

EXAMPLE Monitoring Data Sheets for Formal Consultations

Instructions

Electronic version available upon request. In the electronic version, the tabs in the spreadsheet contain printable observation forms as well as tabs that can be used for data entry. There is a daily overview log that covers data collection of monitoring effort, project activities, & environmental conditions. There is also a marine mammal sighting form that covers data collection when marine mammals are observed. These are example forms and therefore can be modified to be project specific. Below outlines each data attribute and the corresponding definition. If additional attributes are added or definitions are alternate, please make sure the make the updates below. It is ideal that all fields be filled out each day on the printable observation forms to help ensure that information isn't forgotten. Use a "dash" if the information is unknown or n/a is the field is not applicable.

Data Attribute	Definition
Project Name	Indicate the name of the project.
Location	Specify the project location or observation station. This is extremely important if there are multiple observation stations.
Observer(s)	Indicate the observer(s) at the station during monitoring effort. If the observer(s) switch in the middle of the day indicate the time of the switch.
Monitoring Effort	
Start and end times	Record start and end times of all monitoring effort in a given day. Breaks in the middle of the day when monitoring does not occur should be recorded. The total time includes only on effort monitoring time. Military time is preferable.
Project Activities	
Start and end times	Record start and end times of all in-water activities. Make sure to record breaks in any in-water activities. Military time is preferable.
Type of Activity	Specify the type of in-water activity and make sure to indicate specifics such as bubble curtain use. Types of activities may include soft-start, impact pile installation (w/ or w/o bubble curtain), vibratory pile installation or removal (w/ or w/o bubble curtain), down the hole drilling, dredging, vessel activity, anchor handling, fill placement, or other sources of in-water disturbance.
Environmental Conditions (Record every 30 minutes or as conditions change)	
Time	Time in which the environmental condition was recorded. Military time is preferable.
Overall monitoring conditions	Indicate on a scale of 1 - 10 ((1) poor, (5) moderate, (10) excellent) the monitoring conditions.
Weather conditions	(S) Sunny, (PC) Partly Cloudy, (OC) Overcast, (L) Light Rain, (R) Steady Rain, (F) Fog, (LS) Light Snow, (SN) Snow
Light conditions	(1) Light, (2) Twilight, (3) Dark
Beaufort sea state	Beaufort Sea State - (0) calm, mirror like; (1) ripples, wave height <1/2 ft; (2) small wavelets (1/2 to 1 ft); (3) large wavelets (up to 2 ft), crests begin to break; (4) small waves (up to 3 ft), fairly frequent white caps; project activities should shutdown if the beaufort sea state is > 4
Visibility	Distance the observer could reliably detect a marine mammal.
Glare	Percent of monitoring area obscured by glare.
Daily Total Marine Mammal Count	
Species, # of groups, & # of animals	Indicate the species observed that day, the total number of groups seen and the total number of animals observed.
QA/QC Data	
Initial and Date	Each datasheet should be double checked that all the information is included and accurate on a daily basis. The individual that QA/QCs the form should initial/date the form.

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Marine Mammal Sighting	
Group Identifier	Each group of marine mammals will be given a unique identifier. This group identifier is not species specific. This identifier can be used to identify a group, requiring the use of multiple data sighting rows.
Initial and final sighting time	Time the group was initial sighting and the time the group was last observed.
Species	Identify the species observed. If multiple species are observed to be interacting, give each species a different group number but indicate in the notes the interaction with the other species. (BE) beluga whale, (HW) humpback whale, (FW) fin whale, (GW) gray whale, (KW) killer whale, (SW) sperm whale, (BW) bowhead whale, (NW) North Pacific right whale, (HP) harbor porpoise, (SL) Steller sea lion, (RS) ringed seal, (BS) bearded seal, (SS) spotted seal, (HS) harbor seal, (FS) fur seal, (UW) unidentified cetacean, (UP) unidentified pinniped
# of animals (age class)	<p>If possible, indicate the number of adults, juveniles, and calves in the group. If the age class is undeterminable, use the unknown field. The total represents the total number of animals in the group.</p> <p>Cook Inlet beluga whales - adults are typically large white to dull white in color, juveniles are light to medium gray, and calves are dark gray, relatively small (<2/3 the total length of white belugas), almost always swimming within 1 body length of larger whale.</p>
Behavior	<p>(T) traveling - moving in a linear or near-linear direction without interruption</p> <p>(M) milling - moving in a non-linear, weaving or circular pattern within an area</p> <p>(HO) hauled out - hauled out on land</p> <p>(D) diving - moving downward through the water column (rapidly or slowly), often showing tail fluke before dive</p> <p>(V) vocalizing - snorting, whistling, or chirping</p> <p>(BR) breaching - leaps clear out of water</p> <p>(SH) spyhopping - holding body vertically with head out of water for several seconds or more</p> <p>(ST) startled - rapidly changing behavior, dispersing or travelling that indicates a response to external event (must describe disturbance in the notes)</p> <p>(F) flush from haulout - enters water in response to disturbance (must describe disturbance in the notes)</p> <p>(CH) change direction - sudden change in direction that may be caused by disturbance (must describe in notes)</p> <p>(A) avoidance - avoiding an area (must describe in notes)</p> <p>(O) unclassified behavior (must describe in notes)</p> <p>(U) unknown - behavior indistinguishable due to monitoring conditions and/or lack of ability to watch marine mammal for length of time to determine (no comment is necessary)</p> <p>(All behavioral changes caused by the project activities or other activities must be described in the notes. Include a detailed description of activities/animals behavior before and after potential project related behavior change)</p>
Initial Distance	Distance from marine mammal(s) to project activities when animals were first observed.
Closest Distance	Closest distance marine mammals were to project activities.
In-water work occurring at initial sighting time?	Indicate if in-water work was occurring when the marine mammals were initially sighted (i.e. yes or no).
Type of Activity	If in-water work was occurring when marine mammals were observed, indicate the type of activity.

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Shutdown or Delay Implemented	Indicate if a shutdown or delay was implemented due to marine mammals being observed.
# of Animal(s) inside Level A or B zones prior to shutdown? (i.e. taken)	Indicate if animals were inside the Level A and B zones prior to shutdown.
Duration of Shutdown or Delay	If a shutdown or delay occurred due to marine mammal presence, indicate how long the shutdown or delay lasted.
Sighting Notes	Include any additional information, include specifics about marine mammal behavioral changes from project activities.

Date: _____

(DD MMM YY, Example 05 MAY 20)

Marine Mammal Sighting Log

(fill it all data fields, use a "dash" if unknown or n/a)

Project Name:			Location:					Observer(s):									
Group Id	Initial Sighting Time	Final Sighting Time	Species	# of Animals					Behavior	Initial Distance (m)	Closest Distance (m)	Environmental Conditions					
				Adults	Juveniles	Calves	Unknown	Total				Weather	Sea State	Visibility	Glare (%)		
Project Activities during Sighting											Sighting Notes						
In-water work occurring at initial sighting time? (y or n)		Type of Activity			Shutdown or Delay Implemented		# of animals inside zone prior to shutdown?		Duration of Shutdown or Delay								
							Level A Level B										
Project Activities during Sighting											Sighting Notes						
In-water work occurring at initial sighting time? (y or n)		Type of Activity			Shutdown or Delay Implemented		# of animals inside zone prior to shutdown?		Duration of Shutdown or Delay								
							Level A Level B										
Project Activities during Sighting											Sighting Notes						
In-water work occurring at initial sighting time? (y or n)		Type of Activity			Shutdown or Delay Implemented		# of animals inside zone prior to shutdown?		Duration of Shutdown or Delay								
							Level A Level B										
Project Activities during Sighting											Sighting Notes						
In-water work occurring at initial sighting time? (y or n)		Type of Activity			Shutdown or Delay Implemented		# of animals inside zone prior to shutdown?		Duration of Shutdown or Delay								
							Level A Level B										

Species - (BE) beluga whale, (HW) humpback whale, (FW) fin whale, (GW) gray whale, (KW) killer whale, (SW) sperm whale, (BW) bowhead whale, (NW) North Pacific right whale, (MW) minke, (HP) harbor porpoise, (DP) dall's porpoise, (SL) Steller sea lion, (RS) ringed seal, (BS) bearded seal, (SS) spotted seal, (HS) harbor seal, (FS) fur seal, (UW) unidentified cetacean, (UP) unidentified pinniped (O) other (indicate species in notes)

Behavior - (T) traveling, (M) milling, (HO) hauled out, (D) diving (V) vocalizing, (BR) breaching, (SH) spyhopping, (ST) startled - describe in notes, (F) flush from haulout - describe in notes, (CH) change direction - describe in notes, (A) avoidance - describe in notes, (O) other - unclassified behavior, (U) unknown, **(All behavioral changes caused by the project activities or other activities must be described in detail in the notes. Including activities/animals behavior before/after behavior change).**

QA/QC Data (Date/Initial)

Draw estimated tracklines for each group on hardcopy map, indicate the group number with each line, and the initial sighting location.