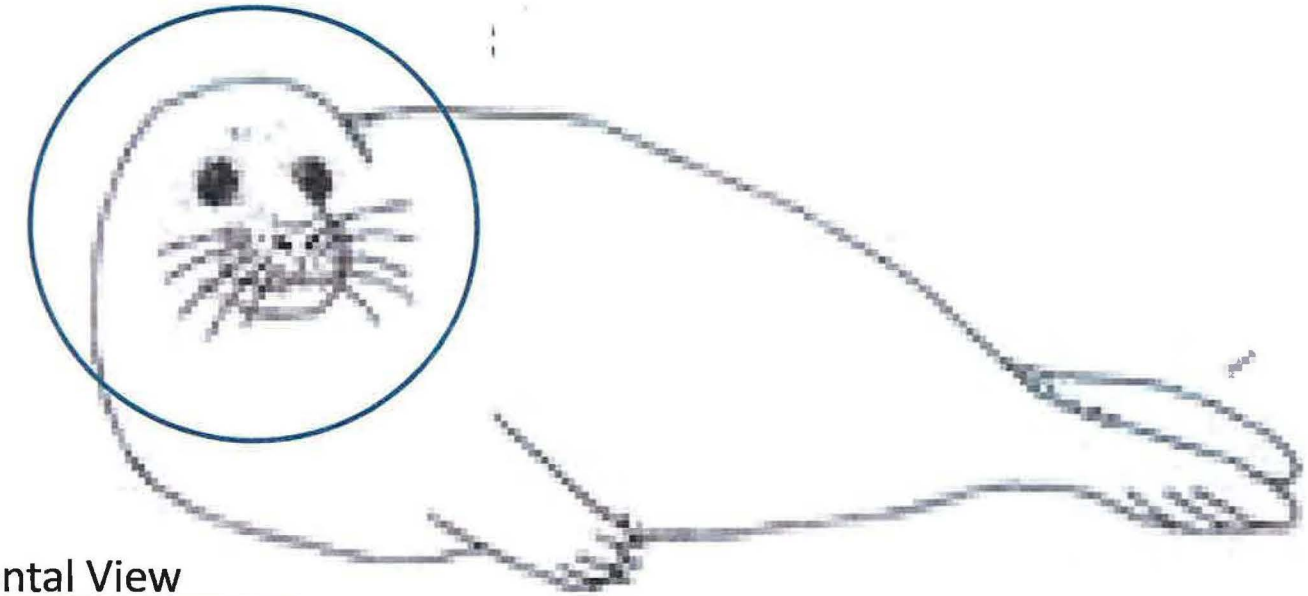


Side view (left and right side)

Belly view (ventral)

Top view (dorsal)

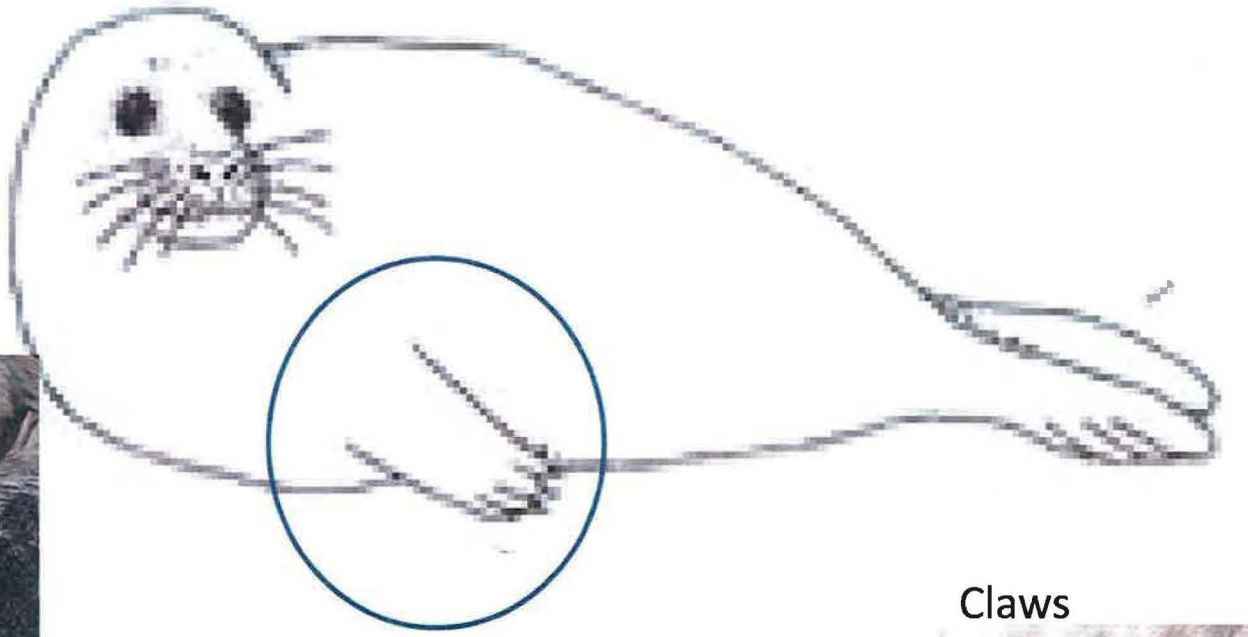
Head shot



Frontal View

Side view (left & right)

Fore flippers:



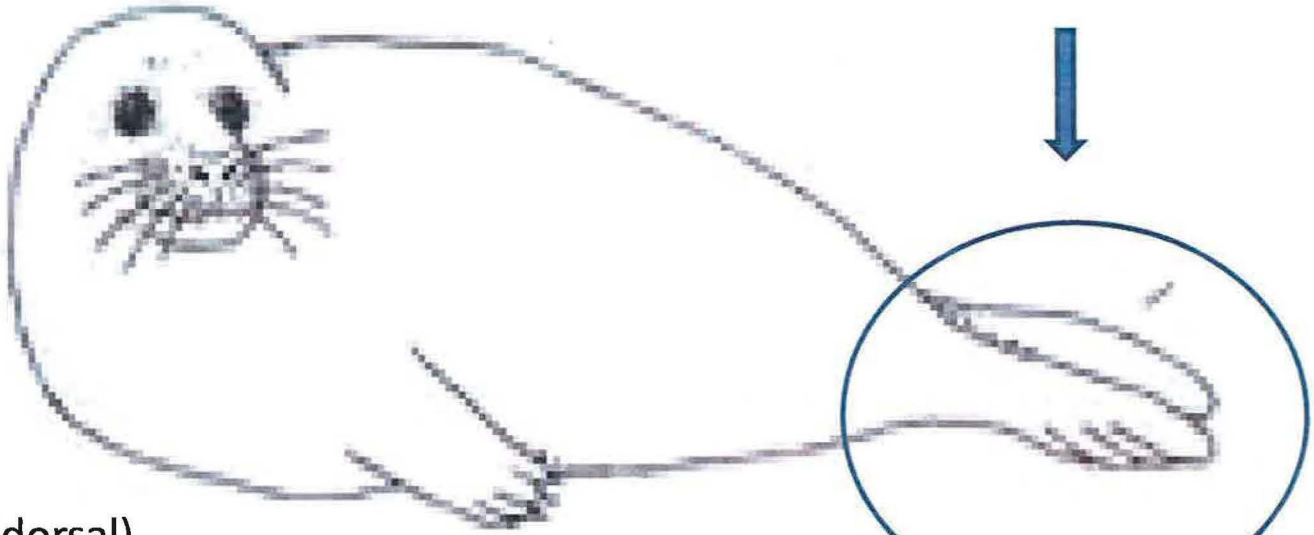
Front

Back

Armpit (Axilla)

Claws

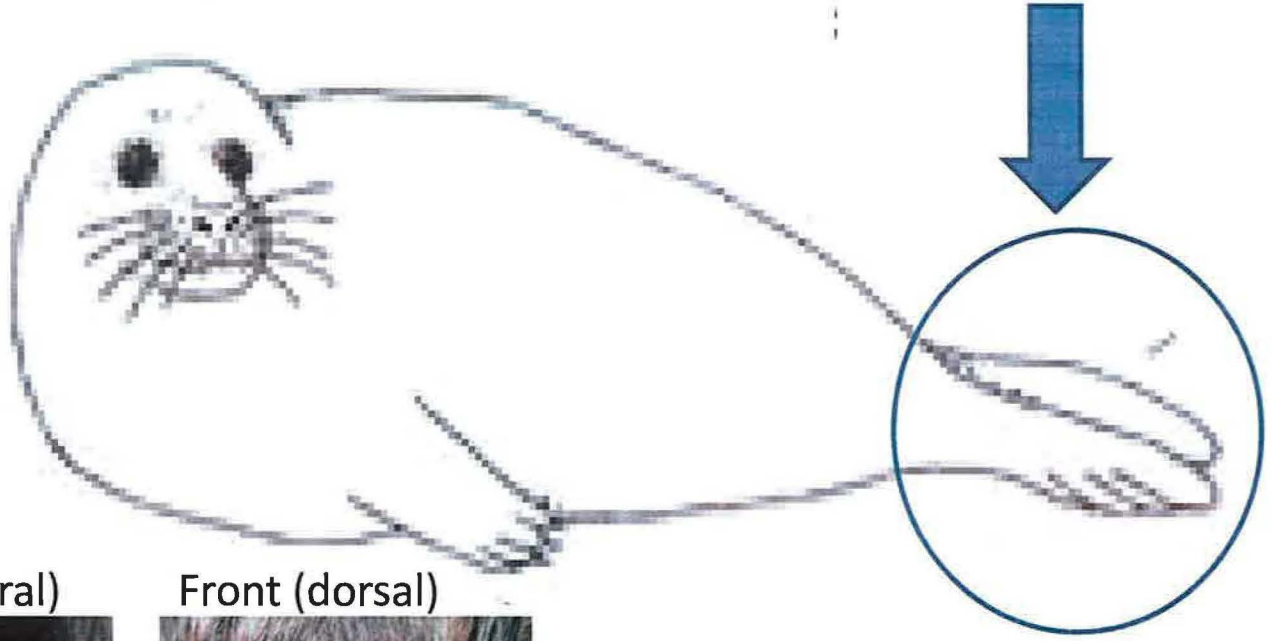
Hind-flippers:



Front (dorsal)

Back (plantar)

Tail



Back (ventral)

Front (dorsal)

In case animals having/showing signs of sickness

Associated Symptoms & Observations with Ice Seal Disease Syndrome

- Land based hauling out
- Approachability/lethargy (easy to hunt; no flight response)
- Respiratory signs (noisy; inability to dive long; stay on surface longer)
- Bloody nose
- Hair loss & "easy" plucking of hair
- Flipper lesions (nodules; sores; bleeding flippers)
- Body Sores
- # of Carcasses and # field observations
- Odd Smell
- Trophic effect: Predation by Polar bears on ringed seals : very successful (catching them in open water; on shore)

Additional photos to take

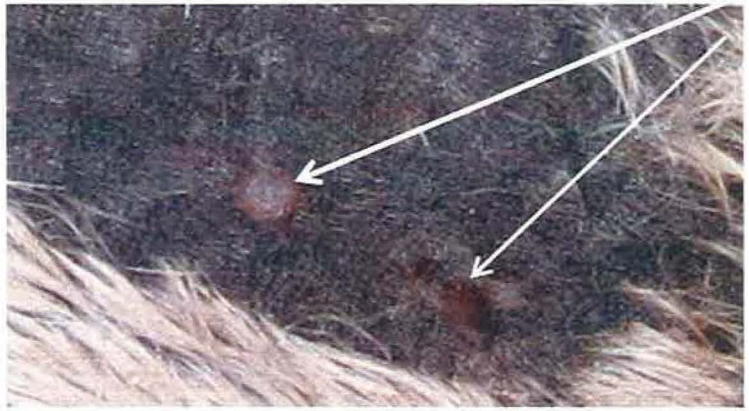
EYES

Algae present ?

Anus

Snout

CLOSE UP OF SORES

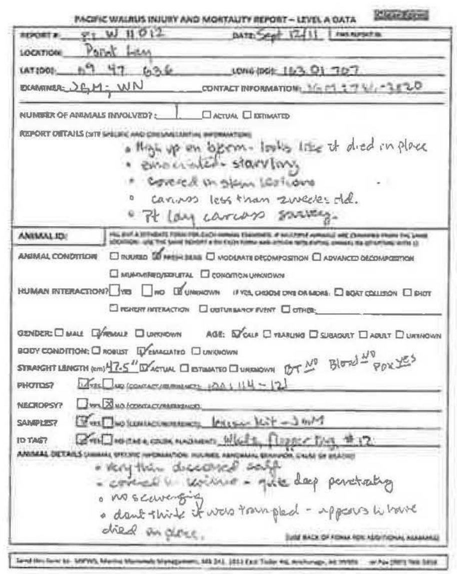


For Live walrus: High Quality Distance shots

Walrus

For dead walrus: follow outline for ice seals

Fill out Survey Sheet



PACIFIC WALRUS INJURY AND MORTALITY REPORT – LEVEL A DATA

REPORT #: W 11012 DATE: Sept 12/11

LOCATION: Point Lay

LAT (DD): 69 47 636 LONG (DD): 163 01 707

EXAMINER: JGM; WN CONTACT INFORMATION:

NUMBER OF ANIMALS INVOLVED?: 1 ☐ ACTUAL ☐ ESTIMATED

REPORT DETAILS

- High up on berm - looks like it died in place
- emaciated - starving
- covered in skin lesions
- carcass less than 2 weeks old.
- Pt Lay carcass survey.

ANIMAL ID:

ANIMAL CONDITION: ☐ INJURED ☑ FRESH DEAD ☐ MODERATE DECOMPOSITION ☐ ADVANCED DECOMPOSITION ☐ MUMMIFIED/SKELETAL ☐ CONDITION UNKNOWN

HUMAN INTERACTION? ☐ YES ☐ NO ☑ UNKNOWN IF YES, CHOOSE ONE OR MORE: ☐ BOAT COLLISION ☐ SHOT ☐ FISHERY INTERACTION ☐ DISTURBANCE EVENT ☐ OTHER:

GENDER: ☐ MALE ☑ FEMALE ☐ UNKNOWN AGE: ☑ CALF ☐ YEARLING ☐ SUBADULT ☐ ADULT ☐ UNKNOWN

BODY CONDITION: ☐ ROBUST ☑ EMACIATED ☐ UNKNOWN

STRAIGHT LENGTH (cm) 47.5" ☑ ACTUAL ☐ ESTIMATED ☐ UNKNOWN BT NO Blood NO Pox YES

PHOTOS? ☑ YES ☐ NO 114 - 121

NECROPSY? ☐ YES ☒ NO

SAMPLES? ☑ YES ☐ NO

ID TAG? ☑ YES ☐ NO flipper tag #12

ANIMAL DETAILS

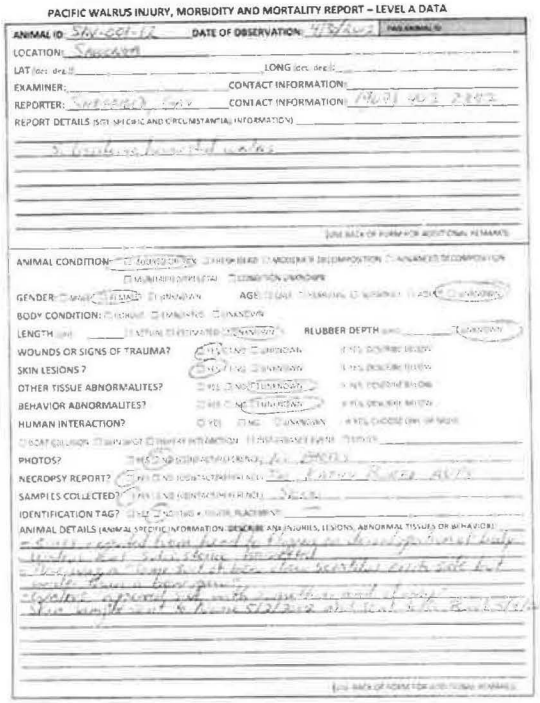
- very thin deceased calf
- covered in lesions - quite deep penetrating
- no scavenging
- dont think it was trampled - appears to have died in place.

(USE BACK OF FORM FOR ADDITIONAL REMARKS)

Necropsy of Stranded Seals/Walrus and/or Subsistence Harvest

- REQUIRED **Detailed** Necropsy report & Level A (if stranded):

Example: Walrus USFWS Carcass Survey Form



PACIFIC WALRUS INJURY, MORBIDITY AND MORTALITY REPORT – LEVEL A DATA

ANIMAL ID: DATE OF OBSERVATION:

LOCATION:

LAT: LONG:

EXAMINER: CONTACT INFORMATION:

REPORTER: CONTACT INFORMATION:

REPORT DETAILS (SITE SPECIFIC AND CIRCUMSTANTIAL INFORMATION)

ANIMAL CONDITION:

GENDER: AGE:

BODY CONDITION:

LENGTH: RUBBER DEPTH:

WOUNDS OR SIGNS OF TRAUMA?

SKIN LESIONS?

OTHER TISSUE ABNORMALITIES?

BEHAVIOR ABNORMALITIES?

HUMAN INTERACTION?

PHOTOS?

NECROPSY REPORT?

SAMPLES COLLECTED?

IDENTIFICATION TAG?

ANIMAL DETAILS (ANIMAL SPECIFIC INFORMATION. DESCRIBE ANY INJURIES, LESIONS, ABNORMAL TISSUES OR BEHAVIOR)

Example: Marine Mammal LEVEL A

MARINE MAMMAL STRANDING REPORT - LEVEL A DATA

Purpose of Necropsy Report

- In-depth Case Documentation
  - Avoid statements like " Within normal limits (WNL) ". With the current lack of data on Northern Pinniped visceral anatomy and organ morphometry and associated reference ranges on weight and size as it varies by season, age, gender, and geographic range a WNL statement in a necropsy report is meaningless until ranges have been established and organ weights or size fall within the established biological ranges.
- Research tool for NSB-DWM Marine Mammal Health Research Program
- Word and picture based Client/hunter feedback tool

KEY-elements Necropsy Report

- Take detailed history of hunter observations
  - Animal behavior and environmental context
  - What are their concerns? What is not normal in their experience? Hunters are the other experts in our health investigation.
- Solid Photo-documentation with scale
  - A picture is a thousand words when you need to show what you saw to a hunter or any other veterinary client and/or colleague. Hunters are partners in the NSB-DWM marine mammal health & Disease studies – providing them with meaningful reports (simple plain language with pictures) is our mandate

Cont. Key Elements of Necropsy Report

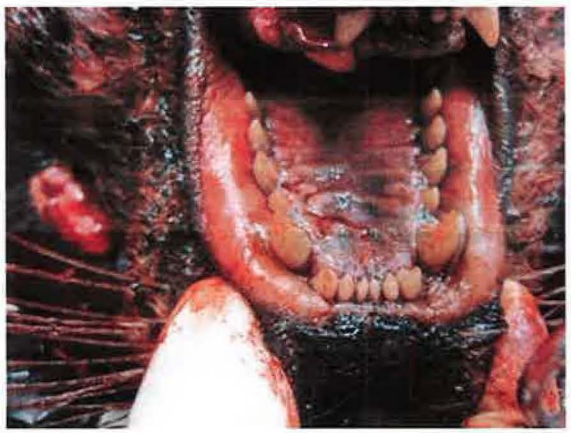
- Describe what you see, smell, and feel
  - ***Key elements of lesions/abnormal tissue description: Location – number-distribution – color-size-shape- consistency – texture-raised-depressed- smell !!!***

- Marine Mammal Specific Morphometrics
  - Body condition indices and body size are important wildlife management tools -

Gross Examine : Photo Document as outlined in live seals
Follow : Overview and Organs shots
MACRO/CLOSE-UP shots of any ABNORMAL tissue !

Blubber depth (thickness)

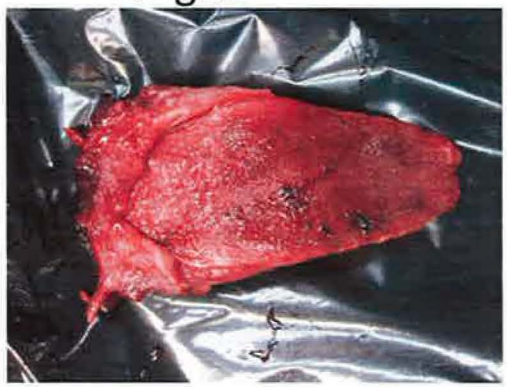
Oral Cavity



Oral Mucosa

Eyes

Tongue



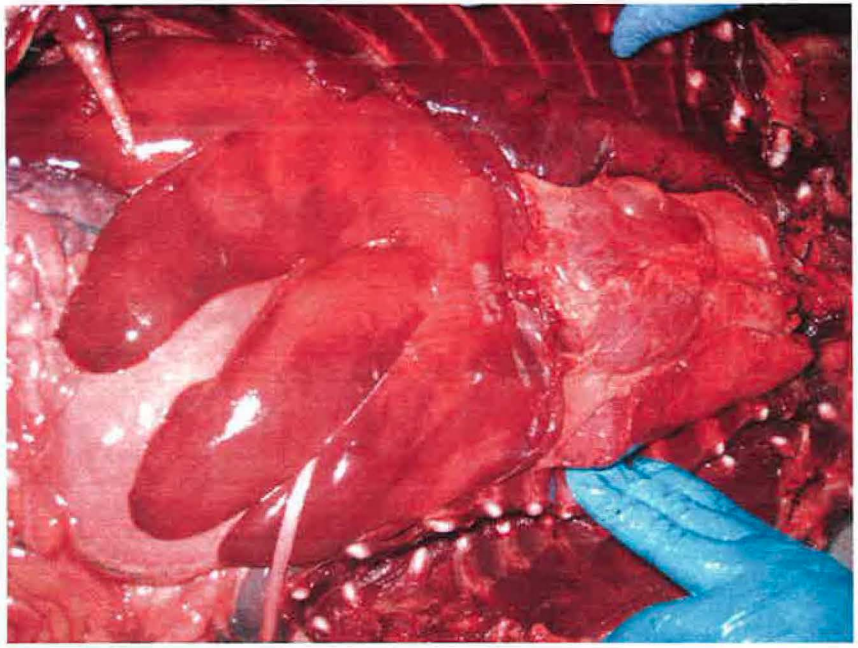
Cont. External Exam

ANUS

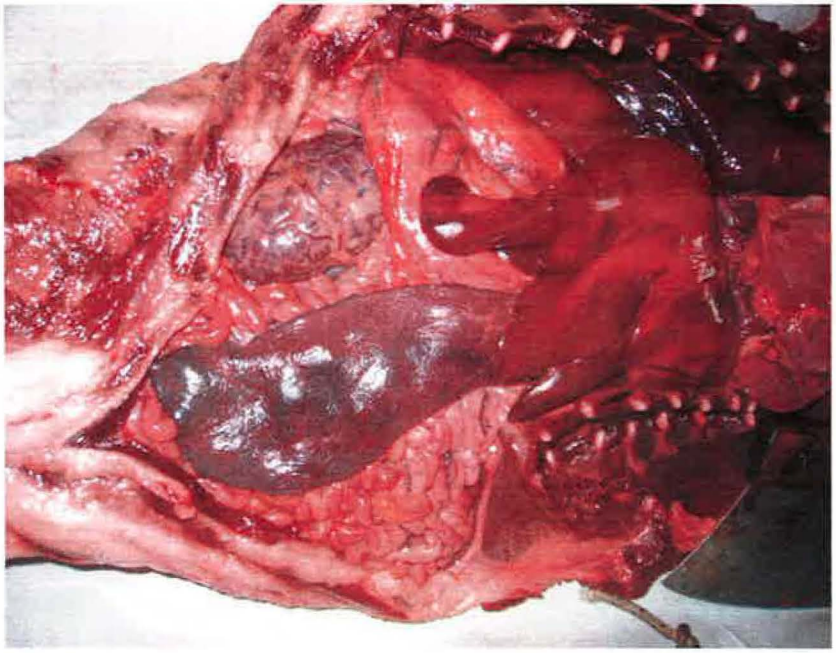
Preputial Opening

Necropsy

Overview Shot:
Chest Cavity open (Thorax)

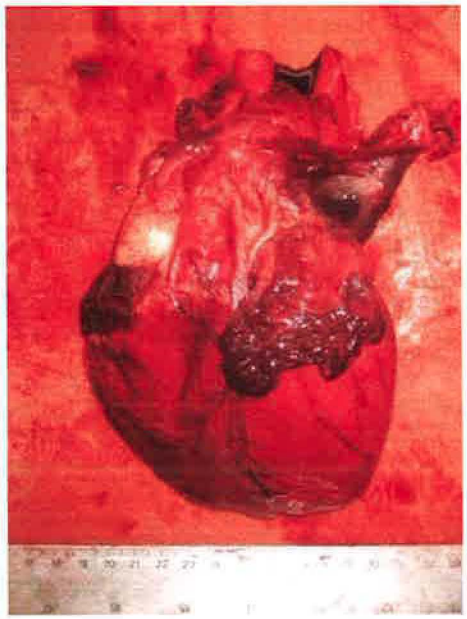


Overview Shot:
Body Cavity open (abdomen)

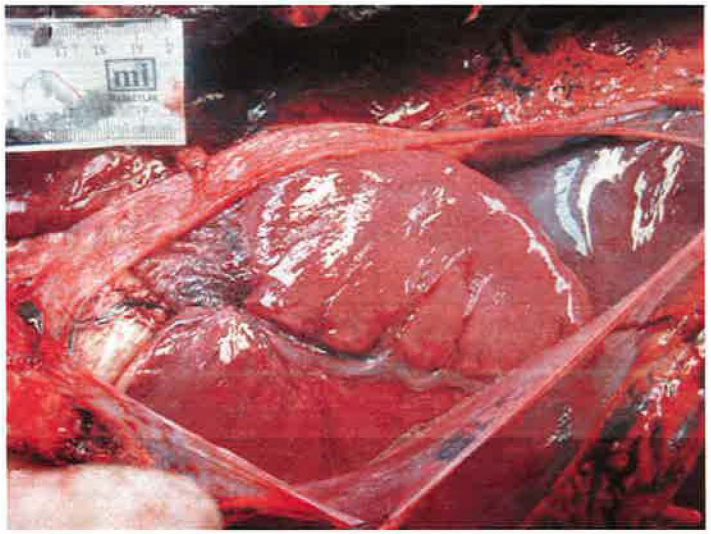


Heart

Heart



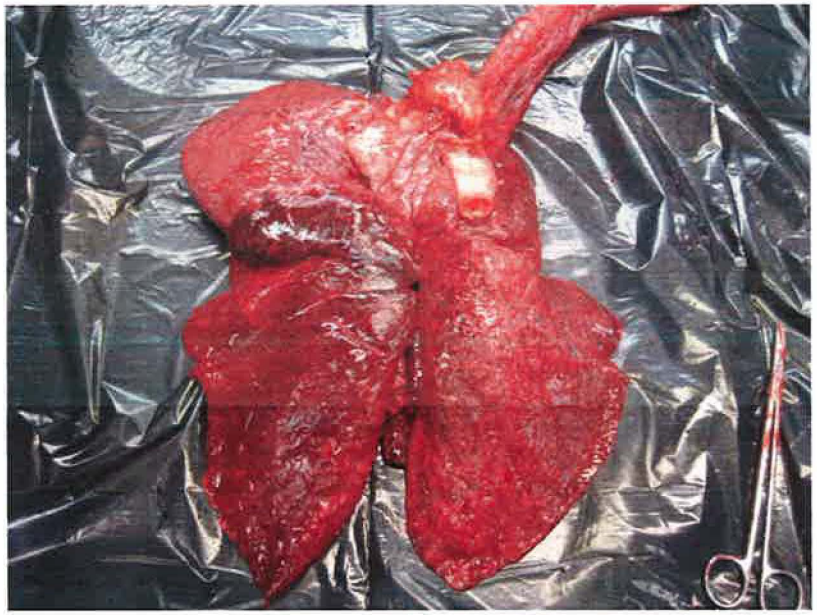
Pericardium



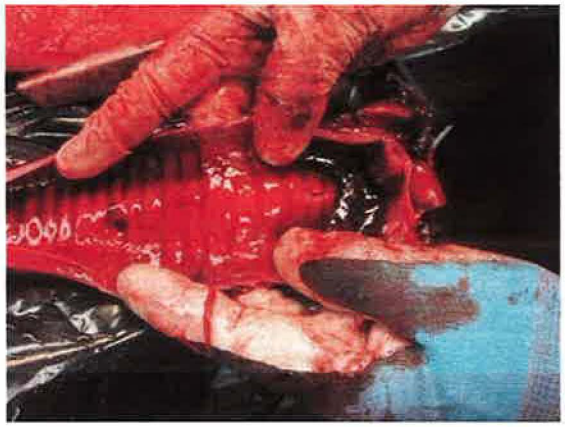
AV-Valves

Lung and Trachea

Pluck in toto



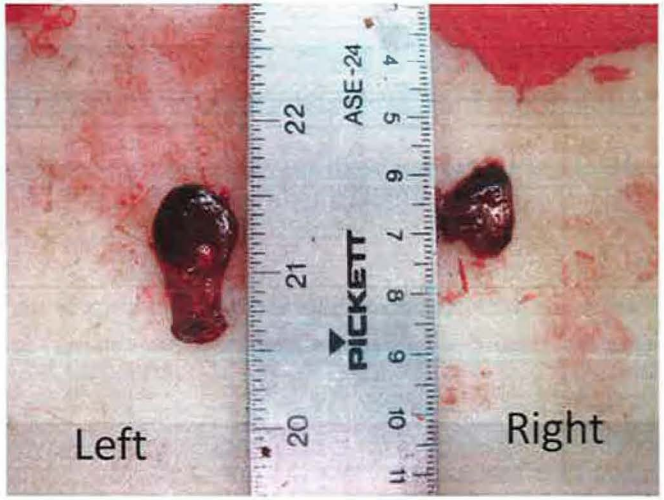
trachea



X-section

Endocrine Glands

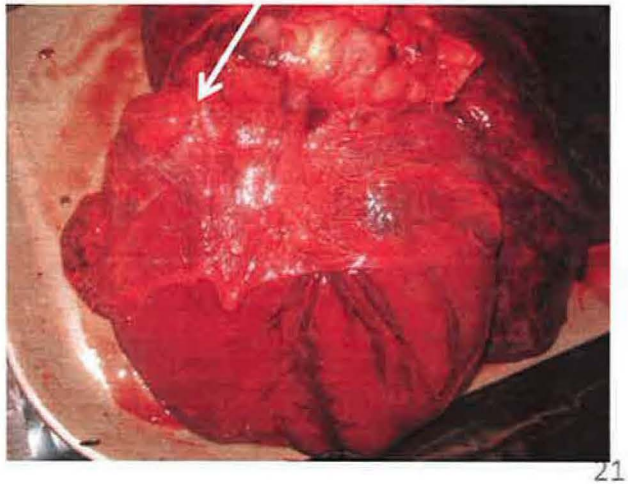
Thyroid



Adrenal Gland

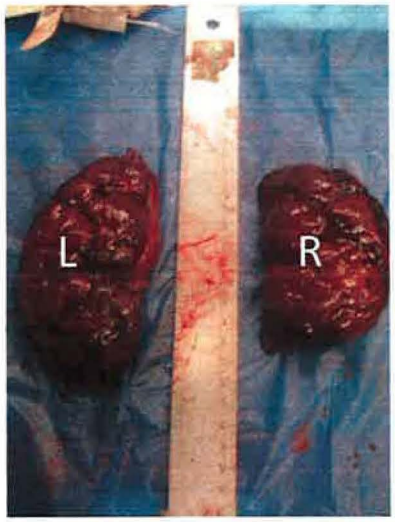
All glands are **weighed** if necropsy is done in the necropsy suite

THYMUS Remnant

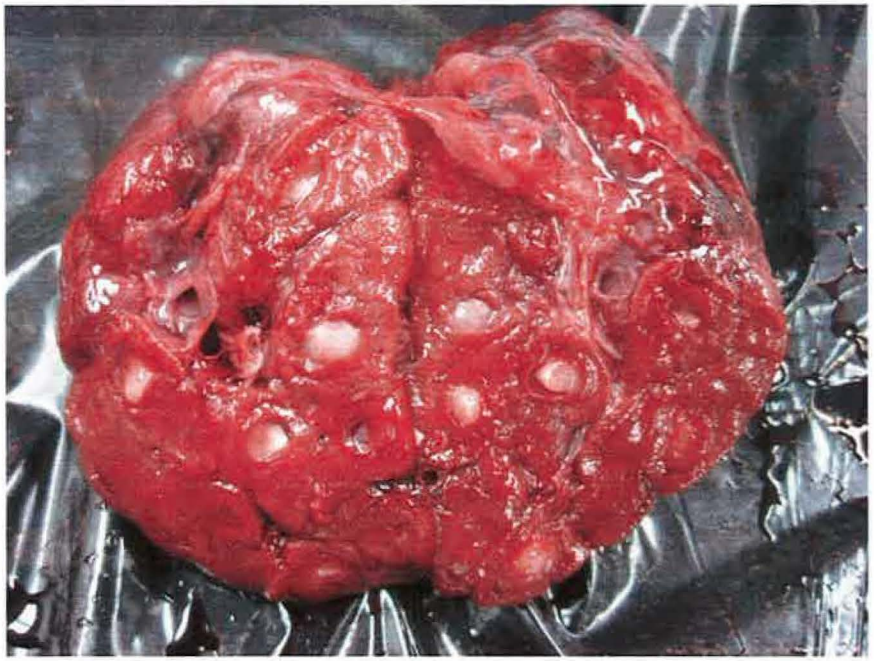


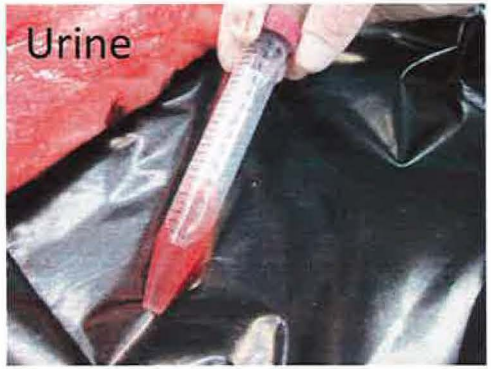
Kidney and Bladder

Kidney in toto



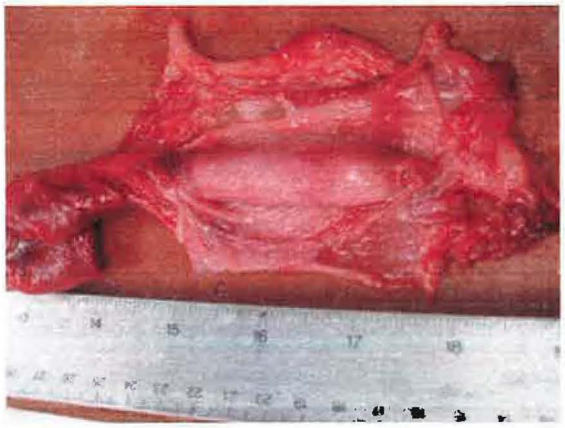
X-L-Sections





Male Reproductive System

PENIS & Sheath

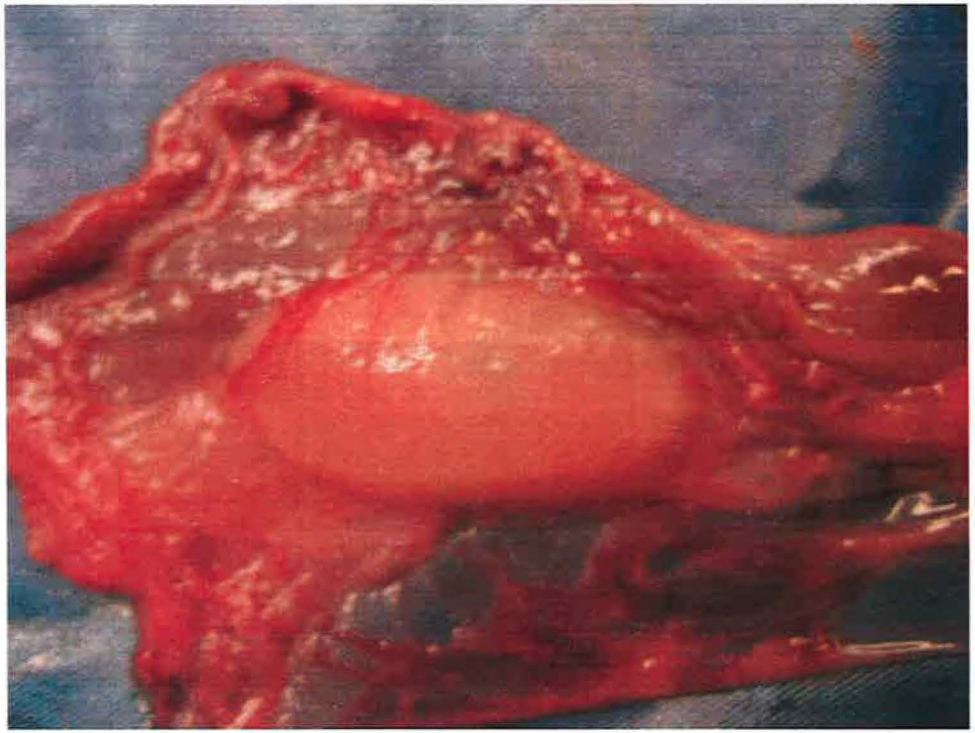


Testes with Cross section

Female Reproductive Tract

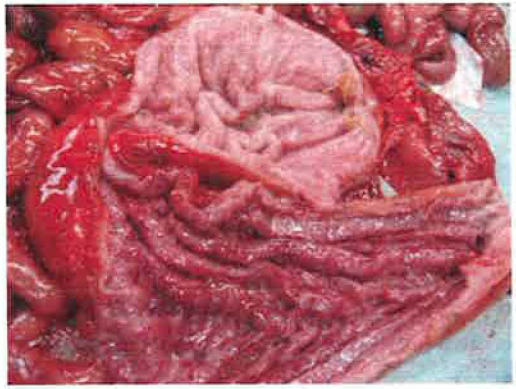
Tract

Ovary (L/R)

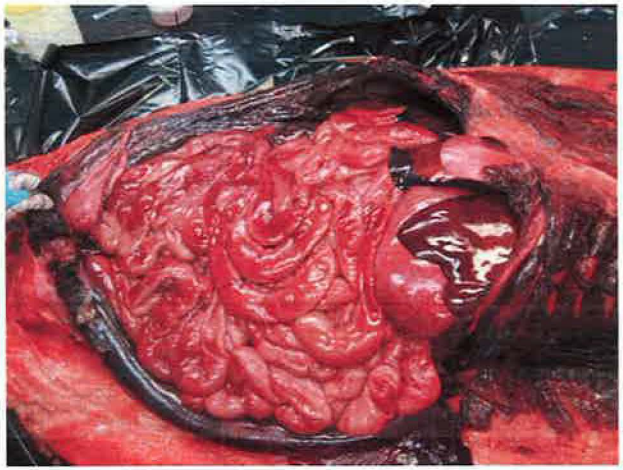


Gastrointestinal

Stomach (open)



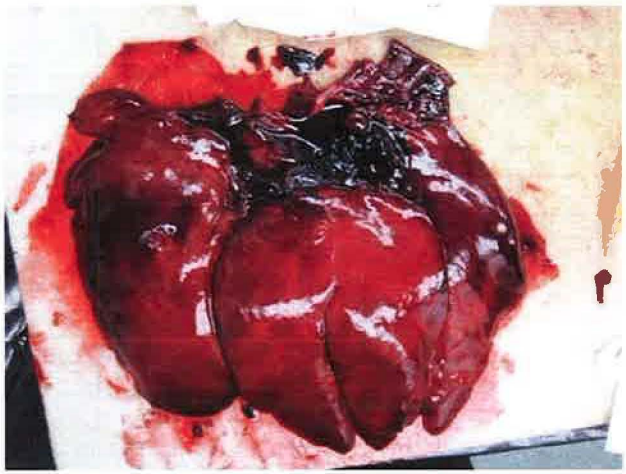
Intestines



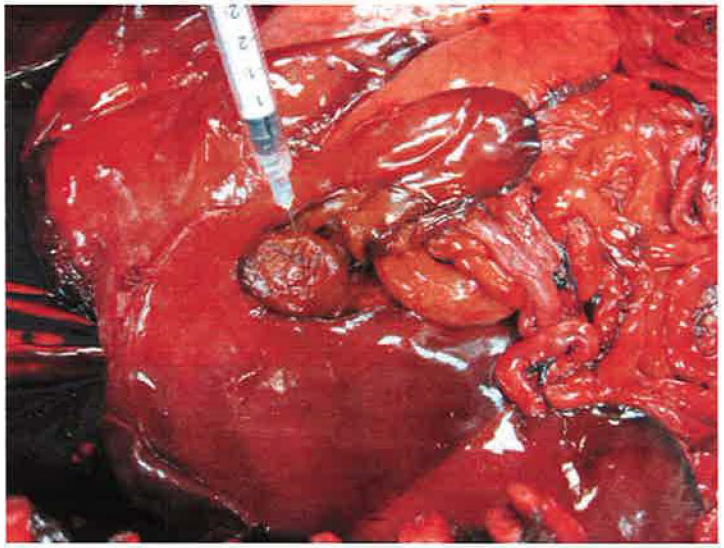
Esophagus

Hepatobiliary system

Liver: Front and Back



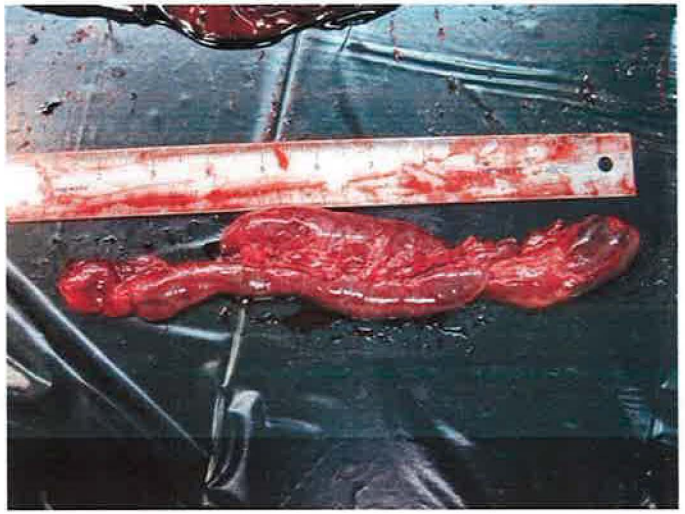
Bile Acid Collection



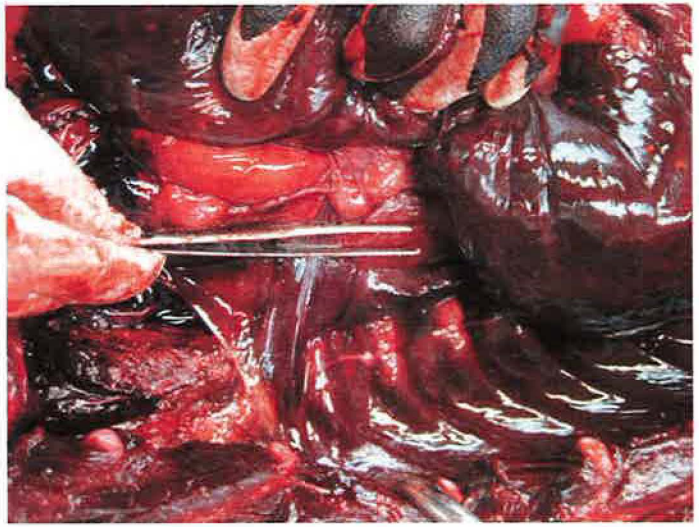
Immune system

Spleen

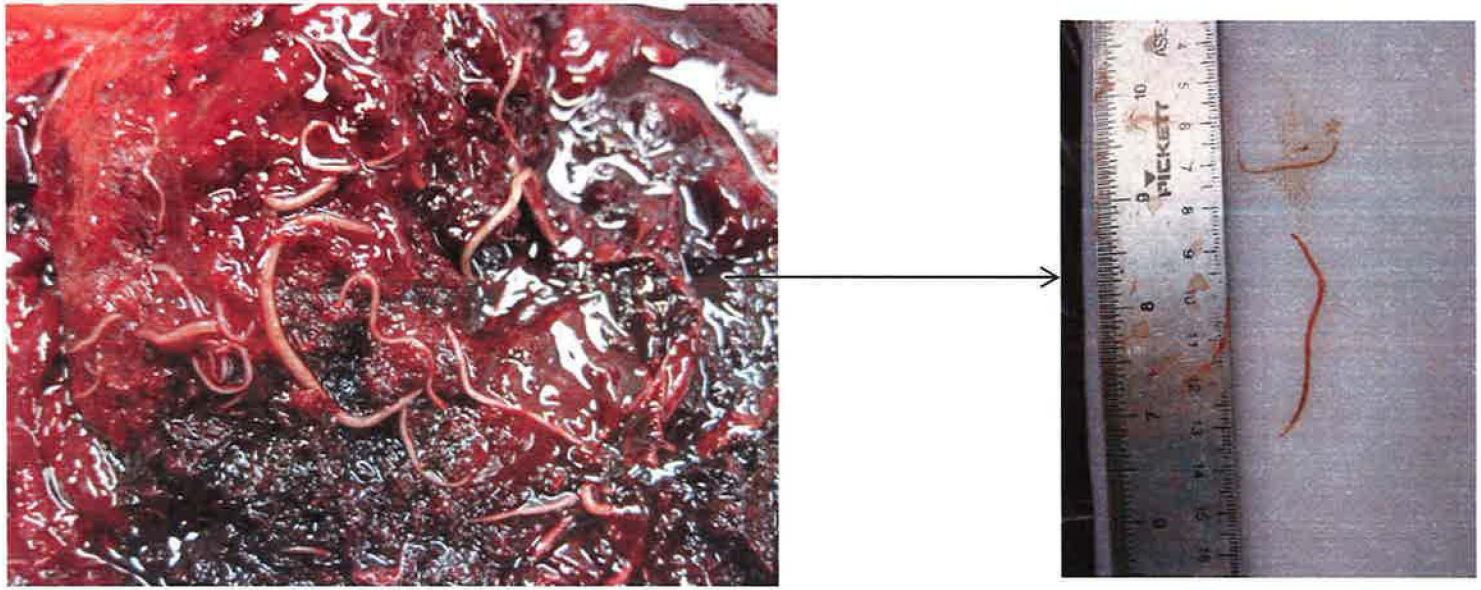
Mesenteric Lymph nodes



All Lymph nodes that are enlarged and/or otherwise abnormal photograph !

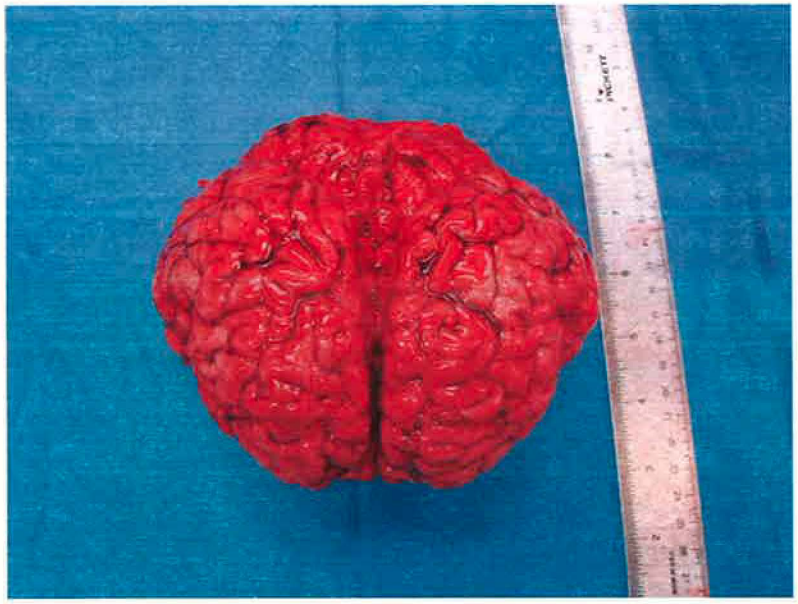


Parasites

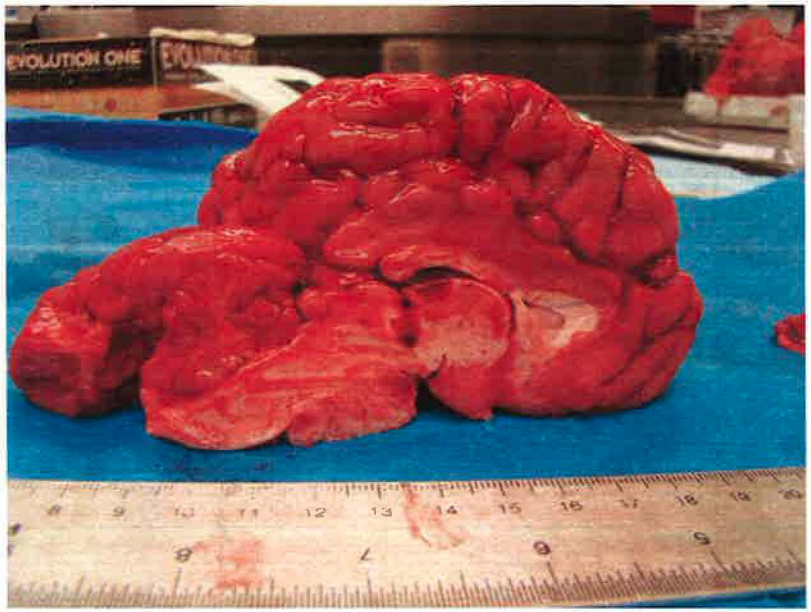


Brain: if not gun shot to the head take out brain, weigh, and preserve hemispheres in formalin

Brain



Hemisphere



Appendix 12: Community Member Dead Marine Mammal Oil Sampling Protocol

Appendix 12: Community Member Dead Marine Mammal Oil Sampling Protocol

All efforts should be made for HAZWOPER-trained NMFS staff or stranding network members to respond to marine mammals affected by an oil spill. If NMFS staff or stranding network members are unable to collect or sample oiled marine mammals, consenting community members may be guided to assist **external oil sampling only** by following this protocol. **Instruct community member to wear gloves and other PPE at all times.**

1. **Record details of event and make notifications.** Once stranding network member is contacted about a dead oiled marine mammal, fill out Appendix 9. Contact NMFS regional stranding coordinator (877) 925-7773 or Wildlife Branch Director (if ICS is set up) and obtain permission to guide community member to assist in the oil sampling protocol. Obtain payment instructions from NMFS for transportation of supplies and materials to/from community.

Carcass weighs >300 lbs: Instruct the community member with Appendix 6; send them supplies* and pay airfare. If supplies can't be sent, Appendix 6 can be completed with common items found in a household and first aid kit (use aluminum foil, gauze and a sharpie marker.)

Carcass weighs <300 lbs:

Supplies
Body bags
PPE (Powder-free nitrile gloves, tyvek suits)
Camera
Sharpies, stickers for body bag

Instructions to Community Member
1. Send supply list to them, instruct community member to wear PPE
2. Take extensive pictures (see Appendix 11).
3. Write animal species, location, date/time of observation, and who the animal is being sent to on sticker and put on body bag
4. Put marine mammal in body bag, send to stranding network member contact in local hub community.

Appendix 13: Notification to Communities

Appendix 13: Notification to Communities During NMFS-led Disaster Responses

Note that during non-NMFS led disaster events, information/notifications must go through the UC Liaison office. This procedure is only applicable during NMFS-led disaster responses.

Provide Initial Notification and Continuous Updates on Event to Communities
Frequent, culturally sensitive communication is imperative during a disaster event, as local communities are often the main source of information regarding the event, and are the most seriously affected from the impacts of the event itself, as well as the ensuing response effort.

Community members have an unparalleled depth of knowledge about the local environment, and their subsistence activities often result in vast reconnaissance of remote regions of Alaska. As such, communities are usually the first to report that a disaster event is occurring and often provide the majority of observations and carcasses/samples to agencies during a response effort. Additionally, Alaska Natives largely rely on the environment for their cultural, physical and spiritual needs, and so they are also the most heavily impacted from disaster events.

Procedure

1) Work with local stranding agreement holder/non-profit regional Native organization to develop flyers/announcements (see attached example). These notifications should:
    - Be in English, as well as the local Native language. Uses local names for animals and locations.
    - Provide clear, non-technical details about the status of the event including where/when it is, response measures, and key findings.
    - Have a local contact number/name of who to contact if they have information (provide pictures of things to watch for) regarding the disaster.

2) Distribute these flyers/announcements (in the regional languages) to the media and community contacts listed in Appendix 1 Regional Contacts.

Animal symptoms seen alone or in combination:

- Easily approachable
- Hair loss
- Sores on body
- Sores on flippers
- Bloody nose/eyes
- Difficulty breathing / diving
- Odd smell when butchering

PLEASE CONTINUE TO REPORT SICK SEALS!

Eskimo Walrus Commission: 1-877-277-4392 (Nome)

Gay Sheffield/UAF-MAP: 1-800-478-2202 or 443-2397 (Nome)

US Fish and Wildlife Service: 1-800-362-5148 (Anchorage)

NMFS Stranding Network: 1-877-925-7773 (Juneau)

SAFE HANDLING

- Coastal community members should rely on their best traditional and customary food handling practices.

Additionally, Alaska State Public Health officials recommend:

- Do not eat animals that look sick. Do not let dogs approach or eat sick animals.

Wearing rubber gloves can reduce exposure while handling sick animals. Washing your hands / equipment reduces disease transmission. Cooking meat helps kill parasites and bacteria. If you feel sick, contact your local health care provider immediately.

WHAT'S NEXT?

- Coastal community members should remain vigilant and continue to report sick animals.

- During the upcoming hunting seasons, the NSB and others will be working together with communities and Alaska Native marine mammal co-management organizations to collect samples from sick seals and walruses for further analyses. Stay tuned!

For electronic information about sick seals, walruses, and the UME:
Sick seals: www.alaskafisheries.noaa.gov/protectedresources/seals/ice/diseased/
Sick walruses: http://alaska.fws.gov/fisheries/mmm/walrus/disease_investigation.htm
Unusual Mortality Event: www.nmfs.noaa.gov/pr/health/mmume/.

Example

- OILED WILDLIFE-

SEPTEMBER 2014

Since September 6th, two young spotted seals harvested near St. Lawrence Island have been found coated with a dark oily substance similar to the oiled wildlife of 2012. The US Coast Guard is investigating and needs our assistance in locating the source as well as any affected wildlife.

Communities throughout the Bering Strait region should remain vigilant and immediately report any oiled wildlife or unusual marine debris.

PLEASE REPORT OILED WILDLIFE!

If you see any oiled wildlife or debris in the Bering Strait region, please contact:

- **Eskimo Walrus Commission – Nome 1-877-277-4392**
- **Kawerak Subsistence Program – Nome 443-4265**
- **Marine Advisory Program – Nome 1-855-443-2397 or 434-1149**
- **US Coast Guard – Anchorage 1-866-396-1361 or 907-428-4100**

HOW YOU CAN HELP

Take photos using your cell phone or camera and call in what you see!

Appendix 14: References

Appendix 14 - References

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Appendix 15: Marine Forensics COC

MARINE FORENSICS
Chain of Custody

National Marine Fisheries Service, SEFSC, Charleston Lab
219 Ft. Johnson Rd., Charleston, SC 29412
Phone: (803) 762-8500; FAX: (803) 762-8700

Field reference number:_____

Laboratory reference number:_____

Geographical origin of sample:_____

Name & signature of sample collector:_____

Address of sample collector:_____

_____

Collector's Phone Number:_____ Date collected:_____

Seized property# (if applicable):_____

Sample description:_____

_____

THE ABOVE SAMPLE WAS TRANSFERRED AS FOLLOWS:

1. _____ Collector's release signature _____ Method of transfer _____ Date
   _____ Receipt signature _____ Date
2. _____ Release signature _____ Method of transfer _____ Date
   _____ Receipt signature _____ Date
3. _____ Release signature _____ Method of transfer _____ Date
   _____ Receipt signature _____ Date
4. _____ Release signature _____ Method of transfer _____ Date
   _____ Receipt signature _____ Date
5. _____ Release signature _____ Method of transfer _____ Date
   _____ Receipt signature _____ Date
6. _____ Release signature _____ Method of transfer _____ Date
   _____ Receipt signature _____ Date

Each person in possession of the sample must sign and date the form twice, once for receipt of the sample and once for release.

Revised 23 October 1996, WEM.

Appendix 16: Specimen Collection Protocols for Specific Biotoxins

TABLE 5 Protocols for Specimen Collection for Biotoxins

Disease	Organism	Toxin	Vector	Tissue/Fluid	Analytical Procedure	Solubility of Toxin	Collection
Paralytic shellfish poisoning (PSP)	*Alexandrium* spp.	Saxitoxin Neosaxitoxin Gonyaitoxin Decarbamoyltoxin	Clams Mussels Zooplankton Fish Water	Stomach contents Liver	MBA RBA ELISA RIA HPLC	Water	Minimum 50 g of tissue or contents into plastic bag or bottle
Amnesic shellfish poisoning (ASP)	*Nitzschia* spp.; *Pseudonitzschia australis; Pseudonitzschia* spp.	Domoic acid Isodomoic acid Domoilactones	Mussels Clams Fish Water	Kidney Urine Serum Feces	RBA HPLC MS IP	Water	Minimum 50 g of tissue or contents into plastic bag or bottle; 5–10 ml of serum, whole blood, or urine; brain sections fixed for IP
Neurological shellfish poisoning (NSP)	*Gymnodinium breve*	Brevetoxins	Fish Shellfish Aerosols Water	Respiratory tract Liver Blubber Serum	RBA HPLC IP	Fat	Minimum 50 g of tissue or contents into plastic bag or bottle; 5–10 ml of serum; respiratory or mucosal sections fixed for IP
Ciguatera fish poisoning (CFP)	*Gambierdiscus toxicus*	Ciguatoxins Gambiertoxins	Reef fish (gonads, viscera, liver, flesh)	Liver Kidney	RIA MBA HPLC CT	Fat and water	Minimum 50 g of tissue or contents into plastic bag or bottle
Diarrhetic shellfish poisoning (DSP)	*Donophysis* spp.; *Prorocentrum lima*; *Prorocentrum concavum*	Okadaic acid Donphysistoxin	Clams Mussels	Liver Kidney	CT HPLC ELISA MBA	Fat	Minimum 50 g of tissue or contents into plastic bag or bottle

Key: CT = cellular toxicity; ELISA = enzyme-linked immunosorbent assay; HPLC = high-performance liquid chromatography; IP = immunoperoxidase; MBA = mouse bioassay; MS = mass spectroscopy; RBA = receptor-binding assay; RIA = radioimmunoassay.

Appendix 17: Seal UME Necropsy Protocol

Animal ID _____ Date _____ Initials _____

Appendix 17 UME NECROPSY REPORT: SEAL

Developed by Dr. Kathy Burek
Alaska Veterinary Pathology Services

1) If you received a sample from a community member, follow protocol in Appendix 9 Community Member Narrative and keep with this record
2) Take extensive internal and external photos following the documentation procedures in Appendix 11

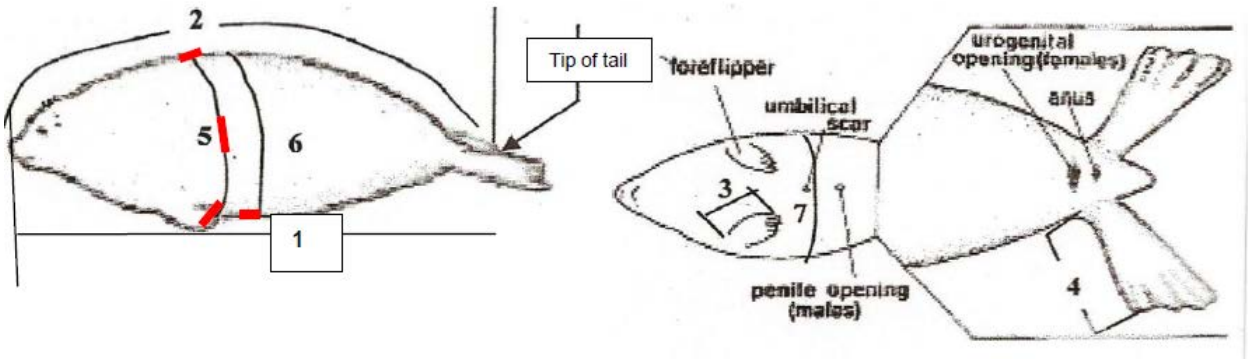
ID Number:_____Location:_____(Lat;Long)_____
Reported by: _____ Contact info:_____
Date found: _____Date recovered:_____Necropsy Date:_____
Species: _____ Age: _____ Sex: M F Unknown
Prosectors:_____Contact info:_____
Volunteers: *Please provide name, contact info, and hours worked*
_____
_____
_____
_____
Weather info:_____
Human Interaction Forms? ☐; Chain of custody forms: ☐; Level A forms filled out ☐
Brief History:

Gross Diagnoses:

MEASUREMENTS (cm unless indicated)

Weight (kg)	_____	estimate / actual (circle one)
Standard length (1)	_____	cm / inch / feet?
Curvilinear length (2)	_____	cm / inch / feet?
Skull width	_____	cm (Across zygomatic arches)
Skull length	_____	cm (From tip of nasal bone to end of foramen magnum condyles)
Girth: Axillary (flipper pit) (5)	_____	cm
Girth: maximum (6)	_____	cm
Girth:hip	_____	cm
Blubber thickness (mm) (see red marks below):		
Dorsal Axillary	_____	mm
Vent Midline axilla	_____	mm (ventral axillary midline)
Lateral at Axilla	_____	mm
Xyphoid	_____	mm

Animal ID _____ Date _____ Initials _____



EXTERNAL EXAMINATION

CARCASS CLASSIFICATION:
Code 2 Fresh
Code 3 Fair (decomposed organs intact)
Code 4 Poor (advance decomposition)
Code 5 Mummified
Was the carcass frozen ?? YES NO

BODY CONDITION:
1 Robust
2 Good
3 Average
4 Poor
5 Emaciated

GROSS NECROPSY FINDINGS:

Physical Exam (general condition, lesions, deformities, appearance, color): (See lesion form page 3.)
Primary incision (fat stores,carcass condition, etc:
Body cavities (fluid?):
Musculoskeletal (color of muscle, appearance of joint fluid:
Respiratory (foam, fluid, texture and color of lungs, parasites?)
Cardiovascular:
Lymphoid:

Animal ID _____ Date _____ Initials _____

Endocrine:
Urinary:
Liver: (bile, parasites, color, texture)
Digestive: (serosal surface, content, mucosal surface, parasites)
Reproductive: (measure (weight and LXDXH) ovaries, uterine horns, placenta if present) Right ovary _____Left ovary _____right horn _____left horn _____
Nervous / sensory:

ORGAN MEASUREMENTS: OPTIONAL (but good to do)

Adrenals:	Right : _____g	Left : _____g	**Thymus:**	_____g
Kidney	Right: _____g	Left: _____g	**Liver**	_____g
Lung	Right: _____g	Left: _____g	Placenta	_____g ___X ____X____cm
Thyroid:	Left : _____g	Right : _____g	Testes	_____g

HEART:

Mass _____g	RV mass _____ g	LV/ IVS mass _____g	RAV_____cm	PA _____cm
LAV _____cm	AoV _____cm	LV _____cm	RV _____cm	IVS _____cm

CARCASS DISPOSITION:

SAMPLES SUBMITTED IMMEDIATELY AND WHERE

Animal ID _____ Date _____ Initials _____

COMMENTS (CAUSE OF DEATH, INTERPRETATIONS):

HOW DID YOU TAKE YOUR TOXICOLOGY SAMPLES?:

Ziplocs / Foil / Acetone-cleaned Foil / Teflon / Whirlpak / I-Chem jarsOther_____

Rinsed tissues with: _____ ype of gloves (circle): latex vinyl powder-free nitrile

PLEASE DRAW ON THIS SCHEMATIC ANY AREAS OF HAIR ABNORMALITY AND ANY LESIONS.

Animal ID _____ Date _____ Initials _____

External Markings/Measurements/Lesions – Pinnipeds

DORSAL

VENTRAL

DATE_____ ACCESS NO._____ EXAMINERS_____

DESCRIPTION:_____

Animal ID _____ Date _____ Initials _____

Classification of Carcass condition:

Code	Definition	Gross Appearance	Specimen collection
1	Live		Morphometrics, blood, biopsies, urine, infectious diseases, diagnostic imaging
2	Freshly dead "edible"	No bloating; minimal drying and wrinkling of epidermis (in cetacean and manatees or dermis and epidermis in pinnipeds and otters); minimal wrinkling and change of eyes and mucous membranes; muscles firm; blubber firm and white or yellow; internal organs intact; liver still with physical integrity	All types of specimens should be collected
3	Moderate decomposition	Slight bloating with tongue and penis protruding; some skin sloughing and cracking; eyes sunken; blubber may be blood tinged; muscles soft; all internal organs including liver still have gross integrity but are soft and friable	Morphometrics, gross path, parasitology, genetics, life history, +/- histo on lesions.
4	Advanced decomposition	Bloated; missing patches of epidermis and hair; internal organs show lack of integrity and are extremely friable; blubber with gas pockets and pooled oil	Morphometrics, gross path, parasitology, genetics, life history
5	Severe decomposition	Mummified; skeletal	Limited morphometrics, age, skeletal pathology, genetics

Notes on sampling:

PHOTOS: Take lots of photos. Include the animal ID and a measuring device in the photo. Take notes on photos under the system descriptions, or photo numbers in the table. Unknowns a good thing to do is take a photo, label it unknown 1,2,3,…. And then tag a piece for histo.

Archive samples: In general put in whirlpak or cryovials (or ziplock and squeeze out all air) and freeze in as cold as possible (ultracold is best – otherwise regular freezer)

Disease samples: Try to collect as aseptically as possible. You can collect these samples first, use a fresh scalpel blade or flame clean if possible, store in whirlpak. Just do the best you can and if they are contaminated, take as big a sample as will fit in a small whirlpak.

Toxicology samples: Collect as cleanly as possible and try to rinse the blade between samples with water and high grade ethanol or isopropyl if possible. A fist size or slightly larger sample can be trimmed down to make up for any contamination in taking the sample. Put in acetone washed Teflon, foil or an I-chem jar if they can be taken cleanly. Then into a whirlpak (or ziplock if you run out of whirlpaks). Kidney and one liver samples also goes directly into a whirlpak without foil.

HABS (harmful algal bloom toxins): best samples are urine, feces, stomach content. If there is no urine, pericardial fluid is also very good. On fetuses, stomach content is very good to use. Preg female, collect amniotic fluid. Minimum of 5 ml of sample. Analyses can be done at the HAB NOAA lab in Seattle ELIZABETH FRAME KATHI LEBEVRE.

Histopathology: NO NOT FREEZE THESE SAMPLES. Samples should be in 10% neutral buffered formalin in a ratio of 1 part tissue to 10 parts formalin. If you don't have big enough containers, the formalin can be switched out after a day to help with fixation. *Samples should be 0.5 to 1 cm thick.*

Fetuses: Stomach content is an important sample in fetuses. Do all the same sample collections plus the following for stomach content: pull out some stomach content (with sterile needle and syringe), put in a few cryovials. 3-4 1 or 2 ml cryovials for culture work and 2 - 5 ml cryovials for biotoxins. If you have bacterial media or culturettes, you can take those too. These would be best to submit the swabs to the lab fresh, but if you can't, freeze at ultracold. If you don't have these sampling items, tie off the stomach and freeze in a whirlpak.

Placentas: Very valuable samples. Take formalin fixed samples, samples in whirlpaks (three 4 oz), freeze back entire if possible, if not, weigh and measure after taking samples.

Parasites: External parasites (70% ethanol-ETOH), Nematodes (70% ETOH or formalin). Put acanthocephalans in distilled water, refrigerate over night, then fix in formalin or 70% ETOH. Cestodes?

Blubber: If people are doing studies with blubber biopsies in live animals, they may want pieces of the biopsy sites. If so, take a 5cm square (skin to muscle layer) sampled from the dorsal side of animal 2-3cm to the right of the vertebral column, 2-3cm anterior to the pelvic girdle. For Toxicology, AMMTAP and archive, collect from ventral midline at the xiphoid.

Whisker: Easiest -- Freeze cheek with all whiskers intact. Or pull longest whisker on left side and put in paper envelope (SSL). These are for stable isotopes

Label each sample with Animal ID, tissue type and Date collected; DOUBLE BAG AND LABEL

Appendix 17 UME Necropsy Sample Checklist: Seal

Developed by Dr. Kathy Burek
Alaska Veterinary Pathology Services

Table 1 Code 2 Animals (fresh enough to eat!)

Tissue	UA Museum	Disease / biotoxins	Other TOX	Archive (Only if VERY FRESH)	Life HX	Fixed	Notes
Samples in yellow are PRIORITY SAMPLES; In RED are HIGH PRIORITY							
EXTERNAL							
Aqueous humor		Cryovial					
Eye		Whirlpak 4 oz				☐	
Hair			Whirlpak 4 oz x 3			EM	
Normal Skin		Whirlpak 4 oz x3 NOTE SITE			DMSO X 1	☐☐☐☐☐☐☐☐	**Sxn to take MucoC lip, eye, anus; ventral neck, dorsal midline, ventral midline, hind flips L &R**
Skin lesions		Whirl 4 oz X3 NOTE SITE; Viral media x 3; SNAP or RNAlater X3					
Whiskers	Envelope				Envelope		
Claws	Envelope				Envelope		
Oropharyngeal swabs		Dry swabx3; RNAlater X3					
Nasal swabs		Viral Media x 3; DRY x3; RNAlater X3					

Table 2 Code 2 Animals (fresh enough to eat!) Continued

Tissue	UA Museum	Disease / biotoxins	Other TOX	Archive (Only if VERY FRESH)	Life HX	Fixed	Notes
Rectal swabs		Viral Media x 3; DRY x3; RNAlater X3					
SQ TISSUES / MUSCULOSKELETAL							
Blubber (axilla/xiphoid)		Whirlpak 7 oz	Teflon or foil / 24oz Whirl	Teflon / Whirl	teflon jar	☐	
Lymph node: axillary		Whirlpak 4 oz x2				*☐	
LN Inguinal		Whirlpak 2 oz, Viral media x 2; SNAP or RNAlater X2				*☐	
Peripheral LN ABNORMAL		Whirlpak 2 oz, Viral media x2; SNAP or RNAlater X2				*☐	
Testes						☐	
Thyroid						☐	
Tongue		Whirlpak 4 oz x2				☐	

Table 3 Code 2 Animals (fresh enough to eat!) Continued

Tissue	UA Museum	Disease / biotoxins	Other TOX	Archive (Only if VERY FRESH)	Life HX	Fixed	Notes
Tonsil		Dry x3; Viral X3; Cryovial				☐	
Bone ____site		Whirlpak 4oz x 2				☐	
Muscle: Diaphragm		Whirlpak 4 ox				*☐	
Muscle: pectoral	Cryovial 2ml BLUE	Whirlpak 4 ozx2			DMSO X 1	*☐	
Muscle: PFL						*☐	
Muscle: PHL						*☐	
Muscle: epaxial					Whirlpak 4 oz	*☐	
CHEST							Do especially if no urine for HABs
Pericardial fluid (chest)		Cryo 2ml	Cryo 5 ml x3				
Pleural (chest) fluid		Cryo 2ml	Cryo 5 ml x3				
Thymus		4 oz Whirl x3				☐	

Table 4 Code 2 Animals (fresh enough to eat!) Continued

Tissue	UA Museum	Disease / biotoxins	Other TOX	Archive (Only if VERY FRESH)	Life HX	Fixed	notes
Trachea		Whirlpak 4 oz				☐	
Bone marrow (sternebra)		Whirlpak 7 oz x 2				☐	
Blood serum - or tissue fluid		2 ml Cryo X AMAP					
Blood, whole		Amies swab if sterilely done; Cryo 2ml x 3; SNAP or RNAlater X2; Tubes to spin to serum					
Lymph node: Hilar or TB		Cryovial 2mL x 2; SNAP or RNAlater X2				*☐	R and L
Lung CV		Whirlpak 4 oz x2 R,L				* ☐☐	R and L
Lung w/ bronchus		Whirlpak 4 oz x3; SNAP or RNAlater X2				* ☐☐	
Lung CdD (parasit)		Whirlpak 18oz				*☐	
Heart	Cryo 2ml RED	Whirlpak 4 oz x2; Viral x2				*☐ LV, IVS, RV	

Table 5 Code 2 Animals (fresh enough to eat!) Continued

Tissue	UA Museum	Disease / biotoxins	Other TOX	Archive (Only if VERY FRESH)	Life HX	Fixed	notes
ABDOMEN							
Bile		Cryo 2ml (If ABN) x 2	amber vial x2				
Gall bladder						*□	
Liver	Cryo 2ml	Whirlpak 4 oz x3; SNAP or RNAlater X2; Viral x3	Teflon or FOIL / Whirlpak 24 oz; Whirlpak 24 oz x 2 (HMs)	Teflon / Whirlpak 24 oz		□	
Peritoneal (belly) fluid		Cryo 2ml X 3					
Spleen	Cryo 2ml	Whirlpak 4 oz x3; SNAP or RNALater X2; Viral x3				□	
Adrenal		2mL cryovial x2				□	
Kidney	Cryo 2ml	Whirl 4 oz x2	Whirlpak 7 oz x 1 (HMs)	Teflon/ Whirlpak 24 oz (POPs)		□	
Bladder						□	
Urine		Cryo 2mL	Cryo 5ml X 3				

Table 6 Code 2 Animals (fresh enough to eat!) Continued

Tissue	UA Museum	Disease / biotoxins	Other TOX	Archive (Only if VERY FRESH)	Life HX	Fixed	notes
Reproductive							
Amniotic fluid		Cryovials x3, Viral x3; SNAP or RNAlater X3	Cryo 5ml X 3				
Uterus and ovaries		Whirl 4 oz x3; dry swab x 3			NBF (ENTIRE)	□	
Placenta		Whirl 7 oz.x3; Viral x 3; SNAP or RNAlater X3				□ x 2	
GI							
Esophagus						□	
Stom. Content		Whirlpak 7 oz	Whirlpak 7 oz		Entire in Gal ZIP		
Stomach						□	
Duodenum + Pancreas						*□	tied off in loops
Small intestine		Whirl-pak 7 oz X 2				*□ x3	

Table 7 Code 2 Animals (fresh enough to eat!) Continued

Tissue	UA Museum	Disease / biotoxins	Other TOX	Archive (Only if VERY FRESH)	Life HX	Fixed	notes
ileum						*□	
cecum						*□	
colon						*□	
Feces		Whirl x3; Viral x 3	Whirlpak 4 oz.				
LN: mesenteric		Whirl 7 oz x2				*□	
HEAD AND BRAIN							
Brain		AMIES SWAB; Whirlpak 4 ozx3; SNAP or RNAlater X2				□	in cassette
Pituitary						□	
Mandible	Zip-loc (or mandible + skull)				Zip-loc		
Skull	Zip-loc						

Table 8 Code 2 Animals (fresh enough to eat!) Continued

Tissue	UA Museum	Disease / biotoxins	Other TOX	Archive (Only if VERY FRESH)	Life HX	Fixed	notes
ADDITIONAL SAMPLES							
Other Lesions		Whirlpak 7 oz x3; Viral media x 3; SNAP or RNAlater X3				*□	

Table 9 Code 3 Animals

Tissue	UA Museum	Disease / biotoxins	Other TOX	Life HX	Fixed	notes
EXTERNAL						
Aqueous humor		Cryovial 2ml				
Eye		Whirlpak 4 oz			□	
Hair			Whirlpak 4 oz x3		EM	
Normal Skin		Whirlpak 4 oz x3 NOTE SITE		Rear flipper punch X2 in DMSO, ETOH, or freeze	□□□□□□□*	**for histopath: , eyelid, lip margin, dorsal midline,ventral midline, anus, axilla, hind flipper;**
skin mucocutneous		Whirlpak 4 oz x3				
Skin lesions		Whirlpak 4 oz X3 NOTE SITE; Viral media x3				
Whiskers	Whirlpak 4 oz			Whirlpak 4 oz		
Claws (Seals)	Whirlpak 4 oz			Whirlpak 4 oz		
Oropharyngeal swabs		Dry swabx3				
Nasal swabs		Viral Media x 3; DRY x3				
Rectal swabs		Viral Media x 3; DRY x3				
SQ TISSUES / MUSCULOSKELETAL						
Blubber (axilla/xiphoid)		Whirlpak 7 oz	Teflon / 18oz Whirl x2	teflon jar or cleaned Teflon	□	
Lymph node: axillary		Whirlpak 4 oz x2			*□	
LN ABNORMAL		Whirlpak 4 oz x2, Viral media x 3; Cryovial x2			*□	
LN Inguinal		Whirlpak 4 oz x2				
Testes					□	
Thyroid					□	

Table 10 Code 3 Animals Continued

Tissue	UA Museum	Disease / biotoxins	Other TOX	Life HX	Fixed	notes
Tissue	UA Museum	Disease / biotoxins	Other TOX	Life HX	Fixed	notes
Tongue		Whirlpak 4 oz x2			☐	
Tonsil		Dry x3; Cryovial			☐	
Bone ____site		Whirlpak 4 oz x2			☐	
Muscle: Diaphragm					*☐	
Muscle: pectoral	Cryovial 2ml - BLUE	Whirlpak 4 oz x2			*☐	
Muscle: PFL					*☐	
Muscle: PHL					*☐	
Muscle: epaxial					*☐	
CHEST						
Pericardial fluid (chest)		Cryo 2ml x2	Cryo 5 ml x2			Do especially if no urine for HABs
Pleural (chest) fluid		Cryo 2ml x2	Cryo 5 ml x2			
Thymus		Whirlpak 4 oz x3			☐	
Trachea		Whirlpak 4 oz			☐	
Bone marrow (sternebra)		Whirlpak 4 oz			☐	
Blood serum		Cryo 2ml x3				
Blood, whole		Amies x2; Cryo 2ml x2; Cent tubes to spin to serum (chicken-fat clot)				if there is a chicken fat clot, spin that for serum
Lymph node: Hilar or TB		Cryovial 2mL x2			*☐	
Lung CV		Whirlpak 4 oz x 3			* ☐☐	R and L

Table 11 Code 3 Animals Continued

Tissue	UA Museum	Disease / biotoxins	Other TOX	Life HX	Fixed	notes
Lung w/ bronchus		Whirlpak 4 oz x3			* □□	R and L
Lung CdD		Whirlpak 18oz			*□	
Heart	Cryo 2ml-RED	Whirlpak 4 oz X2			*□ LV, IVS, RV	
ABDOMEN						
Bile		Cryo 2ml (If ABN) x 2	amber vial x2			
Gall bladder					*□	
Liver	Cryo 2ml-YELLOW	Whirlpak 4 oz x3, Viral media x 3; Cryovial x2	Whirlpak 18 oz x 2 (HMs)		□	
Peritoneal (belly) fluid		Cryo 2ml x3				
Spleen	Cryo 2ml-GREY	Whirlpak 4 oz x3, Viral x3			□	
Adrenal		2mL cryovial x2			□	
Kidney	Cryo 2ml-ORANGE	Whirl 4 oz x2	Whirlpak 7 oz x 1 (HMs)		□	
Bladder					□	
Urine		Cryo 2mL	Cryo 5 mL X2			
REPRODUCTIVE						
Amniotic fluid		Cryovials x3	Cryo 5 ml x3			
Uterus and ovaries		Culturette- amies x2; DRYx2; Whirl 4 ozx3		NBF (ENTIRE)	□	
Placenta		Whirlpak 4 oz x3, Viral x3			□ x 2	
GI						
Esophagus					□	
Stom. Content		Whirlpak 7 oz	Whirlpak 7 oz	Entire in Gal ZIP		

Table 12 Code 3 Animals Continued

Tissue	UA Museum	Disease / biotoxins	Other TOX	Life HX	Fixed	notes
Stomach					☐	
Duodenum + Pancreas					*☐	
Small intestine		Whirlpak 4 oz x3 tied off in loops			*☐	
ileum					*☐	
cecum					*☐	
colon					*☐	
Feces		Whirl 4 oz or cryos x3	Whirlpak 4 oz or 5 ml cryovial			
LN: mesenteric		Whirl 4 oz x2			*☐	
HEAD AND BRAIN						
Brain		Amies x2; Whirlpak 4 oz x 3			☐	
Pituitary					☐	in cassette
Mandible	Zip-loc (or mandible + skull)			Zip-loc		
Skull	Zip-loc					
ADDITIONAL SAMPLES						
Lesions		Whirlpak 7 oz x3, Amies swab; Viral media x 3			*☐	
* = Samples requiring a histo tag						
Samples in yellow are PRIORITY SAMPLES						

Table 13 Code 4 Animals

Tissue	UA Museum	Disease / biotoxins	Other TOX	Life HX	Fixed	Notes
EXTERNAL						
Hair			Whirl-pak 7 oz			
Whiskers	Envelope			Envelope		
Claws (Seals)	Envelope			Envelope		
Skin				DMSO X 1		
Skin lesions		Whirl-pak 7 oz			*□	Note Site
SQ and MUSCULOSKELETAL						
Blubber (axilla/xiphoid)			Teflon / Whirl-pak			
Muscle: pectoral	Cryo 2ml			DMSO X 1		
CHEST						
Pericardial fluid (chest)			Cryo 5 ml			
Heart	Cryo 2ml					
Chest Lesions		Whirl-pak 7 oz			*□	
ABDOMEN						
Abdominal Lesions		Dry swab in 2 mL cryo			*□	
Liver	Cryo 2ml		Whirl-pak 18 oz			
Spleen	Cryo 2ml					
Kidney	Cryo 2ml		Whirl-pak 18 oz			
Urine			Cryo 5 ml x 2			
REPRO						
REPRO lesions		Dry swab in 2 mL cryo			□	
Amniotic fluid			Cryo 5 mL			
Uterus and ovaries		Cryovial 2mL with dry swab if ABN		NBF (ENTIRE)	□	

Table 14 Code 4 Animals Continued

Tissue	UA Museum	Disease / biotoxins	Other TOX	Life HX	Fixed	Notes
GI						
GI lesions		Dry swab in 2 mL cryo			*□	
Stom. Content			Whirl-pak 7 oz	Entire in garbage bag		
Feces		Whirl-pak 7 oz X 2	Whirl-pak 7 oz			
HEAD AND BRAIN						
Mandible	Zip-loc (or mandible + skull)			Zip-loc		
ADDITIONAL SAMPLES						
ABN LN: _____		Whirl-pak 7 oz			*□	
* = Samples requiring a histo tag						
Samples in yellow are PRIORITY SAMPLES						

Table 15 Code 5 Animals

Tissue	UA Museum	Other TOX	Life HX	notes
EXTERNAL				
Whiskers	envelope		Envelope	
Claws (Seals)	envelope		Envelope	
Teeth; UI; If not collecting mandible or skull)			Envelope	
Skin			DMSO X 2	
Muscle: pectoral	Cryo 2ml			
CHEST				
Pericardial fluid (chest)		Cryo 5 ml		
Heart	Cryo 2ml			
ABDOMEN				
Liver	Cryo 2ml	Whirl-pak 18 oz		
Kidney	Cryo 2ml	Whirl-pak 18 oz		
Spleen	Cryo 2ml			
Urine		Cryo 5 ml X 2		
Repro				
Uterus and ovaries				
Amniotic fluid		Cryo 5 ml		
GI				
Stom. Content		Whirl-pak 7 oz	Entire in garbage bag	
Feces		Whirl-pak 7 oz		
HEAD AND BRAIN				
Mandible	Zip-loc (or mandible + skull)		Zip-loc	
ADDITIONAL SAMPLES				
Lesions	Consider histo and bag for lesions.			
Samples in yellow are PRIORITY SAMPLES				

Appendix 18: Baleen Whale UME Necropsy Protocol

Animal Field ID _____ Date _____ Initials _____

Appendix 18 UME NECROPSY REPORT: BALEEN CETACEAN

Developed by Dr. Kathy Burek
Alaska Veterinary Pathology Services

1) If you received a sample from a community member, follow protocol in Appendix 9 Community Member Narrative and keep with this record
2) Take extensive internal and external photos following the documentation procedures in Appendix 11

ID Number:_____
Location:_____(Lat;Long)_____
Reported by: _____ Contact info:_____
Date found: _____Date recovered:_____Necropsy Date:_____
Species: _____ Age: _____ Sex: M F Unknown
Prosectors:_____Contact info:_____
Weather info:_____
Human Interaction Forms? ☐; Chain of custody forms:_☐; Level A forms filled out ☐
BRIEF HISTORY:

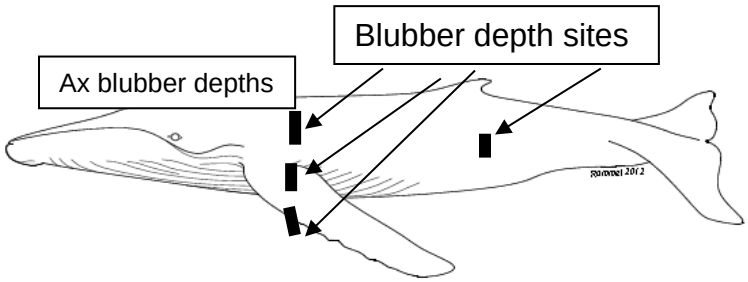
GROSS DIAGNOSIS:

MEASUREMENTS (cm unless indicated)

Basic Measurements	**Value**	**Basic Measurements***	**Value**
Total length (9)		Skin thickness	
Girth at axilla (17ax)		Blubber thickness, dorsal bdf **(w/o skin)** straight down from caudal end of dorsal ridge, 45° from spine.	
Girth, anus (17an)		Blubber thickness, dorsal midline Axillary **(w/o skin)**	
Fluke width (15)		Blubber thickness, ventral midline Axillary **(w/o skin)**	
		Blubber thickness, lateral Axillary, **(w/o skin)**	

Animal Field ID _____ Date _____ Initials _____

*see diagram below for more extensive measurements



EXTERNAL EXAMINATION (CIRCLE)

CARCASS CLASSIFICATION:
Code 2 Fresh
Code 2.5 mild decomposition
Code 3 moderate (decomposed organs intact)
Code 4 Poor (advance decomposition)
Code 5 Mummified

BODY CONDITION:
1 Robust
2 Good
3 Average
4 Poor
5 Emaciated

GROSS NECROPSY FINDINGS:

PHYSICAL EXAM (general condition, lesions, deformities, appearance, color):
SQ: (fat stores,carcass condition, etc):
BODY CAVITIES (FLUID?): is there fat in the mesenteries? Fat around the kidneys?
MUSCULOSKELETAL (color of muscle, appearance of joint fluid:

Animal Field ID _____ Date _____ Initials _____

RESPIRATORY (foam, fluid, texture and color of lungs, parasites? – don't forget the sinuses and blowhole). Is the fat band at the back of the lungs thick?
CARDIOVASCULAR:
ENDOCRINE: **Adrenals:** **Thyroid:**
URINARY:
LIVER: (bile, parasites, color, texture)
DIGESTIVE: (serosal surface, content, mucosal surface, parasites): TEETH PHOTO
REPRODUCTIVE:

Animal Field ID _____ Date _____ Initials _____

CARCASS DISPOSITION:

SAMPLES SUBMITTED IMMEDIATELY AND WHERE

ANCILLARY DIAGNOSTICS:
Photos ☐ Radiographs/X-ray ☐ CT scan; ☐ MRI; ☐Other Imaging _____
Where taken / stored?

COMMENTS (CAUSE OF DEATH- WHAT DO YOU THINK HAPPENED?):

HUMAN INTERACTION SAMPLES: BULLETS / FISHING GEAR / OTHER:

HOW DID YOU TAKE YOUR TOXICOLOGY SAMPLES?:
Circle: Ziplocs / Foil / Acetone-cleaned Foil / Teflon / Whirlpak / I-Chem jars
Other_____ Rinsed tissues with: _____
Type of gloves (circle): latex vinyl powder-free nitrile

Appendix 18 UME Necropsy Sample Checklist: Baleen Whale

Table 1 Code 2 Baleen Whales

Tissue	UAM	DZ	Biotoxins	TOX	;	Life HX	Fixed	notes
EXTERNAL								
Blowhole		Culturette - Amies; Dry swab in 2 mL cryovial x 2; culturette - viral						
Skin		Whirl-pak 7 oz				Bottle x 2	☐	
Skin lesions		Whirl-pak 7 oz					☐	(humpbacks)
Rostral Tubercles		Whirl-pak 7 oz					☐	(humpbacks)
Cyamids		Whirl-pak 7 oz					☐	(humpbacks)
Aqeuous humor		Cryovial 2 ml						
Eye						Whirl-pak 18 oz	☐	

Table 2 Code 2 Baleen Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	;	Life HX	Fixed	Notes
ORAL CAVITY								
Tongue		Whirl-pak 18 oz					☐	
Tonsil		Whirl-pak; Culturette - Amies; Dry swab in 2 mL cryovial; Culturette - viral					☐	
Acoustic Fat Pad						Whirl-pak 18 oz	☐	
Baleen	zip-loc gallon					zip-loc gallon		
SQ TISSUES								
Blubber		Whirl-pak 18 oz		Foil / Whirlpak			☐	
Blubber BDF				Foil / Whirlpak	Teflon / Whirlpak			
LN Prescapular		Whirl-pak 7 oz					☐	
Muscle Sterno						Whirl-pak 7 oz	☐	
Muscle Epaxial	Cryovial - 2 ml Color	Whirl-pak 7 oz		Whirl-pak 7 oz		Whirl-pak 7 oz	☐	
Bone marrow						Whirl-pak 7 oz	☐	
Bone		Whirl-pak 18 oz						

Table 3 Code 2 Baleen Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	;	Life HX	Fixed	Notes
CHEST								
Pleural fluid		Cryovial 2 ml						
Pericardial Fluid		Cryovial 2 ml	Cryovial 5 ml X2					
Thymus		Whirl-pak 7 oz					☐	
Serum		Cryovial 2 ml X 3						
Whole Blood		Culturette - Amies; Cryovial 2 mL						
LN Hilar		Whirl-pak 7 oz					☐	
Lung - Entire (beluga only)		garbage bag						
Lung Peripheral		Whirl-pak 7 oz					☐	
Lung w/ Bronchus		Whirl-pak 7 oz					☐	
Trachea		Whirl-pak 7 oz					☐	
Heart	Cryovial - 2 ml Color	Whirl-pak 7 oz		Whirl-pak 7 oz			☐	

Table 4 Code 2 Baleen Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	;	Life HX	Fixed	Notes
ABDOMEN								
Liver	Cryovial - 2 ml Color	Whirl-pak 11 oz		Foil / Whirlpak; Whirl-pak 18 oz	Teflon		☐	
Bile				Cryovial 2 ml				
Spleen	Cryovial - 2 ml Color	Whirl-pak 7 oz; Culturette - Amies; Dry swab in 2 mL cryovial x 2; Culturette - viral					☐	
Adrenal Gland		Whirl-pak 7 oz					☐	
Urine			Cryovial 5 ml X2					
Kidney	Cryovial - 2 ml Color	Whirl-pak 18 oz		Whirl-pak 18 oz; Foil/Whirlpak	Teflon / Whirlpak		☐	

Table 5 Code 2 Baleen Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	;	Life HX	Fixed	Notes
REPRODUCTIVE TRACT								
Testes (Int)		Whirl-pak 7 oz					☐	
Amnionic Fluid		Cryovial 2 ml	Cryovial 5 ml X2					
Uterus		Culturette- amies; Cryovial 2mL with dry swab					☐	
Ovaries							☐	
Placenta		Whirl-pak 18 oz X 3					☐	
GI TRACT								
Stomach Contents		Whirl-pak 4 oz	Whirl-pak 4 oz			Zip-loc 2 gallon	☐	
Jejunum		Whirl-pak 18 oz x 2					☐	
LN Mesenteric		Whirl-pak 7 oz					☐	
Colon		Whirl-pak 18 oz						
Feces		Whirl-pak 7 oz X 3						
GI cary Blair Swab		Culturette - Cary-Blair X 2						
GI dry Swab		Cryovial 2 ml - dry swab X 2						
GI viral swab		culturette - viral						

Table 6 Code 2 Baleen Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	;	Life HX	Fixed	Notes
SKULL / HEAD								
Ear plug (both)						15% NBS and then 10%		
Brain		Whirl-pak 7 oz; Culturette - Amies; Cryovial 2 mL dry swab x 2; Culturette - viral		Foil / Whirlpak			☐	
Tympanic bullae						NBS Jar		
Spinal Cord		Whirl-pak 7 oz					☐	
ADDITIONAL SAMPLES								
lesion Amies Swab		Culturette - Amies						
lesion Amies Swab		Culturette - Amies						
lesion dry Swab		Cryovial 2 ml - dry swab						
lesion dry Swab		Cryovial 2 ml - dry swab						
lesion viral Swab		culturette - viral						
Lesions		Whirl-pak 7 oz					☐	
LN		Whirl-pak 7 oz						

Table 7 Code 3 Baleen Whales

Tissue	UAM	DZ	Biotoxins	TOX	Life HX	Fixed	Comment
EXTERNAL							
Blowhole		Cryovial 2 ml - dry swab X 2					
Skin		Whirl-pak 7 oz			Bottle x 2	☐	
Skin lesions		Whirl-pak 7 oz				☐	(humpbacks)
Rostral Tubercles		Whirl-pak 7 oz				☐	(humpbacks)
Cyamids		Whirl-pak 7 oz				☐	(humpbacks)
Eye					Whirl-pak 18 oz	☐	
Tongue		Whirl-pak 18 oz				☐	
Acoustic Fat Pad					Whirl-pak 18 oz	☐	
Mandible	zip-loc gallon				zip-loc gallon		

Table 8 Code 3 Baleen Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	Life HX	Fixed	Comment
SQ TISSUES							
Blubber		Whirl-pak 18 oz		Foil / Whirlpak		☐	
Blubber BDF				Foil / Whirlpak			
Muscle Epaxial	Cryovial - 2 ml Color			Whirl-pak 7 oz		☐	
CHEST							
Pericardial Fluid			Cryovial 5 ml				
Pericardial Fluid			Cryovial 5 ml				
Whole Blood		Culturette - Amies					
LN Hilar		Whirl-pak 7 oz				☐	
Lung Peripheral		Whirl-pak 7 oz				☐	
Lung w/ Bronchus		Whirl-pak 7 oz				☐	
Heart	Cryovial - 2 ml Color	Whirl-pak 7 oz		Whirl-pak 7 oz		☐	

Table 9 Code 3 Baleen Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	Life HX	Fixed	Comment
ABDOMEN							
Liver	Cryovial - 2 ml Color	Whirl-pak 11 oz, Whirl-pak 7 oz		Foil / Whirlpak		☐	
Spleen	Cryovial - 2 ml Color	Whirl-pak 7 oz ; Cryovial 2 ml - dry swab X 2				☐	
Urine			Cryovial 5 ml X 2				
Kidney	Cryovial - 2 ml Color			Whirl-pak 11 oz; Foil /Whirlpak			
REPRODUCTIVE TRACT							
Testes (Int)		Whirl-pak 7 oz				☐	
Amnionic Fluid		Cryovial 2 ml	Cryovial 5 ml x 2				
Uterus		Culturette-amies; Cryvial 2mL dry swab				☐	
Ovaries						☐	
Placenta		Whirl-pak 18 oz X 3				☐	

Table 10 Code 3 Baleen Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	Life HX	Fixed	Comment
GI TRACT							
Stomach Contents		Whirl-pak 4 oz X 2			Zip-loc 2 gallon		
LN Mesenteric		Whirl-pak 7 oz				☐	
Feces		Whirl-pak 7 oz	Whirl-pak 7 oz				
SKULL / HEAD							
Ear plug					15% NBS and then 10%		
Brain		Cryovial 2 ml - dry swab X 2				☐	
Tympanic bullae					NBS Jar		
Spinal Cord		Whirl-pak 7 oz				☐	
ADDITIONAL SAMPLES							
Lesions		Whirl-pak 7 oz				☐	
LN		Whirl-pak 7 oz					

Table 11 Code 4 Baleen Whales

Tissue	UAM	DZ	Biotoxins	TOX	Life HX	Fixed	Comment
EXTERNAL							
Skin		Whirl-pak 7 oz			Bottle x 2		
Skin lesions		Whirl pack				☐	(humpbacks)
Rostral Tubercles						☐	(humpbacks)
Cyamids						☐	(humpbacks)
Eye					Whirl-pak 18 oz		
Acoustic Fat Pad					Whirl-pak 18 oz		
Mandible	zip-loc gallon				zip-loc gallon		
SQ TISSUES							
Blubber BDF				Foil / Whirlpak			
CHEST							
Pericardial Fluid			Cryovial 5 ml X 2				
Heart	Cryovial - 2 ml Color						

Table 12 Code 4 Baleen Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	Life HX	Fixed	Comment
ABDOMEN							
Liver	Cryovial - 2 ml Color			Whirl-pak 18 oz			
Spleen	Cryovial - 2 ml Color						
Urine			Cryovial 5 ml X 2				
Kidney	Cryovial - 2 ml Color			Whirl-pak 11 oz			
REPRODUCTIVE TRACT							
Testes (Int)		Whirl-pak 7 oz					
Placenta		Whirl-pak 18 oz X 2					
GI TRACT							
Stomach Contents		Whirl-pak 4 oz			Zip-loc 2 gallon		
Feces		Whirl-pak 7 oz					
SKULL / HEAD							
Ear plug						15% NBS and then 10%	
Tympanic bullae						NBS Jar	
ADDITIONAL SAMPLES							
Lesions		Whirl-pak 7 oz				☐	

Table 13 Code 5 Baleen Whales

Tissue	UAM	DZ	Biotoxins	TOX	Life HX	Fixed
EXTERNAL						
Skin					Bottle x 2	
Eye					Whirl-pak 18 oz	
Mandible	zip-loc gallon				zip-loc gallon	
SQ TISSUES						
CHEST						
Heart	Cryovial - 2 ml Color					
ABDOMEN						
Liver	Cryovial - 2 ml Color			Whirl-pak 18 oz		
Spleen	Cryovial - 2 ml Color					
Kidney	Cryovial - 2 ml Color			Whirl-pak 18 oz		
REPRODUCTIVE TRACT						
GI TRACT						
Stomach Contents		Whirl-pak 4 oz				
SKULL / HEAD						
Ear plug					15% NBS and then 10%	
Tympanic bullae					10% NBS jar	
ADDITIONAL SAMPLES						
Lesions		Whirl-pak 7 oz				☐

Appendix 19: Toothed Whale UME Necropsy Protocol

Animal Field ID __ __ Date _____ Initials _____

Appendix 19 UME NECROPSY REPORT: TOOTHED WHALE

Developed by Dr. Kathy Burek
Alaska Veterinary Pathology Services

1) If you received a sample from a community member, follow protocol in Appendix 9 Community Member Narrative and keep with this record
2) Take extensive internal and external photos following the documentation procedures in Appendix 11

ID Number:_____
Location:_____(Lat;Long)_____
Reported by: _ _____ Contact info:_____
Date found: __Date recovered:_____Necropsy Date:_____
Species: _____ Age: _____ Sex: M F Unknown
Prosectors:_____Contact info:_____
Weather info:_____
Human Interaction Forms? ☐; Chain of custody forms:_☐; Level A forms filled out ☐
BRIEF HISTORY:

GROSS DIAGNOSIS:

MEASUREMENTS (cm unless indicated)

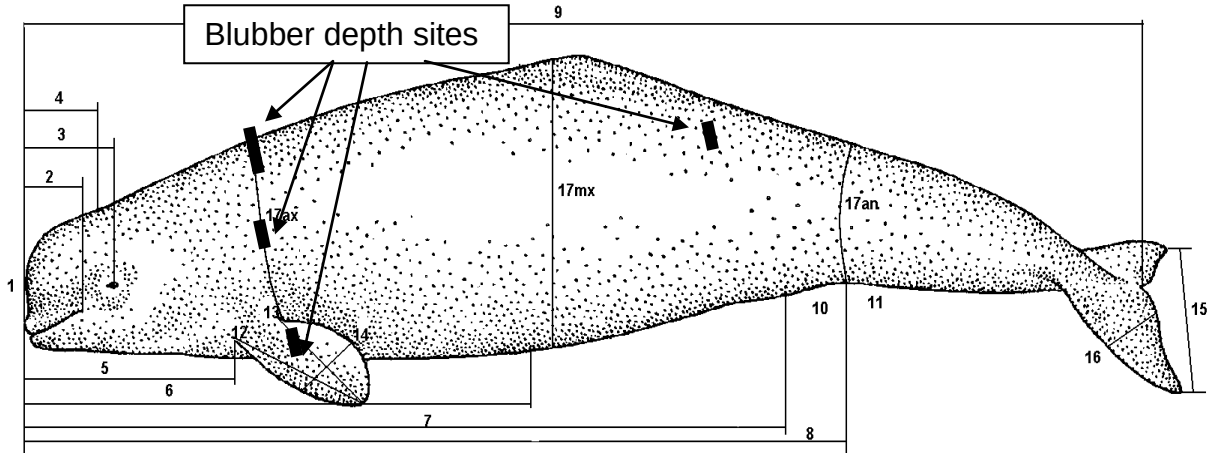
Tooth count: Total _____ UpL _____ Up R _____ Low L _____ Low R_____

Diameter / length largest tooth

Basic Measurements	**Value**	**Basic Measurements***	**Value**
Total length (9)		Skin thickness	
Estimated weight?		Blubber thickness, dorsal bdf **(w/o skin)** straight down from caudal end of dorsal ridge, 45° from spine.	
Girth at axilla (17ax)		Blubber thickness, dorsal midline Axillary **(w/o skin)**	
Girth, anus (17an)		Blubber thickness, ventral midline Axillary **(w/o skin)**	
Fluke width (15)		Blubber thickness, lateral Axillary, **(w/o skin)**	

Animal Field ID __ __ Date _____ Initials _____

*see diagram below for more extensive measurements.



EXTERNAL EXAMINATION (CIRCLE)

CARCASS CLASSIFICATION:
Code 2 Fresh
Code 2.5 mild decomposition
Code 3 moderate (decomposed organs intact)
Code 4 Poor (advance decomposition)
Code 5 Mummified

BODY CONDITION:
1 Robust
2 Good
3 Average
4 Poor
5 Emaciated

GROSS NECROPSY FINDINGS:

PHYSICAL EXAM Draw on documents below. My Apologies for the art!
PHOTO of Overall Left lateral _____ Right lateral _____ Dorsal _____ Ventral _____
Dorsal Ridge _____Flank fullness _____ Cd-R Tail shot" _____ Fluke shot _____
Open mouth shot _____

SQ:

BODY CAVITIES (FLUID?): is there fat in the mesenteries? Fat around the kidneys?

Animal Field ID __ __ Date _____ Initials _____

MUSCULOSKELETAL (color of muscle, appearance of joint fluid:
RESPIRATORY (foam, fluid, texture and color of lungs, parasites? – don't forget the sinuses and blowhole). Is the fat band at the back of the lungs thick?
CARDIOVASCULAR:
ENDOCRINE: Adrenal gland, ,thyroid and pituitary
URINARY: is there fat around the kidneys?
LIVER: (bile, parasites, color, texture)
LYMPHOID: Lymph nodes: **Spleen:** **Thymus:**

Animal Field ID __ __ Date _____ Initials _____

DIGESTIVE: (serosal surface, content, mucosal surface, parasites): TEETH PHOTO
REPRODUCTIVE: (measure (weight and LXDXH) ovaries, uterine horns, placenta if present):
NERVOUS SYSTEM:

CARCASS DISPOSITION:

SAMPLES SUBMITTED IMMEDIATELY AND WHERE

ANCILLARY DIAGNOSTICS:
Photos ☐ Radiographs/X-ray ☐ CT scan; ☐ MRI; ☐Other Imaging _____
Where taken / stored?

COMMENTS (CAUSE OF DEATH, INTERPRETATIONS):

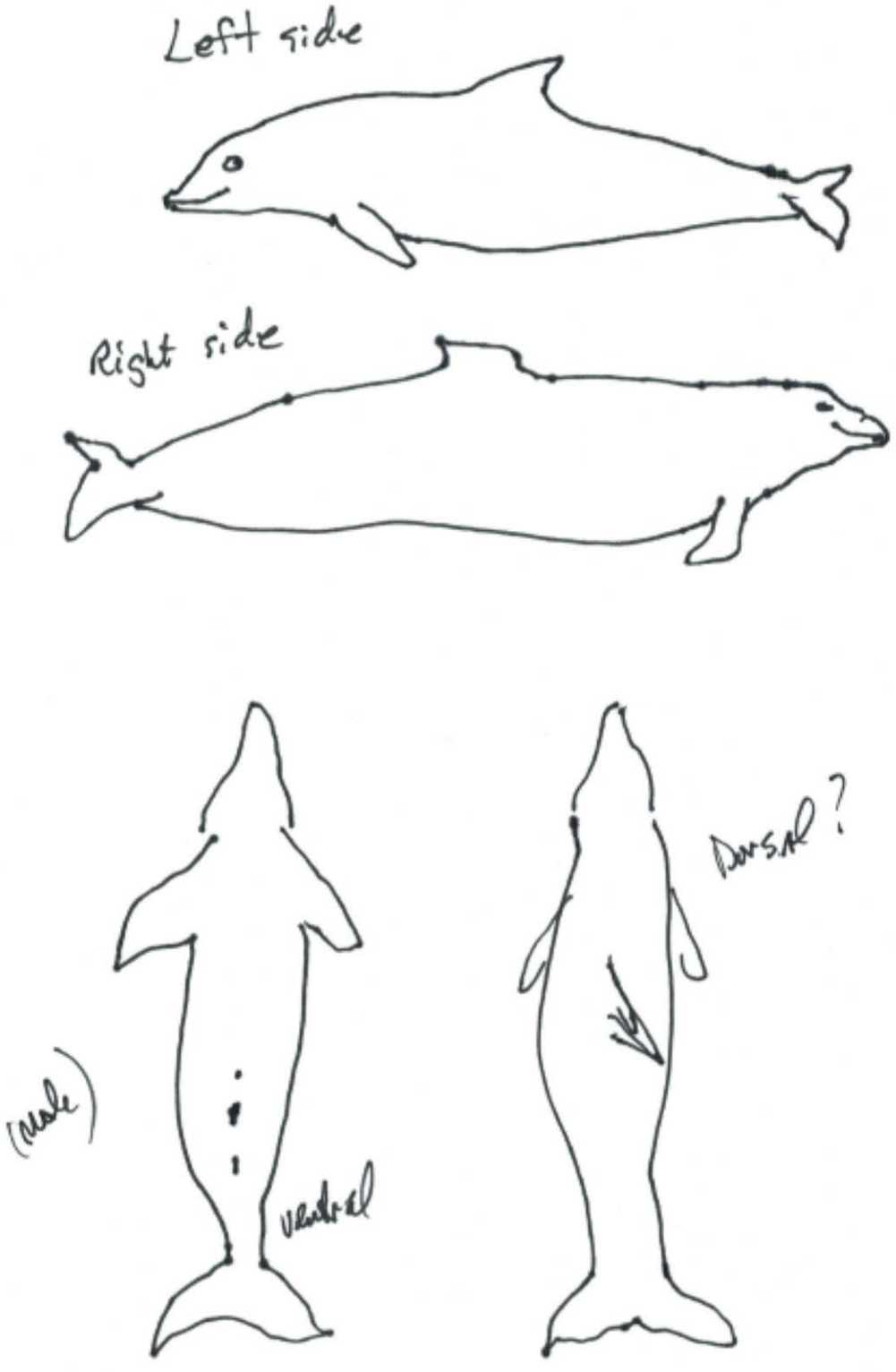
Animal Field ID __ __ Date _____ Initials _____

HUMAN INTERACTION SAMPLES: BULLETS / FISHING GEAR / OTHER:

HOW DID YOU TAKE YOUR TOXICOLOGY SAMPLES?:

Circle: Ziplocs / Foil / Acetone-cleaned Foil / Teflon / Whirlpak / I-Chem jars
Other_____ Rinsed tissues with: _____
Type of gloves (circle): latex vinyl powder-free nitrile

Animal Field ID __ __ Date _____ Initials _____



Apologies for the" art". Please note on the documents areas of skin lesions / trauma / where samples were taken.

Animal Field ID __ __ Date ____________ Initials _______________

Receipt signature:________________ Receipt date:________________
Print name/agency:________________
Release signature: ________________ Release date:________________
Method of transfer to next person:________________

Receipt signature:________________ Receipt date:________________
Print name/agency:________________
Release signature: ________________ Release date:________________
Method of transfer to next person:________________

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Print name/agency:________________
Release signature: ________________ Release date:________________
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Method of transfer to next person:________________

Receipt signature:________________ Receipt date:________________
Print name/agency:________________
Release signature: ________________ Release date:________________
Method of transfer to next person:________________

Appendix 19 UME Necropsy Checklist: Toothed Whale

Developed by Dr. Kathy Burek
Alaska Veterinary Pathology Services

Table 1 Code 2 Toothed Whales

Tissue	UAM	DZ	Biotoxins	TOX	Archive	Life HX	Fixed (NBF)
EXTERNAL							
Blowhole		Culturette - Amies dry swab X2; culturette - viral					
Skin		Whirl-pak 7 oz				DMSO X2	☐
Aqeuous humor		Cryovial 2 ml					
Eye						Whirl-pak 18 oz	☐
ORAL CAVITY							
Tongue		Whirl-pak 18 oz					☐
Tonsil		Whirl-pak 7 oz Culturette - Amies dry swab X2; culturette - viral					☐
Acoustic Fat Pad						Whirl-pak 18 oz	☐
Mandible or teeth	zip-loc gallon or paper envelope					zip-loc gallon or paper envelope	

Table 2 Code 2 Toothed Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	Archive	Life HX	Fixed (NBF)
SQ TISSUES / MUSCULOSKELETAL							
Blubber DAX, LAX VAX (Circle one)		Whirl-pak 18 oz					☐
				Foil / Whirlpak			☐
Blubber BDF				Foil / Whirlpak	Teflon / Whirlpak		
LN Prescapular		Whirl-pak 7 oz					☐
Muscle Sterno						Whirl-pak 7 oz	☐
Muscle Epaxial	Cryovial - 2 ml Color	Whirl-pak 7 oz		Whirl-pak 7 oz		Whirl-pak 7 oz	☐
Bone		Whirl-pak 18 oz					
CHEST							
Pleural fluid		Cryovial 2 ml					
Pericardial Fluid		Cryovial 2 ml	Cryovial 5 ml X 2				
Thymus		Whirl-pak 7 oz					☐
Serum		Cryovial 2 ml X 3					

Table 3 Code 2 Toothed Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	Archive	Life HX	Fixed (NBF)
Whole Blood		Culturette - Amies Cryovial 2 ml					
LN Hilar		Whirl-pak 7 oz					☐
Lung Peripheral		Whirl-pak 7 oz X2					☐
Lung w/ Bronchus		Whirl-pak 7 oz					☐
Trachea		Amies swab Dry swab in cryo X2 Viral media swab					☐
Heart	Cryovial - 2 ml Color	Whirl-pak 7 oz		Whirl-pak 7 oz			☐
ABDOMEN							
Liver	Cryovial - 2 ml Color	Whirl-pak 11 oz		Foil / Whirlpak Whirl-pak 18 oz	Teflon / Whirlpak		☐
Bile				Cryovial 2 ml			
Spleen	Cryovial - 2 ml Color	Whirl-pak 7 oz Culturette - Amies dry swab X2; culturette - viral					☐
Adrenal Gland		Whirl-pak 7 oz					☐
Urine			Cryovial 5 ml X2				

Table 4 Code 2 Toothed Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	Archive	Life HX	Fixed (NBF)
Kidney	Cryovial - 2 ml Color	Whirl-pak 18 oz		Whirl-pak 18 oz (HMs) Foil / Whirlpak (POPS)	Teflon / Whirlpak		☐
REPRODUCTIVE TRACT							
Testes (Int)		Whirl-pak 7 oz					☐
Amnionic Fluid		Cryovial 2 ml	Cryovial 5 ml X2				
Uterus		Culturette- amies Cryovial 2mL with dry swab					☐
Ovaries							☐
Placenta		Whirl-pak 18 oz X 3					☐
GI TRACT							
Stomach Contents		Whirl-pak 4 oz	Whirl-pak 4 oz			Zip-loc 2 gallon	
Jejunum		Whirl-pak 18 oz X2					x3 ☐
LN Mesenteric		Whirl-pak 7 oz					☐
Colon		Whirl-pak 18 oz					

Table 5 Code 2 Toothed Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	Archive	Life HX	Fixed (NBF)
Feces		Whirl-pak 7 oz Culturette - Cary-Blair X 2 Cryovial 2 ml - dry swab X 2 culturette - viral	Whirl-pak 7 oz				
SKULL / HEAD							
Brain		Whirl-pak 7 oz Culturette - Amies dry swab X2; culturette - viral		Foil / Whirlpak			☐
Tympanic bullae						NBF Jar	
Spinal Cord		Whirl-pak 7 oz					☐
ADDITIONAL SAMPLES							
Lesions		Whirl-pak 7 oz Culturette - Cary-Blair X 2 Cryovial 2 ml - dry swab X 2 culturette - viral					☐

Table 6 Code 3 Toothed Whales

Tissue	UAM	DZ	Biotoxins	TOX	Life HX	Fixed	COMMENTS
EXTERNAL							
Blowhole		Cryovial 2 ml - dry swab X 2					
Skin		Whirl-pak 7 oz			DMSO X2	☐	
Eye					Whirl-pak 18 oz	☐	
Tongue		Whirl-pak 18 oz				☐	
Acoustic Fat Pad					Whirl-pak 18 oz	☐	
Mandible or teeth	zip-loc gallon or paper envelope				zip-loc gallon or paper envelope		
SQ TISSUES / MUSCULOSKELETAL							
Blubber		Whirl-pak 18 oz		Foil / Whirlpak		☐	
Blubber BDF				Foil / Whirlpak			
Muscle Epaxial	Cryovial - 2 ml Color			Whirl-pak 7 oz		☐	

Table 7 Code 3 Toothed Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	Life HX	Fixed	COMMENTS
CHEST							
Pericardial Fluid			Cryovial 5 ml X2				
Whole Blood		Culturette - Amies					
LN Hilar		Whirl-pak 7 oz				☐	
Lung Peripheral		Whirl-pak 7 oz				☐	
Lung w/ Bronchus		Whirl-pak 7 oz				☐	
Heart	Cryovial - 2 ml Color	Whirl-pak 7 oz		Whirl-pak 7 oz		☐	
ABDOMEN							
Liver	Cryovial - 2 ml Color	Whirl-pak 11 oz		Foil / Whirlpak		☐	
Spleen	Cryovial - 2 ml Color	Whirl-pak 7 oz Cryovial 2 ml - dry swab X 2				☐	
Urine			Cryovial 5 ml X 2				

Table 8 Code 3 Toothed Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	Life HX	Fixed	COMMENTS
Kidney	Cryovial - 2 ml Color			Whirl-pak 11 oz (HMs) Foil / Whirlpak (POPs)			
REPRODUCTIVE TRACT							
Testes (Int)		Whirl-pak 7 oz				☐	
Amnionic Fluid		Cryovial 2 ml	Cryovial 5 ml x 2				
Uterus		Culturette- amies Cryvial 2 mL dry swab				☐	
Ovaries						☐	
Placenta		Whirl-pak 18 oz X 3				☐	
GI TRACT							
Stomach Contents			Whirl-pak 4 oz X 2		Zip-loc 2 gallon		
LN Mesenteric		Whirl-pak 7 oz				☐	
Feces		Whirl-pak 7 oz	Whirl-pak 7 oz				

Table 9 Code 3 Toothed Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	Life HX	Fixed	COMMENTS
SKULL / HEAD							
Brain		Cryovial 2 ml - dry swab X 2				☐	
Spinal Cord		Whirl-pak 7 oz				☐	
ADDITIONAL SAMPLES							
Lesions		Whirl-pak 7 oz Cryovial 2 ml - dry swab X 2 Viral media swab				☐	
Abnormal LN		Whirl-pak 7 oz Cryovial 2 ml - dry swab X 2 Viral media swab					

Table 10 Code 4 Toothed Whales

Tissue	UAM	DZ	Biotoxins	TOX	Life HX	Fixed (NBF)	COMMENTS
EXTERNAL							
Skin		Whirl-pak 7 oz					
					Bottle		
					Bottle		
Eye					Whirl-pak 18 oz		
Acoustic Fat Pad					Whirl-pak 18 oz		
Mandible or teeth	zip-loc gallon or paper envelope				zip-loc gallon or paper envelope		
SQ TISSUES							
Blubber BDF				Foil / Whirlpak			
CHEST							
Pericardial Fluid			Cryovial 5 ml X 2				
Heart	Cryovial - 2 ml Color						
ABDOMEN							
Liver	Cryovial - 2 ml Color						
				Whirl-pak 18 oz			

Table 11 Code 4 Toothed Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	Life HX	Fixed (NBF)	COMMENTS
Spleen	Cryovial - 2 ml Color						
Urine			Cryovial 5 ml X 2				
Kidney				Whirl-pak 11 oz			
	Cryovial - 2 ml Color						
REPRODUCTIVE TRACT							
Testes (Int)		Whirl-pak 7 oz					
Placenta		Whirl-pak 18 oz X 2					
GI TRACT							
Stomach Contents			Whirl-pak 4 oz		Zip-loc 2 gallon		
Feces			Whirl-pak 7 oz				
SKULL / HEAD							
Tympanic bullae					NBS Jar		
ADDITIONAL SAMPLES							
Lesions		Whirl-pak 7 oz				☐	

Table 12 Code 5 Toothed Whales

Tissue	UAM	DZ	Biotoxins	TOX	Life HX	Fixed	COMMENTS
EXTERNAL							
Skin					Bottle		
					Bottle		
Eye					Whirl-pak 18 oz		
Mandible or teeth	zip-loc gallon or paper envelope				zip-loc gallon or paper envelope		
SQ TISSUES							
CHEST							
Heart	Cryovial - 2 ml Color						
ABDOMEN							
Liver	Cryovial - 2 ml Color			Whirl-pak 18 oz			
Spleen	Cryovial - 2 ml Color						
Kidney	Cryovial - 2 ml Color			Whirl-pak 18 oz			
REPRODUCTIVE TRACT							
GI TRACT							
Stomach Contents			Whirl-pak 4 oz				

Table 13 Code 5 Toothed Whales Continued

Tissue	UAM	DZ	Biotoxins	TOX	Life HX	Fixed	COMMENTS
Feces			Whirl-pak 4 oz				
SKULL / HEAD							
Tympanic bullae					NBF Jar		
ADDITIONAL SAMPLES							
Lesions		Whirl-pak 7 oz				☐	

Appendix 20: Equipment and Supplies for a Single Necropsy

EQUIPMENT AND SUPPLIES FOR A SINGLE NECROPSY

1. Clipboard, metal
2. Necropsy Table (Checklist)
3. Necropsy Report Form(s)
4. Necropsy Manual
5. Scarcard
6. Census Form
7. Tag/handling card
8. Survival factor form
9. Self-sticking pre-printed specimen labels (3 sheets)
10. Waterproof labels ("rite-in-rain" paper, pre-cut) (3 sheets)
11. Pencils (2)
12. Ball-point pens (optional) (2)
13. Permanent markers (sharpies) (2)
14. Ruler (metric)
15. Metal tape measure (metric)
16. Tape measure, flexible (metric)
17. Surgical scissors (2: straight and curved)
18. Rubber gloves
    chemical resistant - 2 pr. latex
    heavy duty - 6 pr. latex exam gloves - 15 pr
19. Scalpel handles (4: 2 #8, 2 #6)
20. Scalpel blades (30)
21. Blubber biopsy punch, 6 mm (2)
22. Forceps (2 pr.)
23. Hemostats (1)
24. Dacron Swabs *(5)*
25. Microscope slides
26. Slide holder for microscope slides
27. Small vials (—2 x ½") - 6 ea.
28. Med. vials (—3' x 2) - 6 ca.
29. Whirlpak bags (20 ea.)
30. Ziploc bags (large)
31. Paper towels
32. Antibacterial soap/Hand sanitizer
33. Sharps container
34. Needles, 1 ½', 18g *(5)*
35. Syringes, 20cc or 35cc *(5)*
36. Blood tubes, PT, TT (4)
37. Biohazard bag (2)
38. Camera with colored slide film and/or Digital camera
39. Shovels
40. Jars and buckets partially filled with 10% NB Formalin
    a. 2 large jars for duplicate sets of histopathology tissue samples
    b. 1 bucket for entire female reproductive tract
    c. 1 bucket for esophagus
    d. 1 5gal. bucket for entire gastrointestinal tract from beginning of stomach to anus
    e. 2 jars for eyes f. 2 jars for brain
41. Hacksaw
42. Axe
43. Cryovials (20)
44. String to tie off beginning of stomach, etc. (1 roll)
45. Cutting board (not on spc. coil. list)
46. Disposable aprons (3)
47. Bone shears
48. Archival tag labels for boxes
49. Dissecting tray
50. White or light blue plastic sheet for photographic background
51. 85% saline for relaxing parasites
52. 10% NB Formalin
53. Ethyl Alcohol *95%*
54. Isopropyl Alcohol 70%
55. Glycerol
56. Teflon container (3)
57. Aluminum foil (1 roll)
58. Knives
59. Blank notecard

Appendix 21: Epidemiology Supply List

Epidemiology sampling supply list

LABORATORY SUPPLIES
glass slides
cover slips
Slide holders
Unopette WBC System (100)
Capillary pipettes for Unopette
critoseal (tube sealer)
Hemacytometer Chamber
Hemacytometer cover glass Lab
counter
Kim wipes
Quickcheck test strips BUN 25/bottle
Glucose test strips/50 strips/vial
Accucheck Advantage Glucometer
glucometer control solution
Disposable transfer pipettes
Non-heparinized HCT tubes
latex gloves
wooden applicator sticks

LABORATORY EQUIPMENT
Clinical Refractometer Microscope
Spare microscope bulbs
lens paper
lens cleaner
Centrifuge
Microhematocrit centrifuge
light for reading HCT

SWABBING/FECAL COLLECTION
Virology transport media in 1.8 ml cryovials
Virology swabs
Bacteriology swabs -Culturette
C&S bacteriology media (for Salmonella)
PVA fixative solution 32 oz
vials
fecal loops
KYJel
Digital thermometer (rectal)

BIOPSY SUPPLIES biopsy
punches 6 mm disposable
scalpel blades #11 forceps
scissors
xylocaine 2% 50 ml
disposable sterile glove
scintillation vials
amber vials
cryovials, 5.0 ml

CRYOVIALS
1.0 ml
1.8 ml
5.0 ml
nalgene marking pens

SYRINGES
35 cc slip tip
60 cc
12 cc slip tip
6 cc
IV extension sets

NEEDLES
18 gx3.5"
18 gx 1.5"
22gx1.5

VACUTAINER TUBES
SST 9.5 ml
LTT 3 ml
GNTT 5 ml
GNTT 9 ml

DISINFECTANTS, SCRUBBING, ETC
isopropyl
liter Betadine solution
Nolvasan 1 gallon
scrub brush
gauze
distilled water 1 gallon
bleach
paper towels
bottles for scrubbing
soap for handwashing

HANDLING SUPPLIES
tape measure for length and girth
coveralls
masks
hoop net
boots
cotton gloves
knee pads
calipers

FIELD FORMS
necropsy
clinical exam
restraint
lab sheets
specimen collection log
controlled drug log
specimen labels

MISCELLLANEOUS
cooler
Nitrogen Dewar
batteries
pens
pencils
sharps containers
Biohazard bags
latex gloves
Photographic camera w/lens
Film - 400 ASA slides/paper