Marine Mammal Monitoring Final Report

Port of Friday Harbor Reconstruction Phase 2: PFH2

Docks C, E, F

September 29th 2014 – December 30th 2014

Marine Mammal Monitoring Services Provided by San Juan Outfitters LLC and Port of Friday Harbor Staff

Final Report by San Juan Outfitters LLC

January 14th 2014

Brian Goodremont – Owner & Operator

PO BOX 325

Friday Harbor, WA 98250

brian@sanjuanislandoutfitters.com

360-378-1962

360-472-0582

Marine Mammal Monitoring Final Report

Port of Friday Harbor Reconstruction: PFH2

Summary: This final report is a summary of the marine mammal monitoring activities performed in support of Manson Construction for the Port of Friday Harbor Reconstruction Project PFH2. San Juan Island Outfitters LLC provided the Marine Mammal Monitoring for the Pile Driving Activities during this project. Additionally the Port of Friday Harbor Staff provided Marine Mammal Monitoring Activities for the Pile Removal Activities. San Juan Island Outfitters has agreed to include the Pile Removal Data provided by The Port of Friday Harbor into this final Report.

In addition to providing numeric summaries of the data sheets provided, we have also provided a short summary of the observations during the project as industry professionals. If there are any questions about the data summaries or professional opinions provided you may contact the owner of San Juan Island Outfitters LLC, and the author of this report Brian Goodremont.

The numeric summaries of the data throughout the entire project and our professional summary can be found in the first three pages of this document. The supporting information and charted table summary follows in an itemized format by day as supporting documentation. At the end of the document you will find copies of all the data sheets from the entire project.

San Juan Island Outfitters executed to the letter the two governing documents provided to us. Those would be the Marine Mammal Monitoring Plan and the Incident Harassment Authorization. At no time during the project were any endangered species seen in the action area defined in the MMMP, and at no time were construction activities stopped due to marine mammals entering action areas or no-go areas as defined by the MMMP or IHA.

Special Note: San Juan Island Outfitters staff collected data on Stellar (Northern) Sea Lions under the IHA, even though they are mentioned in the Marine Mammal Monitoring Plan (MMMP) and the IHA. We consulted with Moffat Nichol for clarification and between the time the MMMP was created the IHA created, Stellar (Northern) Sea Lions had been removed from the endangered list and therefore the IHA dictated how we collected data on these animals.

Special Note: On October 29th our monitors observed a large group of 70-80 Pacific White Sided Dolphins in the action area prior to pile driving. Since the dolphins were moving out of the area prior to the predicted pile driving time their presence did not impact the construction activities. This special note is mainly to let NOAA and the Port of Friday Harbor know that as professional marine educators and monitors we are seeing higher occurrence of Pacific White Sided Dolphins in our area from late June through October, and future projects in this region should account for their presence in the MMMP and the IHA.

Special Note: San Juan Island Outfitters staff collected data on Stellar (Northern) Sea Lions under the IHA, even though they are mentioned in the Marine Mammal Monitoring Plan (MMMP) and the IHA. We consulted with Moffat Nichol for clarification and between the time the MMMP was created the IHA created, Stellar (Northern) Sea Lions had been removed from the endangered list and therefore the IHA dictated how we collected data on these animals.

Special Note: On October 29th our monitors observed a large group of 70-80 Pacific White Sided Dolphins in the action area prior to pile driving. Since the dolphins were moving out of the area prior to the predicted pile driving time their presence did not impact the construction activities. This special note is mainly to let NOAA and the Port of Friday Harbor know that as professional marine educators and monitors we are seeing higher occurrence of Pacific White Sided Dolphins in our area from late June through October, and future projects in this region should account for their presence in the MMMP and the IHA.

Marine Mammal Monitoring Summary

This table is a summary of the observations through the entire project. They are categorized as either pre/post pile driving observations or pile driving observations. This is due to the way observations are treated under the IHA. Pre and post pile driving observations are not considered "takes", while those observations occurring during pile driving are considered "takes".

Table 1. Take Summary by Species

Take Summary for PFH2 Project Sept. 29 2014 through Dec. 17 2014

SPECIES	ACTUAL TAKE	AUTH. TAKE
Harbor Seals (Phoca vitulina)	303	726
California Sea Lion (Zalophus californianus)	1	133
Stellar Sea Lion (Eumetopias jubatas)	2	162
Dall's Porpoise (Phocoenoides dalli)	0	81
Harbor Porpoise (phocoena phocoena)	11	376

Summary: Actual observations of marine mammals identified as takes did not approach the authorized number of takes identified in the IHA. At no time did construction activity need to be halted due to marine mammals in the action area. In our professional opinion the mitigation plan adequately accounted for the potential disturbance of marine mammals during this project.

Marine Mammal Monitoring: Final Report

Port of Friday Harbor Reconstruction: PFH2

Table 2. Summary by day

Table 2. DATA SUMMARY PILE REMOVAL: PFH2

Date	Species	Activity	Total # Observed
10/01/14	Harbor Seal	Pile Removal	3
10/20/14	Harbor Seal	Pile Removal	8
10/27/14	Harbor Seal	Pile Removal	3
11/04/14	Harbor Seal	Pile Removal	1
11/05/14	Harbor Seal	Pile Removal	5
12/30/14	Harbor Seal	Pile Removal	2
Total Observed Harbor Seals Takes during Pile Removal			**34**

Table 3. DATA SUMMARY PILE DRIVING

Date	Species	Activity	Total Observed
09/29/14	Harbor Seal	Pre-Drive	39
	Harbor Seal	Pile Drive	17
	Harbor Seal	Post Drive	4
	Harbor Porpoise	Pre-Drive	1
	Harbor Porpoise	Pile Drive	2

Harbor Seal Take Total		**17**
Harbor Porpoise Take Total		**2**

DATA SUMMARY PILE REMOVAL: PFHW

Date	Species	Activity	Total Observed
10/08/14	Harbor Seal	Pre-Drive	26
	Harbor Seal	Pile Drive	86
	Harbor Seal	Post-Drive	142
	Harbor Porpoise	Pile Drive	3
	Harbor Seal Take Total		**86**
	Harbor Porpoise Take Total		**3**

Date	Species	Activity	Total Observed
10/14/14	Harbor Seal	Pre-Drive	18
	Harbor Seal	Pile Drive	26
	Harbor Seal	Post Drive	10
	Harbor Porpoise	Pre-Drive	2
	Harbor Porpoise	Pile Drive	4
	Harbor Seal Take Total		**26**
	Harbor Porpoise Take Total		**4**

Date	Species	Activity	Total Observed
10/22/14	Harbor Seal	Pre/Post	56
	Harbor Seal	Pile Drive	14

	Harbor Seal Take Total		**14**

Date		Species	Activity	Total Observed
10/29/14		Harbor Seal	Pre/post	54
		Harbor Seal	Pile Drive	30
		Harbor Porpoise	Pre/post & total	5
	**	Pacific White Sided Dolphin	Pre-Drive & total	70-80

** The Pacific White Sided Dolphins were spotted over a half hour prior to pile driving activities so did not impact construction.

	Harbor Seal Take Total		**30**

Date	Species	Activity	Total Observed
11/10/14	Harbor Seal	Pre/post	17
	Harbor Seal	Pile Drive	28
	Harbor Porpoise	Pre/post	3
	California Sea Lion	Pre/post	10
	California SL	Pile Drive	1
	Stellar Sea Lion	Pre/post	6
	Stellar Sea Lion	Pile Drive	1
	Harbor Seal Take Total		**28**
	California Sea Lion Take Total		**1**
	Stellar Sea Lion Take Total		**1**
	Harbor Porpoise Take Total		**0**

Date	Species	Activity	Total Observed
11/11/14	Harbor Seal	Pre/post & total	5
	Harbor Seal Take Total		**2**

Date	Species	Activity	Total Observed
12/03/14	Harbor Seal	Pre/post	12
	Harbor Seal Take Total		**33**
	Stellar Sea Lion Take Total		**1**
	Harbor Porpoise Take Total		**2**

Date	Species	Activity	Total Observed
12/12/14	Harbor Seal	Pre/post	13
	Harbor Seal	Pile Drive	17
	Harbor Seal Total on this day		**17**

Date	Species	Activity	Total Observed
12/17/14	Harbor Seal	Pre/post	11
	Harbor Seal	Pile Drive	**16**

Professional Summary:

San Juan Island Outfitters LLC was happy and privileged to provide professional Marine Mammal Monitoring Services for PFH2 Marina Reconstruction. As

professional monitors and marine educators we appreciate the opportunity to protect and monitor these species.

It is our opinion that during this construction project, the marine mammals we observed suffered very little if any negative impact. On only two occasions did we observe harbor seals appearing startled at the beginning of pile driving activity. On both occasions these animals were observed in the mid-channel location, over ½ mile from the pile driving activity. At no time did any organisms enter the 10 meter shut-down zone.

If there are any questions or concerns regarding our observations, or if further discussion or description is required, please contact Brian Goodremont of San Juan Island Outfitters LLC. Contact information is provided on the cover page of this document.

Sincerely,

Brian Goodremont

San Juan Island Outfitters LLC

Owner | Operator | Captain

Marine Mammal Monitoring Sheets

September 29th 2014

PFH2 - Port of Friday Harbor
Friday Harbor Reconstruction

Observer Name: Jess Repko
Date: 9/29/2014

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
No activity yet.	Land WU	12:18pm	Cloudy Chance of rain	0	0	0	0	Intial report
~~Piling happening~~ N/A	Land WU	12:50	Cloudy starting to rain.	Harbor seal	4	outer harbor along coast of WU	Milling	Played around along the coast w/ each other.

Port Friday Harbor

Observer Name: Brian/Brendan
Date: 9/29/14

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Begin Monitoring Pre-Driving	Land POFH	12:00 Noon	Cloudy/ Rainy. Beaufort 2	None	N/A	N/A	N/A	No Marine Mammals in 10m zone
pre-pile driving	Land POFH	12:30PM	Cloudy Beaufort 23	None	N/A	N/A	N/A	No marine mammals in the area
pile-pile driving	Land POFH	1:30PM	Cloudy Beaufort 2	Harbor Seal	1	Inner Harbor	Milling	Seen & Till 1:45
Pile Driving	Land POFH	2:15	Light Rain Beaufort 2	Harbor Seal	1	Mid Harbor	traveling to channel	
Pile Driving	Land POFH	3:00	Light Rain Beaufort 2	None	N/A	N/A	N/A	No Marine Mammals in 10m zone
Pile Driving	Land POFH	3:45	Partly cloudy Beaufort 2	None	N/A	N/A	N/A	No Marine Mammals in Port.
Pile Driving	Land POFH	3:45	Partly Cloudy Beaufort 2	Harbor Seal	1	Mid Harbor	milling	last seen milling in the marina. Lost contact 3:55
~~pre-driving~~ Pre-Pile Driving	Land POFH	4:07	Partly cloudy Beaufort 2	Harbor Seal	2	Inner Harbor	Milling	Last seen leaving harbor
Pre-pile Driving	Land POFH	4:13	Partly Cloudy Beaufort 2	Harbor Seal	1	Outer Harbor	Traveling	Heading Away from Harbor
Pile Driving	Land POFH	4:22	Partly cloudy Beaufort 2	Harbor Seal	1	Inner Harbor	Traveling	

Observer Name: Brendan
Date: 9/28/14

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Post Driving	Land POFH	4:55	Partly Cloudy Beaufort 2	Harbor Seal	1	Inner Harbor	Traveling	Seen once

Observer Name: Kitti wake, Sam ? Sarah **Port of Friday Harbor NWS 2012-468**
Date: 9/29/14 **Marine Mammal Monitoring Data Sheet**

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Pre-Pile Driving	Kittiwake	12:20p	Overcast BS: 0	Harbor Seal	1	Mid Harbor	Milling	Looks happy :)
Pre-Pile Driving	KW	12:23p	Overcast BS: 0	Harbor Seal	1	Mid Harbor	Milling	Looks happy :)
Pre-Pile Driving	KW	12:25p	overcast BS: 0	Harbor Seal	1	Mid Harbor	Milling	—
Pre-Pile Driving	KW	12:31	Overcast BS: 0	Harbor Seal	1	Mid Harbor	Milling	—
Pre-Pile Driving	KW	12:36	Overcast BS: 0	Harbor Seal	2	Mid Harbor	Milling	—
Pre-Pile Driving	KW	12:38	Overcast BS: 0	Steller Sealion	1	Outer Harbor	Milling/ Fishing	—
Pre-Pile Driving	KW	12:48	Light Drizzle BS: 0	Harbor Seal	2	Outer Harbor	Milling	—
Pre Pile Driving	KW	12:52	Overcast BS: 0	Harbor Seal	4	Outer Harbor	Playing	—
Pre-Pile Driving	KW	12:57	Light Rain	Harbor Seal	3	outer Harbor	Just Chilling	—
Pre-Pile Driving	KW	1:07	Light Rain	Harbor Seal	3	Outer Harbor	Milling	—

Observer Name: Kittiwake Cams; Sarah
Date: 9/29/2014

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Pre-Pile Driving	KW	1:17p	Drizzle BS:0	Harbor Seal	1	Mid Harbor	Milling	—
Pre-Pile Driving	KW	1:27p	Overcast BS:0	Harbor Seal	2	Mid Harbor	Feeding	—
Pre Pile Driving	KW	1:32p	Overcast BS:0	Harbor Seal	2	Mid Harbor	Milling	—
Pre Pile Driving	KW	1:38p	Overcast BS:0	Harbor Seal	7	Mid Harbor	Milling	—
Pre Pile Driving	KW	1:43p	Overcast BS:0	Harbor Seal	1	Mid Harbor	Fishing	—
Pre Pile Driving	KW	1:52p	Overcast Slight Drizzle BS:0	Harbor Seal	1	Mid Harbor	Milling	—
Pre-Pile Driving	KW	1:57p	Drizzle BS:0	Harbor Seal	1	Mid Harbor	Milling	—
Pile Driving	KW	2:11p	Overcast BS:0	Harbor Seal	1	Mid Harbor	Milling	—
Pile Driving	KW	2:22p	Overcast BS:0	Harbor Seal	1	Outer Harbor	Milling	—
Pile Driving	KW	3:54p	Cloudy BS:0	Harbor Seal	1	Mid Harbor	Milling	—

Kittiwake

Observer Name: Sami Sarah

Date: 9/29/2014

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Pile Driving	KW	4:01p	Cloudy BS:0	Harbor Seal	1	Mid Harbor	Milling	—
Pile Driving	KW	4:18p	Cloudy BS:0	Harbor Seal	1	Mid Harbor	Milling	—
Post Pile Driving	KW	4:53pm	cloudy Sun breaks BS:1	Harbor Seal	1	Outer Harbor	Milling	—
Post Pile Driving	KW	4:59p	Partly Cloudy BS:1	Harbor Seal	1	Mid Harbor	Milling	—

Observer Name: LINDSEY, CAITLIN, MIKE **Port of Friday Harbor NWS 2012-468** START: 12:00

Date: 09/29/14 **Marine Mammal Monitoring Data Sheet** END: 5:20

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
PRE	SL	1:02 - 1:03	WS 10 KTS BS 1	HS	1	MID	T	
PRE	SL	1:25	WS 5KTS BS 1	HP	1	OUTER	F	
PRE	SL	1:35	WS 5 BS 1	HS	1	MID	T	
PRE	SL	1:47	WS 5 BS 1	HS	1	MID	T	
driving 1ST PILE	SL	1:54	WS 5 BS 1	HS	1	MID	T	
DRIVING	SL	2:21	WS 5 BS 1	HP	1	OUTER	T	
PRE DRIVING	SL	3:41	WS 3 BS 1	HS	1	OUTER	T	
DRIVING	SL	3:50	WS 3 BS 1	HP	1	OUTER	T	
DRIVING	SL	3:52	WS 3 BS 1	HS	1	OUTER	T	
DRIVING	SL	4:17	WS 4 BS 1	HS	1	MID	T	

Observer Name: LINDSEY, MIKE, CAITLIN **Port of Friday Harbor NWS 2012-468**
Date: 9/29/14 **Marine Mammal Monitoring Data Sheet**

START: 12:00
END: 5:20

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
DRIVING	SL	4:19 4:21	WS 3 BS 1	HS	1	MID	T	Kept head above water
POST DRIVING	SL	4:53	WS 3 BS 1	HS	1	MID	T	

Marine Mammal Monitoring Data Sheets

PFH2: Port Friday Harbor

October 9th 2014

LAND BASED UW 10/0

Observer Name: Jennifer Buseman **Port of Friday Harbor NWS 2012-468**

Date: 10-8-14 **Marine Mammal Monitoring Data Sheet**

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Pre-activity	Land UW labs	8:43 am	Calm	Harbor seal	1	sited from land- outer harbor	traveling	observed until 8:45am
Pre-activity	Land UW Labs	8:58	calm	Harbor ~~Seal~~ Porp	2	outer harbor/ ~~in~~ inner channel	Traveling	observed until 9:04
Activity Diver		9:07	Calm & clear	Harbor seal Pup	2	outer harbor near land	swimming around in kelp.	observed until 9:14
		9:12/ 9:16		Harbor seal	2			observed until 9:15/~~9:16~~ 9:17
		9:27/ 9:31		Harbor seal	1	outer harbor	swimming w/o 1 direction	observed until 9:29/9:32
Post activity		10:08		Harbor seal	1	outer Harbor	Swimming around in kelp	10:09- out of site under H_2O
Pre-activity		10:16/ 10:19		Harbor seal	1			10:17/10:20 out of site under H_2O
		10:25			2	outer Harbor	Swimming no direction	10:26 out of site under H_2O
		10:27			1	outer Harbor	Swimming in kelp	observed until 10:28
		10:37			1			10:38 out of site under/ H_2O

Observer Name: Jen Buseman

Date: 10-8-14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Activity Happening Piles being driven	Land Based at UW Labs	10:44	Calm & Clear	Harbor Seal	3	outer Harbor	Swimming along shore	observed until 10:46
		10:47			4		Swimming amongst Kelp	observed until 10:48 - (under H2O)
		10:49			1		Swimming along shore	observed until 10:50 (under H2O)
Post-Activity		11:02			1	Between SJI & Braun	Swimming no direction	observed until 11:04
Pre-Activity		~~11:02~~ 11:29			2	Next to shore outer Harbor	no direction	observed until 11:30
Activity Resumed		11:32			1	outer Harbor/ Beg. of Channel	Amongst Kelp	observed until 11:34
		11:37			2	Next to shore outer Harbor	Swimming along shore	observed until 11:39
		11:38			1	outer Harbor	Swimming no direction	observed until 11:39
		11:43			1			observed until 11:44 (under H2O)
		11:52			3			11:53

Observer Name: Jen Buselman

Date: 10-8-14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Driving in Progress	Land Based UW Labs	11:56	Calm & Clear	Harbor Seal	1	outer Harbor	Swimming near shore no direction	observed until 11:57 (under H_2O)
		11:58			1			observed until 11:59
Post-Activity		12:08			1	outer Harbor/ inner channel		observed very briefly then under H_2O
		12:10			½ 2	outer Harbor near shore		observed until 12:12
		12:11			3			observed until 12:12
		12:13			2			observed until 12:14
		12:14			1			observed for <1 min then under
		12:15			1		near shore amongst kelp	observed until 12:17
		12:16			2			observed until 12:17
		12:20			½ 3	outer Harbor	Swimming no direction	observed until 12:21

Observer Name: Jen Biseman

Date: 10-8-14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Post-Activity	Land Base UW Labs	12:24	Calm, Clear	Harbor Seal	4	Outer Harbor/ ~~[illegible]~~ Beg. of channel	Swimming near shore no direction	observed until 12:25
Pre-Activity	|	12:57	~~Clear~~ Calm	Harbor Seal	1	outer Harbor	|	observed until 12:59
|	|	12:59	Calm	|	5	outer Harbor	|	observed until 1:01pm
|	|	1:03 pm	Calm	|	~~3~~ 5	|	|	observed until 1:04pm
|	|	1:07 pm	Calm	|	3	|	|	observed for less than 1 min then under H2O
~~Activity Resumed~~ Pre-Activity	|	1:10/ 1:23	|	|	~~4~~ 5	|	|	observed until 1:11/ 1:25
Pre-Activity	|	1:25	|	|	1	outer Harbor/ edge of channel	Swimming w/no direction	observed until 1:26pm
|	|	1:27	|	|	1	outer Harbor	|	observed until 1:28
Activity Resumed	|	1:29	|	|	1	|	no direction near shore	observed until 1:31
|	|	1:31	|	|	4	|	|	observed until 1:33

Same seal = 1 obser

Observer Name: Jen

Date:

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Post Activity	Land Base (UW)	2:27	Calm	Harbor seal	3	Swimming near shore no direction	outer Harbor	observed until 2:28 pm
		2:31			1	outer Harbor	Swimming no direction	observed until 2:32
		2:32			3			observed until 2:33
		2:34			4			observed until 2:36
		2:35			2		staying in place - met up w/ other group	observed until 2:36
		2:37			1	outer Harbor/ edge of channel	swimming no direction	observed until 2:38

Observer Name:
Date:

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
PileDrivy	SL	9:12	1	Seal	1	Mid Chanel	loggin	
Pile Drivy	SL	9:30	1	Harbor Porp.	3	Mid Channel	Travel	
Pile Drive	SL	10:15	1	Seal	2	Mid Chanel	Foragin	
Pile Driv	SL	10:22	1	Seal	1	Mid Chanel	loggi'g	
Pile Drive	SL	1:45	1	Porpois	1	Mid Chanel	Travel	
Pile Driv	SL	2:00	1	Harbor Porp	1	Mid Chanel	Travel	

Observer Name: Brendan M. & Brian G. **Port of Friday Harbor NWS 2012-468**
Date: 10/8/19 **Marine Mammal Monitoring Data Sheet**

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
pre-driving	Marina/ Land	08:40	Cloudy Foggy BF 1	None observed	N/A	N/A	N/A	No Marine Mammals observed
Driving	Marina / land	9:15	"	None	N/A	N/A	N/A	"
Post	Marina / land	9:50	"	None	N/A	N/A	N/A	"
Pre	Marina / land	10:20	"	None	N/A	N/A	N/A	"
Driving	"	10:52	Overcast Foggy BF 1	Harbor Seal	1	Inner	Traveling	Heading Away from Derrick
Post/ Pre	"	11:00	"	None	N/A	N/A	NA	
Driving	"	11:40	"	None	N/A	N/A	NA	
post	"	11:50	"	None	N/A	N/A	N/A	
Pre	"	12:50	"	None	NA	N/A	N/A	

SEA HAWK S. Entrance 10/08

Observer Name: Emily + Sam

Date: 10/8/14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Pile-driving	Sea Hawk	9:13	BS - 0 Low clouds/fog	Harbor seal	1	Mid Harbor	Milling	Looked Happy
post drilling chimney	SH	9:36-9:37	BS 0 low clouds/fog	harbor seal	1	mid harbor	traveling + went under	not bothered
"	"	9:40-1:42	"	"	1	"	traveling @ surface + went under	doesn't seem bothered
"	SH	9:43	"	"	1	"	"	"
"	"	9:44	"	"	1	inner harbor	milling + went under	"
"	"	9:45	"	"	3	mid harbor	traveling @ surface + went under	"
"	"	9:48	"	"	3	"	"	"
"	"	9:51	"	"	3	"	"	"
"	"	9:54-9:55	"	"	3	"	milling + went under	"
"	"	9:56-9:57	"	"	3	"	"	"

Observer Name:

Date:

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments	
post/pre ~~drilling~~ driving	SH	10:05	BS=1 low clouds	Harbor Seal	4	mid ~~channel~~ harbor	milling @ surface & went under	did not seem bothered	
"	"	10:08	"	"	3	"	"	"	same anim
"	"	10:11-10:12	"	"	3	"	"	"	
"	"	10:14	"	"	2	inner harbor	~~quick~~ quick surface	"	
"	"	10:14-10:15	"	"	1	inner harbor	traveling & went under	"	
"	"	10:27	"	"	4	outer harbor	milling & went under	"	same anim
"	"	10:29	"	"	4	"	"	"	
~~drilling~~ driving	"	10:48	"	"	3	mid ~~channel~~ harbor	"	"	same anim
"	"	10:51	"	"	3	"	"	"	
"	"	10:51	"	"	5	outer harbor	"	"	

Observer Name:
Date:

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
post/ pre ~~drilling~~ driving	SH	11:18-11:19	BS=0 low clouds + fog	harbor seal	3	mid harbor	milling @ surface + went under	do not seem bothered
~~drilling~~ driving	SH	11:33	"	"	3	"	"	"
"	"	11:39-11:40	"	"	3	"	"	"
"	"	11:42	"	"	3	"	"	"
"	"	11:45	"	"	5	outer harbor	"	"
"	"	11:53	"	"	3	inner harbor	"	"
"	"	11:58	"	"	1	mid harbor	"	"
post/ pre ~~drilling~~ driving	"	12:10	"	"	1	outer harbor	"	"
"	"	12:15	"	"	4	mid harbor	"	"
"	"	12:19	"	"	6	"	"	"

same [illegible]

Observer Name:
Date:

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
pre drilling driving	SH	12:51-1:15	BS=1 low clouds fog	harbor seal	7	outer harbor	milling & very under	seemed happy
"	SH	12:57	"	"	1	mid harbor	"	"
"	"	1:20	"	"	1	"	"	"
"	"	1:23	"	"	2	"	"	"
drilling	"	1:30	"	"	2	"	"	"
"	"	1:37	BS=0 heavy fog	"	3	outer harbor	"	"
drilling	"	1:56	BS=0 Heavy fog	"	1	Outer Harbor	Hanging out	Content
post drilling	"	2:05	"	"	9	mid harbor	"	"
drilling	"	2:14	"	"	1	outside harbor	"	"
post driving	"	2:29	"	"	1	"	"	"

Marine Mammal Monitoring

PFH 2

October 14th 2014

Observer Name: ~~[illegible]~~ Heather

Date:

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Driving	UW Labs-Land	9:55 am		Harbor Porpoise	4	Mid channel	Foraging	Sun shining beautifully through clouds
Driving	UW Labs	10:01		Harbor Seal	1	Outer harbor	milling	Still beautiful
Pre-driving	UW Labs	11:44		Harbor Seal	1	Mid Harbor	Milling	Cloudy... more auspicious skies
Pred-driving	UW Labs	11:56		Harbor Seal	1	Outer Harbor	Milling	Sun barely bursting through. Hands cold.
Driving/Post	UW Labs	1:17		Harbor Seal	2	Outer Harbor	Milling	Warmed up hands. Writing a bit better.

(Brendan/Sam)

Observer Name: Seahawk

Date: 10/14/14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Post Driving	SH	10:39	Low Clouds Bf:1	Harbor Seal	1	Inner Harbor	Milling	
Pre Driving	SH	11:29	Low clouds Bf:1	Harbor Seal	2	Inner Harbor	Milling	They're up to something
Pre Driving	SH	11:30	Low Clouds Bf:1	Harbor Seal	1	Inner Harbor	Milling	
Pre Driving	SH	11:36	Low clouds Bf:1	Harbor Seal	1	Inner Harbor	Milling	
Pre Driving	SH	11:39	Low Clouds Bf:1	Harbor Seal	1	Inner Harbor	Milling	Seen again in same spot 11:48
[redacted] Driving	SH	1:18	Low clouds Bf:1	Harbor seal	1	Inner Harbor	Milling	up and down three times
Post Driving	SH	1:22	Low Clouds Bf:1	Harbor Seal	2	Inner Harbor	Milling	Look Suspicious
Driving	SH	1:25	Low Clouds Bf:1	Harbor seal	1	Inner Harbor	11	
Driving	SH	1:37	Low clouds Bf:1	Harbor Seal	5	Inner Harbor	11	They're getting closer
Driving	SH	1:45	Low clouds Bf:1	Harbor Seal	1	Outer Harbor	11	
Post Driving	SH	2:08	Low clouds	Harbor seal	2	Mid Harbor	Fishing	

(Brendan/Sam)

Observer Name: Seahawk

Date: 10/14/14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Pre driving	SH	9:22	Clear Bf:1	Harbor Seal	1	Outer Harbor	Milling	Looks content
Driving	SH	9:38	Partly cloudy Bf:1	Harbor Seal	2	outer Harbor	Milling	
Driving	SH	9:39	Partly cloudy Bf:1	Harbor Seal	1	Inner Harbor	Milling	
Driving	SH	9:41	Partly cloudy Bf:1	Harbor Seal	2	Outer Harbor	Milling	
Driving	SH	9:43	partly cloudy Bf:1	Harbor Seal	1	Inner Harbor	Milling	
Driving	SH	9:49	Partly cloudy Bf:1	Harbor Seal	1	outer Harbor	Milling	Sated
Driving	SH	9:54	Partly cloudy Bf:1	Harbor Seal	1	Inner Harbor	traveling	
Driving	SH	9:56	Partly Bf:1 Cloudy	Harbor Seal	1	Mid Harbor	Traveling	
Driving	SH	10:04	Partly Bf:1 Cloudy	Harbor Seal	1	Mid Harbor	Milling	
Fast Driving	SH	10:21	Partly cloudy Bf:1	Harbor Seal	1	Inner Harbor	Milling	

Port of Friday Harbor

Observer Name: Brian Goodremont **Port of Friday Harbor NWS 2012-468**

Date: 10/14/14 **Marine Mammal Monitoring Data Sheet**

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Pile Driving F-Dock Pre-Driving	Marina/ POFH	0900		None	N/A	Inner Harbor	N/A	No Mammals
Pile Driving 09:30-10:15	Marina POFH	0930-10:15		None	N/A	Inner Harbor	N/A	No Mammals
post Driving 10:15-10:45	Marina POFH	10:15-10:45		None	N/A	Inner Harbor	N/A	No Mammals
Pre-Driving	Marina POFH	13:30-		None	N/A	Inner Harbor	N/A	No Mammals
Driving	Marina POFH	1:00-1:15		None	N/A	Inner Harbor	N/A	No Mammals
Post Driving	Marina POFH	1:15-1:30		None	N/A	Inner Harbor	N/A	No Mammals
Driving	Marina	1:30		None	N/A	Inner Harbor	N/A	No Mammals
post driving	Marina	2:00-2:30		None	N/A	Inner Harbor	N/A	No Mammals

Observer Name: Family + Sarah

Date: 10/19

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
one driving	S1	9:15	BS=0, sunny, calm	Harbor porpoise	2	outer channel	foraging	don't seem motivated
"	"	9:19	"	Harbor Seal	2	"	milling	"
		9:21		Harbor Seal	2			
		9:30		Harbor	1		traveling	
driving		9:40			2	mid	milling	
"	"	9:50	"	"	1	"	"	"
"	"	9:57	"	"	1	"	traveling	"
"	"	10:10	"	"	1	"	milling	"
"	"	10:18	"	"	1	"	foraging	"
post driving	"	10:38	"	"	1	"	milling	"

Observer Name:

Date:

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
pre driving	SI	12:37	BS=0 party sunny	Harbor seals	4	mid harbor	traveling	seemed happy
	"	12:58	"	"	1	outer channel	milling	"
driving	SI	1:44	"	"	1	outer channel	logging	"
post driving	"	2:25	"	"	1	inner harbor	milling	"
"	"	2:27	"	"	2	"	"	"

Marine Mammal Monitoring

PFH2 - Friday Harbor Marina Reconstruction

October 22, 2014

Observer Name: Emily + Amy
Date: 10/22

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
pre-driving	SL	2:11	BS=0 Cloudy	harbor Seal	1	mid channel	milling	
"	"	2:15	"	"	1	mid channel	traveling	
driving	SL	2:46	"	harbor seal	1	outer channel	milling	
pre-driving	"	3:28	BS = 1 Cloudy	harbor porpoise	3	outer channel	traveling	

Observer Name: Emily + Amy
Date: 10/22

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Dvl driving	S1	1:27	BS=0 cloudy	harbor seal	1	outer channel	traveling	seemed ok
"	"	1:28	"	harbor porpoise	2	"	"	"
"	"	1:28	"	harbor seal	1	"	milling	"
"	"	1:30	"	harbor porpoise	2	"	traveling	"
"	"	1:32 -1:35	"	"	2	"	"	"
"	"	1:34	"	"	1	"	"	"
"	"	136	"	"	2	"	"	"
"	"	1:37	"	harbor seal	1	"	milling	"
"	"	1:47	BS=1 cloudy	harbor porpoise	2	mid Channel	traveling	"
"	"	1:56	"	harbor seal	1	outer channel	milling	"

Observer Name: Brian

Date: 10/22/14

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
H-Dock Friday Harbor *Pre-Driving	Land/ Marina	1:40	1	Harbor Seal	1	Inner	foraging	outside 10 meter zone
H-Dock *Pre-Driving	Marina	2:00	1	Harbor Seal	1	Inner	foraging	outside 10 Meter
H. Dock Pile Driving Begins	Marina	2:40	1	None	NA	Inner	N/A	No Animals in either zone
H-Dock Pile Driving Ends	Marina	2:55	1	None	N/A	Inner	N/A	No Animals
H-Dock post driving/ monitoring	Marina	3:15	1	Harbor Seal	1	Inner	Traveling/ Milling	post drive observation
Driving Pile H-Dock		3:35	1	N/A	N/A	Inner	N/A	No Animals
Post Driving H-Dock	Marina	4:00	1	N/A	N/A	Inner	N/A	No animals

Observer Name: Brendan M

Date: 10/20/14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Driving	FHL	3:49	Cloudy BF 2	Harbor seal	1	Outer Harbor	Milling	
Post Driving	FHL	4:18	Rain BF 2	Harbor seal	1	Mid channel	Foraging	Bait Ball!
Post Driving	FHL	4:23	Rain BF 2	Harbor seal	3	Mid Harbor	Milling	

Observer Name: Brendan M.

Date: 10/22/14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Pre-Driving	FHL	2:26	cloudy Bf #1	Harbor Seal	3	Outer Harbor	traveling	
Pre Driving	FHL	2:31	11	Harbor Seal	2	Outer Harbor	traveling	
Pre Driving	FHL	2:32	11	Harbor Seal	1	Outer Harbor	traveling	
Pre Driving	FHL	2:37	11	Harbor seal	1	Outer Harbor	Milling	
Driving	FHL	2:40	11	Harbor Seal	1	Outer Harbor	Milling	
Driving	FHL	2:40	11	Harbor Seal	1	Outer Harbor	Traveling	Different From Above
Post Driving	FHL	2:55	11	Harbor Seal	2	Outer Harbor	Traveling	
Post Driving	FHL	3:02	11	Harbor Seal	2	outer Harbor	Milling	
Pre Driving	FHL	3:35	cloudy Bf:2	Harbor Seal	1	Mid Harbor	Milling	
Driving	FHL	3:37	cloudy Bf:2	Harbor Seal	2	Outer Harbor	Traveling	

Observer Name: Brendan M. **Port of Friday Harbor NWS 2012-468**

Date: 10/22/14 **Marine Mammal Monitoring Data Sheet**

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
pre Driving	FHL	1:12	cloudy Bf #1	Harbor seal	2	Outer	Milling	
pre Driving	FHL	1:45	"	Harbor Seal	1	Outer Harbor	traveling	
pre Driving	FHL	1:46	"	Harbor Seal	1	Outer Harbor	Milling	Different animal than above
pre Driving	FHL	2:01	"	Harbor Seal	1	Outer Harbor	Milling	
pre Driving	FHL	2:03	"	Harbor Seal	2	outer Harbor	foraging	
"	FHL	2:12	"	Harbor Seal	4	Outer Harbor	foraging	
"	FHL	2:13	"	Harbor Seal	1	Mid Harbor	Milling	
"	FHL	2:17	"	Harbor Seal	1	Mid channel	Foraging	
"	FHL	2:18	"	Harbor seals	3	Outer Harbor	foraging	
"	FHL	2:20	"	Harbor seal	8	Mid channel	foraging	

Observer Name: Heather/Sam

Date: 10/23/14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Pile driving	SH	2:40	Low clouds	Harbor Seal	1	Inner Harbor	Milling	7-8 Cold
Pile driving	SH	2:40	Low clouds	Harbor Seals	2	Inner Harbor	Milling	
Pile driving	SH	2:43	low clouds	Harbor Seal	2	"	"	
~~Pile Driving~~ Post Drilling	SH	3:15	Low clouds	Harbor Seal	1	Mid Harbor	Milling	
Pile Driving	SH	3:35	Low clouds	Harbor Seal	1	Mid Harbor	Milling	
Pile Driving	SH	3:47	Low Clouds	Harbor Seal	2	Mid Harbor	Milling	
Post Driving	SH	4:00	Low clouds	Harbor Seal	1	Inner Harbor	Milling	
Post Driving	SH	4:02	Low clouds	Harbor Seal	5	Mid Harbor	Milling	

October 22nd

H-Dock Pilings x2

Summary: No unusual sightings

10/29/14

7AM - 5:45PM

PFH2- Marina Reconstruction
Marine Mammal Monitoring

October 29th 2014

9:20 done
10:20 driving

Observer Name: Emily + Heather
Date: 10/29/14

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
~~post~~ post/pre driving	SH	9:30	BS=0 mostly sunny	harbor seal	1	outer harbor	milling	seems just fine
pre drilling	SH	9:53	〃	〃	2	〃	〃	〃
〃	〃	9:54	〃	〃	1	〃	〃	〃
pile driving	SH	10:56	〃	〃	1	〃	〃	
post	SH	11:13	〃	〃	1	inner harbor	〃	〃
pre driving	SH	12:19	〃	〃	2	mid harbor	〃	〃
post driving	SH	12:38	〃	〃	8	mid harbor	〃	〃
〃	〃	12:40	〃	〃	1	〃	〃	〃
~~pre~~ driving	SH	1:45	〃	〃	1	〃	Traveling	〃
~~post~~ Driving	SH	1:47	〃	〃	3	Inner H.	Traveling	〃

Observer Name: Heather Mac. / Emily S

Date: 10/29/14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Driving	Sea Hawk	1:48	Ø mostly sunny	Harbor Seal	1	Inner Har.	Milling	
post driving	SH	2:06	"	"	1	"	"	happy
"	"	~~20~~ 2:08	"	"	5	"	"	" same
"	"	2:21	"	"	5	outer harbor	"	"
~~pre driving~~	~~"~~	~~4:00~~	~~"~~	~~"~~	~~2~~	~~inner harbor~~	~~"~~	~~"~~
~~pre driving~~	~~"~~	~~4:33~~	~~"~~	~~"~~	~~4~~	~~inner channel~~	~~"~~	~~"~~
post driving	"	5:16	"	"	[illegible]	outer harbor	"	"

Observer Name: Amy
Date: 10/29/14

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
pre driving	Land	8:05am	BS=0 P. Cloudy	Harbor Seal	1	outer harbor	milling	N/A
"	"	8:20	BS=0 P. Cloudy	Harbor Seal	2	outer harbor	traveling	N/A
pre. driving	"	8:35	"	"	2	"	milling	N/A
"	"	8:36	"	"	1	"	traveling	N/A
"	"	9:01	BS=0 sunny	"	1	"	traveling	
driving	"	9:12	"	harbor seals	5	mid harbor	foraging	
"	"	9:15	"	"	2	mid harbor	traveling	
post/pre driving	"	9:21	"	"	2	outer harbor	milling	
"	"	9:28	"	"	4	outer harbor	foraging	
"	"	9:45	"	harbor seal	1	outer harbor	traveling	

Observer Name: Amy
Date: 10/29/14

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
pre driving	Land	10:20	P. cloudy BS=0	harbor Seal	1	mid harbor	milling	
"	"	10:21	"	"	1	outer harbor	"	
driving	"	10:26	"	"	4	outer harbor	foraging	
"	"	10:35	"	"	3	mid harbor	milling	
pre-driving	"	10:45	"	"	10	Outer harbor	foraging	
Pre driving	"	11:55	Sunny BS=0	"	1	outer harbor	milling	
pre driving	"	12:15	Sunny BS=0	"	1	Outer harbor	foraging	
driving	"	1:30	"	"	2	mid harbor	milling	
post driving	"	1:59	"	"	1	outer harbor	milling	
"	"	2:10	"	"	1	outer harbor	"	

Observer Name: MIKE K. CAITLIN O

Date: [illegible]

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
PRE-DRIVING		8:20	1	HO	1	OUTER	T	
		8:24	1	LOG HS JK	1	OUTER	L	
	V	[illegible]	1	HO	2	OUTER	T	
PRE-DRIVING		[illegible]	1	[illegible]	8	[illegible]	T	
DRIVING		9:35	1	HS	1	OUTER	T	
PRE-DRIVING		11:30	1	[illegible]	70-90	OUTER	F	
DRIVING		1:36	1	HS	1	INNER	T	
DRIVING		1:39	1	HS	1	INNER	T	
DRIVING		1:42	1	HS	1	INNER	T	
DRIVING		1:46	1	HS	1	OUTER	T	

CONTINUED.

Observer Name: [illegible]

Date: [illegible]

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
POST	SL	11:55	1	HP	1	OUTER	T	
PRE	SL	8:00	1	HS	1	OUTER	T	
POST	SL	8:30	1	HS	2	OUTER	T	

Observer Name: Brendan M.

Date: 10/29/14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
pre Driving	FH ~~Port~~	7:55	Partly cloudy	NA	NA	NA	NA	Started pre @ 7:40
Driving	FH Port	9:07	Partly cloudy	NA	NA	NA	NA	9:07 Start
Post Driving	FH Port	11:16	Partly cloudy Bf: 1	Harbor Seal	1 ~~NA~~	Inner ~~NA~~ Harbor	Traveling ~~NA~~	Heading Away from Jetty
Driving	FH Port	1:53	Partly cloudy Bf: 1	Harbor Seal	1	Inner Harbor	Foraging	
Driving	FH port	5:13	Cloudy Bf: 1	Harbor Seal	1	Inner Harbor	Milling	

206 295 9113

November 10 2014

Cover Sheet

Port Friday Harbor Marina Reconstruction

Observer Name: Heather

Date: 11/10/14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Pile Driving	Land	11:17	3	Harbor seal	1	Mid	Milling	
Post	Land	11:39	3	steller sea Lions	4	Mid Shoreline	Traveling	
Pre (?)	Land	1:40	2	Califor. SeaLions	2	" "	" "	
Pre	Land	1:48	2	Harbor Seal	1	" "	Milling	
Pre	Land	1:59	2	Calif. SeaLion	1	Mid Shoreline	Traveling	
Pile Driving	Land	2:31	2	sea Lion	1	Inner Harbor	Traveling	* same as above
Pile Driving	Land	2:32	2	sea Lion	1	Inner Harbor	Traveling	same as above
Pile Driving	Land	2:43	2	Harbor Seal	1	Mid Harbor	Milling	
Post	Land	3:10	2	Harbor Seal	2	Inner Harbor	Milling	
Post	Land	3:55	1	Sea Lion	2	Mid harbor	Traveling	

Observer Name: Brendan M.
Date: 11/10/14

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Pre	FH Land	10:44	BF #2 clear breezy	Harbor seal	1	Inner Harbor	Milling	
Pre	FH Land	2:19	BF #2 clear breezy	Harbor Seal	1	"	Traveling	heading away

Observer Name: Amy, Andrew

Date: 11/10/14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
pre driving	Kittiwake	10:52	BS: 1 sunny	Harbor Seal	1	inner harbor	milling	
driving	"	11:05	"	"	2	"	milling	
"	"	11:08	"	"	1	"	traveling	
"	"	11:09	"	"	2	inner harbor	milling	
"	"	11:11	"	"	3	"	"	no apparent stress. Just chillin
"	"	11:15	"	"	1	"	"	
"	"	11:21	"	"	1	"	"	
post driving	"	11:23	"	"	1	"	"	
"	"	11:35	"	"	1	"	"	
"	"	11:40	"	"	1	"	"	

Observer Name: Andrew, Amy

Date: 11/10/14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
pre driving	Kittiwake	11:51	BS=1 Sunny	Harbor Seal	1	inner harbor	foraging	
driving	"	12:05	"	Cali. Sea lion	3	inner harbor	foraging/ milling	
driving	"	12:40	"	harbor seal	1	"	milling	
post driving	"	12:46	"	Cali. Seal Lion	3	outer harbor	foraging	* hanging around. Were resting. Seemingly unaffected caught Salmon! by drivin
"	"	12:51	"	Harbor Seal	1	"	milling	
driving	"	2:30	"	H. Seal	1	inner harbor	foraging	10' from boat
post drive		2:31		CA. Sea Lion	1	inner	foraging	actively feeding (Salmon)

Observer Name: Kelsey G/Cara G. **Port of Friday Harbor NWS 2012-468**
Date: 11/10/14 **Marine Mammal Monitoring Data Sheet**

from boat / from driving area

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
pre-observing period	outer channel Western prime	10:29	0	Harbor Porpoise	3	out of action area?		
		10:31	0	Harbor Seal	1	~~50 yards~~ / 1.5 miles	Milling	
		10:57	0	Harbor Seal	1	100 yards / 1 mile	Milling	
		11:00	0	Harbor Seal	1	200 yards / 1.25 mile	Milling	
Driving start		11:03	0					
		11:18	0	Harbor Seal	1	30 yards / 1.25 miles	Milling	
		11:26	0	Harbor Seal	5	75 / yards 1.1 miles	Milling	
End driving period – begin post-monitoring		11:30						
		11:44	0	Harbor Seal	1	200 yards / 1.25 mile	Milling	
		11:47	0	Harbor Seal	1	125 yards / 1.25 mile	Milling	

Observer Name: Kelsey G. / Cora G. **Port of Friday Harbor NWS 2012-468**
Date: 11/10/14 **Marine Mammal Monitoring Data Sheet**

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Pre-action monitoring com	11:57 → Western Prince			Harbor Seal	1	400 yards/ 1.25 mile		
Driving	12:03							
	~~Prince~~	12:05		Harbor Seals	1	200 yards 1.25 miles	Milling	
		12:06		Harbor Seal	1	20 yards 1 mile	Milling	
Post-Activity Period		12:13						
Driving		12:41						
		12:42		Harbor Seal	1	outer channel	Milling	
Finish Driving; post-monitoring		12:47		Harbor Seal	1	outer channel	Milling	
Stopping Monitoring		1:18						
Pre-activity monitoring	Vessel	1:57	1					

Observer Name: Kelsey G., Cara G. **Port of Friday Harbor NWS 2012-468**
Date: 11-10-14 **Marine Mammal Monitoring Data Sheet**

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Driving	Vessel	2:26	1					
Post/Driving Pre	" "	2:36	" "	Harbor Seal	1	Outer Channel	milling	
Driving	" "	2:45	" "					
Post/Pre Driving	" "	2:50	" "					
Driving	" "	2:59	" "	Harbor porpoise	1	outer channel		only seen surfacing once, did not see again
		3:07	" "	Harbor Seal	1	" "	milling	
Post Driving	" "	3:09	" "					

November 11th

12:00 - 6:00

Observer Name: Amy, Andrew
Date: 11/11/14

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
driving	Kittiwake	4:00	BS=1 Sunny	harbor seal	2	mid harbor	milling	
post driving	"	4:11	"	"	2	"	" bobbing	
pre/post driving	"	4:21	"	"	1	"	"	

Observer Name: Heather McC. **Port of Friday Harbor NWS 2012-468**

Date: 11/11/14 **Marine Mammal Monitoring Data Sheet**

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Pre	Land	3:48	4/5	Harbor Seal	1	Mid	Traveling	
Post	Land	4:13	5	" "	1	" "	Milling	
called it at 5:18 due to Low visability.								

Observer Name: Kelsey G./Jill B. Port of Friday Harbor NWS 2012-468

Date: 11/11/14 Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
pre-driving monitoring - PRACTICE -	15:20 Sea Lion		6			outer channel		
start pre-driving monitoring	15:46		6					
Driving	16:00		6					
Done driving	16:44		5					
started driving again, done driving	17:15		5					

December 3rd 2014

7AM - 4:45pm

C - Dock Piles

Observer Name: Amy

Date: 12/2/14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
pre driving	Land	8:42	BS=0 sunrise clear	Harbor Seal	1	outer harbor	milling	
pre driving	"	10:11	BS=0 Sunny clear	harbor Seal	1	mid harbor	milling	
driving	"	11:20	"	"	1	"	"	
driving	"	11:56	"	"	1	"	foraging	
post driving	"	12:20	"	"	1	outer harbor	milling	
pre driving + driving	"	2:45	"	harbor Seal	1	outer harbor	milling	hung around through driving activities. No apparent anxie
driving	Land	3:25	"	"	1	outer harbor	milling	
driving	"	4:10	"	"	2	"	"	
post driving	"	4:22	BS=0 @ dusk clear	"	1	"	"	

Observer Name: Andrew, Brian Scott

Date: 12-3-2014

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Driving Dock C	South Entrance Sea Hawk	9:40A	0	H. Seal	1	inner harbor	foraging	
"	"	9:55A	0	H. Seal	3	"	"	
Preobservation 20min (10:08A) To:28A	"	10:10A	0	H. Seal	1	"	"	
Pre		10:21A	0	H. Seal	1	"	"	
Driving Piling #4 10:26A - 10:46								
Driving Piling #5 10:50 - 10:55								
Driving Piling #6 11:00A - ~~11:08A~~								
Driving Piling #7 11:30 - ~~12:00~~								
Post Drive 12:00 - 12:20								
Pre ~~2:45p~~ 14:18p - 14:49								

Observer Name: ANDREW, BRIAN, SCOTT

Date: 12-3-2014

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
PILING #8 DRIVING 14:49 - 15:23								
Post 16:11 - 16:41								

Observer Name: Andrew, Scott, Brian P
Date: 12-3-2014

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Pre 20	South entrance Sea Hawk	7:31A	0					
Pre 20	"	7:58	0	Harbor Seal	2	~~Outer~~ inner Harbor	Milling	
Drive 8:03A Dock C	"	8:03A	0	H. Seal	2	~~inner~~ ~~outer~~ harbor	milling	
Driving Dock C	"	8:08A	0	H. Seal	2	inner harbor	foraging	
Driving Dock C		8:25A	0	H. Seal	8	inner harbor	milling	
Driving Dock C		8:40A	0	H. Seal	2	inner harbor	foraging	
Driving Dock C		8:48A	0	H. Seal	1	"	resting	
"		8:49	0	H. Seal	2	"	foraging	
"		9:14A	0	H. Seal	2	"	foraging	
"		9:32	0	H. Seal	2	"	"	

Observer Name: Heather Steffan **Port of Friday Harbor NWS 2012-468**

Date: 12/3/14 **Marine Mammal Monitoring Data Sheet**

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
C Dock Pre driving	Vessel	8:00	2	Harbor Seal	1	Mid	Milling	
During Pile	Vessel	10:45	3	Steller SL	1	outer	Traveling	
Driving Pile	Vessel	11:24	3	Harbor Seal	1	Outer	Traveling	
Pre driving	Vessel	2:20	4	Harbor Seal	1	Mid	Milling	
Driving	" "	2:56	3	Harbor Seal	1	Outer	Milling	
Driving	" "	2:57	3	Harbor Porpoise	2	outer	Traveling	
Post	" "	3:35	3	Harbor Seal	1	Outer	Milling	

Observer Name: Brendan M

Date: 12/3/14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Driving	Port of FH	11:33	Sunny, clear, cold BF1	Harbor Seal	1	Inner	Milling then Traveling	Surfaced quite close then reacted in surprise at start of driving

Monitoring Sheets

December 12, 2014

C-Dock

Observer Name: Amy

Date: 12/12/14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
driving	Land	8:27	BS=0 P.cloud	Harbor Seal	1	outer harbor	traveling	
"	"	8:45	"	"	1	outer harbor	milling	
"	"	9:10	"	"	1	"	"	
pre/post drive	"	10:00	"	"	1	"	milling	
pre/post driving	"	10:29	"	"	2	mid harbor	traveling	
pre driving	"	12:45	BS=0 Sunny	Harbor seal	1	outer harbor	milling	
driving	"	12:55	"	"	2	Outer harbor	"	
"	"	1:04	"	"	2	"	"	
"	"	1:10	"	"	1	"	foraging	
driving	"	2:03	"	"	1	outer harbor	traveling	

Observer Name: Amy
Date: 12/12/14

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
driving	Land	207	BS=0 sunny	Harbor Seal	1	outer harbor	milling	
"	"	2:09	"	"	1	mid harbor	traveling	
post. driving	"	2:41	"	"	1	outer harbor	milling	
"	"	2:43	"	"	1	"	"	

Observer Name: KG, EC
Date: 12-12-14

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
pre-drive monitoring	South channel Seahawk	08:09	1					
driving 1st piling		08:23						
End 1st driving		8:56						
Start 2nd piling		09:05						
End 2nd piling		09:16						
Back to 1st piling		09:20						
End fixing 1st piling		09:44						
BEGAN DRIVING 3RD PILE		09:49						
End 3rd piling post-monitoring		10:06						
		10:11		Harbor seal	1		Milling	

Observer Name: KG, EC

Date: 12-12-14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Start 4th piling	South Channel sea hawk	10:21	1					
End 4th piling		10:28						
Start 5th piling		10:38						
		10:41		Harbor Seal	2		Milling/ traveling	
End 5th piling		10:43						
		10:43		Harbor Seal	1		Milling	
Start 6th piling		10:51						
		10:53		Harbor Seal	1			
End 6th piling post monitoring		11:02						
End monitoring		11:34						

Observer Name: KG, EZ
Date: 12.12.14

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
pre-driving monitoring	South channel seahawk	12:14	1					
Driving 7TH piling		12:50						
Driving 8TH piling		13:55						
Finish last piling		14:17						
post monitoring		14:18	1	Harbor Seal	1	south channel	Traveling	

Observer Name: Brendan M.

Date: 12/12

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments

Sarah Densslow
Caitlin O'Brien

Observer Name:

Date:

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Pre-Drive Monitoring	Sea Lion Sand Island Channel	8:10 AM	2	N/A	/	/	/	No Animals
Pile Driving	Sea Lion ST Channel	8:30AM	2	N/A	/	/	/	No Animals
PRIVING	SL	08:32	1	HS	1	OUTER ~~CHANNEL~~ HARBOR	T	
DRIVING	SL	10:57	1	HS	1	OUTER	4T	
Post Driving E-Dock	SL	11:00	1	N/A	N/A	Outer	N/A	No Animals
POST	SL	11:21	1	HS	2	MID	T	
PRE	SL	12:38	2	HS	1	OUTER	F	
DRIVING DOCK	SL	1:00	2	HS	1	MID	T	
Post	SL	2:31	2	HS	1	MID	M	

J:k Dock

December 17th

Observer Name:

Date: 12/17/14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
	Sea Hawk	11:45	overcast	HS	1	East Entrance		
		2:00	overcast w/ Rain	HS	1	East Entrance outer Right	milling	
		3:40	overcast	HS	1	East entrance just outside of Browns	swimming	
		4:30	overcast	HS	1	East entrance of Browns	milling/ swimming	
post-drilling Final day		4:35		N/A				

Observer Name: Erin Corra, Eric Eisenhardt
Date: 12/17/14 Brian (capt)

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
J & K docks	Sea LION	1245	overcast lt. rain	mamu's h. seal gbh b. eagle	241 1 1 1	outer channel	chillin'	lots of marine debris!
pre-drive	"	1305	"	h. seal	1	"	"	
"	"	1309	"	h. seal	1	"	"	
"	"	1320	"	mamu	3	"	transiting	
"	"	1330	"	dbl cres cormorant	2	"	in water/ diving	
drive time!	"	1332	"	h. seal mamu	1 16	"	diving/ surfacing	
"	"	1336	"	h. seal	1	"	"	
"	"	1340	"	common murre	1	"	surface	
post drive	"	13:42	"	—				
"	"	13:46	"	mamu's	10	"	landed/ surface/ diving	

Observer Name: Erin Corra, Eric Eisenhardt
Date: 12/17/14 Brian (Capt)

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Post drive	Sea Lion	1407	overcast lt rain	mama's gulls	11 6	Outer Channel	[redacted] transiting	
"	"	1412	"	h. seal	1	"	chillin'	marine debris
"	"	1421	"	mama's	2	"	"	
pre drive	"	1439	"	mama's C. murre h. seal	5 1 1	"	"	
drive	"	1458	overcast lt rain Beaufort 0			"		jumping juvenile salmon
post drive	"	1515	"			"		
drive	"	1520	"			"		
"	"	1527	"	mama's gulls	2 5	[redacted] "	surface activity	
post drive	"	1535	"					
drive	"	1543	"					

Observer Name: Erin Corra, Eric Eisenhardt, Brian (Cap't)

Date: 12/17/14

Port of Friday Harbor NWS 2012-468

Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
post drive	Sea lion	1545	overcast light rain					
drive (#2 again)	"	1546	"					
post drive	"	1550	"					
drive (#4)	"	1553	"	mamu	1	outer channel	diving	[illegible]
drive (#4)	"	1558	"	"	1	"	"	
post drive	"	1604	overcast					
drive (#5)	"	1605	overcast					
post drive	"	1609	"					
drive (#4)	"	1612	"					
post drive	"	1618	"					

final! " 1640

Observer Name: Heather Mac
Date: 12/17

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Pre	Land	1:03	2	Harbor Seal	1	Mid	Traveling	
Pre	" "	1:29	3	Harlequin Ducks	2	Mid	" "	Didn't know if they count!
Pre	" "	1:29	3	Harbor Seal	1	" "	Milling	
Driving	" "	1:41	3	" "	1	" "	Traveling	
Post	" "	2:10	3	Harbor Seal	1	" "	Traveling	
Pre	" "	2:56	2	" "	2!	Mid coastline	Milling	SO cute!
Driving	" "	3:08	2	" "	2	" "	Milling	
Driving	" "	3:11	2	" "	"	" "	" "	same seals
Driving	" "	3:32	2	" "	1	" "	milling	
Driving	" "	3:38	2	" "	1	" "	milling	

Observer Name: Heather Mac
Date: 12/19

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Driving	Land	3:57	2	Harbor Seal	1	Mid	Milling	
Driving	" "	3:59	2	" "	1	" "	" "	Same one possibly
" "	" "	4:02	2	" "	1	" "	" "	
Post	" "	4:19	2	" "	1	" "	" "	

Observer Name: Amy
Date: 12/17/14

Port of Friday Harbor NWS 2012-468
Marine Mammal Monitoring Data Sheet

Construction Activity (include pile information)	Monitor Location (Land/Vessel Detail)	Time	Weather Conditions (include Beaufort Scale #)	Species Type	#	Species Location (inner, mid, outer harbor or mid, outer channel)	Behavior (i.e. milling, logging, foraging, traveling)	Other Comments
Arriving	Marina	3:55	BS=0 cloudy	Harbor Seal	1	inner harbor	milling	

Summary for 9/30/2014

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 9/30/14

Sheet 1 of 1 for this day.

Monitor Name: COMPILED BY DON NIXON

Monitoring Location: _____

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
3	1200 to 1700	SUN - PARTLY CLOUDY	1	HARBOR SEALS	3	DOCK BRACE BREAKWATER A, B, C1	

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Summary for 9/30/2014

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 9/30/14

Sheet 1 of 1 for this day.

Monitor Name: DON NIXON

Monitoring Location: 10 METER ZONE AT DERRICK BARGE

Sighting #	Time of Day	Weather Description | Sea State	Species	# of Individuals	Location*	Behavior
NONE	—	—	—	—	—	—

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

1 of 1 for this location

Date: 9/30/14

Sheet 2 of 2 for this day.

Monitor Name: Michael Long

Monitoring Location: Port C-Breakwater

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
1	1630	partly Cloudy	1	Harbor Seal	1	100 ft off BWB South end	Surfaced to Sniff

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: Sept 30 2014 Sheet 1 of 1 for this day.

Monitor Name: Jenny McElyea Monitoring Location: Breakwater A

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
1	1260	Sun/clouds	1	Harbor Seal	1	SW BWA	SP Hbr
2	1600	Sun/clouds	1	Harbor Seal	1	SE BWA	S-1 see looking around

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 9/30/14

Sheet 1 of 1 for this day.

Monitor Name: Matt Orcutt

Monitoring Location: POFH - C Breakwater

Sighting #	Time of Day	Weather Description | Sea State	Species	# of Individuals	Location*	Behavior
NO sightings						

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

SUMMARY FOR 10/1/2014

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities** – MONITORING BY PORT CREW

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 10/1/2014

Sheet 1 of 1 for this day.

Monitor Name: COMPILED BY DAN NIXON

Monitoring Location: _____

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
1-8	0855 to 1612	SUNNY	1	HARBOR SEALS	8	DERRICK BARGE BREAKWATER 'A' ~~BREAKWATER B-1~~ BREAKWATER C-1	

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

SUMMARY FOR 10/1/14

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: OCT 1 2014 Sheet 1 of 1 for this day.

Monitor Name: Jenny McElroy Monitoring Location: BARGE A

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
1	0925	Sunny	1	Harbor Seal	1	G-H	UP down 5.7sec
2	0945	Sunny	1	Harbor Seal	1	West of H	UP down 5.7sec

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 10/1/14

Sheet 1 of 1 for this day.

Monitor Name: Matt Owens II

Monitoring Location: POFH - Breakwater C

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
1	9:11	Good	1	Harbor Seal	1	Just off Breakwater C	Calm - swimming
2	9:35	Good	1	Harbor Seal	1	Just off Breakwater C	Calm
3	11:40	Good	2	Harbor Seal	1	Sea Plane Dock	Happy/playful
4	2:09	Good	1	Harbor seal	1	Between Brown Isle and Sea pt. Dock	normal

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 10/1/14 Sheet_____ of____ for this day.

Monitor Name: Kevin/Charles Monitoring Location: BWB (Front Face)

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior	
1	8 30 AM	calm		harbor seal	1	Mansons Bouy	Swimming north	
	(observed PRIOR to Required observation time)							
1	9:05	calm (1)	(1)	harbor seal	1	Right in front of customs	Swimming North	CN
							feeding	
1	9:20	Calm (1)	(1)	harbor seal	1	30 yards off customs	feeding	CN

looks like same

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 10/1/14

Sheet 1 of 1 for this day.

Monitor Name: Dsal Wilson

Monitoring Location: 10m exclusion area at hammer

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
NO SIGHTINGS							

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Summary

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 10/20/2014

Sheet 1 of 1 for this day.

Monitor Name: COMPILED BY DAN MAJOR

Monitoring Location: _____

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
1-3	1330	OVERCAST, CALM GOOD VISIBILITY	1	HARBOR SEAL	3	DERELICT BARGE "BREAKWATER 'A' BREAK WATER 'B'	

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Summary Page 10/20/14

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 10/22/14

Sheet 1 of 1 for this day.

Monitor Name: DAN WIXON

Monitoring Location: 10m ZONE AT PILE & VICINITY END OF 'A' FLOAT

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
Ø	1330	OVERCAST, GOOD VIS	1	NONE	Ø	—	—

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 10.20.14

Monitor Name: Jessy McElveen

Sheet 1 of 1 for this day.

Monitoring Location: Breakwater A

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
1	1325	Overcast	1	Harbor Seal	1	40' N Breakwater A	Breaching
2	1331	"	"	"	1	40'± N Breakwater A	Breaching

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 10/20/14 Sheet 1 of 1 for this day.

Monitor Name: Matt Overall Monitoring Location: POFH - Breakwater C

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
1	1:50	Good	1	Harbor Seal	1	Between Breakwater C and Brown Island	Calm

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

SUMMARY FOR 10/27/14

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: OCTOBER 27, 2014 Sheet 1 of 1 for this day.

Monitor Name: COMPILED BY DON NIXON Monitoring Location: _____

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location* OF OBSERVATION	Behavior
1-8	1300 to 1600	OVERCAST, COOL	1-2	HARBOR SEAL	12	DERRICK BARGE AT HEAD OF 'E' BREAKWATER 'A' BREAKWATER 'B'	

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

SUMMARY FOR 10/27/14

~~SUMMARY FOR 10/27/14~~

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 10/27/2014

Sheet 1 of 1 for this day.

Monitor Name: DON NIXON

Monitoring Location: HEAD OF 'F' DOCK - 10 m ZONE

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
-0-							

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

~~SUMMARY FOR 11/2~~

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: Oct 27 2014

Sheet 1 of 1 for this day.

Monitor Name: Matt Overnell

Monitoring Location: POFH Breakwater B

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
1	1:20	Fair	2	Harbor Seal	2	off Breakwater B	Boating along
2	3:20	Fair	2	Harbor Seal	1	Off Breakwater B	Swimming
3	3:40	Fair	1	Harbor Seal	2	off Breakwater B	Resting

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: Oct 27, 2014

Sheet 1 of 1 for this day.

Monitor Name: Jerry McElyea

Monitoring Location: Breakwater A

Sighting #	Time of Day	Weather Description	Sea State	Species	# of Individuals	Location*	Behavior
1	1330	Grey Skies No rain	1-2	Harbor Seal	1	NE Stern of America Spirit	Head up look around 10 sec.
2	1512	"	"	"	1	Benvenuto Bay Point 100 yds out	10 seconds
3	1521	"	"	"	2	Same General Area	30 seconds
4	1527	"	"	"	1	25' North of Breakwater A Shack	20 seconds
5	1544	"	"	"	2	North of Breakwater A Shack 50' apart	10 seconds.

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

SUMMARY FOR 11/4/14

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 11/4/2014

Sheet_____ of____ for this day.

Monitor Name: COMPILED BY DON NIXON

Monitoring Location: BREAKWATERS A, B, C 10 m zone @ derrick barge inner marina

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
1	1430	CALM, SUNNY	1	HARBOR SEAL	1	Just off BWB	calm

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

SUMMARY FOR 11/4/14

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 11/4/14

Sheet 1 of 1 for this day.

Monitor Name: MATT Overall

Monitoring Location: POFH Breakwater C

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
1	2:30	Calm	1	Harbor seal	1	Just of Breakwater B	Calm

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 11.4.14

Sheet 1 of 1 for this day.

Monitor Name: Jenny McElyea

Monitoring Location: Breakwater A

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
1							

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 11/4/2014

Sheet 1 of 1 for this day.

Monitor Name: DON NIXON

Monitoring Location: 10 m zone at derrick barge + inner marina

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
Ø							

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

SUMMARY FOR 11/5/14

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 11/5/2014

Sheet_____ of____ for this day.

Monitor Name: COMPILED BY DON NIXON

Monitoring Location: 10 m ZONE, INNER MARINA
BREAKWATER B
BREAKWATER C

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
5	~~0755~~ to 0713 1138	OVERCAST LIGHT BREEZE	1-2	HARBOR SEAL	5	BREAKWATER B BREAKWATER C	FEEDING, HUNTING, CALM

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

SUMMARY FOR 11/5/14

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 11/5/2014

Sheet 1 of 1 for this day.

Monitor Name: DON NIXON

Monitoring Location: 10m ZONE & INNER MARINA

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
0							

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: Pile Removal Activities

Project Name: Port of Friday Harbor Marina Improvements – Phase II

Date: 11/5/14

Sheet 1 of 1 for this day.

Monitor Name: Matt Barnes

Monitoring Location: POFH Breakwater C

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
1	7:45	Good	1	Harbor seal	1	Inside Breakwater B	Calm
2	7:52	Good	1	Harbor seal	1	Between Brown Isle. and Breakwater B	Calm

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: Nov 5 2014 Sheet 1 of ____ for this day.

Monitor Name: Erik Fidshamnaar Monitoring Location: BWB

Sighting #	Time of Day	Weather Description	Sea State	Species	# of Individuals	Location*	Behavior
1	7:20	Beaufort	2	H Seal		Outside BWB	Feeding Heave of [illegible]
2	7:20	" "		H Seal	1	[illegible] BWB	Hunting, mostly solid / Dark
3	10:40	" "	3	H Seal	1	Outside BWB	Feeding Dark Head

7:00
[illegible]
10:40am
11:40am

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 12/30/14 Sheet 1 of 1 for this day.

Monitor Name: Matt Revell Monitoring Location: POFH Breakwater C

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
Ø							

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: Dec 30 -2014 Sheet 1 of ___ for this day.

Monitor Name: Erik Edshammar Monitoring Location: BWB

Sighting #	Time of Day	Weather Description | Sea State		Species	# of Individuals	Location*	Behavior
1	9	Clear/Sunny	1	Harbor Seal	1	Inside BWB	Feeding

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.

Port of Friday Harbor Marine Mammal Observation Sheet:

Marine Mammal Observations for: **Pile Removal Activities**

Project Name: **Port of Friday Harbor Marina Improvements – Phase II**

Date: 12-30-14

Sheet 1 of 1 for this day.

Monitor Name: DON NIXON

Monitoring Location: BWA

Sighting #	Time of Day	Weather Description | Sea State	Species	# of Individuals	Location*	Behavior
1	9:00AM	CLEAR, COLD, CALM	HARBOR SEAL	1	BOTH INSIDE & OUTSIDE of BWA	SHALLOW, ROLLING DIVES

*E.g., Direction, Distance Estimate within harbor, or you can mark on a figure with the sighting number.