Appendix E: Vegetation and Wetlands

PART 3 of 3

Appendix B PHOTOGRAPHS This page is intentionally left blank.



Photo 1. Photo of watercourse 1 within Wetland 1 near the Starrigavan Campground at Mile Post 0. Photo taken June 24, 2015.



Photo 2. Photo of swales and troughs (mosaic) in Wetland 1; view east. Photo taken June 24, 2015.



Photo 3. Photo of forested wetland habitat in Wetland 1 at Data Point 3; view south. Photo taken June 24, 2015.



Photo 4. Photo of upland forest habitat at data point 4 near flag II2; view west. Photo taken June 24, 2015.



Photo 5. Photo of seep emanating from the hillside within Wetland 2; view east. Photo taken June 19, 2015.



Photo 6. Photo of evergreen forest wetland habitat in Wetland 3; view west. Photo taken June 19, 2015.



Photo 7. Photo of watercourse 4 flowing into Wetland 3; view north. Evergreen forest wetland habitat begins below the alignment (left side of photo). Photo taken on June 19, 2015.



Photo 8. Photo of evergreen forest habitat in Wetland 4; view west. Photo taken June 19, 2015.



Photo 9. Photo of watercourse 6 on bedrock with boulders and gravels; view north. Photo taken June 19, 2015.



Photo 10. Photo of Wetland 5 with saturated soils and dense herbaceous groundcover; view southwest. Photo taken June 19, 2015.



Photo 11. Photo of watercourse 9 within evergreen forest habitat in Wetland 6; view north. Photo taken June 24, 2015.



Photo 12. Photo of evergreen forest habitat in Wetland 7 near data points 15 and 16; view north. Photo taken June 24, 2015.



Photo 13. Photo of watercourse 16, a typical hillside wash in this section of the study area, looking down gradient. Photo taken June 19, 2015.



Photo 14. Photo of watercourse 20, a typical hillside wash along this stretch of the alignment along Katlian Bay. Photo taken June 19, 2015.



Photo 15. Photo of intermittent watercourse 21F with gravel deposits and evidence of scour. Photo taken June 17, 2105.



Photo 16. Photo of watercourse 23 confined by steep banks with dense Sitka alder (*Alnus viridus*) growth. Photo taken June 17, 2015.



Photo 17. Photo of herbaceous groundcover within Wetland 8 looking up slope; view southeast. Photo taken June 17, 2015.



Photo 18. Photo of evergreen forest habitat in Wetland 9 near data point 19; view southeast. Photo taken on June 17, 2015.



Photo 19. Photo of watercourse 29 looking down slope towards Katlian Bay; view northwest. Photo taken June 17, 2015.



Photo 20. Photo of watercourse 31 with a bedrock and boulder substrate in a ravine where a bridge is proposed. Photo taken June 18, 2015.



Photo 21. Photo of watercourse 33 and debris flow within an incised drainage. Photo taken June 18, 2015.



Photo 22. Photo of watercourse 33B on a steep gradient looking down slope. Photo taken June 18, 2015.



Photo 23. Photo of watercourse 34 (Clearcut Creek) within a steep gorge looking up stream. Photo taken June 18, 2015.



Photo 24. Photo of forested evergreen and emergent habitat within Wetland 10; view west. Photo taken June 23, 2015.



Photo 25. Photo of evergreen forest habitat on the northeast side of Wetland 10. Photo taken June 23, 2015.



Photo 26. Photo of watercourse 36F, a typical drainage along the steep slopes of the south side of Katlian Bay. Photo taken June 23, 2015.



Photo 27. Photo of Wetland 11 and watercourse 37C within the forested and emergent wetland habitat. Photo taken June 23, 2015.



Photo 28. Photo of boundary between upland (left side of photo) and wetland (right side of photo), documented as data points 27 and 28. Photo taken June 23, 2015.



Photo 29. Photo of evergreen forest habitat in Wetland 12. Photo taken June 23, 2015.



Photo 30. Photo of watercourse 40 looking down slope. Photo taken June 23, 2015.



Photo 31. Photo of watercourse 42 looking downslope. Photo taken June 23, 2015.



Photo 32. Photo of intermittently flowing watercourse 50E with a gravel substrate. Photo taken June 25, 2015.



Photo 33. Photo of evergreen forest habitat in Wetland 13, with an understory dominated by skunk cabbage (*Lysichton americanus*). Photo taken June 25, 2015.



Photo 34. Photo of upland habitat at the northwest boundary of Wetland 13. Photo taken June 25, 2015.



Photo 35. Photo of watercourse 50H within Wetland 13 looking downstream to the southeast. Photo taken June 25, 2015.



Photo 36. Photo of South Katlian River (watercourse 51) looking upstream. Photo taken June 22, 2015.



Photo 37. Photo of watercourse 52, and overflow channel within the South Katlian River floodplain. Photo taken June 22, 2015.



Photo 38. Photo of pond habitat in Wetland 14 (former borrow gravel pit). Photo taken June 22, 2015.



Photo 39. Photo of evergreen forest habitat at edge of Wetland 15, which transitions to emergent habitat outside of the study area. Photo taken June 22, 2015.



Photo 40. Photo of forest evergreen and emergent (muskeg) habitat in Wetland 16. Photo taken June 22, 2015.



Photo 41. Photo of Wetland 17 with thick herbaceous groundcover and organic soils. Photo taken June 22, 2015.



Photo 42. Photo of watercourse 57 on bedrock and confined by steep slopes. Photo taken June 22, 2015.



Photo 43. Photo of evergreen forest and emergent habitat (muskeg) in Wetland 18. Photo taken June 22, 2015.



Photo 44. Photo of organic soils and sundews (*Drosera rotundifolia*) typical of Wetlands 16, 17, 18, and 19. Photo taken June 22, 2015.



Photo 45. Photo of Wetland 19 that drains downslope to a large muskeg northwest of the study area. Photo taken June 22, 2015.



Photo 46. Photo of watercourse 58 looking upslope that flows into Wetland 20 to the northwest. Photo taken June 22, 2015.



Photo 47. Photo of muskeg habitat in Wetland 20 at toe of slope outside the study area. Photo taken June 21, 2015.



Photo 48. Photo of upland/wetland boundary of Wetland 20 near data points 47 and 48. Photo taken June 21, 2015.



Photo 49. Photo of watercourse 60 within Wetland 21. Photo taken June 21, 2015.



Photo 50. Photo of Sukka Héen River (watercourse 61). Photo taken June 21, 2015.



Photo 51. Photo of typical upland red alder (*Alnus rubra*) forest near Wetland 22. Photo taken June 21, 2015.



Photo 52. Photo of red alder forest in Wetland 22 near data points 55 and 56. Photo taken June 21, 2015.



Photo 53. Photo of old logging road at the end of Wetland 22 (right side of photo) near Milepost 7.5. Photo taken June 21, 2015.



Photo 54. Photo of Wetland 23 at data points 57 and 58; view southwest. Photo taken June 20, 2015.



Photo 55. Photo of evergreen forest in Wetland 23 at data points 59 and 60. Photo taken June 20, 2015.



Photo 56. Photo of Wetland 24 and understory dominated by skunk cabbage at data point 63. Photo taken June 20, 2015.



Photo 57. Photo of forested upland at data point 64 with an understory cow parsnip (*Heracleum maximum*) and wood reed grass (*Cinna latifolia*). Photo taken June 20, 2015.



Photo 58. Photo of (overflow channel) watercourse 63 in the Katlian River floodplain. Photo taken June 20, 2015.



Photo 59. Photo of Katlian River (watercourse 64A) looking upstream and to the east. Photo taken June 20, 2015.



Photo 60. Photo of upland red alder forest near intersection of new road and logging road 75797. Photo taken June 25, 2015.

Appendix C SUMMARY OF STREAM CHARACTERISTICS AND USACE CLASSIFICATIONS This page is intentionally left blank.

Water-	Anadromous Waters Catalog	Substrate	Flow	USACE	Flow Path to TNW (Sitka Sound, Starrigavan Bay, and
course ID ¹	Number	Composition	Duration	Classification	Katlian Bay)
1	NA	Organics, gravel	Perennial	Perennial RPW	Drains into Starrigavan Bay in Sitka Sound
2	NA	Cobble, wood	Perennial	Perennial RPW	Drains into Starrigavan Bay in Sitka Sound
3	NA	Organics	Perennial	Perennial RPW	Drains into Starrigavan Bay in Sitka Sound
4	NA	Cobble, bedrock	Perennial	Perennial RPW	Drains into Starrigavan Bay in Sitka Sound
5	NA	Organics, cobble	Perennial	Perennial RPW	Drains into Starrigavan Bay in Sitka Sound
6	NA	Bedrock, boulder, gravel	Perennial	Perennial RPW	Drains into Starrigavan Bay in Sitka Sound
7	NA	Organics, wood	Intermittent	Seasonal RPW	Flows into 113-41- 10148 that drains to Starrigavan Bay in Sitka Sound
8	NA	Gravel, cobble	Perennial	Perennial RPW	Flows into 113-41- 10148 that drains to Starrigavan Bay in Sitka Sound
9	NA	Wood, gravel	Perennial	Perennial RPW	Flows from Wetland 6 into 113-41-10148 that drains to Starrigavan Bay in Sitka Sound
10	NA	Fines, gravel	Perennial	Perennial RPW	Flows from Wetland 6 into 113-44-10090 that drains to Mosquito Cove in Katlian Bay
11	NA	Gravel	Perennial	Perennial RPW	Flows into 113-44- 10090 that drains to Mosquito Cove in Katlian Bay
12	NA	Organics, wood	Intermittent	Seasonal RPW	Flows from Wetland 6 into 113-44-10090 that drains to Mosquito Cove in Katlian Bay
13	NA	Cobble, gravel	Perennial	Perennial RPW	Flows into 113-44- 10090 that drains to Mosquito Cove in Katlian Bay
14	NA	Boulder, cobble, gravel	Perennial	Perennial RPW	Flows into 113-44- 10090 that drains to Mosquito Cove in Katlian Bay
15	NA	Cobble, gravel	Perennial	Perennial RPW	Flows into 113-44- 10090 that drains to

Table C-1. Summary of Stream Characteristics and USACE Classifications
Water- course ID ¹	Anadromous Waters Catalog Number	Substrate Composition	Flow Duration	USACE Classification	Flow Path to TNW (Sitka Sound, Starrigavan Bay, and Katlian Bay)
					Mosquito Cove in Katlian Bay
16	NA	Gravel	Intermittent	Seasonal RPW	Flows into 113-44- 10090 that drains to Mosquito Cove in Katlian Bay
17	NA	Bedrock, boulder, cobble	Perennial	Perennial RPW	Flows into 113-44- 10090 that drains to Mosquito Cove in Katlian Bay
18	NA	Bedrock, cobble, wood	Perennial	Perennial RPW	Drains to Mosquito Cove in Katlian Bay
18A	NA	Bedrock, boulder	Intermittent	Seasonal RPW	Drains to Mosquito Cove in Katlian Bay
19	NA	Gravel	Perennial	Perennial RPW	Drains to Mosquito Cove in Katlian Bay
20	NA	Cobble, gravel, wood	Perennial	Perennial RPW	Drains to Mosquito Cove in Katlian Bay
21	NA	Gravel	Perennial	Perennial RPW	Drains to Mosquito Cove in Katlian Bay
21A	NA	Cobble	Intermittent	Seasonal RPW	Drains to Mosquito Cove in Katlian Bay
21B	NA	Boulder, Cobble	Intermittent	Seasonal RPW	Drains to Katlian Bay
21C	NA	Cobble, gravel	Intermittent	Seasonal RPW	Drains to Katlian Bay
21D	NA	Cobble, gravel	Intermittent	Seasonal RPW	Drains to Katlian Bay
21E	NA	Cobble, gravel	Intermittent	Seasonal RPW	Drains to Katlian Bay
21F	NA	Cobble, gravel	Intermittent	Seasonal RPW	Drains to Katlian Bay
22	NA	Bedrock, gravel	Perennial	Perennial RPW	Drains to Katlian Bay
22A	NA	Cobble, gravel	Perennial	Perennial RPW	Drains to Katlian Bay
22B	NA	Organics, gravel	Intermittent	Seasonal RPW	Drains to Katlian Bay
23	NA	Bedrock, gravel, wood	Perennial	Perennial RPW	Drains to Katlian Bay
23A	NA	Gravel	Intermittent	Seasonal RPW	Drains to Katlian Bay
23B	NA	Organics, bedrock, wood	Perennial	Perennial RPW	Drains to Katlian Bay
23C	NA	Gravel, organics	Perennial	Perennial RPW	Drains to Katlian Bay
23D	NA	Wood, gravel	Perennial	Perennial RPW	Drains to Katlian Bay
24	NA	Bedrock	Perennial	Perennial RPW	Drains to Katlian Bay
25	NA	Bedrock	Perennial	Perennial RPW	Drains to Katlian Bay
26	NA	Bedrock,	Perennial	Perennial RPW	Drains to Katlian Bay

Water- course ID ¹	Anadromous Waters Catalog Number	Substrate Composition	Flow Duration	USACE Classification	Flow Path to TNW (Sitka Sound, Starrigavan Bay, and Katlian Bay)
		gravel			
27	NA	Boulder, gravel	Perennial	Perennial RPW	Drains to Katlian Bay
27A	NA	Gravel	Perennial	Perennial RPW	Drains to Katlian Bay
27B	NA	Cobble, gravel	Intermittent	Seasonal RPW	Drains to Katlian Bay
27C	NA	Gravel	Perennial	Perennial RPW	Drains to Katlian Bay
28	NA	Bedrock, gravel	Perennial	Perennial RPW	Drains to Katlian Bay
28A	NA	Wood, cobble	Perennial	Perennial RPW	Drains to Katlian Bay
28B	NA	Gravel, cobble	Perennial	Perennial RPW	Drains to Katlian Bay
28C	NA	Gravel	Perennial	Perennial RPW	Drains to Katlian Bay
29	NA	Bedrock	Perennial	Perennial RPW	Drains to Katlian Bay
30	NA	Cobble	Perennial	Perennial RPW	Drains to Katlian Bay
30A	NA	Cobble	Intermittent	Seasonal RPW	Drains to Katlian Bay
31	NA	Bedrock, boulder, gravel	Perennial	Perennial RPW	Drains to Katlian Bay
31A	NA	Gravel, organics	Intermittent	Seasonal RPW	Drains to Katlian Bay
31B	NA	Gravel	Intermittent	Seasonal RPW	Drains to Katlian Bay
32	NA	Gravel, Wood	Perennial	Perennial RPW	Drains to Katlian Bay
32A	NA	Gravel	Perennial	Perennial RPW	Drains to Katlian Bay
32B	NA	Bedrock, Gravel	Perennial	Perennial RPW	Drains to Katlian Bay
32C	NA	Gravel	Perennial	Perennial RPW	Drains to Katlian Bay
32D	NA	Boulder, wood	Perennial	Perennial RPW	Drains to Katlian Bay
33	NA	Cobble, gravel	Perennial	Perennial RPW	Flows into Clearcut Creek that drains to Katlian Bay
33A	NA	Gravel, Wood	Intermittent	Seasonal RPW	Flows into Clearcut Creek that drains to Katlian Bay
33B	NA	Cobble, gravel	Intermittent	Seasonal RPW	Flows into Clearcut Creek that drains to Katlian Bay
33C	NA	Cobble, gravel	Perennial	Perennial RPW	Flows into Clearcut Creek that drains to Katlian Bay
33D	NA	Bedrock, cobble, gravel	Perennial	Perennial RPW	Flows into Clearcut Creek that drains to Katlian Bay
33E	NA	Cobble, gravel	Perennial	Perennial RPW	Flows into Clearcut Creek that drains to Katlian Bay
33F	NA	Bedrock, gravel	Perennial	Perennial RPW	Flows into Clearcut Creek that drains to Katlian Bay

Water- course ID ¹	Anadromous Waters Catalog Number	Substrate Composition	Flow Duration	USACE Classification	Flow Path to TNW (Sitka Sound, Starrigavan Bay, and Katlian Bay)
34 (Clearcut Creek)	113-44-10080	Boulder, cobble, gravel	Perennial	Perennial RPW	Drains to Katlian Bay
35	NA	Bedrock, gravel	Perennial	Perennial RPW	Flows into Clearcut Creek that drains to Katlian Bay
35A	NA	Gravel	Perennial	Perennial RPW	Flows into Clearcut Creek that drains to Katlian Bay
35B	NA	Organics, cobble	Intermittent	Seasonal RPW	Flows into Stream 35, then to Clearcut Creek that drains to Katlian Bay
36	NA	Bedrock, cobble, gravel	Perennial	Perennial RPW	Flows into Clearcut Creek that drains to Katlian Bay
36A	NA	Cobble, gravel	Perennial	Perennial RPW	Flows into Clearcut Creek that drains to Katlian Bay
36B	NA	Gravel	Perennial	Perennial RPW	Drains to Katlian Bay
36C	NA	Cobble	Intermittent	Seasonal RPW	Drains to Katlian Bay
36D	NA	Bedrock, gravel	Perennial	Perennial RPW	Drains to Katlian Bay
36E	NA	Organics, cobble	Perennial	Perennial RPW	Drains to Katlian Bay
36F	NA	Bedrock, cobble	Perennial	Perennial RPW	Drains to Katlian Bay
37	NA	Organics, cobble, gravel, bedrock	Perennial	Perennial RPW	Drains to Katlian Bay
37A	NA	Organics	Intermittent	Seasonal RPW	Drains to Katlian Bay
37B	NA	Gravel, fines	Perennial	Perennial RPW	Drains to Katlian Bay
37C	NA	Bedrock, gravel	Perennial	Perennial RPW	Drains to Katlian Bay
37D	NA	Organics, gravel	Perennial	Perennial RPW	Drains to Katlian Bay
38	NA	Boulder, gravel	Perennial	Perennial RPW	Drains to Katlian Bay
38A	NA	Gravel	Intermittent	Seasonal RPW	Drains to Katlian Bay
38B	NA	Gravel	Perennial	Perennial RPW	Drains to Katlian Bay
38C	NA	Gravel	Perennial	Perennial RPW	Drains to Katlian Bay
39	NA	Boulder, cobble	Perennial	Perennial RPW	Drains to Katlian Bay
40	NA	Cobble, gravel	Perennial	Perennial RPW	Drains to Katlian Bay
40A	NA	Cobble, gravel	Perennial	Perennial RPW	Flows into 113-44- 10070 that drains to Katlian Bay

Water- course ID ¹	Anadromous Waters Catalog Number	Substrate Composition	Flow Duration	USACE Classification	Flow Path to TNW (Sitka Sound, Starrigavan Bay, and Katlian Bay)
41	NA	Bedrock, boulder, gravel	Perennial	Perennial RPW	Flows into 113-44- 10070 that drains to Katlian Bay
41A	NA	Boulder, gravel	Perennial	Perennial RPW	Flows into 113-44- 10070 that drains to Katlian Bay
42	113-44-10070	Bedrock, boulder, cobble	Perennial	Perennial RPW	Drains to Katlian Bay
42A	NA	Gravel, fines	Perennial	Perennial RPW	Drains to Katlian Bay
42B	NA	Gravel, cobble	Perennial	Perennial RPW	Drains to Katlian Bay
43	NA	Bedrock, cobble	Perennial	Perennial RPW	Drains to Katlian Bay
44	NA	Gravel	Perennial	Perennial RPW	Drains to Katlian Bay
45	NA	Cobble, gravel	Perennial	Perennial RPW	Drains to Katlian Bay
46	NA	Boulder, cobble, gravel	Perennial	Perennial RPW	Drains to Katlian Bay
47	NA	Bedrock	Perennial	Perennial RPW	Drains to Katlian Bay
48	NA	Cobble, gravel	Perennial	Perennial RPW	Drains to Katlian Bay
49	NA	Bedrock, boulder, gravel	Perennial	Perennial RPW	Drains to Katlian Bay
50	NA	Gravel	Perennial	Perennial RPW	Drains to Katlian Bay
50A	NA	Gravel	Perennial	Perennial RPW	Drains to Katlian Bay
50B	NA	Gravel	Intermittent	Seasonal RPW	Drains to Katlian Bay
50C	NA	Gravel	Intermittent	Seasonal RPW	Drains to Katlian Bay
50D	NA	Gravel	Intermittent	Seasonal RPW	Drains to Katlian Bay
50E	NA	Gravel	Intermittent	Seasonal RPW	Drains to Katlian Bay
50F	NA	Organics, gravel	Perennial	Perennial RPW	Flows into South Katlian River
50G	NA	Organics, gravel	Intermittent	Seasonal RPW	Flows into South Katlian River
50H	Uncatalogued Anadromous Stream	Fines, gravel	Perennial	Perennial RPW	Flows into South Katlian River
51 (South Katlian River)	113-44-10050	Gravel	Perennial	Perennial RPW	Flows into Katlian Bay
52	NA	Sand, gravel	Intermittent	Non-RPW	Overflow channel of South Katlian River
53	NA	Sand, gravel	Intermittent	Non-RPW	Overflow channel of South Katlian River
53A	NA	Cobble, organics	Perennial	Perennial RPW	Flows into Wetland 15 that is adjacent to South Katlian River

Water- course ID ¹	Anadromous Waters Catalog Number	Substrate Composition	Flow Duration	USACE Classification	Flow Path to TNW (Sitka Sound, Starrigavan Bay, and Katlian Bay)
54	NA	Cobble, organics	Perennial	Perennial RPW	Confluences with Stream 55, then flows into Wetland 15 that is adjacent to South Katlian River
55	NA	Gravel, fines	Perennial	Perennial RPW	Confluences with Stream 54, then flows into Wetland 15 that is adjacent to South Katlian River
56	NA	Bedrock, boulder	Perennial	Perennial RPW	Flows into muskeg that is adjacent to South Katlian River
56A	NA	Organics, gravel	Intermittent	Seasonal RPW	Flows into muskeg that is adjacent to South Katlian River
57	Uncatalogued Anadromous Stream	Bedrock, gravel	Perennial	Perennial RPW	Flows into muskeg that is adjacent to South Katlian River
57A	NA	Organics, gravel	Perennial	Perennial RPW	Flows into Wetland 20 that drains to Sukka Héen
57B	NA	Organics	Intermittent (Seep)	Seasonal RPW	Flows into Wetland 20 that drains to Sukka Héen
58	NA	Organics, gravel	Perennial	Perennial RPW	Flows into Wetland 20 that drains to Sukka Héen
58A	NA	Gravel, fines	Perennial	Perennial RPW	Flows into Wetland 20 that drains to Sukka Héen
58B	NA	Organics, gravel	Perennial	Perennial RPW	Flows into Wetland 20 that drains to Sukka Héen
59	Uncatalogued Anadromous Stream	Cobble, gravel, wood	Perennial	Perennial RPW	Flows into Sukka Héen
60	Uncatalogued Anadromous Stream	Fines, gravel	Perennial	Perennial RPW	Flows into Sukka Héen
61 (Sukka Héen)	113-44-10040	Gravel	Perennial	Perennial RPW	Flows into Katlian Bay
61A	NA	Organics, gravel	Intermittent	Seasonal RPW	Flows into Katlian River
62	NA	Fines, gravel	Perennial	Perennial RPW	Flows into Katlian River
63	NA	Sand, fines	Intermittent	Non-RPW	Overflow channel of Katlian River
63A	NA	Sand, fines	Intermittent	Non-RPW	Overflow channel of Katlian River

Water- course ID ¹	Anadromous Waters Catalog Number	Substrate Composition	Flow Duration	USACE Classification	Flow Path to TNW (Sitka Sound, Starrigavan Bay, and Katlian Bay)
64	NA	Sand, fines	Intermittent	Non-RPW	Overflow channel of Katlian River
64A (Katlian River)	113-44-10030	Gravel, cobble, sand	Perennial	Perennial RPW	Flows into Katlian Bay
64B	NA	Sand, fines	Intermittent	Non-RPW	Overflow channel of Katlian River
64C	NA	Sand, fines	Intermittent	Non-RPW	Overflow channel of Katlian River
65	NA	Sand, fines	Intermittent	Non-RPW	Overflow channel of Katlian River
66	NA	Sand, fines	Intermittent	Non-RPW	Overflow channel of Katlian River

Note: NA = not applicable; no documented use by anadromous or resident fish; TNW = Traditional Navigable Water; Perennial RPW = Relatively Permanent Water with year-round flow except during drought years;

Seasonal RPW = Relatively Permanent Water with seasonal (typically three months) of continuous flow but not yearround; Non-RPW = non-Relatively Permanent Water that does not flow at least seasonally.

¹ A total of 136 watercourses; naming convention includes additional watercourses (A, B, C, D, etc.) that were identified after the initial 66 watercourses were identified from 2014 surveys. Watercourses were named consecutively from MP 0 to MP 9.3.

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Appendix D WETLAND DETERMINATION DATA FORMS This page is intentionally left blank.

Project/Site: Katlian Bay Road		Borough/City: Sitka	Sampling Date: June 23, 2015
Applicant/Owner: ADOT & PF, Southcoa	st Region		Sampling Point: <u>1</u>
Investigator(s): _Jeff Gray, Tad Schwager		Landform (hillside, terrace, hum	mocks, etc.): hillside
Local relief (concave, convex, none): <u>no</u>	ne	Slope (%): <u>5-8</u>	
Subregion: Southeast Alaska	Lat:	Long:	Datum:
Soil Map Unit Name: Kupreanof gravelly	silt loam		NWI classification: PFO4B
Are climatic / hydrologic conditions on th	e site typical for this time of y	rear? Yes X No (I	f no, explain in Remarks.)
Are Vegetation, Soil, or H	lydrology significantly	y disturbed? Are "Normal (Circumstances" present? Yes X No
Are Vegetation, Soil, or H	lydrology naturally pi	roblematic? (If needed, ex	plain any answers in Remarks.)
SUMMARY OF FINDINGS – Att	ach site map showing s	ampling point locations, tra	ansects, important features, etc.
Hydrophytic Vegetation Present?	Yes X No	Is the Sampled Area	
Hydric Soil Present?	Yes X No	within a Wetland?	
Wetland Hydrology Present?	Yes X No	- within a wetland:	
Remarks:			
Data point located within a wetland	d; all three wetland indica	ators present. Data point loca	ited 10' west of flag 15-I3.

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum 1. Picea sitchensis	<u>% Cover</u> 35.00	<u>Species?</u> Yes	Status FACU	Number of Dominant Species That Are OBL, FACW, or FAC: ⁶ (A)
2. Alnus rubra	10.00	Yes	FAC	
3. Tsuga heterophylla	10.00	Yes	FAC	Total Number of Dominant Species Across All Strata: 8 (B)
4				
Total Cover:	55			Percent of Dominant Species That Are OBL, FACW, or FAC: ⁷⁵ (A/B)
50% of total cover: 22.5	20% o	f total cover	: 9	Prevalence Index worksheet:
Sapling/Shrub Stratum	F	Nie	FAC	Total % Cover of: Multiply by:
1Ainus rubra	5		FAC	OBL species x 1 =
2. Picea sitchensis	10	NO	FACU	
3. Vaccinium ovalifolium	30	Yes	FAC	
4. Menziesia ferrunginea	15	Yes	FACU	
5 Tiarella trifoliata				
6				
Total Cover:	60			Column Lotals: (A) (B)
50% of total cover: <u>30</u>	20% of	total cover:	12	Prevalence Index = B/A =
Herb Stratum	45	Vaa		Hydrophytic Vegetation Indicators:
1. Lysichiton americanus	40	res		✓ Dominance Test is >50%
2. Comus canadensis	5		FACU	Prevalence Index is ≤3.0
3. Cinna latifolia	15	Yes	FACW	Morphological Adaptations ¹ (Provide supporting
4. <u>Athyrium filix-femina</u>	10	Yes	FAC	data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
8				
9				
10				
Total Cover:	75			
50% of total cover: 37.5	20% of	total cover:	15	Indeenbutie
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare 0	Ground	0	Vegetation
% Cover of Wetland Bryophytes Total Cov (Where applicable)	er of Bryop	ohytes	35	Present? Yes X No
Remarks:				1
Hydrophytic vegetation indicator presen	t.			

SOI	
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Dopui	Matrix		Redo	ox Features				
(inches)	Color (moist)	%	Color (moist)	<u>%</u> Ty	rpe ¹ Loc ²	Texture		Remarks
0-18	10YR 2/1	100				organic	saturated	
Type: C=Cc	ncentration, D=De	pletion, RM=	Reduced Matrix, C	S=Covered or (Coated Sand G	rains. ² Lo	cation: PL=Por	e Lining, M=Matrix.
lydric Soil I	ndicators:		Indicators for	Problematic H	ydric Soils ³ :			
/ Histosol	or Histel (A1)		Alaska Col	or Change (TA	4) ⁴	Alaska	a Gleyed Withou	ut Hue 5Y or Redder
Histic Ep	pipedon (A2)		Alaska Alpi	ne Swales (TA	5)	Und Und	erlying Layer	
	n Culfiele (A4)		Alaska Red	lox With 2.5Y F	lue	Other	(Explain in Ren	narks)
Hydroge	n Sullide (A4)							
Hydroge Thick Da	n Sunde (A4) ark Surface (A12)							
Hydroge Thick Da Alaska G	n Sunde (A4) ark Surface (A12) Gleyed (A13)		³ One indicator of	of hydrophytic v	regetation, one	primary indica	tor of wetland h	ydrology,
Hydroge Thick Da Alaska G Alaska R	n Suilide (A4) irk Surface (A12) Gleyed (A13) Redox (A14)		³ One indicator of and an appro	of hydrophytic v opriate landscap	vegetation, one pe position mus	primary indica st be present u	tor of wetland h	ydrology, or problematic.
Hydroge Thick Da Alaska G Alaska R Alaska G	n Sullide (A4) Irk Surface (A12) Gleyed (A13) Redox (A14) Gleyed Pores (A15)		³ One indicator of and an appro ⁴ Give details of	of hydrophytic v opriate landscap color change ir	vegetation, one pe position mus n Remarks.	primary indica st be present u	tor of wetland h	ydrology, or problematic.
Hydroge Thick Da Alaska G Alaska R Alaska R Alaska G	ark Surface (A4) ark Surface (A12) Bleyed (A13) Redox (A14) Bleyed Pores (A15) Layer (if present):		³ One indicator o and an appro ⁴ Give details of	of hydrophytic v opriate landscap color change ir	regetation, one pe position mus n Remarks.	primary indica st be present u	tor of wetland h	ydrology, or problematic.
Hydroge Thick Da Alaska G Alaska R Alaska R Alaska G Restrictive L	n Sullide (A4) Irk Surface (A12) Gleyed (A13) Redox (A14) Gleyed Pores (A15) Layer (if present):		³ One indicator of and an appro ⁴ Give details of	of hydrophytic v opriate landscap color change ir	regetation, one pe position mus n Remarks.	primary indica st be present u	tor of wetland h	ydrology, or problematic.
Hydroge Thick Da Alaska G Alaska G Alaska G Restrictive L Type: Depth (inc	In Sullide (A4) Irk Surface (A12) Gleyed (A13) Redox (A14) Gleyed Pores (A15) Layer (if present): Ches):		³ One indicator of and an appro ⁴ Give details of	of hydrophytic v opriate landscap color change ir	vegetation, one pe position mus n Remarks.	primary indica st be present un Hydric Soi	tor of wetland hy hless disturbed	ydrology, or problematic. es X No
Hydroge Thick Da Alaska G Alaska G Alaska G Restrictive L Type: Depth (inc	A Sullide (A4) Irk Surface (A12) Gleyed (A13) Redox (A14) Gleyed Pores (A15) Layer (if present): Ches):		³ One indicator o and an appro ⁴ Give details of	of hydrophytic v opriate landscap color change ir	vegetation, one pe position mus n Remarks.	primary indica st be present u Hydric Soi	tor of wetland h nless disturbed I Present? Y	ydrology, or problematic. es X No
Hydroge Thick Da Alaska G Alaska G Alaska G Alaska G Alaska G Restrictive L Type: Depth (inc Remarks: Hydric SC	A Sullide (A4) ark Surface (A12) Bleyed (A13) Redox (A14) Bleyed Pores (A15) Layer (if present): ches): bil indicator A	1 prese	³ One indicator of and an appro ⁴ Give details of	of hydrophytic v opriate landscap color change ir	regetation, one poe position mus n Remarks.	primary indica st be present u Hydric Soi	tor of wetland h nless disturbed I Present? Y	ydrology, or problematic. es X No
Hydroge Thick Da Alaska G Alaska G Alaska G Alaska G Restrictive L Type: Depth (inc Remarks: Hydric sc	n Sullide (A4) Irk Surface (A12) Gleyed (A13) Redox (A14) Gleyed Pores (A15) Layer (if present): Ches): bil indicator A	1 prese	³ One indicator of and an appro ⁴ Give details of 	of hydrophytic v opriate landscar color change ir	regetation, one pe position mus n Remarks.	primary indica st be present u Hydric Soi	tor of wetland h hless disturbed I Present? Y	ydrology, or problematic. es X No
Hydroge Thick Da Alaska G Alaska G Alaska G Restrictive L Type: Depth (inc Remarks: Hydric sc	in Sullide (A4) Irk Surface (A12) Gleyed (A13) Redox (A14) Gleyed Pores (A15) Layer (if present): Ches): bil indicator A	1 prese	³ One indicator of and an appro ⁴ Give details of 	of hydrophytic v opriate landscap color change ir	vegetation, one pe position mus n Remarks.	primary indica st be present un Hydric Soi	tor of wetland h hless disturbed I Present? Y	ydrology, or problematic. es X No

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is suf	f <u>icient)</u>	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)) Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B	8) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes X	No Depth (inches): 10	
Saturation Present? Yes X (includes capillary fringe)	No Depth (inches): 0	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, m	nonitoring well, aerial photos, previous inspecti	ions), if available:
-		
Remarks:		
Wetland hydrology indicator	A2 present	

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Project/Site: Katlian Bay Road	Borough/City: <u>Sitka</u>	Sampling Date: June 23, 2015
Applicant/Owner: <u>ADOT & PF, Southcoast Region</u>		Sampling Point: 2
Investigator(s): Jeff Gray, Tad Schwager	Landform (hillside, terrace, hummocks,	etc.): hillside
Local relief (concave, convex, none): <u>none</u>	Slope (%): <u>10-15</u>	
Subregion: Southeast Alaska Lat: -	Long:	Datum:
Soil Map Unit Name: Kupreanof gravelly silt loam	NW	I classification: PFO4B
Are climatic / hydrologic conditions on the site typical for this tir	ne of year? Yes X No (If no, exp	plain in Remarks.)
Are Vegetation, Soil, or Hydrology sign	ificantly disturbed? Are "Normal Circums	stances" present? Yes X No
Are Vegetation, Soil, or Hydrology natu	rally problematic? (If needed, explain ar	ny answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No X No X No X	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Data point not located within a wetland; all three wetland indicators absent. Data point located 10' east of flag 15-I3.					

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Tsuga heterophylla	10.00	Yes	FAC	That Are OBL, FACW, or FAC: 2 (A)
2. Picea sitchensis	35.00	Yes	FACU	Total Number of Dominant
3. Alnus rubra	5.00	No	FAC	Species Across All Strata: 7 (B)
4.				(=)
Total Cover:	50			Percent of Dominant Species
50% of total cover: 25	20% 0	f total cover	. 10	
Sapling/Shrub Stratum	20700		·	Prevalence Index worksheet:
1. Menziesia ferrunginea	35	Yes	FACU	Total % Cover of: Multiply by:
2 Vaccinium ovalifolium	5	No	FAC	OBL species x 1 =
Picea sitchensis	10	Yes	FACU	FACW species x 2 =
				FAC species 24 x 3 = 72
4			·	FACU species 93 x 4 = 372
5			<u> </u>	UPL species x 5 =
6			. <u> </u>	Column Totals: 117 (A) 444 (B)
Total Cover:	50			
50% of total cover: <u>25</u>	20% of	total cover:	10	Prevalence Index = B/A = 3.8
Herb Stratum Blechnum spicant	1	Vec	FAC	Hydrophytic Vegetation Indicators:
		Vee		Dominance Test is >50%
2. Gymnoicarpium dryoptens	0	res	FACU	Prevalence Index is ≤3.0
3. Streptopus amplexitolius	4	Yes	FACU	Morphological Adaptations ¹ (Provide supporting
4. Cornus canadensis	3	No	FACU	data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
8.				be present unless disturbed or problematic.
9.				
10				
Total Cover:	17		·	
50% of total covor: 8.5	20% of	total covor:	3.4	
Diat aire (radius an langth y width) radius by stratum 30' 15' 5'	20 /0 UI		35	Hydrophytic
	_ ™ Bare (45	Vegetation
(Where applicable)	er of Bryop	ohytes	43	
Remarks:				
No hydrophytic vegetation indicator pres	sent.			

Profile Desc	ription: (Describe	to the dept	th needed to docum	nent the in	ndicator	or confirm	n the absence of indicators.)	
Depth	Matrix		Redox	Features	3			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10YR 3/3	100					loam	
4-7	10YR 2/1	100					loam	
7-18	10YR 3/3	100					sandy loam	
		<u> </u>					·	
		letion RM=	Reduced Matrix, CS			d Sand G	$\frac{2}{2}$ cation: PI =Pore	a Lining M=Matrix
Hydric Soil	Indicators:		Indicators for P	roblemat	ic Hydric	Soils ³ :		c Linnig, M-Matrix.
Histosol	or Histel (A1)		Alaska Colo	r Change	$(T\Delta 4)^4$		Alaska Gleved Withou	it Hue 5V or Redder
Histic Fr	binedon (A2)		Alaska Olio	e Swales	(TA5)			
Hydroge	en Sulfide (A4)		Alaska Redo	w With 2	(17.0) 5Y Hue		Other (Explain in Rem	arks)
Thick Da	ark Surface (A12)			× 1111 2.	orride			
Alaska (Gleyed (A13)		³ One indicator of	hydrophy	tic vegeta	ation, one	primary indicator of wetland hy	/drology,
Alaska F	Redox (A14)		and an approp	riate land	scape po	sition mus	st be present unless disturbed of	or problematic.
Alaska (Gleyed Pores (A15)		⁴ Give details of c	olor chan	ge in Ren	narks.		
Restrictive I	Layer (if present):							
Туре:								V
Depth (in	ches):						Hydric Soil Present? Ye	es <u>No </u>
Remarks:								
No hydrie	c soil indicato	r presen	nt.					
-								

	Secondary Indicators (2 or more required)
ifficient)	Water-stained Leaves (B9)
Inundation Visible on Aerial Imagery (B7)) Drainage Patterns (B10)
Sparsely Vegetated Concave Surface (B	8) Oxidized Rhizospheres along Living Roots (C3)
Marl Deposits (B15)	Presence of Reduced Iron (C4)
Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Other (Explain in Remarks)	Geomorphic Position (D2)
	Shallow Aquitard (D3)
	Microtopographic Relief (D4)
	FAC-Neutral Test (D5)
N/	
No X Depth (inches):	
No X Depth (inches):	V
No X Depth (inches):	Wetland Hydrology Present? Yes No X
nonitoring well, aerial photos, previous inspecti	ions), if available:
tors present.	
	fficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks) No X Depth (inches): No X Depth (inches): No X Depth (inches): No X Depth (inches): nonitoring well, aerial photos, previous inspect tors present.

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Project/Site: Katlian Bay Road	Borough/City: Sitka	Sampling Date: June 24, 2015
Applicant/Owner: ADOT & PF, Southcoast Region		Sampling Point: <u>3</u>
Investigator(s): Jeff Gray, Tad Schwager	Landform (hillside, terrace, hummoc	ks, etc.): hillside
Local relief (concave, convex, none): <u>concave</u>	Slope (%): <u>0-2</u>	
Subregion: Southeast Alaska Lat:	Long:	Datum: [_]
Soil Map Unit Name: Nakwasina muck	N	WI classification: PFO4
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes X No (If no,	explain in Remarks.)
Are Vegetation, Soil, or Hydrology sig	gnificantly disturbed? Are "Normal Circu	mstances" present? Yes X No
Are Vegetation, Soil, or Hydrology na	aturally problematic? (If needed, explain	any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>×</u> Yes <u>×</u> Yes <u>×</u>	No No No	Is the Sampled Area within a Wetland?	Yes X	No	
Remarks:						
Data point within a wetland; all three wetland indicators present. Data point located 10' south of flag II2.						

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species		
1. Tsuga heterophylla	20.00	Yes	FAC	That Are OBL, FACW, or FAC:4 (A)		
2. Picea sitchensis	15.00	Yes	FACU			
2				Total Number of Dominant		
5				Species Across All Strata: (B)		
4				Percent of Dominant Species		
Total Cover:	30			That Are OBL, FACW, or FAC: <u>66.7</u> (A/B)		
50% of total cover:17.5	20% o	f total cover	. 7	Prevalence Index worksheet:		
Sapling/Shrub Stratum				Total % Cover of: Multiply by:		
1. Picea sitchensis	10	Yes	FACU			
2. Tsuga heterophylla	10	Yes	FAC			
3. Vaccinium ovalifolium	5	No	FAC	FACW species x 2 =		
A Alnus viridus	25	Yes	FAC	FAC species x 3 =		
				FACU species x 4 =		
5				UPL species x 5 =		
6				Column Totals: 0 (A) 0 (B)		
Total Cover:	50					
50% of total cover: 25	20% of	total cover:	10	Prevalence Index = B/A =		
Herb Stratum				Hydrophytic Vegetation Indicators:		
1. Lysichiton americanus	40	Yes	OBL			
2. Athyrium filix-femina	8	No	FAC			
3 Cinna latifolia	5	No	FACW	Prevalence Index is ≤3.0		
Carex disperma	5	No	FACW	Morphological Adaptations' (Provide supporting		
-				data in Remarks or on a separate sneet)		
5				Problematic Hydrophytic Vegetation' (Explain)		
6						
7				Indicators of hydric soil and wetland hydrology must		
8				be present unless disturbed of problematic.		
9.						
10						
Total Cover	58					
			11.6			
50% of total cover: 29	_ 20% of	total cover:		Hydrophytic		
Plot size (radius, or length x width) radius by stratum: 30°, 15°, 5°	% Bare C	Ground 10	J (mua)	Vegetation		
% Cover of Wetland Bryophytes Total Cover of Bryophytes 10 Present? Yes X No No						
Remarks:				·		
Hydrophytic vegetation indicator present	t.					

SOIL

OOIL									
Profile Desc	cription: (Describe	to the depth	needed to docun	nent the ir	ndicator of	or confirm	the absence	of indicators.)	
Depth	Matrix		Redox Features						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-24	7.5YR 2.5/1	100					sandy silt loam	organics throughout profile	
				·					
. <u> </u>									
						·			
						·			
1							. 2.		
Type: C=C	oncentration, D=Dep	etion, RM=R	educed Matrix, CS	=Covered	or Coate	d Sand Gr	ains. Loo	cation: PL=Pore Lining, M=Matrix.	
	indicators:			ropiemati		50IIS :			
Histosol	or Histel (A1)		Alaska Colo	r Change	(1A4) ⁻			a Gleyed Without Hue 5Y or Redder	
HISTIC E	pipedon (AZ)			le Swales	(TA5)				
	en Sumde (A4)			DX VVItri 2.3	or Hue			(Explain in Remarks)	
			³ One indicator of						
Alaska	Gleyeu (A13)			rioto lond		ation, one p	be present ur	or or weitand hydrology,	
			⁴ Oive details of a		scape pos		t be present ur	liess disturbed of problematic.	
	Gleyed Pores (A15)		Give details of c	color chang	ge in Rem	iarks.	1		
Restrictive	Layer (if present):								
Туре:								×	
Depth (in	ches):						Hydric Soil	Present? Yes <u>No</u>	
Remarks:									
Muck. Hy	vdric soils dete	ermined r	present due	to pres	ence d	of wetla	and hydrol	logy and hydrophytic	
vegetatio	, on	- 1			-		J		
, ogotatie									

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is suf	f <u>icient)</u>	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7) Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B	8) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	X	
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes X	No Depth (inches): 11	
Saturation Present? Yes X (includes capillary fringe)	No Depth (inches): 0	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, m	nonitoring well, aerial photos, previous inspect	ions), if available:
-		
Remarks:		
Primary wetland hydrology in	dicators A2 and A3 present.	

Project/Site: Katlian Bay Road		Borough/City:	Sitka	Sampling Date: June 24, 2	_ Sampling Date: June 24, 2015		
Applicant/Owner: /	ADOT & PF, S	Southcoast Region				Sampling Point: <u>4</u>	
Investigator(s): Jef	ff Gray, Caroly	n Prentice, Tad Schw	ager	_ Landform (hills	ide, terrace, hummocks,	etc.): hillside	
Local relief (concav	ve, convex, n	one): <u>concave</u>		_ Slope (%): 2-5	·		
Subregion: Southe	ast Alaska		Lat: _		Long: _	Datum: _	
Soil Map Unit Nam	e: Nakwasina	a muck			NWI	classification: PFO4	
Are climatic / hydro	logic conditio	ons on the site typical	for this time of y	/ear? Yes X	No (If no, exp	lain in Remarks.)	
Are Vegetation	, Soil	, or Hydrology	significant	ly disturbed?	Are "Normal Circumst	ances" present? Yes X No	
Are Vegetation	, Soil	, or Hydrology	naturally p	roblematic?	(If needed, explain an	y answers in Remarks.)	
SUMMARY OF		S – Attach site ma	ap showing s	sampling poin	t locations, transects	s, important features, etc.	

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No Yes No >	Is the Sampled Area within a Wetland?	Yes No		
Remarks:					
Data point not in a wetland; not all three wetland indicators present. Data point located 10' northwest of flag II2.					

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Tsuga heterophylla	35.00	Yes	FAC	That Are OBL, FACW, or FAC: <u>3</u> (A)
2. Picea sitchensis	15.00	Yes	FACU	Total Number of Deminent
3. Callitropsis nootkaensis	5.00	No	FAC	Species Across All Strata: 7 (B)
4.				
Total Cover:	55			Percent of Dominant Species
50% of total cover: 27.5	20% 0	f total cover	. 11	
Sapling/Shrub Stratum	20700			Prevalence Index worksheet:
1. Menziesia ferruginea	20	Yes	FACU	Total % Cover of: Multiply by:
2 Vaccinium ovalifolium	15	Yes	FAC	OBL species x 1 =2
3 Tsuga heterophylla	15	Yes	FAC	FACW species x 2 =
A Oplopanax horridus	4	No	FACU	FAC species 70 x 3 = 210
4				FACU species49 x 4 =196
5				UPL species x 5 =
0	54	<u> </u>		Column Totals: <u>121</u> (A) <u>408</u> (B)
I otal Cover:			10.0	
50% of total cover: 27	_ 20% of	total cover:	10.6	Prevalence Index = B/A =3.37
1 Dryopteris expansa	4	Yes	FACU	Hydrophytic Vegetation Indicators:
Cornus candensis	6	Yes	FACU	Dominance Test is >50%
		No		Prevalence Index is ≤3.0
	2	NO	OBL	Morphological Adaptations ¹ (Provide supporting
4				data in Remarks or on a separate sheet)
5		·		Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				Indicators of hydric soil and wetland hydrology must
8				
9				
10				
Total Cover:	12			
50% of total cover: 6	20% of	total cover:	2.4	
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare (Ground	40	Hydrophytic Vegetation
% Cover of Wetland Bryophytes Total Cov	er of Brvor	hvtes	47	Present? Yes <u>No \times</u>
(Where applicable)				
Remarks:				•

Depth Matrix Redox Features (inches) Color (moist) % Type' Loc' Texture Remarks 0-3 10YR 3/3 100 ioam ioam ioam ioam 3-6 10YR 3/3 100 ioam ioam ioam ioam 6-20 10YR 3/3 100 sandy loam ioam ioam ioam "Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils*: Indicators for Problematic Hydric Soils*: Indicators for Problematic Hydric Soils*: Indicator of Nalaska Color Change (TA4) ⁴ Indicator of Without Hue 5Y or Redder Hydric Soil Indicators Indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. ⁴ Give details of color change in Remarks. Restrictive Layer (if present): "Type: Type: No X Remarks: No hydric soil indicator present. No X	Profile Des	cription: (Describe	e to the dep	th needed to docu	ment the	ndicator	or confirm	n the absence of	indicato	rs.)	
10YR 3/3 100 Ioam 3-6 10YR 2/1 100 Ioam 6-20 10YR 3/3 100 sandy loam 6-20 10YR 3/3 100 sandy loam	Depth (inches)	Matrix Color (moist)	0/2	Color (moist)	<u>x Feature</u> %	S Type ¹		Texture		Remark	(e
3-6 10YR 2/1 100 loam 6-20 10YR 3/3 100 sandy loam "Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. "Location: PL=Pore Lining, M=Matrix." Hydric Soil Indicators: Indicators for Problematic Hydric Soils": Alaska Gleyed Without Hue 5Y or Redder Hydric Soil Indicators: Indicators for Problematic Hydric Soils": Alaska Gleyed Without Hue 5Y or Redder Hydric Soil Indicators: Indicators for Problematic Hydric Soils": Alaska Alpine Swales (TA5) Inderlying Layer Hydrigen Sulfide (A4) Alaska Alpine Swales (TA5) Inderlying Layer Other (Explain in Remarks) Alaska Gleyed (A13) "One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic." "Give details of color change in Remarks." Restrictive Layer (if present): Type: Type: No X Remarks: No hydric soil indicator present. No X	0-3	10YR 3/3	100		70	<u> </u>	LUC	loam		Reman	13
3-0 10YR 2/1 100 ioditi 6-20 10YR 3/3 100 sandy loam "intermediation of the second of the sec	2.6		100								
6-20 10YR 3/3 100 sandy loam	3-0	10YR 2/1	100					Ioam			
"Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Alaska Gleyed Without Hue 5Y or Redder Histic Epipedon (A2) Alaska Alpine Swales (TA5) Underlying Layer Hydrogen Sulfide (A4) Alaska Alpine Swales (TA5) Underlying Layer Thick Dark Surface (A12) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Alaska Gleyed Pores (A13) "One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. Alaska Gleyed Pores (A15) "Give details of color change in Remarks. Restrictive Layer (if present): Type: Hydric Soil Present? Yes No X Remarks: No hydric soil indicator present.	6-20	10YR 3/3	100					sandy loam			
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Alaska Gleyed Without Hue 5Y or Redder Histosol or Histel (A1) Alaska Color Change (TA4) ⁴ Alaska Gleyed Without Hue 5Y or Redder Histosol or Histel (A1) Alaska Alpine Swales (TA5) Underlying Layer Hydrogen Sulfide (A4) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Thick Dark Surface (A12) Alaska Redox (A14) and an appropriate landscape position must be present unless disturbed or problematic. Alaska Gleyed Pores (A15) ⁴ Give details of color change in Remarks. Hydric Soil Present? Yes No X Remarks: No hydric soil indicator present. No X											
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Alaska Gleyed Without Hue 5Y or Redder Histosol or Histel (A1) Alaska Color Change (TA4) ⁴ Indicators for Problematic Hydric Soils ³ : Indicators for Problematic Hydric Soils ³ : Histosol or Histel (A1) Alaska Color Change (TA4) ⁴ Indicator Sufface (A2) Indicator for Problematic Hydric Soils ³ : Hydrogen Sulfide (A4) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Thick Dark Surface (A12) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Alaska Gleyed Pores (A13) ³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. Alaska Gleyed Pores (A15) ⁴ Give details of color change in Remarks. Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes No X Remarks: No hydric soil indicator present.											
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Alaska Gleyed Without Hue 5Y or Redder Histosol or Histel (A1) Alaska Color Change (TA4) ⁴ Alaska Gleyed Without Hue 5Y or Redder Histic Epipedon (A2) Alaska Alpine Swales (TA5) Underlying Layer Hydrogen Sulfide (A4) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Thick Dark Surface (A12) Alaska Gleyed (A13) ³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. Alaska Gleyed Pores (A15) ⁴ Give details of color change in Remarks. Restrictive Layer (if present): Type:											
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Alaska Gleyed Without Hue 5Y or Redder Histosol or Histel (A1) Alaska Color Change (TA4) ⁴ Indicators for Problematic Hydric Soils ³ : Underlying Layer Histosol or Histel (A1) Alaska Alpine Swales (TA5) Underlying Layer Underlying Layer Hydrogen Sulfide (A4) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Thick Dark Surface (A12) Alaska Gleyed (A13) ³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. Alaska Gleyed Pores (A15) ⁴ Give details of color change in Remarks. Restrictive Layer (if present): Type:											
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol or Histel (A1) Alaska Color Change (TA4) ⁴ Alaska Gleyed Without Hue 5Y or Redder Histic Epipedon (A2) Alaska Alpine Swales (TA5) Underlying Layer Hydrogen Sulfide (A4) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Alaska Gleyed (A13) ³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. Alaska Gleyed Pores (A15) ⁴ Give details of color change in Remarks. Restrictive Layer (if present): Type: Type:	¹ Type: C=C	oncentration, D=De	pletion, RM=	Reduced Matrix, C	S=Covere	d or Coate	d Sand G	rains. ² Locatio	on: PL=	Pore Lining	g, M=Matrix.
Histosol or Histel (A1) Alaska Color Change (TA4) ⁴ Alaska Gleyed Without Hue 5Y or Redder Histic Epipedon (A2) Alaska Alpine Swales (TA5) Underlying Layer Hydrogen Sulfide (A4) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Thick Dark Surface (A12) Alaska Gleyed (A13) ³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. Alaska Gleyed Pores (A15) ⁴ Give details of color change in Remarks. Restrictive Layer (if present): Type:	Hydric Soil	Indicators:		Indicators for	Problema	tic Hydric	Soils ³ :				
Histic Epipedon (A2) Alaska Alpine Swales (TA5) Underlying Layer Hydrogen Sulfide (A4) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Thick Dark Surface (A12) Alaska Gleyed (A13) ³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. Alaska Gleyed Pores (A15) ⁴ Give details of color change in Remarks. Restrictive Layer (if present): Type:	Histoso	l or Histel (A1)		Alaska Color Change (TA4) ⁴				Alaska Gl	eyed Wit	hout Hue §	5Y or Redder
Hydrogen Sulfide (A4) Thick Dark Surface (A12) Alaska Gleyed (A13) Alaska Redox (A14) Alaska Gleyed Pores (A15) *Give details of color change in Remarks. Restrictive Layer (if present): Type: Depth (inches): Remarks: No hydric soil indicator present.	Histic E	pipedon (A2)		Alaska Alpine Swales (TA5)							
Inick Dark Surface (A12) Alaska Gleyed (A13) ³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. Alaska Gleyed Pores (A14) Alaska Gleyed Pores (A15) ⁴ Give details of color change in Remarks. Restrictive Layer (if present): Type:	Hydrog	en Sulfide (A4)		Alaska Rec	lox With 2	5Y Hue		L Other (Ex	plain in F	Remarks)	
Alaska Gleyed (A13) Cone indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, Alaska Redox (A14) and an appropriate landscape position must be present unless disturbed or problematic. Alaska Gleyed Pores (A15) ⁴ Give details of color change in Remarks. Restrictive Layer (if present): Type: Depth (inches): No X Remarks: No hydric soil indicator present.	I hick D	ark Surface (A12)		30					<i>c</i>		
Alaska Redox (A14) and an appropriate landscape position must be present unless disturbed of problematic. Alaska Gleyed Pores (A15) ⁴ Give details of color change in Remarks. Restrictive Layer (if present): Type: Depth (inches):	Alaska	Gleyed (A13)		One indicator of	of nydroph	ytic vegeta	ation, one	primary indicator o	of wetlan	a hydrolog	y, Ia ma ati a
Restrictive Layer (if present): Type: Depth (inches): Remarks: No hydric soil indicator present.	Alaska	Redux (A14) Gloved Peres (A15)		⁴ Cive details of color change in Remarke						iematic.	
Type:	Alaska	Gleyeu Foles (A13)		Give details of			Idiks.	1			
Type.	Tuno	Layer (il present).									
Remarks: No hydric soil indicator present.	Denth (in	ches).						Hydric Soil Pr	esent?	Yes	No X
No hydric soil indicator present.	Romarke:							nyano con rik	coont.	100	
no nyane son indicator present.	No bydri	o ocil indiacto		at							
		c son indicato	n preser	π.							

Wetland Hydrology Indicator	s:	Secondary Indicators (2 or more required)
Primary Indicators (any one ind	licator is sufficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery	(B7) Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface	e (B8) Uxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	N N	
Surface Water Present?	Yes No X Depth (inches):	_
Water Table Present?	Yes No X Depth (inches):	_
Saturation Present? (includes capillary fringe)	Yes No X Depth (inches):	_ Wetland Hydrology Present? Yes No X
Describe Recorded Data (strea	im gauge, monitoring well, aerial photos, previous insp	pections), if available:
-		
Remarks:		
No wetland hydrology	v indicators present.	
	,	

Project/Site: Katlian Bay Road	Borough/City: Sit	ika	Sampling Date: June 19, 2015			
Applicant/Owner: <u>ADOT & PF, Southcoast Region</u>			Sampling Point: 5			
Investigator(s): Jeff Gray, Carolyn Prentice	Landform (hillside	Landform (hillside, terrace, hummocks, etc.): hillside				
Local relief (concave, convex, none): <u>concave</u>	Slope (%): 2-5					
Subregion: Southeast Alaska Lat	:	Long:	Datum: _			
Soil Map Unit Name: Kupreanof gravelly silt loam		NWI classific	ation: PF04			
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes X	No (If no, explain in R	emarks.)			
Are Vegetation, Soil, or Hydrologys	ignificantly disturbed?	Are "Normal Circumstances" p	present? Yes X No			
Are Vegetation, Soil, or Hydrology n	aturally problematic?	(If needed, explain any answe	rs in Remarks.)			

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X No			
Remarks:							
Data point within a wetland; all three wetland indicators present. Data point located 10' south of flag JJ12.							

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Tsuga heterophylla	35.00	Yes	FAC	That Are OBL, FACW, or FAC: (A)
2. Picea sitchensis	15.00	Yes	FACU	
3				I otal Number of Dominant
				Species Across Air Strata. (B)
4 Total Cover:	50			Percent of Dominant Species That Are OBL_EACW_or_EAC: 66.7 (A/B)
50% of total cover: 25	20% o	f total cover	10	
Sapling/Shrub Stratum				
1. Menziesia ferruginea	5	No	FACU	I otal % Cover of: Multiply by:
2 Oplopanax horridus	10	Yes	FACU	OBL species x 1 =
3 Vaccinium ovalifolium	10	Yes	FAC	FACW species x 2 =
Tsuga heterophylla	5	No	FAc	FAC species x 3 =
4				FACU species x 4 =
5				UPL species x 5 =
6				Column Totals: 0 (A) 0 (B)
Total Cover:	30			
50% of total cover: <u>15</u>	20% of	total cover:	6	Prevalence Index = B/A =
Herb Stratum				Hydrophytic Vegetation Indicators:
1. Lystichiton americanus	25	Yes	OBL	\checkmark Dominance Test is >50%
2. Athyrium filix-femina	12	Yes	FAC	
3. Adiantum aleuticum	4	No	FAC	
4				data in Remarks or on a separate sheet)
5.				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
0				be present unless disturbed or problematic.
0				
9				
10				
Total Cover:	41			
50% of total cover: 20.5	20% of	total cover:	8.2	the beauted a
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare 0	Ground	25	Hydrophytic Vegetation
% Cover of Wetland Bryophytes Total Cov	er of Brvor	hvtes	35	Present? Yes X No
(Where applicable)				
Remarks:				
Hydrophytic vegetation indicator presen	t.			

Profile Desc	ription: (Describe	to the depth	n needed to docun	nent the i	ndicator	or confirn	n the absence	e of indicato	rs.)	
Depth	Matrix		Redox Features							
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc	Texture		Remarks	
0-18	10YR 2/1	100					loam	mucky		
·		·								<u> </u>
·										
		·								
¹ Type: C=C	oncentration, D=Dep	letion, RM=F	Reduced Matrix, CS	=Covered	or Coate	d Sand G	rains. ² Lo	cation: PL=I	Pore Lining, I	M=Matrix.
Hydric Soil	Indicators:		Indicators for P	roblemat	ic Hydric	Soils ³ :				
Histosol	or Histel (A1)		Alaska Colo		Alaska Gleyed Without Hue 5Y or Redder			or Redder		
Histic Ep	oipedon (A2)		Alaska Alpine Swales (TA5)				Und	lerlying Laye	r	
Hydroge	en Sulfide (A4)		Alaska Red		✓ Other	(Explain in F	Remarks)			
Thick Da	ark Surface (A12)		2							
Alaska (Gleyed (A13)		°One indicator of	fhydroph	tic veget	ation, one	primary indica	tor of wetlan	d hydrology,	
Alaska F	Redox (A14)		and an approp	and an appropriate landscape position must be present unless disturbed or problematic.						natic.
Alaska (Gleyed Pores (A15)		⁺ Give details of o	color chan	ge in Ren	narks.				
Restrictive	Layer (if present):									
Туре:									Y	
Depth (in	ches):						Hydric Soi	I Present?	Yes 🔨	No
Remarks:										
Hydric so	oil determined	present	due to prese	ence of	hydro	phytic	vegetation	h and sh	allow gro	oundwater.
		•	•		2		J		5	

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	Water-stained Leaves (B9)
Surface Water (A1) Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2) Sparsely Vegetated Concave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3) Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2) Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3) Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)	Shallow Aquitard (D3)
Iron Deposits (B5)	Microtopographic Relief (D4)
Surface Soil Cracks (B6)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes <u>No X</u> Depth (inches):	
Water Table Present? Yes X No Depth (inches): 8	X
Saturation Present? Yes X No Depth (inches): 0 We	etland Hydrology Present? Yes <u>X</u> No
(includes capillary fringe)) if eveileble:
Describe Recorded Data (stream gauge, monitoring weil, aenai photos, previous inspections	<i>s)</i> , il avallable.
-	
Remarks:	
Primary wetland hydrology indicators present.	

Project/Site: Katlian Bay Road	Borg	ough/City: Sitka	5	Sampling Date: June	e 19, 2015	
Applicant/Owner: ADOT & PF, Southcoast Region			§	Sampling Point: <u>6</u>		
Investigator(s):	Lan	Landform (hillside, terrace, hummocks, etc.): hillside				
Local relief (concave, convex, none): <u>convex</u>	Slop	be (%): <u>5-8</u>				
Subregion: Southeast Alaska	Lat: _	Long:	-	Datum: -		
Soil Map Unit Name: Kupreanof gravelly silt loam			NWI classificat	tion: PFO4B		
Are climatic / hydrologic conditions on the site typical for	this time of year?	Yes X No	(If no, explain in Rer	marks.)		
Are Vegetation, Soil, or Hydrology	urbed? Are "N	ormal Circumstances" pre	esent? Yes X	No		
Are Vegetation, Soil, or Hydrology	_ naturally probler	blematic? (If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map	showing samp	ling point locatio	ns, transects, import	ant features, etc		

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No X No X No X	Is the Sampled Area within a Wetland?	Yes	No <u>×</u>			
Remarks:	Remarks:							
Data point not located within a wetland; not all three wetland indicators present. Data point located 15' north of flag JJ12.								

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Tsuga heterophylla	15.00	Yes	FAC	That Are OBL, FACW, or FAC:3 (A)
2 Picea sitchensis	25.00	Yes	FACU	
<u></u>				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
Total Cover:	40			That Are OBL, FACW, or FAC: 43% (A/B)
50% of total cover: 20	20% o	f total cover	8	Prevalence Index worksheet
Sapling/Shrub Stratum				
1 Menziesia ferruginea	25	Yes	FACU	IOTAI % Cover of: Multiply by:
2 Tsuga heterophylla	5	No	FAC	OBL species x 1 =
2 Oplopanax horridus	10	Yes	FACU	FACW species x 2 =
Diogo aitabanaia		No	EACU	FAC species $28 \times 3 = 84$
4. Picea sichensis	4	INU	FACU	FACU species $70 \times 4 = 280$
5				
6				
Total Cover:	44			Column Totals: $\frac{90}{}$ (A) $\frac{304}{}$ (B)
E0% of total cover: 22	200/ of	total anyor:	8.8	371
Herb Stratum	_ 20 /0 01			
1 Cornus canadensis	6	Yes	FACU	Hydrophytic Vegetation Indicators:
	5	Vec	FAC	Dominance Test is >50%
		103		Prevalence Index is ≤3.0
3. <u>Atnyrium filix-temina</u>	3	Yes	FAC	Morphological Adaptations ¹ (Provide supporting
4				data in Remarks or on a separate sheet)
5.				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
7				be present unless disturbed or problematic.
8				
9				
10				
Total Cover:	14			
50% of total cover: 7	20% of	total cover:	2.8	
Dist size (as dive as less the society radius by stratum; 30' 15' 5'	0/		15	Hydrophytic
Plot size (radius, or length x width) radius by stratam set, ro, o	% Bare C		65	Vegetation
% Cover of Wetland Bryophytes Total Cov (Where applicable)	er of Bryop	ohytes	65	Present? Yes <u>No ^</u>
Remarks:				
No hydrophytic vegetation indicator pres	sent.			

Profile Desc	ription: (Describe	to the dept	h needed to docur	nent the i	ndicator	or confirm	n the absence of indi	cators.)
Depth	Matrix Redox Features							
(inches)	Color (moist)	%	Color (moist)	Color (moist) % Type ¹ Loc ² Texture Remarks				
0-3	10YR 3/3	100					loam	
2-6	10YR 2/2	100					loam	
6-18	10YR 3/3	100		·			sandy loam	
¹ Type: C=Co Hydric Soil I Histosol	Dincentration, D=Dep Indicators: or Histel (A1)		Reduced Matrix, CS Indicators for F	S=Covered Problemat	d or Coate ic Hydric (TA4) ⁴	d Sand G Soils ³ :	rains. ² Location:	PL=Pore Lining, M=Matrix.
Histic Ep	n Sulfide (A4)		Alaska Alpir	Alaska Alpine Swales (TA5) Alaska Redox With 2 5Y Hue Other (Explain in Remarks)				_ayer
Thick Da	ark Surface (A12)			0. 10101 2.	ornuc			in remarks)
Alaska G	Gleved (A13)		³ One indicator o	f hydroph	vtic vegeta	tion, one	primary indicator of we	etland hydrology.
Alaska F	Redox (A14)		and an appro	and an appropriate landscape position must be present unless disturbed or problematic.				
Alaska G	Gleyed Pores (A15)		⁴ Give details of o	color chan	ge in Rem	arks.		
Restrictive I	ayer (if present):							
Туре:								
Depth (ind	ches):						Hydric Soil Preser	nt? Yes <u>No ^X</u>
Remarks:							•	
No hydrid	c soil indicato	r presen	t.					
HIDROLO	GY							(0,,,,,,,, .
Wetland Hyd	arology Indicators:						Secondary Indicators	s (2 or more required)

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	Water-stained Leaves (B9)
Surface Water (A1)	e on Aerial Imagery (B7) 📃 Drainage Patterns (B10)
High Water Table (A2)	ed Concave Surface (B8) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3) Marl Deposits (B ²	15) Presence of Reduced Iron (C4)
Water Marks (B1) Hydrogen Sulfide	Odor (C1) Salt Deposits (C5)
Sediment Deposits (B2) Dry-Season Wate	er Table (C2) Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Remarks) Geomorphic Position (D2)
Algal Mat or Crust (B4)	Shallow Aquitard (D3)
Iron Deposits (B5)	Microtopographic Relief (D4)
Surface Soil Cracks (B6)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (inc	hes):
Water Table Present? Yes No X Depth (inc	hes):
Saturation Present? Yes <u>No X</u> Depth (inc (includes capillary fringe)	hes): Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge, monitoring well, aerial p	hotos, previous inspections), if available:
-	
Remarks:	
No wetland hydrology indicators present	

Project/Site: Katlian Bay Road	Borough/City: _S	Sitka	Sampling Date: June 19, 2015
Applicant/Owner: ADOT & PF, Southcoast Region			Sampling Point: 7
Investigator(s):	Landform (hillsi	de, terrace, hummocks,	etc.): hillside
Local relief (concave, convex, none): <u>concave</u>	Slope (%): 2-5		
Subregion: Southeast Alaska Lat		Long: _	Datum:
Soil Map Unit Name: Kupreanof gravelly silt loam		NW	classification: None
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes X	_ No (If no, exp	blain in Remarks.)
Are Vegetation, Soil, or Hydrologys	significantly disturbed?	Are "Normal Circums	tances" present? Yes X No
Are Vegetation, Soil, or Hydrology r	naturally problematic?	(If needed, explain an	y answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sh	nowing sampling point	locations, transect	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X No				
Remarks:								
Data point located within Wetland	ata point located within Wetland 3; all three wetland indicators present. Data point located 15' west of flag JJ18.							

VEGETATION – Use scientific names of plants. List all species in the plot.

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Tsuga hterophylla	25.00	Yes	FAC	That Are OBL, FACW, or FAC:4 (A)
2. Picea sitchensis	10.00	Yes	FACU	
3				Total Number of Dominant
				Species Across All Strata: (B)
4				Percent of Dominant Species
Total Cover:	35			That Are OBL, FACW, or FAC:66.7 (A/B)
50% of total cover: 17.5	20% o	f total cover	. 7	Prevalence Index worksheet:
Sapling/Shrub Stratum				
1. Vaccinium ovalifolium	10	Yes	FAC	
2. Oplopanax horridus	8	Yes	FACU	OBL species x 1 =
3 Tsuga hterophylla	5	No	FAC	FACW species x 2 =
Menziesia ferruginea	5	No	FACU	FAC species x 3 =
4			17100	FACU species x 4 =
5				
6				
Total Cover:	28			
50% of total cover: 14	20% of	total cover	5.6	Dravalance Index - D/A -
Herb Stratum	_ 2070 01			
Lysichiton americanus	20	Yes	OBL	Hydrophytic Vegetation Indicators:
2 Athyrium filix-femina	7	No	FAC	✓ Dominance Test is >50%
		No	EACU	Prevalence Index is ≤3.0
			FACU	Morphological Adaptations ¹ (Provide supporting
4. I olmiea menziesii	8	Yes	FACW	data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6.				
7				¹ Indicators of hydric soil and wetland hydrology must
··				be present unless disturbed or problematic.
δ				
9				
10				
Total Cover:	39			
50% of total cover: 19	20% of	total cover	7.6	
Plot size (radius, or length x width) radius by stratum; 30', 15', 5'		Pround	25	Hydrophytic
			40	Vegetation Present? Ves X Ne
% Cover of Wetland Bryophytes Total Cov (Where applicable)	er of Bryop	ohytes	40	Present? res <u>~</u> No
Remarks:				1
Hydrophytic vegetation indicator presen	t.			

Profile Desc	ofile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redox	Features					
(inches)	Color (moist)	<u>%</u> C	olor (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-18	10YR 2/1	100					Loam	organics in profile	
¹ Type: C=Cc	ncentration, D=Depl	etion, RM=Red	uced Matrix, CS=	=Covered	or Coated	d Sand Gr	ains. ² Loo	cation: PL=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators:	ł	ndicators for Pr	oblemati	c Hydric	Soils':			
Histosol	or Histel (A1)		Alaska Color	Change ((TA4) ^₄		Alaska	a Gleyed Without Hue 5Y or Redder	
Histic Ep	ipedon (A2)	ŀ	Alaska Alpine	e Swales ((TA5)				
Hydroge	n Sulfide (A4)	L	Alaska Redo	x With 2.5	Y Hue		Uther (Explain in Remarks)		
Thick Da	rk Surface (A12)	3							
Alaska G	ileyed (A13)	· · · · ·	One indicator of	hydrophy	tic vegeta	tion, one p	orimary indicat	for of wetland hydrology,	
Alaska R	edox (A14)	4	and an approp	riate lands	scape pos	sition must	be present ur	nless disturbed or problematic.	
	leyed Pores (A15)	-	Give details of co	olor chang	ge in Rem	arks.	1		
Restrictive L	ayer (if present):								
Туре:								Y	
Depth (inc	:hes):						Hydric Soil	Present? Yes <u>^</u> No	
Remarks:									
Hydric so vegetatio	il determined n.	to be pres	ent due to s	shallov	v grou	ndwate	er and pre	sence of hydrophytic	

Wetland Hydrology Indicato	rs:		Secondary Indicators (2 or more required)		
Primary Indicators (any one in	dicator is suf	ifficient)	Water-stained Leaves (B9)		
Surface Water (A1)		Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)		
High Water Table (A2)		Sparsely Vegetated Concave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3)		
Saturation (A3)		Marl Deposits (B15)	Presence of Reduced Iron (C4)		
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)		
Sediment Deposits (B2) Dry-Season Water Table (C2)		Stunted or Stressed Plants (D1)			
Drift Deposits (B3)		Other (Explain in Remarks)	Geomorphic Position (D2)		
Algal Mat or Crust (B4)			Shallow Aquitard (D3)		
Iron Deposits (B5)			Microtopographic Relief (D4)		
Surface Soil Cracks (B6)			FAC-Neutral Test (D5)		
Field Observations:		N/			
Surface Water Present?	Yes	No X Depth (inches):			
Water Table Present?	Yes X	No Depth (inches): 11			
Saturation Present?	Yes X	No Depth (inches): 0 V	/etland Hydrology Present? Yes X No		
(includes capillary fringe)					
Describe Recorded Data (stre	am gauge, m	monitoring well, aerial photos, previous inspectior	is), if available:		
-					
Remarks:					
Primary wetland hyd	rology in	ndicators present.			
, , , , , , , , , , , , , , , , , , ,	0,	·			

Project/Site: Katlian Bay Road	Borough/City: S	itka	Sampling Date: June 19, 2015
Applicant/Owner: ADOT & PF, Southcoast Region			Sampling Point: <u>8</u>
Investigator(s): Jeff Gray, Carolyn Prentice	Landform (hillsic	le, terrace, hummocks, etc.): hill	side
Local relief (concave, convex, none): none	Slope (%): <u>5-8</u>		
Subregion: Southeast Alaska La	t:	Long: _	Datum: _
Soil Map Unit Name: <u>Kupreanof gravelly silt loam</u>		NWI classific	ation: None
Are climatic / hydrologic conditions on the site typical for th	is time of year? Yes X	No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	resent? Yes X No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answer	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map s	howing sampling point	locations, transects, impo	rtant features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No X No X No X	Is the Sampled Area within a Wetland?	Yes	No <u>X</u>		
Remarks:			·				
Data point not located within a we	Data point not located within a wetland; not all three wetland indicators present. Data point located 10' east of flag JJ18.						

VEGETATION – Use scientific names of plants. List all species in the plot.

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Tsuga heterophylla	15.00	Yes	FAC	That Are OBL, FACW, or FAC: 2 (A)
2. Picea sitchensis	35.00	Yes	FACU	
3				Lotal Number of Dominant Species Across All Strate: 7 (P)
а			·	
4 Total Cover:	50			Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
50% of total cover:	20% of	f total cover		Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: Multiply by:
1. Menziesia ferruginea	20	Yes	FACU	
2. Rubus spectabilis	8	Yes	FACU	
3. Oplopanax horridus	5	No	FACU	FACW species x 2 =
A Tsuga heterophylla	5	No	FAC	FAC species 23 x 3 = 69
4				FACU species x 4 = 308
5				UPL species x 5 =
6		<u> </u>		Column Totals: 100 (A) 377 (B)
Total Cover:	38			
50% of total cover:19	20% of	total cover:	7.6	Prevalence Index = B/A =3.77
Herb Stratum		.,		Hvdrophytic Vegetation Indicators:
1. Dropteris expansa	4	Yes	FACU	Dominance Test is >50%
2. Adiantum aleuticum	3	Yes	FAC	
3. Streptopus amplexifolius	3	Yes	FACU	
4. Cornus canadensis	2	No	FACU	Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
5.				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
·				be present unless disturbed or problematic.
8	·			
9				
10				
Total Cover:	12			
50% of total cover: <u>6</u>	20% of	total cover:	2.4	Hydrophytic
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare C	Ground	10	Vegetation
% Cover of Wetland Bryophytes Total Cov (Where applicable)	er of Bryop	ohytes	78	Present? Yes <u>No X</u>
Remarks:	-			L
No hydrophytic vegetation indicator pres	sent.			

SOIL

Profile Desc	cription: (Describe	to the depth	n needed to docum	nent the in	dicator o	or confirm	n the absence of indicators.)
Depth	Matrix		Redox	Features	1	<u> </u>	
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc ²	Texture Remarks
0-3	10YR 3/3	100					loam
3-8	10YR 2/1	80					loam
	10YR 3/3	20					
8-18	10YR 3/3	100					sandy loam
		- <u> </u>					
		·					
	oncentration D=Den	lation PM=6	Peduced Matrix CS	=Covered	or Coate	A Sand Gr	raine ² Location: DL=Dore Lining M=Matrix
Hydric Soil	lydric Soil Indicators: Indicators for Problematic Hydric Soils ³ .						
Histosol	or Histel (A1)			r Change (Alaska Gleved Without Hue 5Y or Redder
Histic Fr	ninedon (A2)		Alaska Alnin	e Swales (TA5)		
Hydroge	en Sulfide (A4)		Alaska Redo	w With 2.5	Y Hue		Other (Explain in Remarks)
	ark Surface (A12)				1 1100		
Alaska	Gleved (A13)		³ One indicator of	hydrophyt	ic veneta	tion one i	primary indicator of wetland hydrology
Alaska F	Redox (A14)		and an appror	riate lands	cape pos	ition must	t be present unless disturbed or problematic
Alaska (Gleyed Pores (A15)		⁴ Give details of c	olor chang	e in Rem	arks.	
Restrictive	Laver (if present):						
Type:	, , , , , , , , , , , , , , , , , , ,						
Depth (in	ches):						Hydric Soil Present? Yes <u>No X</u>
Remarks:							
No hydri	c soil indicato	r present	t.				
HYDROLO	GY						

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is su	ifficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7) Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B	8) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3) Other (Explain in Remarks)		Geomorphic Position (D2)
Algal Mat or Crust (B4)	Shallow Aquitard (D3)	
Iron Deposits (B5)	Microtopographic Relief (D4)	
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	Y	
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes	No X Depth (inches):	X
Saturation Present? Yes (includes capillary fringe)	_ No X Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge, r	monitoring well, aerial photos, previous inspect	ions), if available:
-		
Remarks:		
No wetland hydrology indica	tors present	

Project/Site Katlian Bay Road		Borough/City	,. Sitka		Sampling Date	e. June	19, 2015
Applicant/Owner: ADOT & PF, Southcoast Region		Sampling Point: 9					
Investigator(s): Jeff Grav. Carolyn Prentice		Landform (hillside terrace hummocks etc.): hillside					
Subassian Southeast Alaska		Slope (%)	 	-	Datum		
Lat:			Lor	ig:	Datum:		
		V		NWI classific	ation: None		
Are climatic / hydrologic conditions on the site typical for this ti	me of yea	ar? Yes <u>^</u>	No	(If no, explain in R	emarks.)	/	
Are Vegetation, Soil, or Hydrology sign	nificantly	disturbed?	Are '	'Normal Circumstances" p	resent? Yes /	<u> </u>	No
Are Vegetation, Soil, or Hydrology nate	urally pro	blematic?	(lf ne	eded, explain any answe	rs in Remarks.)	I	
SUMMARY OF FINDINGS – Attach site map show	wing sa	impling po	int locat	ons, transects, impo	rtant feature	s, etc.	
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Remarks: Yes X No		ls the withi	e Sampled n a Wetlar	Area nd? Yes	<u>× No</u>		-
Data point located in Wetland 4; all three wetland ind	licators	present. D	ata point	located 10' north of fla	ıg JA2.		
VEGETATION – Use scientific names of plants. I	_ist all s	species in	the plot.				
Trop Stratum	Absolute	Dominant	Indicator	Dominance Test work	sheet:		
1 Picea sitchensis	25.00	Yes	FACU	Number of Dominant S	pecies	4	(Δ)
2 Tsuga heterophylla	10.00	Yes	FAC		JITAC.		_ (^)
3				Total Number of Domin	ant	6	(P)
۵				Species Across All Stra	ιd		_ (D)
Total Cover:	35			Percent of Dominant Sp	Decies	66 7	
50% of total cover: 17.5	20% c	- of total cover	. 7	That Are OBL, FACVV, O	Sr FAC:	00.1	(A/B)
Sapling/Shrub Stratum	_ 20700		•	Prevalence Index wor	ksheet:	e.,	
1. Menziesia ferruginea	15	Yes	FACU	Iotal % Cover of:	Mun	<u>.ipiy by:</u>	
2. Vaccinium ovalifolium	10	Yes	FAC		X I =		
3					X 2 =		
4				FAC species	x 3 =		
5				FACU species	x 4 =		
6				OPL species	x 5 =	0	(D)
Total Cover:	25				(A)	0	(B)
50% of total cover: 12.5	20% of	f total cover:	5	Prevalence Index	= B/A =		
Hero Stratum	25	Yes	OBI	Hydrophytic Vegetatio	on Indicators:		
Athyrium filix-femina	15	Yes	FAC	Dominance Test is	>50%		
2. Carex disperma	5	No	FACW	Prevalence Index is	s ≤3.0		
Cinna latifolia	4	No	FACW	Morphological Ada	ptations ¹ (Provi	de supp	orting
4				data in Remarks	s or on a separa	ate shee	t)
5				Problematic Hydro	phytic Vegetation	on' (Expl	lain)
6 7				¹ Indicators of hydric so be present unless distu	il and wetland h rbed or problem	ydrology natic.	y must
9							
10							
Total Cover:	49						
50% of total cover: 17	20% റ	f total cover	6.8				
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare	Ground	25	Hydrophytic Vegetation			
· · · · · · · · · · · · · · · · · · ·				vegetation			

20

Present?

(Where applicable) Remarks:

Wetland hydrophytic vegetation indicator present.

% Cover of Wetland Bryophytes _____ Total Cover of Bryophytes _____

Yes X No _____

Profile Desc	ription: (Describe	to the dept	h needed to docur	nent the i	ndicator	or confirm	n the absence	of indicators.)	
Depth	Matrix		Redo	x Features	6				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-18	10YR 2/1	100					loam	saturated	
		lation DM-	Poducod Motrix, CG			d Sond C	raina ² 1 a	option: DI-Doro Lining M-Matrix	
Hydric Soil	Indicators:		Indicators for F	Problemat	ic Hydric	Soils ³	Tallis. Lu		
Histosol Histic Ep Hydroge	or Histel (A1) pipedon (A2) en Sulfide (A4) ark Surface (A12)		Alaska Colo Alaska Alpi Alaska Red	or Change ne Swales ox With 2.	(TA4) ⁴ (TA5) 5Y Hue		Alaska Und Other	a Gleyed Without Hue 5Y or Redder erlying Layer (Explain in Remarks)	
Alaska (Gleyed (A13)		³ One indicator o	of hydrophy	/tic vegeta	ation, one	primary indicat	tor of wetland hydrology,	
Alaska F	Redox (A14)		and an appro	priate land	lscape po	sition mus	t be present ur	nless disturbed or problematic.	
Alaska (Gleyed Pores (A15)		⁴ Give details of	color chan	ge in Ren	narks.	·	·	
Restrictive	Laver (if present):				•				
Type:									
Depth (inc	ches):						Hydric Soi	Present? Yes X No	
Remarks:									
Hydric so	bil determined	present	t due to shall	ow grou	undwa	ter and	l presence	e of hydrophytic vegetation.	
HYDROLO	HYDROLOGY								
Wetland Hy	drology Indicators:						Secondary In	dicators (2 or more required)	

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is su	ifficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7) Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (E	38) Uxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	X	
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes X	No Depth (inches): 12	X
Saturation Present? Yes X	No Depth (inches): 0	Wetland Hydrology Present? Yes X No
(includes capillary fringe)		Reven Martin I
Describe Recorded Data (stream gauge, r	nonitoring well, aerial photos, previous inspect	tions), if available:
-		
Remarks:		
Primary wetland hydrology in	ndicators present.	
, , , , , , , , , , , , , , , , , , , ,		

Project/Site: Katlian Bay Road			Borough/City:	Sitka	Sampling Date: June 19, 20	15
Applicant/Owner: ADOT & PF, Sou	uthcoast Region				Sampling Point: <u>10</u>	
Investigator(s): Jeff Gray, Carolyn Prentice				ide, terrace, hummocks,	etc.): hillsope	
Local relief (concave, convex, non	e): <u>convex</u>		_ Slope (%): <u>5-8</u>	}		
Subregion: Southeast Alaska Lat: -				Long:	Datum: _	
Soil Map Unit Name: Mitkof loam				NW	l classification: None	
Are climatic / hydrologic conditions	on the site typical	for this time of y	vear? Yes X	No (If no, exp	blain in Remarks.)	
Are Vegetation, Soil	_, or Hydrology	significantl	y disturbed?	Are "Normal Circums	tances" present? Yes X No	
Are Vegetation, Soil	_, or Hydrology	naturally p	roblematic?	(If needed, explain ar	y answers in Remarks.)	
SUMMARY OF FINDINGS	- Attach site ma	ap showing s	ampling poin	t locations, transect	s, important features, etc.	

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No X No X No X	Is the Sampled Area within a Wetland?	Yes	No_X
Remarks:			·		
Data point not in a wetland; not a	all three wetla	and indicators pres	ent. Data point located 10' r	orth of flag JA2.	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Picea sitchensis	35.00	Yes	FACU	That Are OBL, FACW, or FAC: 2 (A)
2. Tsuga heterophylla	20.00	Yes	FAC	
3				Total Number of Dominant
5				Species Across All Strata: (B)
4				Percent of Dominant Species
Total Cover:	55			That Are OBL, FACW, or FAC: 33 (A/B)
50% of total cover: 27.5	20% o	f total cover	<u>. 11</u>	Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: Multiply by:
1. Menziesia ferruginea	45	Yes	FACU	
2. Vaccinium parvifolium	5	No	FACU	OBL species x 1 =
Rubus spectabilis	5	No	FACU	FACW species x 2 =
				FAC species 23 x 3 = 69
4				FACU species $95 \times 4 = 380$
5				IIPI species x 5 =
6				
Total Cover:	55			Column Totals: (A) 449 (B)
50% of total cover: 22.5	20% of	total covor:	9	Developer la deve D/A 38
Herb Stratum	20 /0 01			
1 Cornus canadesis	4	Yes	FACU	Hydrophytic Vegetation Indicators:
o Gympocarpum dryopteris	6	Ves	FACIL	Dominance Test is >50%
		163	- 1400	Prevalence Index is ≤3.0
3. Ilarella trifoliata	3	Yes	FAC	Morphological Adaptations ¹ (Provide supporting
4				data in Remarks or on a separate sheet)
5.				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
1				be present unless disturbed or problematic.
8				··· · · · · · · · · · · · · · · · · ·
9				
10.				
Total Cover:	13			
E0% of total cover 5	200/ of	total anyon	2	
50% OI total cover.	20% 01			Hydrophytic
Plot size (radius, or length x width) radius by stratum: 30, 15, 5	_ % Bare C	Ground	10	Vegetation
% Cover of Wetland Bryophytes Total Cov (Where applicable)	ver of Bryop	ohytes	80	Present? Yes <u>No ^</u>
Remarks:				
No hydrophytic vegetation indicators pre	esent.			

Profile Desc	cription: (Describe	e to the dep	th needed to docur	nent the i	ndicator	or confirm	n the absence of inc	dicators.)	
Depth	Matrix		Redo	x Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture	F	Remarks
0-4	10YR 3/3	90					loam		
	10YR 2/1	10							
4-18	10YR 3/3	100					loam		
¹ Type: C=C	oncentration, D=De	pletion, RM=	=Reduced Matrix, CS	S=Covered	d or Coate	d Sand G	rains. ² Location	: PL=Pore	e Lining, M=Matrix.
Hydric Soil	Indicators:		Indicators for F	Problemat	ic Hydric	Soils ³ :			
Histosol	or Histel (A1)		Alaska Colo	or Change	$(TA4)^4$		Alaska Gley	ed Withou	t Hue 5Y or Redder
Histic E	pipedon (A2)		Alaska Alpi	ne Swales	(TA5)			g Layer	
Hydroge	en Sulfide (A4)		Alaska Red	ox With 2.	5Y Hue		Other (Expla	ain in Rem	arks)
Thick Da	ark Surface (A12)		2						
Alaska (Gleyed (A13)		"One indicator o	of hydroph	ytic vegeta	ation, one	primary indicator of v	vetland hy	drology,
Alaska F	Redox (A14)		and an appropriate landscape position must be present unless disturbed or problematic.						or problematic.
Alaska (Gleyed Pores (A15)		^⁴ Give details of	color char	ige in Ren	narks.			
Restrictive	Layer (if present):								
Туре:									V
Depth (in	ches):						Hydric Soil Pres	ent? Ye	es <u>No </u>
Remarks:									
HYDROLO	GY								

Wetland Hydrology Indicators	5:	<u></u>	econdary Indicators (2 or more required)	
Primary Indicators (any one ind	icator is sufficient)			Water-stained Leaves (B9)
Surface Water (A1)	L Inunc	dation Visible on Aerial Imagery (I	37) L	Drainage Patterns (B10)
High Water Table (A2)	Spar:	sely Vegetated Concave Surface	(B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl	Deposits (B15)		Presence of Reduced Iron (C4)
Water Marks (B1)	Hydro	ogen Sulfide Odor (C1)		Salt Deposits (C5)
Sediment Deposits (B2)	Dry-S	Season Water Table (C2)		Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Othe	r (Explain in Remarks)		Geomorphic Position (D2)
Algal Mat or Crust (B4)				Shallow Aquitard (D3)
Iron Deposits (B5)			Ļ	Microtopographic Relief (D4)
Surface Soil Cracks (B6)			L	FAC-Neutral Test (D5)
Field Observations:	V			
Surface Water Present?	Yes No X	Depth (inches):	-	
Water Table Present?	Yes No _X	Depth (inches):	-	X
Saturation Present? (includes capillary fringe)	Yes No _X	_ Depth (inches):	Wetlan	d Hydrology Present? Yes No X
Describe Recorded Data (streat	m gauge, monitoring	well, aerial photos, previous inspe	ections), if a	available:
-				
Remarks:				
No wetland hydrology	indicators pre	esent		
	indicatoro pre			

Project/Site: Katlian Bay Road	Borough/City:	Sitka	Sampling Date: June 19, 2015	
Applicant/Owner: ADOT & PF, Southcoast Region	on			Sampling Point: 11
Investigator(s): Jeff Gray, Carolyn Prentice	s, etc.): hillside			
Local relief (concave, convex, none): <u>concave</u>		_ Slope (%): 2-5		
Subregion: Southeast Alaska	Lat: _		Long: _	Datum:
Soil Map Unit Name: <u>Mitkof loam</u>			N\	VI classification: <u>None</u>
Are climatic / hydrologic conditions on the site ty	pical for this time of y	vear? Yes X	No (If no, e	xplain in Remarks.)
Are Vegetation, Soil, or Hydrolog	gy significantl	y disturbed?	Are "Normal Circum	stances" present? Yes X No
Are Vegetation, Soil, or Hydrolog	gy naturally p	roblematic?	(If needed, explain a	any answers in Remarks.)
SUMMARY OF FINDINGS – Attach sit	te map showing s	ampling poin	t locations, transed	cts, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X	No	
Remarks:	5 11 11			54		
Data point located within Wetland 5; all three wetland indicators present. Data point located at flag F1.						

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Picea sitchensis	25.00	Yes	FACU	That Are OBL, FACW, or FAC: <u>3</u> (A)
2. Tsuag heterophylla	10.00	Yes	FAC	
3				I otal Number of Dominant
				Species Across Air Strata. (B)
4 Total Cover:	35			Percent of Dominant Species
50% of total cover: 17.5	20% 0	f total cover	. 7	
Sapling/Shrub Stratum				Prevalence index worksheet:
1 Oplapanax horridus	8	Yes	FACU	Total % Cover of:Multiply by:
2 Menziesia ferruginea	5	Yes	FACU	OBL species25 x 1 =25
2				FACW species $8 \times 2 = 16$
3				FAC species 33 x 3 = 99
4				$\frac{1}{172}$
5.				FACU species $\underline{\qquad}$ x 4 = $\underline{\qquad}$
6				UPL species x 5 =
Tatal Causer	13			Column Totals: <u>109</u> (A) <u>312</u> (B)
50% of total cover:	_ 20% of	total cover:		Prevalence Index = B/A = 2.9
Herb Stratum	25	Vee		Hydrophytic Vegetation Indicators:
1. Lysichiton americanus	20	165		Dominance Test is >50%
2. <u>Athyrium filix-femina</u>	15	Yes	FAC	\square Browalance Index is ≤ 3.0
3. Cornus candensis	5	No	FACU	
4 Tiarella trifoliata	8	No	FAC	Morphological Adaptations (Provide supporting
5 Carex disperma	8	No	FACW	
5				Problematic Hydrophytic Vegetation (Explain)
6		<u> </u>		
7				ho present upless disturbed or problematic
8				be present unless disturbed of problematic.
9.				
10				
Total Cavar	61			
			10.0	
50% of total cover: <u>50.5</u>	_ 20% of	total cover:	12.2	Hydrophytic
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare 0	Ground	20	Vegetation
% Cover of Wetland Bryophytes Total Cov (Where applicable)	er of Bryop	ohytes	15	Present? Yes X No
Remarks:				1
Hydrophytic vegetation indicator presen	t.			

Profile Desc	cription: (Describe	to the depth	needed to docun	nent the in	ndicator o	or confirm	the absence	of indicato	ors.)
Depth	Matrix		Redo	3					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0-18	10YR 2/1	100					loam	muck	
							·		
		·					·		
		·			<u> </u>				
1Type: C=C	oncentration D=Den	letion RM=R	educed Matrix CS		or Coate	d Sand Gr	$\frac{2}{2}$	ation: PI =	Pore Lining M=Matrix
Hvdric Soil	Indicators:		Indicators for P	roblemati	ic Hvdric	Soils ³ :	2010. 200		rore Emilig, Mr Matrix.
Histosol	or Histel (A1)		Alaska Colo	r Change	(TA4) ⁴		Alaska	Gleved Wit	thout Hue 5Y or Redder
Histic E	pipedon (A2)		Alaska Alpir	e Swales	(TA5)		Unde	erlving Lave	r
Hvdroae	en Sulfide (A4)		Alaska Red	ox With 2.	5Y Hue		✓ Other	(Explain in F	Remarks)
Thick Da	ark Surface (A12)							х г [.] -)
Alaska (Gleyed (A13)		³ One indicator of	f hydrophy	tic vegeta	tion, one j	orimary indicat	or of wetlan	d hydrology,
Alaska F	Redox (A14)		and an approp	oriate land	scape pos	sition must	t be present un	less disturb	ed or problematic.
Alaska (Gleyed Pores (A15)		⁴ Give details of o	color chang	ge in Rem	arks.			
Restrictive	Layer (if present):								
Туре:									
Depth (in	ches):						Hydric Soil	Present?	Yes X No
Remarks:							•		
Hydric so vegetatio	oil determined	to be pre	esent due to	shallo	w grou	ndwate	er table ar	nd prese	nce of hydrophytic

Wetland Hydrology Indicato	rs:		Secondary Indicators (2 or more required)
Primary Indicators (any one in	dicator is suf	ff <u>icie</u> nt)	Water-stained Leaves (B9)
Surface Water (A1)		Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)		Sparsely Vegetated Concave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)		Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)		Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)		Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)			Shallow Aquitard (D3)
Iron Deposits (B5)			Microtopographic Relief (D4)
Surface Soil Cracks (B6)			FAC-Neutral Test (D5)
Field Observations:		X	
Surface Water Present?	Yes	No X Depth (inches):	
Water Table Present?	Yes X	No Depth (inches): <u>3</u>	X
Saturation Present? (includes capillary fringe)	Yes X	_ No Depth (inches): 0 Wetl	and Hydrology Present? Yes X No
Describe Recorded Data (stre	am gauge, m	nonitoring well, aerial photos, previous inspections),	if available:
-			
Remarks:			
Primary wetland hyd	rology in	ndicators present.	

Project/Site: Katlian Bay Road		Borough/City:	Sitka	Sampling Date: June 19, 2015
Applicant/Owner: ADOT & PF, Southcoast Region	on			Sampling Point: 12
Investigator(s): _Jeff Gray, Carolyn Prentice		_ Landform (hills	ide, terrace, humme	ocks, etc.): <u>hillside</u>
Local relief (concave, convex, none): <u>convex</u>		_ Slope (%): <u>5-8</u>		
Subregion: Southeast Alaska	Lat:		Long:	Datum:
Soil Map Unit Name: <u>Mitkof loam</u>				NWI classification: None
Are climatic / hydrologic conditions on the site ty	pical for this time of y	/ear? Yes X	No (If n	o, explain in Remarks.)
Are Vegetation, Soil, or Hydrolog	gy significantl	y disturbed?	Are "Normal Cir	cumstances" present? Yes X No
Are Vegetation, Soil, or Hydrolog	gy naturally p	roblematic?	(If needed, expla	in any answers in Remarks.)
SUMMARY OF FINDINGS – Attach si	te map showing s	ampling poin	t locations, tran	sects, important features, etc.
Hydrophytic Vegetation Present?YesHydric Soil Present?YesWetland Hydrology Present?Yes	X No No X No X	- Is the S - within a	ampled Area a Wetland?	Yes No X
Remarks:				

Data point not located within a wetland; not all three wetland indicators present. Data point located near flag F1.

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Picea sitchensis	5.00	No	FACU	That Are OBL, FACW, or FAC: (A)
2 Tsuga hterophylla	35.00	Yes	FAC	
2				Total Number of Dominant
· · · · · · · · · · · · · · · · · · ·				Species Across All Strata: (B)
4				Percent of Dominant Species
Total Cover:	40			That Are OBL, FACW, or FAC: <u>33</u> (A/B)
50% of total cover: 20	20% o	f total cover	: 8	Prevalence Index worksheet
Sapling/Shrub Stratum				
1. Menziesia ferruginea	35	Yes	FACU	
2. Oplopanax horridus	10	Yes	FACU	OBL species x 1 =
3 Vaccinium ovalofium	4	No	FAC	FACW species x 2 =
				FAC species 42 x 3 = 45
4				FACU species $59 \times 4 = 236$
5				
6				0 + 1 + 101 (4) $- 281$ (5)
Total Cover:	49			Column Totals: $(A) = 201$ (B)
50% of total covor: 24.5	20% of	total covor:	9.8	Developer lader D/A 28
Herb Stratum	20 /0 01			
1 Cornus canadensis	4	Yes	FACU	Hydrophytic Vegetation Indicators:
o Gympocarpum dryopteris	5	Vec	FACU	Dominance Test is >50%
2. Cynnocarpan aryoptens				Prevalence Index is ≤3.0
3. Adiantum aleuticum	3	Yes	FAC	Morphological Adaptations ¹ (Provide supporting
4				data in Remarks or on a separate sheet)
5.				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
7		<u> </u>		be present unless disturbed or problematic.
8				
9				
10				
Total Cover:	12			
50% of total cover:	20% of	total covor:	2.4	
50 % Of total cover.	20 /0 01		10	Hydrophytic
Plot size (radius, or length x width) radius by stratum. 30, 15, 5	_ % Bare (sround	10	Vegetation
% Cover of Wetland Bryophytes Total Cov (Where applicable)	er of Bryop	ohytes	80	Present? Yes <u>^ No</u>
Remarks:				
Hydrophytic vegetation indicator presen	t.			

Profile Desc	cription: (Describe	e to the dept	th needed to docur	nent the i	ndicator	or confirm	n the absence of	indicato	rs.)	
Depth	Matrix		Redox Features							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-2	10YR 3/3	100					loam			
2-5	10YR 2/2	100					loam			
5-18	10YR 3/3	100					sandy loam			
				<u> </u>						
¹ Type: C=C	oncentration D=De	pletion RM=	Reduced Matrix CS	S=Covered	d or Coate	d Sand G	rains ² Locati	on: PI =I	Pore Lining N	M=Matrix
Hydric Soil	Indicators:		Indicators for F	Problemat	ic Hydric	Soils ³ :			<u></u> g, .	
Histosol	or Histel (A1)		Alaska Cold	or Change	(TA4) ⁴		Alaska Gl	leved Wit	hout Hue 5Y	or Redder
Histic Er	oipedon (A2)		Alaska Alpi	ska Alpine Swales (TA5)			Underlying Layer			
Hydroge	n Sulfide (A4)		Alaska Red	ox With 2	5Y Hue		Other (Explain in Remarks)			
Thick Da	ark Surface (A12)									
Alaska (Gleved (A13)		³ One indicator o	of hydroph	vtic veget:	ation one	primary indicator	of wetland	d hydrology	
Alaska F	Redox (A14)		and an appro	nriate land	iscane no	sition mus	t be present unles	s disturb	ed or problen	natic
Alaska (Gleyed Pores (A15)		⁴ Give details of	color char	ige in Ren	narks.				
Restrictive	Layer (if present):									
Type:										
Depth (in	ches):						Hydric Soil Pr	esent?	Yes	No <u>X</u>
Remarks:							•			
No hydri	c soil indicato	or preser	nt.							
HYDROLO	GY									

Wetland Hydrology Indicators:			Se	condary Indicators (2 or more required)
Primary Indicators (any one indicators	ator is sufficie	nt)		Water-stained Leaves (B9)
Surface Water (A1)		Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)		Sparsely Vegetated Concave Surface (E	8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)		Marl Deposits (B15)		Presence of Reduced Iron (C4)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)		Salt Deposits (C5)
Sediment Deposits (B2)		Dry-Season Water Table (C2)		Stunted or Stressed Plants (D1)
Drift Deposits (B3)		Other (Explain in Remarks)		Geomorphic Position (D2)
Algal Mat or Crust (B4)				Shallow Aquitard (D3)
Iron Deposits (B5)				Microtopographic Relief (D4)
Surface Soil Cracks (B6)				FAC-Neutral Test (D5)
Field Observations:		N/		
Surface Water Present? Y	′es No	X Depth (inches):		
Water Table Present? Y	′es No	X Depth (inches):		N/
Saturation Present? Y	′es No	X Depth (inches):	Wetland	Hydrology Present? Yes No X
(includes capillary fringe)			······	
Describe Recorded Data (stream	i gauge, monit	toring well, aerial photos, previous inspect	lions), if av	/aliable:
-				
Remarks:				
No wetland hydrology	indicators	s present.		
		•		

Project/Site: Katlian Bay Road			Borough/City:	Sitka	Sampling Date: Jui	ne 24, 2015	
Applicant/Owner: AD	OT & PF, \$	Southcoast Region				Sampling Point: 13	1
Investigator(s): Jeff G	Gray, Tad S	chwager		Landform (hills	ide, terrace, hummo	ocks, etc.): toe of slope	
Local relief (concave,	convex, n	one): <u>none</u>		_ Slope (%): <u>0-2</u>	2		
Subregion: Southeas	t Alaska		Lat: _		Long: -	Datum: _	
Soil Map Unit Name:	Mitkof loar	n				NWI classification: None	
Are climatic / hydrolog	gic conditio	ons on the site typical f	or this time of y	/ear? Yes X	No (If no	o, explain in Remarks.)	
Are Vegetation	_, Soil	, or Hydrology	significantl	y disturbed?	Are "Normal Circ	cumstances" present? Yes X	_ No
Are Vegetation	, Soil	, or Hydrology	naturally p	roblematic?	(If needed, expla	iin any answers in Remarks.)	
SUMMARY OF F	INDING	S – Attach site ma	p showing s	sampling poin	t locations, trans	sects, important features, et	C.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X	No				
Remarks:	Remarks:								
Data point located in Wetland 6; all three wetland indicators present. Data point located near flag K2.									

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species	
1. Tsuga heterophylla	45.00	Yes	FAC	That Are OBL, FACW, or FAC: 4	(A)
2. Picea sitchensis	10.00	No	FACU		
3				Total Number of Dominant	
					_ (D)
4	55			Percent of Dominant Species	
Total Cover:	- 55			That Are OBL, FACW, or FAC: 80	(A/B)
50% of total cover: 27.5	20% o	f total cover	: 11	Prevalence Index worksheet:	
Sapling/Shrub Stratum	. –			Total % Cover of Multiply by:	
1. Menziesia ferruginea	15	Yes	FACU		
2. Vaccinium ovalifolium	10	Yes	FAC	OBL species x i =	
3 Tsuga heterophylla	5	No	FAC	FACW species x 2 =	
4				FAC species x 3 =	
				FACU species x 4 =	
5				UPL species x 5 =	
6				Column Totalo: 0 (A) 0	(P)
Total Cover:	30				(D)
50% of total cover: ¹⁵	20% of	total cover:	6	Prevalence Index = B/A =	
Herb Stratum					
1. Lyshichiton americanus	30	Yes	OBL		
2 Coptis asplenifolia	15	Yes	FAC	✓ Dominance Test is >50%	
3 Gymnocarpum dryopteris	4	No	FACU	Prevalence Index is ≤3.0	
SCorrus canadensis		No	FACU	Morphological Adaptations ¹ (Provide supp	orting
4Comus canadensis		NO	1 400	data in Remarks or on a separate shee	t)
5				Problematic Hydrophytic Vegetation ¹ (Exp	lain)
6					
7.				¹ Indicators of hydric soil and wetland hydrolog	y must
8				be present unless disturbed or problematic.	
0					
9					
10					
Total Cover:	53				
50% of total cover: 26.5	20% of	total cover:	10.6	Ludrophytic	
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare 0	Ground 20) (mud)	Vegetation	
% Cover of Wetland Bryophytes Total Cov	er of Bryop	ohytes	25	Present? Yes X No	
Remarks:					
Hydrophytic vegetation indicator presen	t.				

Depth	Matrix		Redo							
(inches)	Color (moist)	%	Color (moist)	<u>%</u> T	ype ¹	Loc ²	Texture		Remarks	
0-18	10YR 2/2	100					organic saturated			
Type: C=C	oncentration, D=De	pletion, RM	=Reduced Matrix, C	S=Covered or	Coated	Sand G	rains. ² Lo	cation: PL=	Pore Lining,	M=Matrix.
lydric Soil	Indicators:		Indicators for	Problematic I	lydric S	oils ³ :				
/ Histosol	or Histel (A1)		Alaska Col	or Change (TA	\4) ⁴		Alaska	a Gleyed Wi	thout Hue 5Y	or Redder
Histic E	pipedon (A2)		Alaska Alpi	ine Swales (TA	45)		Underlying Layer			
Hydroge	en Sulfide (A4)		Alaska Rec	dox With 2.5Y	Hue		Other (Explain in Remarks)			
Thick Da	ark Surface (A12)									
Alaska (Gleyed (A13)		³ One indicator of	of hydrophytic	vegetatio	on, one	primary indica	or of wetlan	d hydrology,	
Alaska F	Redox (A14)		and an appro	opriate landsca	ape posit	ion mus	n must be present unless disturbed or problematic.			
Alaska (Gleyed Pores (A15)		⁴ Give details of	color change	in Rema	rks.				
Restrictive	Layer (if present):									
Туре:									V	
Depth (in	ches):						Hydric Soi	Present?	Yes X	No
Remarks:										
- - - - - - - - - - - - - - - - - - -	oil indicator A	1 prese	nt.							
		10.000								
-										

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sur	fficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (Ba	8) Dxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	N N	
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes X	No Depth (inches):	
Saturation Present? Yes X	No Depth (inches): _0	Wetland Hydrology Present? Yes X No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, n	nonitoring well, aerial photos, previous inspecti	ons), if available:
-		
Remarks:		
Primary wetland hydrology in	ndicator present.	
	P	

Project/Site: Katlian Bay Road		Borough/City: Sitka	(Sampling Date: June 24, 2015
Applicant/Owner: <u>ADOT & PF, Southcoast Region</u>	l			Sampling Point: <u>14</u>
Investigator(s): _Jeff Gray, Tad Schwager		Landform (hillside, terr	ace, hummocks, etc.): <u>hills</u>	lope
Local relief (concave, convex, none): <u>none</u>		Slope (%): <u>10-15</u>	_	
Subregion: Southeast Alaska	Lat:	Lor	ng:	Datum: _
Soil Map Unit Name: Mitkof loam			NWI classificat	tion: None
Are climatic / hydrologic conditions on the site typ	ical for this time of ye	ear? Yes X No	(If no, explain in Rei	marks.)
Are Vegetation, Soil, or Hydrology	significantly	v disturbed? Are '	'Normal Circumstances" pre	esent? Yes X No
Are Vegetation, Soil, or Hydrology	naturally pr	oblematic? (If ne	eded, explain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site	e map showing sa	ampling point locat	ions, transects, import	ant features, etc.
Hydrophytic Vegetation Present? Yes	No X	Is the Sampled	Area	
Hydric Soil Present? Yes _	No <u>X</u>	within a Wetlar	nd? Yes	No X
Wetland Hydrology Present? Yes _	No <u>X</u>			
Remarks:				
Data point not located within a wetland; no	ot all three wetland	d indicators present.	Data point located near	flag K2.

	Absolute	Dominant	Indicator	Dominance Test worksheet:						
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species						
1. Tsuga heterophylla	55.00	Yes	FAC	That Are OBL, FACW, or FAC: 2 (A)						
2. Picea sitchensis	15.00	Yes	FACU							
3				I otal Number of Dominant						
				Species Across Air Strata. (B)						
4 Total Cover:	70			Percent of Dominant Species						
50% of total cover: 35	20% 0	f total covor	. 14							
Sapling/Shrub Stratum	20 /6 0		·	Prevalence Index worksheet:						
1 Menziesia ferruginea	15	Yes	FACU	Total % Cover of:Multiply by:						
2 Vaccinium ovalifolium	10	Yes	FAC	OBL species x 1 =						
2				FACW species x 2 =						
3				FAC species $71 \times 3 = 213$						
4				EACLI species $40 \times 4 = 160$						
5										
6				OFL Species X 5						
Total Cover:	25			Column Totals: $(A) = \frac{373}{(B)}$						
50% of total cover:12.5	20% of	total cover:	5	Prevalence Index = B/A =3.4						
Herb Stratum	_			Hydrophytic Vegetation Indicators:						
1. Cornus canadensis	5	Yes	FACU	Dominance Test is >50%						
2. Athyrium filix-femina	3	No	FAC							
3. Blechnum spicant	3	No	FAC							
4. Streptopus amplexifolius	5	Yes	FACU	Morphological Adaptations' (Provide supporting						
5				Brahlamatia I hades be tis) (a set ation 1 (For lain)						
0										
7				be present unless disturbed or problematic						
8										
9										
10										
Total Cover:	16									
50% of total cover: 8	20% of	total cover:	3.2							
Diet eine (rediue, en leneth wwidth) radius by stratum: 30' 15' 5'	0/		5	Hydrophytic						
Plot size (radius, or length X width) radiae by stratam ee, re, e	% Bare (0	Vegetation						
% Cover of Wetland Bryophytes Total Cov (Where applicable)	er of Bryop	ohytes	00							
Remarks:				·						
No hydrophytic vegetation indicators pre	sent									
Profile Desc	cription: (Describe	to the dep	th needed to docur	nent the i	ndicator	or confirr	n the absence	of indicator	s.)	
--------------	--	-------------	------------------------------	-------------	--	--------------------	-----------------------	----------------------------	----------------------	--
Depth Matrix			Redo	x Features	s					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-12	10YR 2/1	100					loam			
12-18	10YR 3/3	70					sandy loam	refusal a	at 18" (cobble)	
	10YR 4/4	30								
	opeoptration D-Do	olotion PM-	-Roducod Matrix, CS		d or Coato	d Sand C	rains ² Lo	ation: DI -D	oro Liping M-Matrix	
Hydric Soil	Indicators:		Indicators for F	Problemat	ic Hydric	Soils ³				
Histosol	or Histel (A1)		Alaska Cold	r Change	(TΔ4) ⁴	oono .		Gleved With	out Hue 5V or Redder	
Histic Fr	an a		Alaska Alpine Swales (TA5)				Underlying Laver			
Hydroge	sulfide ($\Delta 4$)		Alaska Redox With 2.5Y Hue					Other (Explain in Remarks)		
	ark Surface (A12)			0/ 1/10/2.	or ride				cindita)	
Alaska (Gleved (A13)		³ One indicator o	f hydrophy	vtic veget	ation one	nrimary indicat	or of wetland	hydrology	
Alaska F	Redox (A14)		and an appro	nriate lanc	te landscape position must be present unless disturbed or problematic.					
Alaska	Gleyed Pores (A15)		⁴ Give details of	color chan	ige in Ren	narks.				
Restrictive	Layer (if present):									
Туре:									X	
Depth (in	ches):						Hydric Soil	Present?	Yes <u>No X</u>	
Remarks:										
No hydri	c soil indicato	r preser	nt.							
	GY									

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)		
Primary Indicators (any one indicator is sufficient)	Water-stained Leaves (B9)		
Surface Water (A1) Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)		
High Water Table (A2) Sparsely Vegetated Concave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3)		
Saturation (A3) Marl Deposits (B15)	Presence of Reduced Iron (C4)		
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)		
Sediment Deposits (B2) Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)		
Drift Deposits (B3) Other (Explain in Remarks)	Geomorphic Position (D2)		
Algal Mat or Crust (B4)	Shallow Aquitard (D3)		
Iron Deposits (B5)	Microtopographic Relief (D4)		
Surface Soil Cracks (B6)	FAC-Neutral Test (D5)		
Field Observations:			
Surface Water Present? Yes No X Depth (inches):			
Water Table Present? Yes No X Depth (inches):	X		
Saturation Present? Yes No X Depth (inches): W	/etland Hydrology Present? Yes No X		
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection	is), if available:		
-			
Remarks:			
No wetland hydrology indicators present.			

Project/Site: Katlian Bay Road	_ Borough/City: <u>S</u>	Sitka	Sampling Date: June 24, 2015			
Applicant/Owner: <u>ADOT & PF, Southcoast Region</u>				Sampling Point: 15		
Investigator(s): Jeff Gray, Tad Schwager		_ Landform (hillside, terrace, hummocks, etc.): hillside seep				
Local relief (concave, convex, none): <u>concave</u>		Slope (%): 2-5				
Subregion: Southeast Alaska Lat:			Long: _	Datum:		
Soil Map Unit Name: Kupreanof gravelly silt loam			NV	/I classification: <u>None</u>		
Are climatic / hydrologic conditions on the site typical	for this time of y	year? Yes X	No (If no, e>	plain in Remarks.)		
Are Vegetation, Soil, or Hydrology	significant	ly disturbed?	Are "Normal Circum	stances" present? Yes X No		
Are Vegetation, Soil, or Hydrology	naturally p	problematic?	(If needed, explain a	ny answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X N	ło	
Remarks:						
Data point located within Wetland 7; all three wetland indicators present. Data point located near flag LA6.						

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species	
1. Tsuga heterophylla	45.00	Yes	FAC	That Are OBL, FACW, or FAC:4	(A)
2. Picea sitchensis	10.00	No	FACU		
3				I otal Number of Dominant	(P)
				Species Across All Strata.	(D)
4	55	<u> </u>		Percent of Dominant Species	
I otal Cover:				That Are OBL, FACW, or FAC: 67	(A/B)
50% of total cover: 27.5	20% o	f total cover	: 11	Prevalence Index worksheet:	-
Sapling/Snrub Stratum	15	Vee	EACU	Total % Cover of: Multiply by:	
	10		FACU	OBL species x 1 =	
2. Oplopanax horridus	10	Yes	FACU		_
3. Vaccinium ovalifolium	4	No	FAC	FAC vv species x z =	-
4.				FAC species x 3 =	-
5				FACU species x 4 =	_
0				UPL species x 5 =	_
0	20			Column Totals: ⁰ (A) ⁰	(B)
Total Cover:	29				_ 、 /
50% of total cover: <u>14.5</u>	20% of	total cover:	5.8	Prevalence Index = B/A =	
Herb Stratum	45	Mar		Hydrophytic Vegetation Indicators:	
1. Lysichiton americanus	15	res	OBL	Dominance Test is >50%	
2. Athyrium filix-femina	20	Yes	FAC		
3. Tolmiea menziesii	15	Yes	FACW		
4 Blechnum spicant	4	No	FAC	Morphological Adaptations' (Provide suppor	ling
5					
					n)
0					
7				be present unless disturbed or problematic	nust
8					
9					
10.					
Total Cover:	54				
50% of total cover: 27	20% of	total aquar	10.8		
50 % 01 total COVEL.	_ 20 % 01		25	Hydrophytic	
Plot size (radius, or length x width) radius by stratum. 30, 13, 3	_ % Bare (sround	2.5	Vegetation	
% Cover of Wetland Bryophytes Total Cov	er of Bryop	ohytes	35	Present? Yes <u>^</u> No	
(where applicable)					
Remarks:					
Hydrophytic vegetation indicator presen	t.				

Profile Desc	ription: (Describe	to the depth	needed to docum	nent the ir	dicator	or confirm	the absence	of indicators.)	
Depth	Matrix		Redox Features						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-18	10YR 2/1	100					Organic	saturated	
¹ Type: C=Co Hydric Soil Histic Ep Hydroge Thick Da	oncentration, D=Dep ndicators: or Histel (A1) bipedon (A2) n Sulfide (A4) ark Surface (A12)	letion, RM=F	Reduced Matrix, CS Indicators for P Alaska Colo Alaska Alpin Alaska Redo	=Covered roblemati r Change le Swales bx With 2.5	or Coate c Hydric (TA4) ⁴ (TA5) 5Y Hue		ains. ² Loc	Saturated	
Alaska C	Gleyed (A13)		³ One indicator of	fhydrophy	tic vegeta	ation, one p	primary indicat	or of wetland hydrology,	
Alaska F	Redox (A14)		and an appropriate landscape position must be present unless disturbed or problematic.					less disturbed or problematic.	
Alaska C	Bleyed Pores (A15)		Give details of c	color chang	ge in Ren	narks.	-		
Restrictive I	_ayer (if present):								
Туре:								Y	
Depth (ind	ches):						Hydric Soil	Present? Yes // No	
Remarks:							-		
Hydric so	bil indicator A1	present	t.						
HYDROLO	GY								
Wetland Hy	drology Indicators:						Secondary In	dicators (2 or more required)	

wetianu nyurology mulcato	13.	Secondary indicators (2 or more required)	
Primary Indicators (any one in	dicator is suffi	icient)	Water-stained Leaves (B9)
Surface Water (A1)) Drainage Patterns (B10)	
High Water Table (A2)		Sparsely Vegetated Concave Surface (B	8) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	[Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	[Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	[Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	[Geomorphic Position (D2)	
Algal Mat or Crust (B4)		Shallow Aquitard (D3)	
Iron Deposits (B5)			Microtopographic Relief (D4)
Surface Soil Cracks (B6)			FAC-Neutral Test (D5)
Field Observations:		0.5	
Surface Water Present?	Yes X	No Depth (inches): 0.5	
Water Table Present?	Yes X	No Depth (inches): 0	
Saturation Present? (includes capillary fringe)	Yes X	No Depth (inches): 0	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stre	am gauge, mo	onitoring well, aerial photos, previous inspect	ions), if available:
-			
Remarks:			
Primary wetland hyd	rology ind	dicators present.	

Project/Site: Katlian Bay Road		Borough/City:	Sitka	Sampling Date: June 24, 2015			
Applicant/Owner: ADOT & PF, Southcoast Region				Sampling Point: 16			
Investigator(s): Jeff Gray, Tad Schwager		Landform (hills	_ Landform (hillside, terrace, hummocks, etc.): hillside				
Local relief (concave, convex, none): <u>convex</u>		Slope (%):	5				
Subregion: Southeast Alaska	Lat: _		Long: -	Datum: _			
Soil Map Unit Name: Kupreanof gravelly silt loam			NW	/I classification: <u>None</u>			
Are climatic / hydrologic conditions on the site typic	cal for this time of	year? Yes X	No (If no, ex	plain in Remarks.)			
Are Vegetation, Soil, or Hydrology significantly		tly disturbed?	Are "Normal Circums	stances" present? Yes X No			
Are Vegetation, Soil, or Hydrology	naturally	problematic?	(If needed, explain a	ny answers in Remarks.)			

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>X</u> Yes Yes	No No _X No _X	Is the Sampled Area within a Wetland?	Yes	No	
Remarks:						
Data point not within a wetland; not all three wetland indicators present. Data point located near flag LA6.						

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Tsuga heterophylla	35.00	Yes	FAC	That Are OBL, FACW, or FAC: 5 (A)
2. Picea sitchensis	15.00	Yes	FACU	
3				Total Number of Dominant
5				Species Across All Strata: (B)
4				Percent of Dominant Species
Total Cover:	50			That Are OBL, FACW, or FAC: 63 (A/B)
50% of total cover: 25	20% o	f total cover	: <u> </u>	Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: Multiply by:
1. Oplopanax horridus	15	Yes	FACU	
2. Tsuga heterophylla	15	Yes	FAC	OBL species x 1 =
3 Menziesia ferruginea	10	Yes	FACU	FACW species x 2 =
· ·				FAC species x 3 =
4				FACU species x 4 =
5				
6				
Total Cover:	40			Column Lotals: (A) (B)
50% of total cover: 20	20% of	total cover	8	
Herb Stratum	_ 20 /0 01		·	
1 Blechnum spicant	7	Yes	FAC	Hydrophytic Vegetation Indicators:
		Vec	FAC	✓ Dominance Test is >50%
				Prevalence Index is ≤3.0
3. Atnyrium filix-temina	5	Yes	FAC	Morphological Adaptations ¹ (Provide supporting
4				data in Remarks or on a separate sheet)
5.				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
/				be present unless disturbed or problematic.
8				
9				
10				
Total Cover:	16			
50% of total cover: 8	20% of	total cover	3.2	
Dist size (as the set is set in a set i	0/_D		15	Hydrophytic
Plot size (radius, or length x width) radius by stratum. 30, 10, 3	% Bare (srouna	75	Vegetation
% Cover of Wetland Bryophytes Total Cov (Where applicable)	er of Bryop	ohytes	/5	Present? Yes <u>^ No</u>
Remarks:				
Hydrophytic vegetation indicator presen	t.			

Profile Desc	ription: (Describe	e to the dep	th needed to docu	nent the i	ndicator	or confirm	n the absence of in	dicators.)	
Depth	Matrix	Redo	x Features	5					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	R	emarks
0-8	10YR 3/2	100					loam		
8-18	10YR 3/3	90					loam		
	10YR 2/2	10							
							<u> </u>		
					. <u> </u>				
¹ Type: C=Co	oncentration, D=De	pletion, RM=	Reduced Matrix, CS	S=Covered	or Coate	d Sand G	rains. ² Locatior	: PL=Pore	Lining, M=Matrix.
Hydric Soil	Indicators:		Indicators for I	Problemat	ic Hydric	Soils ³ :			
Histosol	or Histel (A1)		Alaska Colo	or Change	(TA4) ⁴		Alaska Gley	ed Without	Hue 5Y or Redder
Histic Ep	pipedon (A2)		Alaska Alpi	Alaska Alpine Swales (TA5) Underlying Layer					
Hydroge	en Sulfide (A4)		Alaska Redox With 2.5Y Hue Other (Explain in Remarks)						ırks)
Thick Da	ark Surface (A12)						、 .		,
Alaska (Gleyed (A13)		³ One indicator of	of hydrophy	tic vegeta	ation, one	primary indicator of	wetland hyd	rology,
Alaska F	Redox (A14)		and an appropriate landscape position must be present unless disturbed or problematic.						
Alaska C	Gleyed Pores (A15)		⁴ Give details of	color chan	ge in Ren	narks.			
Restrictive I	Layer (if present):								
Туре:									V
Depth (ind	ches):						Hydric Soil Pres	ent? Yes	s No
Remarks:									
No hydrio	c soil indicato	ors prese	ent.						
HYDROLO	GY								

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is suf	f <u>icie</u> nt)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8)) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	X	
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes	No X Depth (inches):	X
Saturation Present? Yes (includes capillary fringe)	No X Depth (inches): V	Netland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge, m	nonitoring well, aerial photos, previous inspectio	ns), if available:
-		
Remarks:		
No wetland hydrology indicat	ors present	

I

Project/Site: <u>Katlian Bay Road</u>	_ Borough/City: <u>Sitka</u> Sampling Date: <u>Jur</u>				ate: June 1	17, 2015		
Applicant/Owner: ADOT & PF, Southcoast Region						Sampling P	oint: <u>17</u>	
Investigator(s): Jeff Gray, Carolyn Prentice, Chris Sears		Land	form (h	illside, terr	ace, hummocks, etc.): hills	ide seep		
Local relief (concave, convex, none): concave		Slope	e (%):	5-8				
Subregion: Southeast Alaska	Lat: -		· / _	Lor	- na: -	Datu	ım: -	
Soil Map Unit Name. Sitka-Partofshikof complex, broke	<u>ו</u>				NWI classifica	tion. None		
Are climatic / hydrologic conditions on the site typical for	r this time of	vear? Y	∕ _{es} X	No	(If no, explain in Re	marks)		
Are Vegetation Soil or Hydrology	significar	tly distur	bed?	Are '	'Normal Circumstances" pr	esent? Yes	X N	lo
Are Vegetation Soil or Hydrology	naturally	nroblem	atic?	(If ne	eded explain any answers	in Remark	s)	
SUMMARY OF FINDINGS – Attach site ma	p showing	sampli	ing po	oint locat	ions, transects, impor	ant featu	res, etc.	
Hydrophytic Vegetation Present? Ves X	No							
Hydric Soil Present? Yes X	No		Is the	e Sampled	l Area			
Wetland Hydrology Present? Yes X	No No		withi	n a Wetlaı	nd? Yes <u>^</u>	<u> </u>	lo	
Remarks:								
Data point located within Wetland 8 (seep); all	three wetla	nd indi	cators	present.	Data point located nea	r flag A4.		
VECETATION Lies asigntific names of pla	nto Lioto		ioo in	the plat				
VEGETATION – Ose scientific flames of pla		iii spec		the plot.	Dentioner Testande			
Tree Stratum	Absol % Co	ute Dor ver Spe	ninant ecies?	Indicator Status	Dominance Test works	heet:		
1. Picea sitchensis	35.0	0 Y	'es	FACU	That Are OBL, FACW, or	∋cies `FAC:	4	(A)
2.								_ ()
3.					Species Across All Strata	nt a:	7	(B)
4						··		_ (-)
Total C	over: 35				Percent of Dominant Spe That Are OBL, FACW, or	cies FAC:	57	(A/B)
50% of total cover: _	17.5 20	% of tota	l cover	: 7	Prevalence Index work	sheet:		_ ()
Sapling/Shrub Stratum	20	N.	(FAC	Total % Cover of:	N	lultiply by:	
1Ainus viridis	20	Y	es	FAC	OBL species	x 1 =		
2. Vaccinium ovalorolium	8		es (es	FAC	FACW species	x 2 =		
	10		65	FACU	FAC species	x 3 =		
4					FACU species	x 4 =		
5					UPL species	x 5 =		
0	38				Column Totals: 0	(A)	0	(B)
	19 000	/		76				
Herb Stratum	20%	o oi lolai	cover.		Prevalence Index	= B/A =		
1 Viola palustris	8	Y	'es	FACW	Hydrophytic Vegetation	Indicators	S:	
2 Galium aparine	5	1	No	FACU	Dominance Test is >	·50%		
3 Athyrium filix-femina	8	Y	′es	FAC	Prevalence index is	≤3.0 hatiana ¹ (Dru		rting
4. Trisetum cernuum	15	Y	′es	FACU	data in Remarks	or on a sep	arate sheet)
5					Problematic Hydropl	nytic Vegeta	ation ¹ (Expla	ain)
6								
7					¹ Indicators of hydric soil	and wetland	d hydrology	must
8							ematic.	
9								
10								
Total C	over: <u>36</u>							
50% of total cover:	18 20%	6 of total	cover:	7.2	Hydrophytic			
Plot size (radius, or length x width) radius by stratum: 30'	^{15', 5'} % Ba	re Grour	nd	15	Vegetation	¥ -		
% Cover of Wetland Bryophytes Tota (Where applicable)	al Cover of B	ryophyte	s	55	Present? Yes	<u>^ N</u>	10	
Hydrophytic vegetation indicator pre	sent.							

Profile Desc	ription: (Describe	to the denth	needed to docum	ent the ir	dicator o	or confirm	the absence	of indicato	rs.)	
Denth	Matrix		Redox	(Features				or malouto	,	
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture		Remarks	
0-18	10YR 2/1	100					muck	saturate	ed	
		·								
		·								
		·								
		·								
$\frac{1}{1}$ Type: C=C	ncentration D=Den	letion RM=R	educed Matrix CS	=Covered	or Coate	d Sand G	rains ² Lo	cation: PI =	Pore Lining M	A=Matrix
Hydric Soil	Indicators:		Indicators for P	roblemati	ic Hydric	Soils ³ :			ore Emilig, N	
Histosol	or Histel (A1)		Alaska Colo	r Change	(TA4) ⁴		Alaska	a Gleved Wit	hout Hue 5Y	or Redder
Histic Ep	pipedon (A2)		Alaska Alpin	e Swales	(TA5)		Und	erlying Layer	r	
Hydroge	n Sulfide (A4)		Alaska Redo	ox With 2.8	5Y Hue		✓ Other	(Explain in F	Remarks)	
Thick Da	ark Surface (A12)						_	、 ·	,	
Alaska G	Gleyed (A13)		³ One indicator of	hydrophy	tic vegeta	ition, one	primary indicat	or of wetland	d hydrology,	
Alaska F	Redox (A14)		and an approp	oriate land	scape pos	sition mus	t be present ur	nless disturb	ed or problem	atic.
Alaska G	Gleyed Pores (A15)		⁴ Give details of c	olor chang	ge in Rem	arks.				
Restrictive I	_ayer (if present):									
Туре:										
Depth (ind	ches):						Hydric Soil	Present?	Yes X	No
Remarks:										
Hydric so	oil determined	to be pre	esent due to	preser	nce of	shallov	v aroundw	vater and	hvdroph	vtic
venetatio	n			P. 0001			. <u>3</u> . canan			
vegetatio	/11.									

HYDROLOGY

Wetland Hydrology Indicato	ors:		Secondary Indicators (2 or more required)
Primary Indicators (any one in	ndicator is suf	fficient)	Water-stained Leaves (B9)
Surface Water (A1)		Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)		Sparsely Vegetated Concave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)		Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)		Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)		Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)			Shallow Aquitard (D3)
Iron Deposits (B5)			Microtopographic Relief (D4)
Surface Soil Cracks (B6)			FAC-Neutral Test (D5)
Field Observations:	Ň		
Surface Water Present?	Yes X	_ No Depth (inches):	
Water Table Present?	Yes X	No Depth (inches): 0	
Saturation Present? (includes capillary fringe)	Yes X	No Depth (inches): 0 W	etland Hydrology Present? Yes X No
Describe Recorded Data (stre	am gauge, m	nonitoring well, aerial photos, previous inspection	s), if available:
-			
Remarks:			
Primary wetland hyc	Irology in	idicators present.	
	0,	•	

Project/Site: Katlian Bay Road		Borough/City	Sitka	Sampling Date: June 17, 2015
Applicant/Owner: <u>ADOT & PF, Southcoast Region</u>				Sampling Point: 18
Investigator(s): Jeff Gray, Carolyn Prentice, Chris Sears		Landform (hi	llside, terr	ace, hummocks, etc.): <u>hillside</u>
Local relief (concave, convex, none): <u>none</u>		Slope (%): 1	0-15	_
Subregion: Southeast Alaska Lat: -			Lor	ng: Datum:
Soil Map Unit Name: Sitka-Partofshikof complex, broken				NWI classification: None
Are climatic / hydrologic conditions on the site typical for this tir	me of ye	ar? Yes X	No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology sign	ificantly	disturbed?	Are	"Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology natu	urally pro	blematic?	(lf ne	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	wing sa	ampling poi	nt locat	ions, transects, important features, etc.
Hydrophytic Vegetation Present? Ves X No				
Hydrophyde Vegetation resent?	x	Is the	Sampled	I Area
Wetland Hydrology Present? Yes No >	X	withir	n a Wetla	nd? Yes No <u>^</u>
Remarks:				
Data point not located within a wetland; not all three w	wetland	parameter	s presen	t. Data point located in uplands near flag A4.
VEGETATION – Use scientific names of plants. L	ist all s	species in t	the plot.	
, A second se	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum Pieces sitebopsis	<u>% Cover</u>	Species?	Status	Number of Dominant Species
	55.00	165	FACU	That Are OBL, FACW, or FAC:4 (A)
2		·		Total Number of Dominant
3		·		Species Across All Strata: (B)
4	55			Percent of Dominant Species
50% of total cover: 27.5	20% (- of total cover:	11	That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum	_ 2070 0			Prevalence Index worksheet:
1 Alnus viridis	15	Yes	FAC	OPL apaging vi 1 =
2 Rubus spectabilis	10	Yes	FACU	
3 Menziesia ferruginea	7	No	FACU	FAC species x 3 =
4 Tsuga heterophylla	8	Yes	FAC	FACIL species x 4 =
5				UPL species x 5 =
6	40			Column Totals: 0 (A) 0 (B)
Total Cover:	40	-	0	
50% of total cover: <u>20</u>	20% o	f total cover:	0	Prevalence Index = B/A =
1. Blechnum spicant	8	Yes	FAC	Hydrophytic Vegetation Indicators:
2. Dryopteris expansa	5	Yes	FACU	✓ Dominance Test is >50%
3 Adiantum aleuticum	5	Yes	FAC	Prevalence index is ≤ 3.0
4				data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				Indicators of hydric soil and wetland hydrology must
8				
9		·		
10	10			
Total Cover:	10	- -	3.6	
50% of total cover:	20% 0	f total cover:	5.0	Hydrophytic
K Cover of Wetland Bryophytes Total Cover (Where applicable)	n of Bryo	phytes		VegetationPresent?Yes \underline{X} No
Remarks:				1
Hydrophytic vegetation indicator present.				

Profile Desc	ription: (Describe	to the dept	h needed to docum	ent the i	ndicator	or confirn	the absence	of indicators.)		
Depth	Matrix Redox Features									
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	R	emarks	
0-18	10YR 2/1	100					loam	dry		
18-24	10YR 3/3	100					loam	dry		
1 0.0			D				. 21			
Type: C=C	oncentration, D=Dep	letion, RM=	Reduced Matrix, CS	=Covered	i or Coate	d Sand Gi	ains. Lo	cation: PL=Pore	Lining, M=M	atrix.
	ar Histol (A1)		Alaska Color	Change		30115 .		Clayed Without	Liuo EV or D	laddar
	OF FISIER (AT)				(TA4) (TA5)					edder
					(TA5)			enying Layer	ul (a)	
	en Sullide (A4) ark Sulface (A12)			ox vvitri 2.	or Hue			(Explain in Rema	rks)	
Alaska (Sleved (A13)		³ One indicator of	hydrophy	/tic venet:	ation one	orimary indica	or of wetland hvd	rology	
Alaska F	Redox (A14)		and an approp	riate land	lscape po	sition mus	t be present u	less disturbed or	problematic	
Alaska (Gleyed Pores (A15)		⁴ Give details of c	olor chan	ge in Ren	narks.	· · · · · · · · · · · · · · · ·			
Restrictive	Layer (if present):									
Туре:										
Depth (in	ches):						Hydric Soi	Present? Yes	s No	, <u>X</u>
Remarks:										
No hydrid	c soil indicator	presen	it; no groundw	vater ta	able pr	esent.				
,										

	Secondary Indicators (2 or more required)
)	Water-stained Leaves (B9)
nundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
parsely Vegetated Concave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3)
larl Deposits (B15)	Presence of Reduced Iron (C4)
lydrogen Sulfide Odor (C1)	Salt Deposits (C5)
ry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
other (Explain in Remarks)	Geomorphic Position (D2)
	Shallow Aquitard (D3)
	Microtopographic Relief (D4)
	FAC-Neutral Test (D5)
,	
Depth (inches):	
Depth (inches):	X
Depth (inches): Wet	tland Hydrology Present? Yes No X
ing well, aerial photos, previous inspections)), if available:
oresent.	
	undation Visible on Aerial Imagery (B7) parsely Vegetated Concave Surface (B8) arl Deposits (B15) ydrogen Sulfide Odor (C1) ry-Season Water Table (C2) ther (Explain in Remarks) Depth (inches): Depth (inches): We ng well, aerial photos, previous inspections present.

l

HYDROLOGY

Project/Site: Katlian Bay Road	Borough/City:	Sitka	Sampling Date: June 17, 201	
Applicant/Owner: ADOT & PF, Southcoast Reg	ion			Sampling Point: 19
Investigator(s): Jeff Gray, Carolyn Prentice		Landform (hill	side, terrace, hummocks	, etc.): toe of slope, depression
Local relief (concave, convex, none): <u>concave</u>			2	
Subregion: Southeast Alaska	Lat:		Long:	Datum:
Soil Map Unit Name: Sitka-Partofshikof comple	x, broken		NV	/I classification: None
Are climatic / hydrologic conditions on the site t	typical for this time of	year? Yes X	No (If no, ex	plain in Remarks.)
Are Vegetation, Soil, or Hydrold	ogy significant	tly disturbed?	Are "Normal Circum	stances" present? Yes X No
Are Vegetation, Soil, or Hydrold	ogy naturally p	problematic?	(If needed, explain a	ny answers in Remarks.)
SUMMARY OF FINDINGS – Attach s	ite map showing	sampling poir	nt locations, transec	ts, important features, etc.
Hydrophytic Vegetation Present?YesHydric Soil Present?YesWetland Hydrology Present?Yes	X No x No x No x No	- Is the within	Sampled Area a Wetland?	Yes X No
Remarks: Data point located within Wetland 9; all	three wetland indic	cators preset.	Data point located ne	ar flag B19.
VEGETATION – Use scientific names	s of plants. List a	Il species in t	he plot.	
Tree Stratum	Absolu % Cov	ite Dominant Ir ver Species?	ndicator Dominance 1 Status Number of Do	est worksheet:

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	<u>% Cover</u>	<u>Species?</u>	<u>Status</u>	Number of Dominant Species	
1 I suga heterophylla	30.00	Yes	FAC	That Are OBL, FACW, or FAC:6	(A)
2. <u>Alnus rubra</u>	15.00	Yes	FAC	Total Number of Dominant	
3				Species Across All Strata: 6	(B)
4					. ,
Total Cover:	45			That Are OBL FACW or FAC 100	(A/B)
50% of total cover: 22.5	20% o	f total cover	9	Prevalence Index worksheet:	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Sapling/Shrub Stratum				Total % Cover of: Multiply by:	
1. Vaccinium caespitosum	20	Yes	FACW		_
2. Tsuga heterophylla	15	Yes	FAC		_
3 Menziesia ferruginea	5	No	FACU	FACW species x 2 =	_
4.				FAC species x 3 =	_
5				FACU species x 4 =	_
6				UPL species x 5 =	_
Total Cover:	40	·		Column Totals: (A) 0	(B)
	20% of	total aquar	8		
Herb Stratum	_ 20% 01	lotal cover.		Prevalence Index = B/A =	
1. Carex mertensii	15	Yes	FACW	Hydrophytic Vegetation Indicators:	
2. Lysichiton americanus	15	Yes	OBL	✓ Dominance Test is >50%	
3. Trisetum cernuum	10	No	FACU	Prevalence Index is ≤3.0	
4. Athyrium filix-femina	7	No	FAC	Morphological Adaptations' (Provide suppor	ting
5 Cornus canadensis	4	No	FACU	Problematic Hydrophytic Vegetation ¹ (Expla	in)
6					
7				¹ Indicators of hydric soil and wetland hydrology	must
8				be present unless disturbed or problematic.	
0					
3					
Total Cover	51				
50% of total cover 255	20% of	total cover:	10.2		
Diet eize (rediue, or length x width) radius by stratum: 30' 15' 5'	20% 01	$\frac{1}{2}$	5 (mud)	Hydrophytic	
Flot size (Tadius, or length x width) reade by eardain. 66, 16, 6	_ % Bare (45	Vegetation Present? Ves X No	
% Cover of Wetland Bryophytes Total Cov (Where applicable)	er of Bryop	onytes	70	NO	
Remarks:					
Hydrophytic vegetation indicator present	t.				

Profile Desc	ription: (Describe	to the depth nee	eded to docun	nent the i	ndicator	or confirm	n the absence	e of indicators.)
Depth	Matrix		Redo	x Features	;			
(inches)	Color (moist)	<u>%</u> Co	lor (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-18	10YR 2/1	100	organic saturated					
		·						
¹ Type: C=C	oncentration, D=Dep	letion, RM=Redu	ced Matrix, CS	=Covered	or Coate	d Sand Gr	rains. ² Lo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil Histosol Histic Ep Hydroge	Indicators: or Histel (A1) bipedon (A2) en Sulfide (A4) ark Surface (A12)		dicators for P Alaska Colo Alaska Alpir Alaska Redo	roblemat r Change he Swales bx With 2.8	i c Hydric (TA4)⁴ (TA5) ōY Hue	Soils ³ :	Alaska Und Other	a Gleyed Without Hue 5Y or Redder erlying Layer (Explain in Remarks)
Alaska (Gleyed (A13)	³ C	One indicator of	f hydrophy	tic vegeta	tion, one	primary indica	tor of wetland hydrology,
Alaska F	Redox (A14)		and an approp	priate land	scape po	sition mus	t be present u	nless disturbed or problematic.
Alaska (Gleyed Pores (A15)	⁴ C	Give details of o	color chan	ge in Ren	narks.		
Restrictive I	Layer (if present):							
Туре:								X
Depth (in	ches):						Hydric Soi	Present? Yes <u>^</u> No
Hydric so	oil indicator A1	present.						
HYDROLO	GY							

Wetland Hydrology Indicato	rs:		Secondary Indicators (2 or more required)
Primary Indicators (any one in	idicator is suffic	<u>sient)</u>	Water-stained Leaves (B9)
Surface Water (A1)	Ĺ	Inundation Visible on Aerial Imagery (B7) Drainage Patterns (B10)
High Water Table (A2)	Ĺ	Sparsely Vegetated Concave Surface (E	8) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)		Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Γ	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)		Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)			Shallow Aquitard (D3)
Iron Deposits (B5)			Microtopographic Relief (D4)
Surface Soil Cracks (B6)			FAC-Neutral Test (D5)
Field Observations:		4	
Surface Water Present?	Yes X N	No Depth (inches):	
Water Table Present?	Yes X N	No Depth (inches): 0	×
Saturation Present? (includes capillary fringe)	Yes X N	lo Depth (inches): 0	Wetland Hydrology Present? Yes X No
Describe Recorded Data (stre	am gauge, mo	nitoring well, aerial photos, previous inspec	ions), if available:
-			
Remarks:			
Primary wetland hyc	Irology ind	licators present	
	noiogy ind		

Project/Site: <u>Katlian Bay Road</u>	Borough/City: Sitka	Sampling Date: June 17, 2015
Applicant/Owner: ADOT & PF, Southcoast Region		Sampling Point: 20
Investigator(s): <u></u>	Landform (hillside, terrace, hummo	ocks, etc.): <u>hillside</u>
Local relief (concave, convex, none): <u>convex</u>	Slope (%): <u>5-8</u>	
Subregion: <u>Southeast Alaska</u> Lat:	Long:	Datum:
Soil Map Unit Name: Sitka-Partofshikof complex, broken		NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time o	of year? Yes X No (If no	o, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significat	ntly disturbed? Are "Normal Circ	cumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	v problematic? (If needed, expla	in any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No X No X No X	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Data point not located within a we	etland; not all	three wetland indi	cators present. Data point lo	ocated near flag F	B19.

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Tsuga heterophylla	70.00	Yes	FAC	That Are OBL, FACW, or FAC: 2 (A)
2				
2				Total Number of Dominant
3				Species Across All Strata: 0 (B)
4				Percent of Dominant Species
Total Cover:	70			That Are OBL_EACW or EAC ³³ (A/B)
50% of total cover: 35	20% ი	f total cover	. 14	
Sapling/Shrub Stratum			·	Prevalence Index worksneet:
Tsuga heterophylla	10	Yes	FAC	Total % Cover of: Multiply by:
Menziesia ferruginea	15	Yes	FACU	OBL species x 1 =
Z				FACW species x 2 =
3. Rubus speciabilis	5	INO	FACU	EAC species $\frac{80}{3}$ x 3 = $\frac{240}{3}$
4				$\frac{1}{100} = \frac{1}{100}$
5.				FACU species $\underline{\qquad}$ X 4 = $\underline{\qquad}$
6				UPL species x 5 =
Total Cover	30			Column Totals: <u>125</u> (A) <u>420</u> (B)
			c	
50% of total cover:	20% of	total cover:	6	Prevalence Index = B/A = <u>3.4</u>
Herb Stratum	~	Vee	FACU	Hydrophytic Vegetation Indicators:
1. Gailum appainte	5	res	FACU	Dominance Test is >50%
2. Dryopteris expansa	15	Yes	FACU	
3. Phegopteris connectillis	5	Yes	FACU	
4				Morphological Adaptations' (Provide supporting
5				Problematic Hydrophytic Vegetation' (Explain)
6				1
7				Indicators of hydric soil and wetland hydrology must
8				be present unless disturbed of problematic.
9.				
10				
T	25			
I otal Cover:	20		-	
50% of total cover: 12.5	20% of	total cover:	5	Hydrophytic
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare 0	Ground	40	Vegetation
% Cover of Wetland Bryophytes - Total Cov	er of Brvor	phytes	35	Present? Yes No X
(Where applicable)	J - 1	·		
Remarks:				
No hydrophytic vegetation indicator pres	sent.			

Jenth	Matrix		Red	ox Features				
(inches)	Color (moist)	%	Color (moist)	%Ty	pe ¹ Loc ²	Texture		Remarks
)-12	10YR 3/2	100				loam	refusal	at 12" (bedrock)
ype: C=C	oncentration, D=De	oletion, RM=	Reduced Matrix, C	S=Covered or (Coated Sand	Grains. ² Lo	ocation: PL=	Pore Lining, M=Matrix.
ydric Soil	Indicators:		Indicators for	Problematic H	ydric Soils":		Clayed Wit	bout Live EV or Dodder
Histic F	ninedon (A2)		Alaska Col	ine Swales (TA	+) 5)		a Gleyeu Wil terlving Lave	r
Hydroa	en Sulfide (A4)		Alaska Red	dox With 2 5Y F	lue	Other	(Explain in F	' Remarks)
Thick D	ark Surface (A12)						(_,,p.c	
Alaska	Gleyed (A13)		³ One indicator	of hydrophytic v	egetation, on	e primary indica	ator of wetlan	d hydrology,
Alaska	Redox (A14)		and an appro	opriate landsca	pe position mu	ust be present u	nless disturb	ed or problematic.
	Gleyed Pores (A15)		⁴ Give details of	color change ir	n Remarks.			
Alaska								
Alaska (Layer (if present):							
Alaska estrictive	Layer (if present):							V
Alaska Cestrictive Type: Depth (in	Layer (if present):					Hydric So	il Present?	Yes <u>No X</u>
Alaska Restrictive Type: Depth (in Remarks:	Layer (if present):					Hydric So	il Present?	Yes <u>No X</u>
Alaska Type: Depth (in Remarks: Io hydri	Layer (if present):	r preser				Hydric So	il Present?	Yes <u>No X</u>
Alaska Type: Depth (in Remarks: Io hydri	Layer (if present):	r preser	 nt.			Hydric So	il Present?	Yes <u>No X</u>
Alaska Restrictive Type: Depth (in Remarks: Io hydri	Layer (if present):	r preser	 nt.			Hydric So	il Present?	Yes <u>No X</u>

Wetland Hydrology Indicate	ors:		<u>Se</u>	condary Indicators (2 or more required)
Primary Indicators (any one i	ndicator is suffici	ient)		Water-stained Leaves (B9)
Surface Water (A1)		Inundation Visible on Aerial Imagery (B7) [Drainage Patterns (B10)
High Water Table (A2)	L	Sparsely Vegetated Concave Surface (B	8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)		Marl Deposits (B15)		Presence of Reduced Iron (C4)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)		Salt Deposits (C5)
Sediment Deposits (B2)		Dry-Season Water Table (C2)		Stunted or Stressed Plants (D1)
Drift Deposits (B3)		Other (Explain in Remarks)		Geomorphic Position (D2)
Algal Mat or Crust (B4)				Shallow Aquitard (D3)
Iron Deposits (B5)				Microtopographic Relief (D4)
Surface Soil Cracks (B6)	1			FAC-Neutral Test (D5)
Field Observations:		X		
Surface Water Present?	Yes No	lo X Depth (inches):		
Water Table Present?	Yes No	lo X Depth (inches):		V
Saturation Present? (includes capillary fringe)	Yes No	lo X Depth (inches):	Wetland	Hydrology Present? Yes No <u>^</u>
Describe Recorded Data (str	eam gauge, mon	nitoring well, aerial photos, previous inspect	ions), if av	/ailable:
-				
Remarks:				
No wetland hydrolog	av indicator	rs present		
	g, maloutor			

Project/Site: Katlian Bay Road	E	Borough/City	r: Sitka	Sampling Date: June 18, 2015			
Applicant/Owner: ADOT & PF, Southcoast Region				Sampling Point: 21			
Investigator(s): Jeff Gray, Chris Sears		Landform (hillside, terrace, hummocks, etc.): hillside					
Local relief (concave, convex, none): concave		Slope (%): 5	5-8				
Subregion: Southeast Alaska			Lor	- ng: ⁻ Datum: ⁻			
Soil Map Unit Name Sitka-Partofshikof complex, broken				NWI classification. None			
Are climatic / hydrologic conditions on the site typical for this ti	me of ve	ar? Yes X	No	(If no, explain in Remarks)			
Are Vegetation Soil or Hydrology sign	nificantly	disturbed?	Are '	"Normal Circumstances" present? Yes X No			
Are Vegetation, Soil, or Hydrology sign	urally pro	hlematic?	(If ne	eveded evolain any answers in Remarks)			
		biematie:	(II IIC	scuce, explain any answers in remarks.			
SUMMARY OF FINDINGS – Attach site map show	wing sa	mpling po	int locat	ions, transects, important features, etc.			
Hydrophytic Vegetation Present? Ves X No.							
Hydrophytic Vegetation resent?		Is the	Sampled	I Area			
Wetland Hydrology Present? Yes X No		withi	n a Wetlaı	nd? Yes <u>×</u> No			
Remarks:							
Data point located within Wetland 10 (slope muskeg/	/bog); all	three wet	and indic	cators present. Data point located near flag E4.			
VECETATION Lies scientific names of plants.	ict oll o	nacioa in	the plot				
VEGETATION – Ose scientific names of plants. L				Deminence Test worksheet			
Tree Stratum	Absolute % Cover	Dominant Species?	Status	Dominance Test worksneet:			
				That Are OBL, FACW, or FAC: 4 (A)			
2.				Tatal Number of Deminant			
3				Species Across All Strata: 4 (B)			
4							
Total Cover: _	0			That Are OBL, FACW, or FAC: 100 (A/B)			
50% of total cover:	_ 20% o	f total cover:		Prevalence Index worksheet:			
Sapling/Shrub Stratum	0	Vaa	FAC	Total % Cover of: Multiply by:			
1 I suga neteropnylla	8	Yes	FAC	OBL species x 1 =			
2		·		FACW species x 2 =			
3		·		FAC species x 3 =			
4		·		FACU species x 4 =			
5				UPL species x 5 =			
0	8			Column Totals: 0 (A) 0 (B)			
50% of total cover: $\frac{4}{3}$	20% of	total aquar:	1.6				
Herb Stratum	20 /0 01	iotal cover.		Prevalence Index = B/A =			
1 Athyrium filix-femina	10	Yes	FAC	Hydrophytic Vegetation Indicators:			
2. Lysichiton americanus	10	Yes	OBL	Dominance Test is >50%			
3. Carex disperma	5	No	FACW	$\square Prevalence index is \leq 5.0$			
4. Calamagrostis canadensis	5	No	FAC	data in Remarks or on a separate sheet)			
5. Nephrophyllidium crista-galli	8	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)			
6 Platanthera stricta	4	No	FACW				
7. Coptis asplenifolia	3	No	FAC	¹ Indicators of hydric soil and wetland hydrology must			
8 Cornus suecica	6	No	FAC	be present unless disturbed of problematic.			
9Erigeron peregrinus	4	No	FACW				
10							
Total Cover:	55						
50% of total cover: 27.5	_ 20% of	total cover:	11	Hydrophytic			
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare (Ground	0	Vegetation			
% Cover of Wetland Bryophytes <u>100 (spnagnum)</u> Total Cove (Where applicable)	r of Bryop	ohytes	UU	Present ? Yes <u>^ No</u>			
Remarks:				1			
Hydrophytic vegetation indicator present.							

Depth	Matrix		Redo	ox Features						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-20	10YR 2/1	100					organic	saturat	ed	
Type: C=C	oncentration, D=De	pletion, RM	Reduced Matrix, C	S=Covered	or Coate	d Sand G	rains. ² Lo	cation: PL=	Pore Lining,	M=Matrix.
lydric Soil	Indicators:		Indicators for	Problematic		Soils':				
Histosol	or Histel (A1)		Alaska Col	or Change (TA4) [*]			a Gleyed Wi	thout Hue 5Y	or Redder
	oipedon (A2)			ne Swales (TA5)			erlying Laye	r - · ·	
	en Sulfide (A4)		Alaska Red	lox With 2.5	Y Hue		U Other	(Explain in I	Remarks)	
Thick Da	ark Surface (A12)		3							
Alaska	Sleyed (A13)		"One indicator o	of hydrophyt	ic vegeta	ition, one	primary indica	tor of wetlan	d hydrology,	
Alaska	Redox (A14)		and an appro	priate lands	cape pos	sition mus	t be present u	nless disturb	ed or proble	matic.
Alaska	Gleyed Pores (A15)		[⁺] Give details of	color chang	e in Rem	arks.				
Restrictive	Layer (if present):									
Туре:									V	
Depth (in	ches):						Hydric Soi	Present?	Yes <u>^</u>	No
Remarks:							•			
lvdric so	oil indicator A	1 prese	nt.							
.,		- I								

Wetland Hydrology Indicato	rs:	Sec	ondary Indicators (2 or more required)
Primary Indicators (any one in	dicator is sufficient)	<u> </u>	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on	Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated C	oncave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)		Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odc	r (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Ta	ole (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Rem	arks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)			Shallow Aquitard (D3)
Iron Deposits (B5)			Microtopographic Relief (D4)
Surface Soil Cracks (B6)			FAC-Neutral Test (D5)
Field Observations:	 		
Surface Water Present?	Yes <u>No X</u> Depth (inches)		
Water Table Present?	Yes X No Depth (inches)	0	
Saturation Present?	Yes X No Depth (inches)	0 Wetland I	Hydrology Present? Yes X No
(includes capillary fringe)			
Describe Recorded Data (stre	am gauge, monitoring well, aerial photo	 previous inspections), if available 	ailable:
-			
Remarks:			
Primary wetland hyd	rology indicators present.		
	·····;;; ·····························		

Project/Site: Katlian Bay Road	B	_ Borough/City: <u>Sitka</u> Sampling Date: <u>Ju</u>					
Applicant/Owner: <u>ADOT & PF, Southcoast Region</u>				Sampling Point: 22			
Investigator(s):	L	_ Landform (hillside, terrace, hummocks, etc.): hillside					
Local relief (concave, convex, none): <u>convex</u>	s	Slope (%): <u>5</u>	5-8				
Subregion: Southeast Alaska Lat: -			Long	g: Datum:			
Soil Map Unit Name: Sitka-Partofshikof complex, broken				NWI classification: None			
Are climatic / hydrologic conditions on the site typical for this tim	ne of yea	r? Yes X	No	(If no, explain in Remarks.)			
Are Vegetation, Soil, or Hydrology signif	ficantly d	listurbed?	Are "I	Normal Circumstances" present? Yes X No			
Are Vegetation, Soil, or Hydrology natur	rally prob	plematic?	(If ne	eded, explain any answers in Remarks.)			
SUMMARY OF FINDINGS – Attach site map show	ving sar	mpling po	int locatio	ons, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes No X			0	Aug			
Hydric Soil Present? Yes No X		IS the	e Sampied	d 2 Yas No X			
Wetland Hydrology Present? Yes No X		with	i a wellan				
Remarks:							
Data point not located within a wetland; not all three w	etland/	parameter	s present	. Data point located near flag E4.			
VEGETATION – Use scientific names of plants. List	st all s	pecies in	the plot.				
At	bsolute	Dominant	Indicator	Dominance Test worksheet:			
1 Callitropsis nootkatensis	35.00	Yes	FAC	Number of Dominant Species That Are OBL_EACW_or EAC: 3 (A)			
2.							
3.				Total Number of Dominant Species Across All Strata: ⁶ (B)			
4							
Total Cover:	35			Percent of Dominant Species That Are OBL, FACW, or FAC: ⁵⁰ (A/B)			
50% of total cover: <u>17.5</u>	20% of	total cover	7	Prevalence Index worksheet:			
Sapling/Shrub Stratum Menziesia ferruginea	15	Yes	FACU	Total % Cover of: Multiply by:			
2 Rubus spectabilis	8	Yes	FACU	OBL species x 1 =			
3				FACW species8 x 2 =16			
4.				FAC species 45 x 3 = 135			
5.				FACU species 38 x 4 = 152			
6				UPL species x 5 =			
Total Cover:	23			Column Totals: (A) (B)			
50% of total cover: 11.5	20% of	total cover:	4.6	Prevalence Index = B/A =3.3			
Herb Stratum	15	Vec	FACU	Hydrophytic Vegetation Indicators:			
Blechnum spicant	10	Yes	FAC	Dominance Test is >50%			
2. <u>Cinna latifolia</u>	8	Yes	FACW	Prevalence Index is ≤3.0			
4	-			Morphological Adaptations ¹ (Provide supporting			
				Droblometic Hydrophytic Vegetation ¹ (Evaluation)			
6							
7.				¹ Indicators of hydric soil and wetland hydrology must			
8.				be present unless disturbed or problematic.			
9							
10							
Total Cover:	33						
50% of total cover: <u>16.5</u>	20% of	total cover:	6.6	Hydrophytic			
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare G	Ground	10	Vegetation			
% Cover of Wetland Bryophytes Total Cover ((Where applicable)	of Bryop	hytes	65	Present? Yes <u>No X</u>			

Remarks:

No hydrophytic vegetation indicators present.

D a se file	• • • • • • • • • • • • • • • • • • •									
(inches)	Color (moist)	%	Color (moist)	<u>ox ⊢eatures</u> %	Type ¹	1 oc^2	Texture		Remark	s
0-6	10YR 2/1	100					loam			
6-12	10YR 3/3	100					loam	refusal	at 12" (rock)
Type: C=Co	ncentration, D=Dep	pletion, RM	=Reduced Matrix, C	S=Covered	or Coate	d Sand G	rains. ² Lc	cation: PL=	Pore Lining	, M=Matrix.
lydric Soil Ir	ndicators:		Indicators for	Problemati	c Hydric	Soils ³ :				
Histosol o	or Histel (A1)		Alaska Col	or Change ((TA4) ⁴		Alask	a Gleyed Wi	thout Hue 5	Y or Redder
Histic Epi	ipedon (A2)		Alaska Alp	ine Swales	(TA5)			lerlying Laye	r	
Hydrogen	n Sulfide (A4)		Alaska Red	dox With 2.5	SY Hue		Other	(Explain in I	Remarks)	
Thick Dar	rk Surface (A12)									
Alaska Gl	leyed (A13)		³ One indicator of	of hydrophy	tic vegeta	ation, one	primary indica	tor of wetlan	d hydrology	/,
Alaska Re	edox (A14)		and an appro	opriate lands	scape po	sition mus	t be present u	nless disturb	ed or probl	ematic.
Alaska G	leyed Pores (A15)		⁴ Give details of	color chang	ge in Ren	narks.				
Restrictive La	ayer (if present):									
Type:	haali								Vaa	No X
Depth (inci	nes).						Hydric Sol	Present?	res	
Remarks:										
No hydric	soil indicato	rs prese	ent.							

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	Water-stained Leaves (B9)
Surface Water (A1) Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2) Sparsely Vegetated Concave Surface (B8	3) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3) Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2) Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3) Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)	Shallow Aquitard (D3)
Iron Deposits (B5)	Microtopographic Relief (D4)
Surface Soil Cracks (B6)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes <u>No X</u> Depth (inches):	
Water Table Present? Yes No X Depth (inches):	V
Saturation Present? Yes <u>No X</u> Depth (inches): <u> </u>	Wetland Hydrology Present? Yes No X
(Includes capillary fringe)	ons) if available:
Describe Recorded Data (stream gauge, morntoring weil, aenar photos, previous inspection	
Remarks:	
No wetland hydrology indicators present.	

Project/Site: Katlian Bay Road	E	Borough/City: Sitka Sampling Date: June 23, 20						
Applicant/Owner: ADOT & PF, Southcoast Region		Sampling Point: 23						
Investigator(s): Jeff Gray, Carolyn Prentice		Landform (hillside, terrace, hummocks, etc.): hillside						
Local relief (concave, convex, none); concave		Slope (%) · 10-15						
Subregion: Southeast Alaska	-	e.epe (<i>)</i> .e).	Lor	- Datum: -				
Soil Map Unit Name Sitka-Partofshikof complex, broken			201	NIWI classification None				
Are climatic / hydrologic conditions on the site typical for this	time of ver	ar2 Vas X	No	(If no, explain in Remarks)				
Are Vegetation Soil or Hydrology aid	unificantly	diaturbad?	NO	(II HO, explain III Keniaks.)				
Are Vegetation, Soil, or Hydrologysig	turolly oro	blomotio?	Ale	Normal Circumstances present? Fes				
Are vegetation, Soli, or Hydrology ha	turally pro	biematic?	(IT NE	eeded, explain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map sho	wing sa	mpling po	oint locat	ions, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes X No		le th	Samples	1 Area				
Hydric Soil Present? Yes X No		with	e Samplet	nd? Vos ^X No				
Wetland Hydrology Present? Yes X No		with						
Remarks:		•						
Data point located within Wetland 10; all three wetla	nd indica	ators prese	ent. Data	point located near flag F13.				
VEGETATION – Use scientific names of plants.	List all s	pecies in	the plot.					
	Absolute	Dominant	Indicator	Dominance Test worksheet:				
Tree Stratum	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species				
	10.00	Voc		That Are OBL, FACW, or FAC: (A)				
	10.00	165	FAC	Total Number of Dominant				
3				Species Across All Strata: 9 (B)				
4	45			Percent of Dominant Species				
I otal Cover:	+3		0	That Are OBL, FACW, or FAC: (A/B)				
50% of total cover: 22.5 Sapling/Shrub Stratum	20% 0	f total cover		Prevalence Index worksheet:				
1. Alnus viridis	10	Yes	FAC	Total % Cover of:Multiply by:				
2. Vaccinium parviflorum	5	Yes	FACU	OBL species x 1 =				
3. Tsuga heterophylla	10	Yes	FAC	FACW species x 2 =				
4.				FAC species x 3 =				
5.				FACU species x 4 =				
6.				UPL species x 5 =				
Total Cover:	25			Column Totals: (A) (B)				
50% of total cover: <u>12.5</u>	20% of	total cover:	5	Prevalence Index = B/A =				
Herb Stratum			0.51	Hydrophytic Vegetation Indicators:				
1. Lysichiton americanus	8	Yes	OBL	Dominance Test is >50%				
2. Carex mertensii	10	Yes	FACW	Prevalence Index is ≤3.0				
3. Erigeron peregrinus	4	No	FACW	Morphological Adaptations ¹ (Provide supporting				
4. Coptis asplenifolia	8	Yes	FAC	data in Remarks or on a separate sheet)				
5. Nephrophyllidium crista-galli	8	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)				
6. Irisetum cernuum	5	NO	FACU	1				
7			. <u> </u>	be present unless disturbed or problematic.				
8								
9								
10								
Total Cover:	43		0.0					
50% of total cover: 21.5	_ 20% of	total cover:	8.6	Hydrophytic				
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare (Ground	15	Vegetation				

50

Present?

Remarks:

Hydrophytic vegetation indicator present.

% Cover of Wetland Bryophytes 100 (sphagnum) Total Cover of Bryophytes ____

(Where applicable)

Yes X No _____

Profile Desc	ription: (Describe	to the depth	needed to docun	nent the i	ndicator	or confirn	n the absence	of indicato	rs.)	
Depth	Matrix		Redo	x Features	6					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-8	10YR 2/1	100					sandy loam			
8-20	10YR 2/1	100					loam	(muck)		
				· <u> </u>						
				·			·			
$\frac{1}{1}$ Type: C=C	ncentration D=Den	letion RM=R	educed Matrix CS			d Sand G	rains ² Lo	ation: PI =F	Pore Lining M	/=Matrix
Hvdric Soil I	ndicators:		Indicators for P	roblemat	ic Hvdric	Soils ³ :			ore Lining, r	n-matrix.
Histosol	or Histel (A1)		Alaska Colo	r Change	(TA4) ⁴		Alaska	Gleved Wit	hout Hue 5Y	or Redder
Histic Fr	pipedon (A2)		Alaska Alpir	ne Swales	(TA5)		Unde	erlving Laver		
	n Sulfide (A4)		Alaska Red	ox With 2	5Y Hue		Other	(Explain in R	emarks)	
	ark Surface (A12)			5X 1111 2.	or rido				ionnanito)	
Alaska (³ One indicator of	f hydroph	tic veneta	ation one	nrimary indicat	or of wetland	hydrology	
	Pedox $(A14)$		and an appror	niate land	lscane no	sition mus	t he present ur	less disturba	a nyarology, ad or problen	natic
Alaska	Sleved Pores (A15)		⁴ Give details of c		ae in Ren	arke	t be present u			latic.
	aver (if present):				ge in iten	ianto.				
Typo:	ayer (ii present).									
Depth (inc	ches):						Hvdric Soil	Present?	_{Yes} X	No
Remarks:							,			
Lydria og	il indicator A	nrocont								
En yund SC	n mulcator A4	present								

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is su	ufficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7) Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (E	38) (C3) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	✓ Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	X	
Surface Water Present? Yes	_ No X Depth (inches):	
Water Table Present? Yes X	_ No Depth (inches): 6	
Saturation Present? Yes X	_ No Depth (inches): 0	Wetland Hydrology Present? Yes X No
(includes capillary fringe)		
Describe Recorded Data (stream gauge,	monitoring well, aerial photos, previous inspec	tions), if available:
-		
Remarks:		
Primary wetland hydrology i	ndicators present.	

HYDROLOGY

Project/Site: Katlian Bay Road	Borough/City: Sitka	Sampling Date: June 23, 2015
Applicant/Owner: ADOT & PF, Southcoast Region		Sampling Point: 24
Investigator(s): Jeff Gray, Carolyn Prentice	cks, etc.): hillside	
Local relief (concave, convex, none): none	Slope (%): <u>10-15</u>	
Subregion: Southeast Alaska Lat: -	Long:	Datum:
Soil Map Unit Name: Sitka-Partofshikof complex, broken		NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes X No (If no	, explain in Remarks.)
Are Vegetation, Soil, or Hydrology signifi	cantly disturbed? Are "Normal Circu	umstances" present? Yes X No
Are Vegetation, Soil, or Hydrology natura	ally problematic? (If needed, explai	n any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No X No X No X	Is the Sampled Area within a Wetland?	Yes	No <u>X</u>
Remarks:					
Data point located in upland near	flag F13; not	all three indicators	s present.		

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. <u>Callitropsis nootaktensis</u>	35.00	Yes	FAC	That Are OBL, FACW, or FAC: <u>3</u> (A)
2. Tusga heterophylla	15.00	Yes	FAC	Total Number of Dominant
3. Picea sitchensis	5.00	No	FACU	Species Across All Strata: 7 (B)
4.				(-)
Total Cover:	55			Percent of Dominant Species
50% of total cover: 27.5	20% 0	f total covor	. 11	That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum	20 % 0			Prevalence Index worksheet:
1 Vaccinium ovalifolium	8	Yes	FAC	Total % Cover of:Multiply by:
2 Menziesia ferruginea	15	Yes	FACU	OBL species <u>3</u> x 1 = <u>3</u>
2				FACW species x 2 =
3				FAC species $58 \times 3 = 174$
4				FACU species $55 \times 4 = 220$
5				
6				$\begin{array}{c} \text{Colump Totala:} & 116 \\ Colump To$
Total Cover:	23			
50% of total cover: 11.5	20% of	total cover:	4.6	Prevalence Index = $B/A = 3.42$
Herb Stratum	_			Hydrophytic Vegetation Indicators:
1. Streptopus amplexifolius	10	Yes	FACU	
2. Calamagrostis canadensis	10	Yes	FACU	
3. Lysichiton americanus	3	No	OBL	Prevalence Index is ≤3.0
Cornus canadensis	15	Yes	FACU	Morphological Adaptations' (Provide supporting
5				
0				¹ Indiantors of hydric coil and wotland hydrology must
7				be present unless disturbed or problematic.
8				··· · · · · · · · · · · · · · · · · ·
9				
10				
Total Cover:	38			
50% of total cover: ¹⁹	20% of	total cover:	7.6	
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare 0	Ground	25	Hydrophytic
% Cover of Wetland Bryophytes Total Cov	er of Bryop	ohytes	40	Present? Yes No $\frac{X}{X}$
(where applicable)				
Remarks:				
No hydrophytic vegetation indicators pre	esent.			

)epth	Matrix		Red	ox Features						
inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture		Remai	rks
)-4	10YR 3/3	100					loam			
1-18	10YR 3/2	100					loam			
				·						
Гуре: С=С	oncentration, D=De	pletion, RM=	Reduced Matrix, C	S=Covered	or Coate	d Sand G	rains. ² Location	: PL=	Pore Linin	g, M=Matrix.
ydric Soil	Indicators:		Indicators for	Problemation	c Hydric	Soils ³ :				
Histosol	or Histel (A1)		Alaska Col	or Change (TA4) ⁴		Alaska Gley	ed Wit	hout Hue	5Y or Redder
Histic Ep	pipedon (A2)		Alaska Alp	ine Swales (TA5)		Underlying	g Laye	r	
Hydroge	en Sulfide (A4)		Alaska Red	dox With 2.5	Y Hue		Other (Expl	ain in F	Remarks)	
Thick Da	ark Surface (A12)									
Alaska (Gleyed (A13)		³ One indicator	of hydrophyt	ic vegeta	ition, one	primary indicator of	wetlan	d hydrolog	gy,
Alaska F	Redox (A14)		and an appro	opriate lands	cape po	sition mus	t be present unless	disturb	ed or prob	olematic.
Alaska (Gleyed Pores (A15)		⁴ Give details of	color chang	e in Rem	arks.				
estrictive I	Layer (if present):									
Туре:										V
Depth (ind	ches):						Hydric Soil Pres	ent?	Yes	No
emarks:							•			
lo hydrio	c soil indicato	ors prese	ent.							
,										

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is suf	ficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes	No X Depth (inches):	X
Saturation Present? Yes (includes capillary fringe)	No X Depth (inches): W	/etland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge, m	onitoring well, aerial photos, previous inspection	s), if available:
-		
Remarks:		
No wetland hydrology indicat	ors present	
into moticina nyarology marcat		

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Project/Site: Katlian Bay Road	Borough/Cit	y: <u>Sitka</u>	Sampling Date: June 23, 2015				
Applicant/Owner: <u>ADOT & PF, Southcoast Region</u>			Sampling Point: 25				
Investigator(s): _Jeff Gray,Tad Schwager	Landform (h	Landform (hillside, terrace, hummocks, etc.): hillside					
Local relief (concave, convex, none): none	Slope (%):	2-5					
Subregion: Southeast Alaska	Lat:	Long: _	Datum:				
Soil Map Unit Name: Sitka and Partofshikof soils, sub	alpine	NW	/I classification: PFO4				
Are climatic / hydrologic conditions on the site typical	for this time of year? Yes X	No (If no, ex	plain in Remarks.)				
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circums	stances" present? Yes X No				
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain a	ny answers in Remarks.)				

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No _ No	Is the Sampled Area within a Wetland?	Yes X N	lo
Remarks:					
Data point located with Wetland 1	1; all three w	etland indicators p	resent. Data point located r	near flag PP3.	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Tsuga heterophylla	35.00	Yes	FAC	That Are OBL, FACW, or FAC: 6 (A)
2. Callitropsis nootkatensis	15.00	Yes	FAC	
3				Total Number of Dominant
5				Species Across All Strata: (B)
4				Percent of Dominant Species
Total Cover:	50			That Are OBL, FACW, or FAC: 100 (A/B)
50% of total cover: 25	20% o	f total cover	. <u>10</u>	Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: Multiply by:
1. Vaccinium ovalofium	12	Yes	FAC	
2. Tsuga heterophylla	20	Yes	FAC	OBL species x 1 =
3 Pinus contorta	5	No	FAC	FACW species x 2 =
Menziesia ferrugiana	7	No	FACU	FAC species x 3 =
4				FACU species x 4 =
5				UPL species x 5 =
6				
Total Cover:	44			
50% of total cover: 22	20% of	total cover	8.8	Prevalence Index = R/A =
Herb Stratum				
1. Lysichiton americanus	20	Yes	OBL	Hydrophytic vegetation indicators:
2 Nephrophyllidium crista-galli	8	No	OBL	Dominance Test is >50%
2 Calamagrostis canadensis	8	No	FAC	Prevalence Index is ≤3.0
SCarox disporma	7	No	EACW	Morphological Adaptations ¹ (Provide supporting
4. Calex disperina			FACW	data in Remarks or on a separate sheet)
5. <u>Carex mertensii</u>	10	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7.				¹ Indicators of hydric soil and wetland hydrology must
8				be present unless disturbed or problematic.
0				
9				
10				
Total Cover:	53			
50% of total cover: 26.5	20% of	total cover:	10.6	
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare 0	Ground	10	Hydrophytic
% Cover of Wetland Bryonbytes 100 Total Cov	er of Bryon	hytee	40	Present? Yes X No
(Where applicable)	CI OI DI YOL			
Remarks:				1
Hydrophytic vegetation indicator presen	t.			

Profile Des	cription: (Describe	to the dept	n needed to docum	nent the in	ndicator	or confirm	n the absence	of indicato	ors.)
Depth	Matrix		Redo	x Features	;				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0-18	10YR 2/1	100					organic	saturat	ed
				·					
				·					
				·					
				·					
				·	<u> </u>				
¹ Type: C=C	oncentration, D=Der	letion. RM=	Reduced Matrix. CS	S=Covered	or Coate	d Sand G	rains. ² Lo	cation: PL=	Pore Lining, M=Matrix,
Hydric Soil	Indicators:		Indicators for P	roblemati	ic Hydric	Soils ³ :			
Histoso	l or Histel (A1)		Alaska Colo	r Change	(TA4) ⁴		Alaska	a Gleyed Wi	thout Hue 5Y or Redder
Histic E	pipedon (A2)		Alaska Alpir	ne Swales	(TA5)		Und	erlying Laye	er
Hydroge	en Sulfide (A4)		Alaska Red	ox With 2.	5Y Hue		Other	(Explain in I	Remarks)
Thick D	ark Surface (A12)								
Alaska	Gleyed (A13)		³ One indicator o	f hydrophy	rtic vegeta	ation, one	primary indicat	or of wetlan	id hydrology,
Alaska	Redox (A14)		and an approp	priate land	scape po	sition mus	st be present u	nless disturb	ped or problematic.
Alaska	Gleyed Pores (A15)		⁴ Give details of o	color chang	ge in Ren	narks.			
Restrictive	Layer (if present):								
Туре:									X
Depth (in	ches):						Hydric Soi	Present?	Yes X No
Remarks:									
Hydric s	oil indicator A	1 presen	t						
		. p							
HYDROLO	GY								

Wetland Hydrology Indicato	ors:			<u>Se</u>	condary Indicators (2 or more required)
Primary Indicators (any one in	ndicator is suffi	cient)			Water-stained Leaves (B9)
Surface Water (A1)	[Inundation	Visible on Aerial Imagery (B7	') L	Drainage Patterns (B10)
High Water Table (A2)	[Sparsely V	egetated Concave Surface (E	38) L	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	[Marl Depos	sits (B15)		Presence of Reduced Iron (C4)
Water Marks (B1)	[Hydrogen	Sulfide Odor (C1)		Salt Deposits (C5)
Sediment Deposits (B2)	[Dry-Seaso	n Water Table (C2)		Stunted or Stressed Plants (D1)
Drift Deposits (B3)	[Other (Exp	olain in Remarks)		Geomorphic Position (D2)
Algal Mat or Crust (B4)					Shallow Aquitard (D3)
Iron Deposits (B5)					Microtopographic Relief (D4)
Surface Soil Cracks (B6)					FAC-Neutral Test (D5)
Field Observations:		Ň			
Surface Water Present?	Yes I	No X Dep	oth (inches):		
Water Table Present?	Yes X	No Dep	oth (inches): 12		X
Saturation Present?	Yes X	No Dep	oth (inches): 0	Wetland	Hydrology Present? Yes X No
(includes capillary fringe)					
Describe Recorded Data (stre	am gauge, mo	onitoring well, a	aerial photos, previous inspect	tions), if a	vallable:
-					
Remarks:					
Primary wetland hyd	droloav inc	dicators pr	resent.		
	35				

Project/Site: Katlian Bay Road	Borough/City	r <u>:</u> Sitka		Sampling Da	te: June 2	3, 2015	
Applicant/Owner: ADOT & PF, Southcoast Region					Sampling Po	int: 26	
Investigator(s):	I	Landform (h	illside, terr	ace, hummocks, etc.): hills	side		
Local relief (concave, convex, none): <u>none</u>		Slope (%): <u>5</u>	5-8				
Subregion: Southeast Alaska			Lon	g: -	Datun	n: -	
Soil Map Unit Name: Sitka and Partofshikof soils, subalpine				NWI classifica	tion: PFO4		
Are climatic / hydrologic conditions on the site typical for this tin	ne of ver	ar? Yes X	No	(If no explain in Re	marks)		
Are Vegetation Soil or Hydrology sign	ificantly	disturbed?	Are '	Normal Circumstances" pr	resent? Yes	X N	0
Are Vegetation Soil or Hydrology natu	irally prof	blematic?	(If ne	eded explain any answers	s in Remarks)	
						.,	
SUMMARY OF FINDINGS – Attach site map show	ving sa	mpling po	int locati	ons, transects, impor	tant feature	es, etc.	
Hydronhytic Vegetation Present? Ves. X No.							
Hydric Soil Present? Yes No X	<	Is the	Sampled	Area		~	
Wetland Hydrology Present? Yes No X	<	withi	n a Wetlar	nd? Yes_	No	» <u>^</u>	
Remarks:							
Data point not located within a wetland; not all three w	vetland	indicators	present.	Data point located nea	r flag PP3.		
VECETATION Lies scientific names of plants	ict oll o	nacioa in	the plot				
VEGETATION – Ose scientific names of plants. L				Densis and Test media			
Tree Stratum	Absolute % Cover	Species?	Status	Dominance Test works	neet:		
 1. Tsuga heterophylla	45.00	Yes	FAC	That Are OBL, FACW, o	r FAC:	4	(A)
2.							. ,
3.				Species Across All Strat	.nt a:	6	(B)
4.							()
Total Cover:	45			That Are OBL. FACW. o	ecies r FAC:	66.7	(A/B)
50% of total cover:22.5	20% o	f total cover	9	Prevalence Index work	sheet:		(****)
Sapling/Shrub Stratum	05	Vee	FACU	Total % Cover of:	Mu	ltiply by:	
1. Menziesia ferruginea	25	Yes	FACU	OBL species	x 1 =		_
2. Isuga heterophysia			FAC	FACW species	x 2 =		
3. vaccinium ovaliolium	0	INO	FAC	FAC species	x 3 =		
4				FACU species	x 4 =		_
5				UPL species	x 5 =		
0	41			Column Totals: 0	(A)	0	(B)
Total Cover:			82				
Herb Stratum	20% 01	total cover:	0.2	Prevalence Index	= B/A =		
1. Streptopus amplexifolius	6	No	FACU	Hydrophytic Vegetation	n Indicators:		
2. Veratrum viride	5	No	FAC	Dominance Test is >	>50%		
3. Athyrium filix-femina	11	Yes	FAC	Prevalence Index is	≤3.0		
4. Cornus canadensis	10	Yes	FAC	data in Remarks	or on a sepa	rate suppor	rting)
5 Tristem cernuum	7	No	FACU	Problematic Hydrop	hytic Vegetat	ion ¹ (Expla	ain)
6 Blechnum spicant	8	Yes	FAC		,	- X F -	,
7				¹ Indicators of hydric soil	and wetland	hydrology	must
8				be present unless distur	bed or proble	matic.	
9							
10							
Total Cover:	47						
50% of total cover:22.5	20% of	total cover:	9.4	Hydrophytic			
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare C	Ground	15	Vegetation	V		
% Cover of Wetland Bryophytes Total Cover (Where applicable)	of Bryop	ohytes	45	Present? Yes	<u>×</u> No	> <u></u>	
Remarks:							
Hydrophytic vegetation indicator present.							

Profile Desc	ription: (Describe	to the depth n	eeded to docum	ent the in	dicator o	or confirm	n the absence of indicators.)
Depth	Matrix		Redox	Features			
(inches)	Color (moist)	<u>%</u> (Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0-18	10YR 3/2	100					loam
1-Type: C=Co Hydric Soil I Histosol Histic Ep Hydroge Thick Da	Directoria for the second seco	letion, RM=Rec	Juced Matrix, CS Indicators for Pi Alaska Color Alaska Alpin Alaska Redo	=Covered roblemati Change (e Swales) x With 2.5	or Coate c Hydric (TA4) ⁴ (TA5) SY Hue	d Sand Gr Soils ³ :	IDam IDam IDam IDam Interview Interview </td
Alaska G	Pedox (A13)		and an approp	riate lands		sition must	primary indicator of wetland flydrology,
Alaska	leved Pores (A15)		⁴ Give details of c	olor chanc	in Rem	arks	to present unless distance of problematic.
Restrictive	aver (if present)				,		
Type [.]							
Depth (inc	ches):						Hydric Soil Present? Yes No X
Remarks:							•
No hydrid	c soil indicator	rs present.					
HYDROLO	GY						

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is suf	ficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)) Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (Ba	8) Dxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	X	
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes	No X Depth (inches):	V
Saturation Present? Yes (includes capillary fringe)	No X Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge, m	nonitoring well, aerial photos, previous inspecti	ions), if available:
-		
Remarks:		
No wetland hydrology indicat	ors present	

Project/Site: Katlian Bay Road	Borough/City: Sitka	Sampling Date: June 23, 2015
Applicant/Owner: ADOT & PF, Southcoast Region		Sampling Point: 27
Investigator(s): Jeff Gray, Tad Schwager	Landform (hillside, terrace, hummocks, e	etc.): toe of slope
Local relief (concave, convex, none): <u>concave</u>	Slope (%): <u>2-5</u>	
Subregion: <u>Southeast Alaska</u> Lat:	Long:	Datum:
Soil Map Unit Name: Sitka and Partofshikof soils, subalpine	NWI	classification: PFO4
Are climatic / hydrologic conditions on the site typical for this time of y	rear? Yes X No (If no, exp	lain in Remarks.)
Are Vegetation, Soil, or Hydrology significant	y disturbed? Are "Normal Circumsta	ances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any	y answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing s	ampling point locations, transects	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X	No			
Remarks:								
Data point located within Wetland 11; all three wetland indicators present. Data point located near flag P2.								

VEGETATION – Use scientific names of plants. List all species in the plot.

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1. <u>Callitropsis nootkatensis</u>	15.00	Yes	FAC	That Are OBL, FACW, or FAC:6 (A)
2. Tsuga heterophylla	10.00	Yes	FAC	Total Number of Dominant
3.				Species Across All Strata: 6 (B)
4				
Total Cover:	25			Percent of Dominant Species That Are OBL_EACW or EAC ¹⁰⁰ (A/B)
50% of total cover:	20% o	f total cover		Browelence Index workshoet
Sapling/Shrub Stratum	_			
1. Tsuga heterophylla	15	Yes	FAC	I otal % Cover of: Multiply by:
2 Menziesia ferruginea	6	No	FACU	OBL species x 1 =
3 Vaccinium caespitosum	12	Yes	FACW	FACW species x 2 =
· · · · · · · · · · · · · · · · · · ·				FAC species x 3 =
4				FACU species x 4 =
5				UPL species x 5 =
6				$\begin{array}{c} column Totals: 0 (A) 0 (B) \end{array}$
Total Cover:	33			
50% of total cover:16.5	20% of	total cover:	6.6	Prevalence Index = B/A =
Herb Stratum				Hydrophytic Vegetation Indicators:
1. Lysichiton americanus	5	No	OBL	
2. Nephrophyllidium crista-galli	25	Yes	OBL	
3. Cornus suecica	7	No	FAC	
4 Calamagrostis canadensis	10	No	FAC	Morphological Adaptations' (Provide supporting
5 Coptis asplenifolia	15	Yes	FAC	Desklamatic Hudrophetic Venetation ¹ (Fundaio)
5				Problematic Hydrophytic Vegetation (Explain)
0				¹ Indiastara of hydria apil and watland hydrology must
7				be present unless disturbed or problematic
8				
9				
10				
Total Cover:	62			
50% of total cover: 31	20% of	total cover	12.4	
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare (Ground	5	Hydrophytic
% Cover of Wetland Drivenbyton 100 (sphagnum) Total Cov	or of Druce		35	Present? Yes X No
(Where applicable)	er of Bryop	onytes		
Remarks:				
Hydrophytic vegetation indicator presen	t.			

- (* *	Matrix		Rede	ox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0-18	10YR 2/1	100					organic	saturat	ed
Type: C=C	oncentration, D=De	pletion, RM=	Reduced Matrix, C	S=Covered of	or Coate	d Sand G	rains. ² Lo	cation: PL=	Pore Lining, M=Matri
lydric Soil	Indicators:		Indicators for	Problematic	Hydric	Soils ³ :			
🖌 Histosol	or Histel (A1)		Alaska Col	or Change (T	A4) ⁴		Alaska	a Gleyed Wit	thout Hue 5Y or Rede
Histic Ep	oipedon (A2)		Alaska Alp	ine Swales (1	ΓA5)		Und Und	erlying Laye	er
1									
Hydroge	en Sulfide (A4)		Alaska Red	dox With 2.51	/ Hue		Other	(Explain in F	Remarks)
Hydroge Thick Da	en Sulfide (A4) ark Surface (A12)			dox With 2.51	/ Hue		Other	(Explain in F	Remarks)
Hydroge Thick Da Alaska (n Sulfide (A4) ark Surface (A12) Gleyed (A13)		³ One indicator of	dox With 2.51	<pre>/ Hue c vegeta</pre>	ition, one	Other Dimary indica	(Explain in F tor of wetlan	Remarks) Id hydrology,
Hydroge Thick Da Alaska C Alaska F	en Sulfide (A4) ark Surface (A12) Gleyed (A13) Redox (A14)		³ One indicator of and an appro	dox With 2.51 of hydrophyti opriate landso	/ Hue c vegeta cape pos	ation, one sition mus	Other Dimary indica	(Explain in F tor of wetlan nless disturb	Remarks) id hydrology, ied or problematic.
Hydroge Thick Da Alaska C Alaska F Alaska C	en Sulfide (A4) ark Surface (A12) Gleyed (A13) Redox (A14) Gleyed Pores (A15)		³ One indicator o and an appro	dox With 2.51 of hydrophyti opriate landso color change	/ Hue c vegeta cape pos e in Rem	ition, one sition mus narks.	Other primary indica	(Explain in F tor of wetlan hless disturb	Remarks) d hydrology, bed or problematic.
Hydroge Thick Da Alaska (Alaska F Alaska R Alaska C	en Sulfide (A4) ark Surface (A12) Gleyed (A13) Redox (A14) Gleyed Pores (A15) Layer (if present):		³ One indicator of and an appro ⁴ Give details of	dox With 2.51 of hydrophyti opriate landso color change	7 Hue c vegeta cape pos e in Rem	ition, one sition mus narks.	Other primary indica	(Explain in F tor of wetlan nless disturb	Remarks) d hydrology, ped or problematic.
Hydroge Thick Da Alaska (Alaska F Alaska (Restrictive I Type:	en Sulfide (A4) ark Surface (A12) Gleyed (A13) Redox (A14) Gleyed Pores (A15) Layer (if present):		³ One indicator of and an appro ⁴ Give details of	dox With 2.51 of hydrophyti opriate landso color change	Y Hue c vegeta cape pos e in Rem	ition, one sition mus narks.	Other primary indica	(Explain in F tor of wetlan nless disturb	Remarks) Id hydrology, Ded or problematic.
Hydroge Thick Da Alaska (Alaska f Alaska (Restrictive I Type: Depth (ind	en Sulfide (A4) ark Surface (A12) Gleyed (A13) Redox (A14) Gleyed Pores (A15) Layer (if present):		³ One indicator of and an appro ⁴ Give details of	dox With 2.51 of hydrophyti opriate landso color change	Y Hue c vegeta cape pos e in Rem	ition, one sition mus narks.	Other primary indica st be present un Hydric Soi	(Explain in F tor of wetlan nless disturb	Remarks) Id hydrology, Ded or problematic. Yes X No _
Hydroge Thick Da Alaska (Alaska (Alaska (Restrictive I Type: Depth (ing Remarks:	en Sulfide (A4) ark Surface (A12) Gleyed (A13) Redox (A14) Gleyed Pores (A15) Layer (if present):		³ One indicator of and an appro ⁴ Give details of	dox With 2.51 of hydrophyti opriate landso	/ Hue c vegeta cape pos e in Rem	ition, one sition mus narks.	Other primary indica st be present un Hydric Soi	(Explain in F tor of wetlan hless disturb	Remarks) Id hydrology, bed or problematic. Yes X No _
Hydroge Thick Da Alaska (Alaska f Alaska (Restrictive f Type: Depth (ind Remarks: Hydric so	en Sulfide (A4) ark Surface (A12) Gleyed (A13) Redox (A14) Gleyed Pores (A15) Layer (if present): ches):	1 presei	³ One indicator of and an appro ⁴ Give details of 	dox With 2.51 of hydrophyti opriate landso	/ Hue c vegeta cape pos e in Rem	ition, one sition mus narks.	Other primary indica to present un official de present un official d	(Explain in F tor of wetlan hless disturb	Remarks) Id hydrology, Ded or problematic. Yes X No _
Hydroge Thick Di Alaska (Alaska (Alaska (Restrictive I Type: Depth (ind Remarks: Hydric so	en Sulfide (A4) ark Surface (A12) Gleyed (A13) Redox (A14) Gleyed Pores (A15) Layer (if present): ches):	1 presei	³ One indicator of and an appro ⁴ Give details of	dox With 2.51 of hydrophyti opriate landso color change	✓ Hue c vegeta cape pos in Rem	ition, one sition mus narks.	Other primary indica to be present un Hydric Soi	(Explain in F tor of wetlan nless disturb	Remarks) Id hydrology, Ded or problematic. Yes X No _
Hydroge Thick Di Alaska (Alaska (Alaska (Restrictive I Type: Depth (ind Remarks: Hydric sc	en Sulfide (A4) ark Surface (A12) Gleyed (A13) Redox (A14) Gleyed Pores (A15) Layer (if present): ches):	1 presei	☐ Alaska Red ³ One indicator o and an appro ⁴ Give details of 	dox With 2.51 of hydrophyti opriate landso color change	✓ Hue c vegeta cape pos e in Rem	ition, one sition mus narks.	Other primary indica st be present u Hydric Soi	(Explain in F tor of wetlan nless disturb	Remarks) nd hydrology, bed or problematic. Yes X No _

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is su	ifficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes X	No Depth (inches): 16	N/
Saturation Present? Yes X	_ No Depth (inches): 1 We	etland Hydrology Present? Yes X No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, I	monitoring well, aerial photos, previous inspections	s), if available:
-		
Remarks:		
Primary wetland hydrology in	ndicator present	

Project/Site: Katlian Bay Road		Borough/Cit	y: <u>Sitka</u>	Sampling Date: June 23, 2015
Applicant/Owner: ADOT & PF, Southcoast Region				Sampling Point: 28
Investigator(s):		Landform (h	illside, terr	ace, hummocks, etc.): <u>hillside</u>
Local relief (concave, convex, none): none		Slope (%):	8-12	
Subregion: Southeast Alaska	-	/ _	Lor	- ng: ⁻ Datum: ⁻
Soil Map Unit Name. Sitka and Partofshikof soils, subalpine				NWI classification: PFO4
Are climatic / hydrologic conditions on the site typical for this	time of ve	ar? Yes X	No	(If no, explain in Remarks)
Are Vegetation Soil or Hydrology si	anificantly	disturbed?	Are	"Normal Circumstances" present? Yes X No
Are Vegetation Soil or Hydrology na	aturally pr	oblematic?	(If ne	eeded evolain any answers in Remarks)
	aturaliy pro	oblematic:	(1110	sedeu, explain any answers in remarks.
SUMMARY OF FINDINGS – Attach site map sh	owing sa	ampling po	oint locat	ions, transects, important features, etc.
Hydrophytic Vegetation Present? Veg X				
Hydric Soil Present? Yes No	<u>x</u>	Is the	e Sampleo	J Area
Wetland Hydrology Present? Yes No	, <u>x</u>	with	n a Wetla	nd? Yes No_X
Remarks:				
Data point not located within a wetland; not all three	e wetland	d indicators	present.	Data point located near flag P2.
VEGETATION – Use scientific names of plants.	List all	species in	the plot.	
Tree Stratum	Absolute	e Dominant	Indicator	Dominance Test worksheet:
Tsuga heterophylla	20.00	Yes	FAC	Number of Dominant Species That Are OBL EACW or EAC: 4 (A)
2 Callitropsis nootkatensis	35.00	Yes	FAC	
3				Total Number of Dominant
4				
Total Cover:	55			Percent of Dominant Species
50% of total cover: 27.5	20%	– of total cover	. 11	Provelence Index worksheet:
Sapling/Shrub Stratum			·	Total % Cover of:
1. Vaccinium ovalifolium	10	Yes	FAC	
2. Menziesia ferruginea	35	Yes	FACU	
3				
4				FACU species x 4 =
5			. <u> </u>	UPL species x 5 =
6				$\begin{array}{c} \hline \begin{array}{c} \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} \hline \end{array} \\ \hline \begin{array}{c} \hline \end{array} \\ \hline \begin{array}{c} \hline \end{array} \\ \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \\ \hline \end{array} \\ \\ \hline \end{array} \\ \\ \hline \end{array} \\ \hline \end{array} \\ \\ \end{array} \\ \\ \hline \end{array} \\ \\ \hline \end{array} \\ $ \\ \hline \\ \\ \end{array} \\ \\ \hline \end{array} \\ \\ \\ \hline \end{array} \\ \\ \end{array} \\ \\ \end{array} \\ \\ \end{array} \\ \\ \hline \end{array} \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \end{array} \\ \\ \end{array} \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \end{array} \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \\ \end{array} \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \\ \end{array} \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \end{array} \\ \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \\ \\ \end{array} \\ \\ \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \end{array} \\ \\ \\ \\ \end{array} \\ \\ \\ \end{array} \\ \\ \\ \\ \\ \\ \\ \\ \end{array} \\
Total Cover:	45	_	0	
50% of total cover: <u>22.5</u>	20% c	of total cover:	9	Prevalence Index = B/A =
1 Nephrophyllidium crista-galli	6	No	OBL	Hydrophytic Vegetation Indicators:
2 Coptis asplenifolia	4	No	FAC	✓ Dominance Test is >50%
3 Calamagrostis canadensis	40	Yes	FAC	Prevalence Index is ≤3.0
4 Cornus canadensis	12	Yes	FACU	Morphological Adaptations ¹ (Provide supporting
5.				Problematic Hydrophytic Vegetation ¹ (Explain)
6.				
7.				¹ Indicators of hydric soil and wetland hydrology must
8.				be present unless disturbed or problematic.
9				
10				
Total Cover:	62	_		
50% of total cover: <u>31</u>	20% c	of total cover:	12.4	
Plot size (radius, or length x width) radius by stratum: 30', 15', 5	' % Bare	Ground	5	Vegetation
% Cover of Wetland Bryophytes Total Cov (Where applicable)	ver of Bryc	ophytes	25	Present? Yes X No
Remarks:				
Hydrophytic vegetation indicator presen	it.			

SOIL							Sampling Point: 28
Profile Des	scription: (Describe	e to the dep	oth needed to docur	nent the indicator	or confirm	m the absence	of indicators.)
Depth	Matrix		Redo	x Features			
(inches)	Color (moist)	%	Color (moist)	<u>% Type¹</u>	Loc ²	Texture	Remarks
0-3	10YR 2/2	100				organic	moist
3-10	10YR 2/1	80				loam	dry
	10YR 2/2	20			_		
10-16	10YR 2/1	92				silt loam	dry; refusal at 16" (cobbles)
	10YR 4/2	8					
¹ Type: C=0	Concentration, D=De	pletion, RM	=Reduced Matrix, CS	S=Covered or Coate	ed Sand G	irains. ² Loo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	I Indicators:		Indicators for F	Problematic Hydrig	: Soils ³ :		
Histoso	ol or Histel (A1)		Alaska Colo	or Change (TA4) ⁴		Alaska	a Gleyed Without Hue 5Y or Redder
Histic E	Epipedon (A2)		Alaska Alpi	ne Swales (TA5)		Unde	erlying Layer
Hydrog	jen Sulfide (A4)		Alaska Red	ox With 2.5Y Hue		Other	(Explain in Remarks)
Thick E	Dark Surface (A12)						
Alaska	Gleyed (A13)		³ One indicator o	f hydrophytic veget	ation, one	primary indicat	or of wetland hydrology,
Alaska	Redox (A14)		and an appro	priate landscape po	sition mus	st be present ur	nless disturbed or problematic.
Alaska	Gleved Pores (A15)		⁴ Give details of	color change in Rei	narks.		
Restrictive	Layer (if present):			0			
Туре:							X
Depth (ii	nches):					Hydric Soil	Present? Yes <u>No X</u>
Remarks:						1	
No hydr	ic soil indicato	or prese	nt.				
IYDROLO	DGY						
Wetland Hy	ydrology Indicators	:				Secondary In	dicators (2 or more required)
Primary Ind	licators (any one indi	cator is suff	icient)			Water-sta	ained Leaves (B9)
Surface	e Water (A1)		Inundation Visib	e on Aerial Imager	/ (B7)	Drainage	e Patterns (B10)
High W	/ater Table (A2)		Sparsely Vegeta	ted Concave Surfa	ce (B8)		Rhizospheres along Living Roots (C3)

Surface Water (A1)		Drainage Patterns (B10)			
High Water Table (A2)		Sparsely Vegetated Concave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3)		
Saturation (A3)		Marl Deposits (B15)	Presence of Reduced Iron (C4)		
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)		
Sediment Deposits (B2)		Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)		
Drift Deposits (B3)		Other (Explain in Remarks)	Geomorphic Position (D2)		
Algal Mat or Crust (B4)			Shallow Aquitard (D3)		
Iron Deposits (B5)			Microtopographic Relief (D4)		
Surface Soil Cracks (B6)			FAC-Neutral Test (D5)		
Field Observations:		X			
Surface Water Present? Y	es No	X Depth (inches):			
Water Table Present? Y	es No	X Depth (inches):	X		
Saturation Present? Y	es No	X Depth (inches): Wet	Wetland Hydrology Present? Yes No X		
(includes capillary fringe)					
Describe Recorded Data (stream	gauge, monit	oring well, aerial photos, previous inspections),	, if available:		
-					
Remarks:					
No wetland hydrology	indicator	spresent			
ite wedana nyarology	indicatore				
Remarks: No wetland hydrology	indicators	s present.			

Project/Site: Katlian Bay Road	orough/City: Sit	ka	Sampling Date: Jun	ne 23, 2015	
Applicant/Owner: ADOT & PF, Southcoast Region				Sampling Point: 29	
Investigator(s):	er L	andform (hillside	e, terrace, hu	mmocks, etc.): hillside	
Local relief (concave, convex, none): <u>concave</u>	S	Slope (%): <u>8-12</u>			
Subregion: Southeast Alaska L	Lat: _		Long: -	Datum:	
Soil Map Unit Name: Vestovia-McGlivery complex				NWI classification: PFO4	
Are climatic / hydrologic conditions on the site typical for	this time of yea	r? Yes X	No	(If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology	_significantly d	listurbed?	Are "Norma	I Circumstances" present? Yes X	No
Are Vegetation, Soil, or Hydrology	_ naturally prob	plematic?	(If needed,	explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map	showing sar	mpling point l	ocations, t	ransects, important features, et	C.
Hydrophytic Vegetation Present? Yes X	No	Is the Sar	nnled Area		
Hydric Soil Present? Yes X	No	within a V	Votland?		
Wetland Hydrology Present? Yes X	No	within a v	venana :		_
Remarks:					
Data point located within Wetland 12; all three w	etland indica	tors present. I	Data point l	ocated near flag 02.	

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species	
1. Callitropsis nootaktensis	10.00	Yes	FAC	That Are OBL, FACW, or FAC: 5	(A)
2. Tsuga heterophylla	40.00	Yes	FAC	Total Number of Densin and	
3				I otal Number of Dominant	(B)
					(D)
Total Cover:	50			Percent of Dominant Species	(A/P)
50% of total cover: 25	20% 0	f total cover	· 10		(A/D)
Sapling/Shrub Stratum	20700			Prevalence Index worksheet:	
1 Menziesia ferrunginea	30	Yes	FACU	Total % Cover of: Multiply by:	_
2 Vaccinium ovalifolium	25	Yes	FAC	OBL species x 1 =	_
2				FACW species x 2 =	_
5				FAC species x 3 =	_
4				FACU species x 4 =	
5				UPL species x 5 =	-
6				Column Totals: 0 (A) 0	- (B)
Total Cover:	55				_ (D)
50% of total cover: 27.5	20% of	total cover:	11	Prevalence Index = B/A =	_
Herb Stratum				Hydrophytic Vegetation Indicators:	
1. Lysichton americanus	25	Yes	OBL	Dominance Test is >50%	
2. Blechnum spicant	8	No	FAC		
3. Coptis aspleniifolia	6	No	FAC	Mambelanice Index is \$5.0	
4. Carex disperma	8	No	FACW	data in Remarks or on a separate sheet)	ing
5. Cinna latifolia	5	No	FACW	Problematic Hydrophytic Vegetation ¹ (Explain	n)
6 Tiarella trifoliata	10	Yes	FAC		1)
7				¹ Indicators of hydric soil and wetland hydrology n	nust
0				be present unless disturbed or problematic.	
0		<u> </u>			
9					
10					
Total Cover:	62				
50% of total cover: <u>31</u>	20% of	total cover:	12.4	Hudrophytic	
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare 0	Ground	5	Vegetation	
% Cover of Wetland Bryophytes ^{100 (sphagnum)} Total Cov	er of Brvor	ohvtes	75	Present? Yes $\frac{X}{NO}$	
(Where applicable)					
Remarks:					
Hydrophytic vegetation indicator presen	t.				

Profile Des	cription: (Describe	to the dept	n needed to docum	nent the in	ndicator	or confirm	n the absence	of indicato	ors.)
Depth	Matrix		Redo	x Features	;				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0-18	10YR 2/1	100					organic	saturat	ed
				·					
				·					
				·					
				·					
				·	<u> </u>				
¹ Type: C=C	oncentration, D=Der	letion. RM=	Reduced Matrix. CS	S=Covered	or Coate	d Sand G	rains. ² Lo	cation: PL=	Pore Lining, M=Matrix,
Hydric Soil	Indicators:		Indicators for P	roblemati	ic Hydric	Soils ³ :			
Histoso	l or Histel (A1)		Alaska Colo	r Change	(TA4) ⁴		Alaska	a Gleyed Wi	thout Hue 5Y or Redder
Histic E	pipedon (A2)		Alaska Alpir	ne Swales	(TA5)		Und	erlying Laye	er
Hydroge	en Sulfide (A4)		Alaska Red	ox With 2.	5Y Hue		Other	(Explain in I	Remarks)
Thick D	ark Surface (A12)								
Alaska	Gleyed (A13)		³ One indicator o	f hydrophy	rtic vegeta	ation, one	primary indicat	or of wetlan	id hydrology,
Alaska	Redox (A14)		and an approp	priate land	scape po	sition mus	st be present u	nless disturb	ped or problematic.
Alaska	Gleyed Pores (A15)		⁴ Give details of o	color chang	ge in Ren	narks.			
Restrictive	Layer (if present):								
Туре:									X
Depth (in	ches):						Hydric Soi	Present?	Yes X No
Remarks:									
Hydric s	oil indicator A	1 presen	t						
		. p							
HYDROLO	GY								

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)	
Primary Indicators (any one indicator is suf	fficient)	Water-stained Leaves (B9)	
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7) Drainage Patterns (B10)	
High Water Table (A2)	Sparsely Vegetated Concave Surface (B	8) Oxidized Rhizospheres along Living Roots (C3)	
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)	
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)	
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)	
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)	
Algal Mat or Crust (B4)		Shallow Aquitard (D3)	
Iron Deposits (B5)		Microtopographic Relief (D4)	
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)	
Field Observations:	X		
Surface Water Present? Yes	No X Depth (inches):		
Water Table Present? Yes X	No Depth (inches): 16	×	
Saturation Present? Yes X	No Depth (inches): 0	Wetland Hydrology Present? Yes X No	
Describe Recorded Data (stream gauge, m	nonitoring well, aerial photos, previous inspect	ions), if available:	
-			
Remarks:			
primary hydric soil indicators	present.		
	p. 000.1.1		

Project/Site: Katlian Bay Road	Borough/City: Sitka	Sa	ampling Date: June 23, 2015	
Applicant/Owner: ADOT & PF, Southcoast Regio	n		Sa	ampling Point: <u>30</u>
Investigator(s): Jeff Gray, Tad Schwager	Landform (hillside, ter	race, hummocks, etc.): <u>hillsid</u>	e	
Local relief (concave, convex, none): none		Slope (%): 8-12	_	
Subregion: Southeast Alaska	Lat:	Lo	ng:	Datum:
Soil Map Unit Name: Vestovia-McGlivery comple	x		NWI classification	on: PFO4
Are climatic / hydrologic conditions on the site typ	pical for this time of y	ear? Yes X No	(If no, explain in Rem	arks.)
Are Vegetation, Soil, or Hydrolog Are Vegetation, Soil, or Hydrolog SUMMARY OF FINDINGS – Attach sit	y significantly y naturally pr e map showing s	v disturbed? Are oblematic? (If n ampling point located)	"Normal Circumstances" pres eeded, explain any answers i tions, transects, importa	sent? Yes X No n Remarks.) Int features, etc.
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes Remarks: Data point not located within a wetland; not	X No No X No X No X No X No X	Is the Sample within a Wetla d indicators present	d Area nd? Yes . Data point located near t	№ <u>×</u> flag O2.
VEGETATION – Use scientific names	of plants. List all	species in the plot		
Tree Stratum 1. Callitropsis nootkatensis 2. Tsuga heterophylla 3.	Absolut: <u>% Cove</u> 35.00 15.00	e Dominant Indicator r <u>Species?</u> <u>Status</u> Yes FAC Yes FAC	Dominance Test worksho Number of Dominant Spec That Are OBL, FACW, or F Total Number of Dominant Species Across All Strata:	eet: EAC: <u>4</u> (A)
4			Demont of Dominant Cross	(-/

3				Species Across All Strata: 7	(B)	
4				Percent of Dominant Species		
Total Cover:	50			That Are OBL, FACW, or FAC:66.7	(A/B)	
50% of total cover: 25	20% c	of total cover:	10	Prevalence Index worksheet:	. ,	
Sapling/Shrub Stratum Manziacia forruginoa	35	Voc	EACU	Total % Cover of: Multiply by:	_	
	10	Voc	FACO	OBL species x 1 =	_	
2			FAC	FACW species x 2 =	-	
3. Rubus spectabilis	8	NO	FACU	FAC species x 3 =	-	
4				FACU species x 4 =	-	
5				LIPL species x 5 =	-	
6				$\begin{array}{c} Column Totals: \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ $	- (B)	
Total Cover:	53	-			_ (D)	
50% of total cover: 26.5	_ 20% of	f total cover:	10.6	Prevalence Index = B/A =	_	
Herb Stratum Cornus canadensis	12	Yes	FACU	Hydrophytic Vegetation Indicators:		
1Contis asplaniifolia	7	Vec	FAC	Dominance Test is >50%		
2. Copus aspieriniona		Vee	EACU	Prevalence Index is ≤3.0		
Streptopus amplexitolius 4.		165	FACU	Morphological Adaptations ¹ (Provide supporting		
5				Problematic Hydrophytic Vegetation ¹ (Explain	1)	
6				· · · · · · · · · · · · · · · · ·	- /	
7				¹ Indicators of hydric soil and wetland hydrology m	nust	
8				be present unless disturbed or problematic.		
9						
10.						
Total Cover:	26					
50% of total cover: 13	20% oʻ	f total cover:	5.2			
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare	Ground	15	Hydrophytic Vegetation		
% Cover of Wetland Bryophytes Total Cove (Where applicable)	er of Bryo	phytes	60	Present? Yes X No		
Remarks:						

Profile Des	cription: (Describe	to the dep	th needed to docu	nent the i	ndicator	or confirm	n the absence	of indicate	ors.)	
Depth	Matrix		Redo	x Features	\$					
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture		Remarks	3
0-12	10YR 3/2	100					loam	dry		
12-18	10YR 3/3	100					loam			
17.000							21		D	
Type: C=C	Indicators:	pletion, Rivi=	Reduced Matrix, C:	S=Covered	i or Coate		rains. Lo	cation: PL=	Pore Lining,	IVI=IVIatrix.
	Indicators.					30115 .		n Claved Wi	thout Lluc E	V or Poddor
	ninodon (A2)				(TA4) (TA5)			a Gleyeu Wi		
Hydroge	pipedoir $(A2)$			ov With 2	(175) 57 Hug			(Evolain in	Pomarke)	
	ark Surface (A12)				orride				Kemarko)	
Alaska	Gleved (A13)		³ One indicator o	of hydrophy	tic veget	ation one	primary indica	tor of wetlan	d hydrology	
Alaska	Redox (A14)		and an appro	priate land	scape po	sition mus	t be present u	nless disturt	ed or proble	matic.
Alaska	Gleyed Pores (A15)		⁴ Give details of	color chan	ge in Ren	narks.				
Restrictive	Layer (if present):									
Туре:										V
Depth (in	ches):						Hydric Soi	Present?	Yes	No
Remarks:										
No hydri	c soil indicato	ors prese	ent.							
HYDROLO	GY									

Wetland Hydrology Indicator	'S:		Secondary Indicators (2 or more required)
Primary Indicators (any one ind	dicator is sufficient)		Water-stained Leaves (B9)
Surface Water (A1)	Inundation \	/isible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)	Sparsely Ve	getated Concave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposi	ts (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen S	ulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season	Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Expla	ain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)			Shallow Aquitard (D3)
Iron Deposits (B5)			Microtopographic Relief (D4)
Surface Soil Cracks (B6)			FAC-Neutral Test (D5)
Field Observations:	Ň		
Surface Water Present?	Yes <u>No X</u> Dept	h (inches):	
Water Table Present?	Yes <u>No X</u> Dept	h (inches):	
Saturation Present? (includes capillary fringe)	Yes <u>No X</u> Dept	h (inches): Wetla	and Hydrology Present? Yes No $\frac{X}{2}$
Describe Recorded Data (strea	am gauge, monitoring well, ae	erial photos, previous inspections), i	f available:
-			
Remarks:			
No wetland hydrolog	v indicators present		

Project/Site: Katlian Bay Road	Borougl	h/City: <u>Sitka</u>	Sampling Date: June 25, 2015		
Applicant/Owner: ADOT & PF, Southcoast Region			Sampling Point: <u>31</u>		
Investigator(s): Jeff Gray, Tad Schwager	Landfor	Landform (hillside, terrace, hummocks, etc.): hillside (seeps)			
Local relief (concave, convex, none): <u>concave</u>	Slope (%):			
Subregion: Southeast Alaska	Lat: _	Long: _	Datum: _		
Soil Map Unit Name: Vestovia-McGlivery complex		NWI	classification: PFO4		
Are climatic / hydrologic conditions on the site typical for	this time of year? Yes	s X No (If no, expl	ain in Remarks.)		
Are Vegetation, Soil, or Hydrology		ed? Are "Normal Circumsta	ances" present? Yes X No		
Are Vegetation, Soil, or Hydrology	naturally problemati	ic? (If needed, explain any	answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No _ No	Is the Sampled Area within a Wetland?	Yes X	No	
Remarks:						
Data point located within Wetland 13 near flag WW3; all three wetland indicators present.						

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Tsuga heterophylla	35.00	Yes	FAC	That Are OBL, FACW, or FAC:5 (A)
2				
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
Total Cover:	35			That Are OBL, FACW, or FAC: 83 (A/B)
50% of total cover:17.5	20% o	f total cover	<u>.</u> 7	Prevalence Index worksheet:
Sapling/Shrub Stratum				
1. Vaccinium ovalifolium	8	Yes	FAC	
2 Rubus spectabilis	7	Yes	FACU	OBL species x 1 =
2				FACW species x 2 =
3				FAC species x 3 =
4				EACU species x 4 =
5				
6.				UPL species x 5 =
Total Cover:	15			Column Totals: (A) (B)
			з	
50% of total cover:	20% of	total cover:	5	Prevalence Index = B/A =
Athurium filix femina	15	Vec	FAC	Hydrophytic Vegetation Indicators:
		103		✓ Dominance Test is >50%
2. Lysichiton americanus	35	Yes	FAC	Prevalence Index is <3.0
3. Carex mertensii	5	No	FACW	
4 Coptis aspleniifolia	15	Yes	FAC	data in Remarks or on a separate sheet)
Circaea alpina	10	No	FACW	
5				Problematic Hydrophytic Vegetation (Explain)
6				1
7				Indicators of hydric soil and wetland hydrology must
8				be present unless disturbed of problematic.
9.				
10				
T	80			
l otal Cover:			10	
50% of total cover: 40	20% of	total cover:	16	Hydrophytic
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare 0	Ground	5	Vegetation
% Cover of Wetland Bryophytes - Total Cov	er of Brvor	phytes	15	Present? Yes \times No
(Where applicable)				
Remarks:				
Hydrophytic vegetation indicator presen	t			

SOIL

Profile Desc	ription: (Describe	to the dept	h needed to docur	nent the i	ndicator	or confirm	n the absence	of indicato	ors.)	
Depth	Matrix		Redo	x Features	8					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-6	7.5YR 4/2	100					sandy loam			
6-10	10YR 5/8	40					sandy loam			
	7.5YR 3/2	60								
10-16	5GY 4/1	100					sandy loam			
16-20	10YR 4/4						loam	Muck;	saturated	
		·								
'Type: C=Co	oncentration, D=Dep	letion, RM=	Reduced Matrix, CS	S=Covered	or Coate	d Sand G	rains. ² Lo	cation: PL=	Pore Lining, I	M=Matrix.
Histosol Histosol Histic Ep Hydroge	or Histel (A1) bipedon (A2) en Sulfide (A4)		Alaska Colo Alaska Alpin Alaska Red	or Change The Swales The With 2.	i c Hydric (TA4) ⁴ (TA5) 5Y Hue	Solis :	Alaska Und Other	a Gleyed Wi erlying Laye (Explain in I	thout Hue 5Y r Remarks)	or Redder
Alaska G	Gleyed (A13)		³ One indicator o	f hydrophy	/tic vegeta	ation, one	primary indicat	or of wetlan	d hydrology,	
Alaska F	Redox (A14)		and an appro	priate land	lscape po	sition mus	t be present ur	less disturb	ed or probler	natic.
Alaska G	Gleyed Pores (A15)		⁴ Give details of	color chan	ge in Ren	narks.				
Restrictive I	Layer (if present):									
Туре:									Y	
Depth (ind	ches):						Hydric Soil	Present?	Yes	No
Remarks:										
Hydric so	pil indicator A	13 prese	ent.							
HYDROLO	GY									

Wetland Hydrology Indicate	vrs:			Secondary Indicators (2 or more required)
Primary Indicators (any one in	ndicator is suffig	cient)		Water-stained Leaves (B9)
Surface Water (A1)		Inundation Visible o	on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)	L	Sparsely Vegetated	I Concave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	[Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	[Hydrogen Sulfide C	dor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	[Dry-Season Water	Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	[Other (Explain in R	emarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)				Shallow Aquitard (D3)
Iron Deposits (B5)				Microtopographic Relief (D4)
Surface Soil Cracks (B6)				FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes I	No X Depth (inche	es):	
Water Table Present?	Yes X 1	No Depth (inche	es): <u>8</u>	
Saturation Present?	Yes X I	No Depth (inche	es): <u>8</u> Wetl	and Hydrology Present? Yes X No
(includes capillary fringe)				
Describe Recorded Data (stre	am gauge, mo	onitoring well, aerial pho	otos, previous inspections),	if available:
-				
Remarks:				
Primary wetland hyd	Iroloav inc	dicator present.		

Project/Site: Katlian Bay Road	Borough/City: Sitka	Sampling Date: June 24, 2015					
Applicant/Owner: ADOT & PF, Southcoast Region		Sampling Point: <u>32</u>					
Investigator(s): Jeff Gray, Tad Schwager	Landform (hillside, terrace, hummocks, etc.): Hillside						
Local relief (concave, convex, none): none	Slope (%): <u>5-8</u>						
Subregion: <u>Southeast Alaska</u> Lat:	Long:	Datum:					
Soil Map Unit Name: Vestovia-McGlivery complex	NWI	I classification: PFO4					
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes X No (If no, exp	plain in Remarks.)					
Are Vegetation, Soil, or Hydrology signific	icantly disturbed? Are "Normal Circums"	tances" present? Yes X No					
Are Vegetation, Soil, or Hydrology natura	ally problematic? (If needed, explain an	ny answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes X No	Is the Sampled Area						

Hydric Soil Present? Wetland Hydrology Present?	Yes No X Yes No X	Is the Sampled Area within a Wetland?	Yes No X			
Remarks:						
Data point not located within a wetland; not all three wetland indicators present. Data point located near flag WW2.						

	Absolute	Dominant	Indicator	Dominance Test worksheet:						
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species						
1. Tsuga heterophylla	40.00	Yes	FAC	That Are OBL, FACW, or FAC: <u>3</u> (A)						
2 Picea sitchensis	5.00	No	FACU	Total Number of Deminent						
3.				Species Across All Strata: 5 (B)						
A.										
Total Cover:	45			Percent of Dominant Species						
50% of total cover: 22.5	20% 0	f total cover	. 9	Prevelences in december 46. (A/B)						
Sapling/Shrub Stratum				Prevalence Index worksneet:						
1. Menziesia ferrunginea	15	Yes	FACU	Total % Cover of: Multiply by:						
2. Vaccinium ovalofolium	5	No	FAC	OBL species x 1 =						
3. Rubus spectabilis	5	No	FACU	FACW species x 2 =						
A Oplopanax horridus	5	No	FACU	FAC species x 3 =						
				FACU species x 4 =						
5				UPL species x 5 =						
6	30			Column Totals: (A) (B)						
			6							
50% of total cover: 15 20%		total cover:	0	Prevalence Index = B/A =						
1 Veratrum viride	5	No	FAC	Hydrophytic Vegetation Indicators:						
2 Streptopus amplexifolius	5	No	FACU	✓ Dominance Test is >50%						
2. Cornus canadensis	6	No	FACU	Prevalence Index is ≤3.0						
A Athyrium filix-femina	10	Yes	FAC	Morphological Adaptations ¹ (Provide supporting						
5 Gymnicarpium dryopteris	8	Yes	FACU	Decklementic Hudershertic Manafestical (Fundaire)						
c Coptis aspleniifolia	12	Yes	FAC	Problematic Hydrophytic Vegetation (Explain)						
7				¹ Indicators of hydric soil and wetland hydrology must						
				be present unless disturbed or problematic.						
0										
9										
10										
	-+0		0.2							
50% of total cover: 20% of total		total cover:	20	Hydrophytic						
Plot size (radius, or length x width) radius by stratum: 30, 15, 5 % Bare Ground Vegetation										
% Cover of Wetland Bryophytes Total Cov (Where applicable)	Present? Yes <u>^</u> No									
Remarks:										
Hydrophytic vegetation indicator present.										
Profile Desc	cription: (Describe	to the de	pth needed to docu	ment the	indicator	or confirm	n the absence o	of indicato	rs.)	
------------------------	---------------------	------------	-------------------------------	------------	----------------------	------------------------	--------------------------	--------------	---------------	-------------
Depth	Matrix		Redo	ox Feature	es					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-3	10YR 2/1	100					loam			
3-11	10YR 3/3	100					loam			
11-20	2.5Y 4/1	100					sandy loam			
20-24	2.5Y 4/1	95	10YR 4/6	5	С	М	sandy loam			
<u> </u>										
¹ Type: C=C	oncentration, D=Dep	letion, RM	I=Reduced Matrix, C	S=Covere	d or Coate	ed Sand G	rains. ² Loca	tion: PL=	Pore Lining,	M=Matrix.
Hydric Soil	Indicators:		Indicators for	Problema	tic Hydrid	: Soils ³ :				
Histosol	or Histel (A1)		Alaska Col	or Change	e (TA4) ⁴		Alaska C	Gleyed Wit	hout Hue 5Y	or Redder
Histic E	pipedon (A2)		Alaska Alpi	ne Swale	s (TA5)			lying Laye	r	
Hydroge	en Sulfide (A4)		Alaska Red	lox With 2	2.5Y Hue		Other (E	Explain in F	Remarks)	
Thick Da	ark Surface (A12)									
Alaska (Gleyed (A13)		³ One indicator of	of hydroph	nytic veget	ation, one	primary indicator	of wetlan	d hydrology,	
Alaska F	Redox (A14)		and an appro	priate lan	dscape po	sition mus	st be present unle	ess disturb	ed or probler	matic.
Alaska (Gleyed Pores (A15)		⁴ Give details of	color cha	nge in Rer	narks.				
Restrictive	Layer (if present):									
Туре:										V
Depth (in	ches):						Hydric Soil P	resent?	Yes	No <u>^</u>
Remarks:										
No hydri	c soil indicato	r prese	ent.							
-		-								
HYDROLO	GY									

Wetland Hydrology Indicate	ors:			<u>s</u>	econdary Indicators (2 or more required)
Primary Indicators (any one in	ndicator is suffi	cient)		L	Water-stained Leaves (B9)
Surface Water (A1)		Inundatio	n Visible on Aerial Imagery (B	7) L	Drainage Patterns (B10)
High Water Table (A2)		Sparsely	Vegetated Concave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	[Marl Dep	osits (B15)	Ļ	Presence of Reduced Iron (C4)
Water Marks (B1)	[Hydrogen	n Sulfide Odor (C1)	Ļ	Salt Deposits (C5)
Sediment Deposits (B2)	[Dry-Seas	on Water Table (C2)	Ļ	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	[Other (Ex	plain in Remarks)	Ļ	Geomorphic Position (D2)
Algal Mat or Crust (B4)				Ļ	Shallow Aquitard (D3)
Iron Deposits (B5)				Ļ	_ Microtopographic Relief (D4)
Surface Soil Cracks (B6)				L	_ FAC-Neutral Test (D5)
Field Observations:		V			
Surface Water Present?	Yes	No X De	epth (inches):		
Water Table Present?	Yes X	No De	epth (inches): 24		X
Saturation Present? (includes capillary fringe)	Yes X	No De	epth (inches): 22	Wetlan	d Hydrology Present? Yes No X
Describe Recorded Data (stre	am gauge, mo	onitoring well,	aerial photos, previous inspec	ctions), if a	vailable:
-					
Remarks:					
No wetland hydrolog	av indicato	ors prese	nt.		
	,,				

Project/Site: Katlian Bay Road	Borough/City: Sitka	Sampling Date: June 23, 2015
Applicant/Owner: ADOT & PF, Southcoast Region		Sampling Point: 33
Investigator(s):	Landform (hillside, terra	ce, hummocks, etc.): hillside; floodplain
Local relief (concave, convex, none): <u>concave</u>	Slope (%): <u>5-8</u>	
Subregion: Southeast Alaska Lat:	- Lonç	g: Datum:
Soil Map Unit Name: Vestovia-McGlivery complex		NWI classification: PFO4
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes X No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrologys	ignificantly disturbed? Are "	Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology n	aturally problematic? (If nee	eded, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X No
Remarks:				
Data point located within Wetland	l 13; all three	wetland indicators	present. Data point located	near flag WW18.

VEGETATION – Use scientific names of plants. List all species in the plot.

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Tsuga heterophylla	35.00	Yes	FAC	That Are OBL, FACW, or FAC: 5 (A)
2. Picea sitchensis	10.00	Yes	FACU	
3				Total Number of Dominant
5				Species Across All Strata: (B)
4	45			Percent of Dominant Species
Total Cover:	45			That Are OBL, FACW, or FAC: 63 (A/B)
50% of total cover: 22.5	20% o	f total cover	r: <u>9</u>	Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: Multiply by:
1. Menziesia ferruginea	5	Yes	FACU	
2. Vaccinium ovalifolium	7	Yes	FAC	OBL species x 1 =
3 Rubus spectabilis	6	Yes	FACU	FACW species x 2 =
				FAC species x 3 =
4				FACU species x 4 =
5				UPL species x 5 =
6				
Total Cover:	18			
50% of total cover: 9	20% of	total cover	3.6	Prevalence Index = B/A =
Herb Stratum			·	
1. Lysichiton americanus	12	Yes	OBL	Hydrophytic vegetation indicators:
2 Carex disperma	8	Yes	FACW	Dominance Test is >50%
2 Carex mertensii	5	No	FACW	Prevalence Index is ≤3.0
SContia contentia		Vee		Morphological Adaptations ¹ (Provide supporting
4. Copiis aspieriniolia		105	FAC	data in Remarks or on a separate sheet)
5. Cornus canadensis	3	No	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7.				¹ Indicators of hydric soil and wetland hydrology must
8				be present unless disturbed or problematic.
0				
9				
10				
Total Cover:	36			
50% of total cover: <u>18</u>	20% of	total cover	7.2	
Plot size (radius, or length x width) radius by stratum: 30', 15', 5	' % Bare 0	Ground	44	Hydrophytic Vegetation
% Cover of Wetland Bryophytes Total Cov	er of Bryor	hvtes	20	Present? Yes X No
(Where applicable)				
Remarks:				1
Hydrophytic vegetation indicator presen	t.			

Profile Desc	ription: (Describe	to the depth	needed to docum	ent the ir	ndicator	or confirm	the absence	of indicato	rs.)	
Depth	Matrix		Redox Features							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-5	10YR 2/1	100					loam	saturat	ed	
5-12	10YR 4/1	100					sandy loam	saturat	ed	
12-20	10YR 4/1						sandy loam	muck; s	saturated	
		·								
¹ Type: C=Co	oncentration, D=Dep	letion, RM=R	educed Matrix, CS	=Covered	or Coate	d Sand Gr	ains. ² Loo	ation: PL=	Pore Lining, N	1=Matrix.
Hydric Soil I	ndicators:		Indicators for P	roblemati	ic Hydric	Soils ³ :				
Histosol	or Histel (A1)		Alaska Color	Change	(TA4) ⁴		Alaska	Gleyed Wit	hout Hue 5Y	or Redder
Histic Ep	oipedon (A2)		Alaska Alpin	e Swales	(TA5)		Unde	erlying Laye	r	
Hydroge	n Sulfide (A4)		Alaska Redo	x With 2.8	5Y Hue		✓ Other	(Explain in F	Remarks)	
Thick Da	ark Surface (A12)									
Alaska G	Gleyed (A13)		³ One indicator of	hydrophy	rtic vegeta	ition, one	primary indicat	or of wetland	d hydrology,	
Alaska F	Redox (A14)		and an approp	riate land	scape pos	sition mus	t be present ur	less disturb	ed or problem	atic.
Alaska G	Bleyed Pores (A15)		⁴ Give details of c	olor chang	ge in Rem	arks.				
Restrictive L	_ayer (if present):									
Туре:										
Depth (inc	ches):						Hydric Soil	Present?	Yes X	No
Remarks:										
Hvdric so	oil determined	to be pre	esent due to	preser	nce of s	shallov	v water tal	ble and I	nvdrophv	tic
vegetatio	n.	··· • • •							, <u>.</u> ,	
Ŭ										

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		Water-stained Leaves (B9)
Surface Water (A1)	ible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2) Sparsely Vege	etated Concave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	(B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	fide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2) Dry-Season W	/ater Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	n in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No A Depth ((inches):	
Water Table Present? Yes X No Depth ((inches): <u>10"</u>	X
Saturation Present? Yes X No Depth ((includes capillary fringe)	(inches): 0 Wetla	and Hydrology Present? Yes X No
Describe Recorded Data (stream gauge, monitoring well, aeria	al photos, previous inspections), i	if available:
-		
Remarks:		
Primary wetland hydrology indicators pres	sent; data point located	d adjacent to stream.

Project/Site: Katlian Bay Road	Borough/City: Sitka	Sampling Date: June 25, 2015
Applicant/Owner: ADOT & PF, Southcoast Region		Sampling Point: <u>34</u>
Investigator(s): Jeff Gray, Tad Schwager	Landform (hillside, terrace,	nummocks, etc.): terrace
Local relief (concave, convex, none): <u>covex</u>	Slope (%): <u>5-8</u>	
Subregion: Southeast Alaska Lat:	Long:	Datum:
Soil Map Unit Name: Vestovia-McGlivery complex		NWI classification: PFO4
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes X No	_ (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology sig	gnificantly disturbed? Are "Norn	nal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology na	iturally problematic? (If needed	l, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sho	owing sampling point locations	, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No X No X No X	Is the Sampled Area within a Wetland?	Yes	No <u>×</u>
Remarks:					
Data point not located within a wetlan	d; not all thre	e wetland indicators p	esent. Data point located in up	land between flags	s WW19 and WW25.

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1. I suga neterophylia	45.00	res	FAC	That Are OBL, FACW, or FAC: 2 (A)
2. Picea sitchensis	10.00	No	FACU	Total Number of Dominant
3				Species Across All Strata:4 (B)
4				
Total Cover:	55			That Are OBL. FACW. or FAC: 50 (A/B)
50% of total cover:27.5	20% o	f total cover	<u> </u>	Prevalence Index worksheet:
Sapling/Shrub Stratum	1.0			Total % Cover of: Multiply by:
1. Vaccinium ovalitolium	10	Yes	FAC	$\begin{array}{c} \hline \hline \\ $
2. Menziesia ferruginea	25	Yes	FACU	
3				FACW species $x_2 = $
4				FAC species 36 $x_3 = 100$
5.				FACU species 300 x 4 = 344
6				UPL species x 5 =
Total Cover:	35			Column Totals: <u>153</u> (A) <u>537</u> (B)
50% of total covor: 17.5	20% of	total covor:	7	Developed Index D/A 35
Herb Stratum	_ 20 /0 01	lotal cover.	·	Prevalence Index = B/A =
1. Cornus canadensis	40	Yes	FACU	Hydrophytic Vegetation Indicators:
2. Gymnocarpium dryopteris	5	No	FACU	Dominance Test is >50%
3. Coptis aspleniifolia	6	No	FAC	Prevalence Index is ≤3.0
4 Blechnum spicant	2	No	FAC	Morphological Adaptations' (Provide supporting
5. Lysichiton americanus	4	No	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Streptopus ampleixifolius	6	No	FACU	
7.				¹ Indicators of hydric soil and wetland hydrology must
8				be present unless disturbed or problematic.
0				
10				
Total Cover:	63			
50% of total cover: 31.5	20% of	total cover	12.6	
Diet eize (rediue, er length y width) radius by stratum 30' 15' 5'	20 /0 UI		20	Hydrophytic
			20	Vegetation Present? Yes No X
(Where applicable)	er of Bryop	onytes	20	
Remarks:				
No hydrophytic vegetation indicators pre	esent.			

SOIL

Profile Desc	cription: (Describe	to the dep	th needed to docur	nent the i	indicator	or confirr	n the absence	of indicato	ors.)	
Depth	Matrix		Redo	x Feature	s					
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture		Remarks	
0-4	10YR 2/1	100					loam			
4-16	10YR 3/2	85					silt loam			
	10YR 3/3	15								
16-24	10YR 2/1	30					sandy loam	gravels	s at 24"	
	10YR 3/2	70								
¹ Type: C=C	oncentration, D=De	pletion, RM=	Reduced Matrix, CS	S=Covered	d or Coate	d Sand G	rains. ² Lo	cation: PL=	Pore Lining,	M=Matrix.
Hydric Soil	Indicators:		Indicators for F	roblemat	tic Hydric	Soils":		<u>.</u>		
Histosol	Histosol or Histel (A1)			Alaska Color Change (TA4)				a Gleyed Wi	thout Hue 5Y	or Redder
	pipedon (A2) $(A4)$		Alaska Redox With 2 5Y Hue				Evolain in l	n Domarke)		
	ark Surface (A12)									
Alaska	Gleved (A13)		³ One indicator o	f hydroph	vtic vegeta	ation, one	ne primary indicator of wetland hydrology,			
Alaska F	Redox (A14)		and an appropriate landscape position must be present unless disturbed or problematic.						matic.	
Alaska (Gleyed Pores (A15)		⁴ Give details of	color char	nge in Ren	narks.				
Restrictive	Layer (if present):									
Туре:										X
Depth (in	ches):						Hydric Soil	Present?	Yes	No <u>X</u>
Remarks:										
No hydri	c soil indicato	r preser	nt.							
-										
HYDROLO	GY									

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is suff	ficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8	3) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes	No X Depth (inches):	X
Saturation Present? Yes (includes capillary fringe)	No X Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge, m	onitoring well, aerial photos, previous inspecti	ons), if available:
-		
Remarks:		
No wetland hydrology indicat	ors present	
into we land my arology indicat		

Project/Site: Katlian Bay Road	Borough/Ci	ty: <u>Sitka</u>	Sa	Sampling Date: June 22, 2015		
Applicant/Owner: ADOT & PF, Southcoast Region				mpling Point: 35		
Investigator(s): Jeff Gray, Tad Schwager		Landform (hillside, terrace, hummocks, etc.): floodplain				
Local relief (concave, convex, none): concave		Slope (%):	0-2			
Subregion: Southeast Alaska	Lat: -		Lor	- ng: -	Datum: -	
Soil Map Unit Name: Tuxekan silt loam, floodplains				NWI classification	n: PFO4	
Are climatic / hydrologic conditions on the site typical fo	r this time of v	ear? Yes X	No	(If no. explain in Rema	arks.)	
Are Vegetation Soil or Hydrology	significant	v disturbed?	Are	"Normal Circumstances" prese	ent? Yes X N	lo
Are Vegetation Soil or Hydrology	naturally p	roblematic?	(If ne	eeded, explain any answers in	Remarks.)	
SUMMARY OF FINDINGS – Attach site mag	showing s	ampling p	oint locat	ions, transects, importar	nt features, etc.	
Lindearthy tip Magnetation Descent 2 Nos X	Ne					
Hydrophytic Vegetation Present? Yes <u>~</u>	_ NO	- Is th	e Sampled	I Area		
Wetland Hydrology Present? Yes X	No	with	in a Wetla	nd? Yes X	No	
Remarks:		-				
Data point located within Wetland 14; all three	wetland para	ameters pre	esent. Dat	a point located near flag \	/2 at edge of pon	d.
VECETATION Lies estentific names of als	nto liot all		the plat]
VEGETATION – Use scientific names of pla	nts. List all	species ir	i the plot.			
Tree Stratum	Absolut % Cove	e Dominant er Species?	Status	Dominance Test Workshe	et:	
1. Alnus rubra	40.00	Yes	FAC	That Are OBL, FACW, or FA	AC: 4	(A)
2. Picea sitchensis	10.00	Yes	FACU	Total Number of Deminent		/
3				Species Across All Strata:	6	(B)
4				Descent of Deminent Creek		/
Total C	over: 50	_		That Are OBL, FACW, or FA	AC: 66.7	(A/B)
50% of total cover:	25 20%	of total cove	r: <u>10</u>	Prevalence Index worksho	eet:	
Sapling/Shrub Stratum Alpus rubra	15	Ves	FAC	Total % Cover of:	Multiply by:	
1 Onlopanax horridus	25	Yes	FACU	OBL species	x 1 =	
			17.00	FACW species	x 2 =	
3				FAC species	_ x 3 =	_
				FACU species	x 4 =	_
6				UPL species	_ x 5 =	_
Total C	over: 40			Column Totals: 0	_ (A)0	(B)
50% of total cover:	20%	of total cover		Prevalence Index = F	3/A =	
Herb Stratum				Hydrophytic Vegetation Ir	ndicators:	
1 Athyrium filix-femina	20	Yes	FAC	\checkmark Dominance Test is >50	1%	
2. Cinna latifolia	10	Yes	FACW	Prevalence Index is ≤3	.0	
3				Morphological Adaptati	ons ¹ (Provide suppo	orting
4				data in Remarks or	on a separate sheet	.)
5				Problematic Hydrophyt	ic Vegetation ¹ (Expla	ain)
6				¹ Indicators of hydric soil an	d wetland hydrology	must
0				be present unless disturbed	1 or problematic.	must
0						
9						
Total C	over: 30					
50% of total cover	15 20%	 of total cover				
Plot size (radius. or length x width) radius by stratum: 30',	15', 5' % Bare	e Ground	70	Hydrophytic		
% Cover of Wetland Bryophytes Tota (Where applicable)	al Cover of Bry	ophytes	0	Present? Yes X	No	
Remarks:				I		
Hydrophytic vegetation indicator pre	sent.					

Profile Des	ription: (Describe	to the dept	h needed to docun	nent the	indicator	or confirm	n the absence	of indicato	rs.)	
Depth	Matrix		Redox	<pre>K Feature</pre>	s					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-4	10YR 2/2	100					sandy loam			
4-18	10YR 2/1	100					sandy loam	muck; g	gravels	
		· ·								
		· ·								
		· ·			·					
					·					
					·					
¹ Type: C=C	oncentration D=Den	letion RM=	Reduced Matrix CS	=Covere	d or Coate	d Sand G	rains ² Lo	ation: PI =F	Pore Linina I	M=Matrix
Hvdric Soil	Indicators:		Indicators for P	roblema	tic Hvdric	Soils ³ :			ore Lining, i	vi-iviatiix.
Histosol	or Histel (A1)		Alaska Colo	r Change	$(TA4)^4$		Alaska	Gleved Wit	hout Hue 5Y	or Redder
Histic F	ninedon (A2)		Alaska Alnin	e Swales	(TA5)			erlving Laver		orredder
	n Sulfido (A4)		Alaska Rode	v With 2	5V Uuo		✓ Other	(Evolain in E	(omarke)	
	ark Surface ($\Delta 12$)				.51 Hue				cillarks)	
Alaska	Gleved (A13)		³ One indicator of	hydroph	vtic venet:	ation one	nrimary indicat	or of wetland	hvdrology	
Alaska	Redox (A14)		and an appror	riate lan	dscape po	sition mus	t be present ur	less disturbe	ed or probler	natic
Alaska	Gleved Pores (A15)		⁴ Give details of c	olor char	nae in Ren	narks.				natio.
Restrictive	Laver (if present):				0					
Type:	,									
Depth (in	ches):						Hydric Soil	Present?	Yes X	No
Remarks:										
Hydric se	oil determined	to be p	resent due to	shallo	w arou	ndwate	er and hyd	Irophytic	vegetat	ion
				onano				op.i.y.i.e	regetat	

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indic	cator is sufficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	X	
Surface Water Present? Y	Yes No X Depth (inches):	
Water Table Present?	Yes X No Depth (inches): 4"	
Saturation Present? Y	Yes X No Depth (inches): 2 We	etland Hydrology Present? Yes X No
Describe Recorded Data (stream	n gauge, monitoring well, aerial photos, previous inspections	s), if available:
_		
Pemarks:		
Primary wetland hydro	plogy indicators present.	
Water Table Present? Y Saturation Present? Y (includes capillary fringe) Describe Recorded Data (stream - Remarks: Primary wetland hydro	Yes <u>X</u> No <u>Depth</u> (inches): <u>4</u> " Yes <u>X</u> No <u>Depth</u> (inches): <u>4</u> " Yes <u>X</u> No <u>Depth</u> (inches): <u>2</u> n gauge, monitoring well, aerial photos, previous inspections Dlogy indicators present .	etland Hydrology Present? Yes X No s), if available:

HYDROLOGY

Applicant/Owner: ADOT & PF, Southcoast Region Investigator(s): Jeff Gray, Tad Schwager Local relief (concave, convex, none): none Subregion: Southeast Alaska Lat:		Landform (k		Sampling Point: 36			
Investigator(s): Jeff Gray, Tad Schwager Local relief (concave, convex, none): none Subregion: Southeast Alaska Lat:	[l andfarm (b					
Local relief (concave, convex, none): none Subregion: Southeast Alaska		Landform (hillside, terrace, hummocks, etc.): floodplain					
Subregion: Southeast Alaska Lat:	:	Slope (%):	0-2	· · · · · · ·			
	-		Lor	- na: - Datum: -			
Soil Man Unit Name. Tuxekan silt loam, floodplains			20.	NWI classification: PF04			
Are climatic / hydrologic conditions on the site typical for this	time of ver	ar2 Vac X	No	(If no, explain in Remarks)			
Are Vegetation Soil or Hydrology si	unificantly	diaturbad?	NO	"Normal Circumstances" propert? Yes X			
Are Vegetation, Soil, or Hydrologysi	grincarity (Ale	Normal Circumstances present? Fes <u>~</u> No			
Alle Vegetation, Soil, of Hydrology ha							
Sommart OF Findings – Allach sile map sile	wing sa						
Hydrophytic Vegetation Present? Yes No	<u>X</u>	Is th	e Sampled	l Area			
Hydric Soil Present? Yes No	×	with	in a Wetla	nd? Yes No_X			
Wetland Hydrology Present? Yes No	<u>^</u>						
Remarks: Data point not located within a wetland; not all three	wetland	indicators	present.	Data point located near flag V2 adjacent to pon			
VEGETATION – Use scientific names of plants.	List all s	species in	the plot.				
	Absolute	Dominant	Indicator	Dominance Test worksheet:			
I ree Stratum Alous rubra	<u>40.00</u>	Species?	<u>Status</u>	Number of Dominant Species			
1 Picea sitchensis	15.00	Yes	FACU	I hat Are OBL, FACW, or FAC: (A)			
3.	10.00			Total Number of Dominant Species Across All Strata: 6 (B)			
4	55			Percent of Dominant Species			
FOW of total cover: 27.5	200/ 0	f total action	11	That Are OBL, FACW, or FAC: (A/			
Sapling/Shrub Stratum	20%0	i lotai covei		Prevalence Index worksheet:			
1. Oplopanax horridus	35	Yes	FACU	Total % Cover of: Multiply by:			
2. Sambucus racemosa	15	Yes	FACU	OBL species x 1 =			
3 Alnus rubra	10	No	FAC	FACW species x 2 =			
4 Aruncus dioicus	8	No	UPL	FAC species 30 x $3 = 270$			
5				FACU species 332 $x 4 = 200$			
6				$\begin{array}{c} \text{UPL species} \underline{} $			
Total Cover:	68			$\begin{bmatrix} Column Totals: \\ \hline \\ $			
50% of total cover: <u>34</u>	20% of	f total cover	13.6	Prevalence Index = B/A =3.5			
Herb Stratum Athurium filix femina	25	Vec	FAC	Hydrophytic Vegetation Indicators:			
	15	Vec	FAC	Dominance Test is >50%			
	15	163	TAC	Prevalence Index is ≤3.0			
3				Morphological Adaptations ¹ (Provide supporting			
F	·			data in Remarks or on a separate sheet)			
5	·			Problematic Hydrophytic Vegetation' (Explain)			
0		. <u> </u>		¹ Indicators of hydric soil and wetland hydrology must			
1				be present unless disturbed or problematic.			
8		<u> </u>					
8							
8 9 10							
8 9 10	40						
8 9 10 Total Cover:	40	f total cover					
8 9 10 Total Cover: 50% of total cover: Plot size (radius or length x width) radius by stratum: 30', 15', 5'	40 20% of % Bare (f total cover:	60	Hydrophytic			

Remarks:

No hydrophytic vegetation indicator present.

SOIL

Profile Desc	ription: (Describe	to the depth n	eeded to docum	ent the in	dicator o	or confirm	the absence	of indicators.)		
Depth	Matrix		Redox	Features						
(inches)	Color (moist)	<u>%</u> (Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-14	7.5YR 4/3	100					sandy loam	gravels; refusal at 14"		
0-14	7.5YR 4/3	100	luced Matrix, CS= Indicators for Pr Alaska Color Alaska Alpine Alaska Redo ³ One indicator of and an approp ⁴ Give details of co	=Covered coblemation Change (a Swales (x With 2.5 hydrophyti riate lands plor chang	or Coated c Hydric TA4) ⁴ (TA5) Y Hue tic vegeta scape pos ge in Rem	d Sand Gr Soils ³ :	sandy loam	gravels; refusal at 14"		
		P. 000111								
HYDROLO	GY									

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is su	ff <u>icie</u> nt)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7) Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B	8) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	N/	
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes	No X Depth (inches):	X
Saturation Present? Yes (includes capillary fringe)	No X Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge, n	nonitoring well, aerial photos, previous inspect	ions), if available:
-		
Remarks:		
No wetland hydrology indicat	tors present	

Project/Site: Katlian Bay Road	Borough/City: Sitka	Sampling Date: June 22, 2015
Applicant/Owner: <u>ADOT & PF, Southcoast Region</u>		Sampling Point: <u>37</u>
Investigator(s):	Landform (hillside, terrace, I	hummocks, etc.): toe of slope
Local relief (concave, convex, none): <u>concave</u>	Slope (%): <u>2-5</u>	
Subregion: Southeast Alaska Lat:	: Long:	Datum:
Soil Map Unit Name: Kina peat		NWI classification: PFO4/PEM1
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes X No	_ (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrologys	ignificantly disturbed? Are "Norm	nal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology n	aturally problematic? (If needed	l, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sh	owing sampling point locations	, transects, important features, etc.

		 	 0	1-	51	-,	,	1	 -,
	10	 Y							

Hydrophytic Vegetation Pro Hydric Soil Present? Wetland Hydrology Presen	esent? Yes <u>X</u> Yes <u>X</u> t? Yes <u>X</u>	No No No	Is the Sampled Area within a Wetland?	Yes X	No			
Remarks:								
Data point located within Wetland 15; all three wetland indicators present. Data point located near flag U11.								

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Tsuga heterophylla	30.00	Yes	FAC	That Are OBL, FACW, or FAC: 5 (A)
2. Picea sitchensis	10.00	Yes	FACU	
3				I otal Number of Dominant Species Across All Strata: 9 (B)
۵				
*	40			Percent of Dominant Species
l otal Cover:	40		0	That Are OBL, FACW, or FAC:60 (A/B)
50% of total cover: 20	20% o	f total cover	: 8	Prevalence Index worksheet:
Sapling/Shrub Stratum Monziosia forruginoa	25	Voc	EACU	Total % Cover of: Multiply by:
		165	FACU	OBL species x 1 =
2. Opiopanax norridus	15	Yes	FACU	$EACW$ species $x^2 =$
3. Vaccinium ovalifolium	10	Yes	FAC	
4				FAC species x 3 =
5.				FACU species x 4 =
6				UPL species x 5 =
U	50			Column Totals: 0 (A) 0 (B)
			10	
50% of total cover: 23	20% of	total cover:	10	Prevalence Index = B/A =
	7	No	FACW	Hydrophytic Vegetation Indicators:
				✓ Dominance Test is >50%
2. Lysichiton americanus	12	res	OBL	Prevalence Index is ≤ 3.0
3. <u>Athyrium filix-femina</u>	15	Yes	FAC	Morphological Adaptations ¹ (Provide supporting
4. Cinna latifolia	8	Yes	FACW	data in Remarks or on a separate sheet)
5. Gymnocarpium dryopteris	6	No	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
6 Coptis aspleniifolia	8	Yes	FAC	
7				¹ Indicators of hydric soil and wetland hydrology must
1				be present unless disturbed or problematic.
8				
9				
10				
Total Cover:	56			
50% of total cover: 28	20% of	total cover:	11.2	
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare (Ground	15	Hydrophytic
% Cover of Wetland Bryonbytes	er of Bryon		30	Present? Yes X No
(Where applicable)				
Remarks:				·
Hydrophytic vegetation indicator presen	t.			

Depth	Matrix		Redox Features							
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
)-18	10YR 2/1	100					organic	saturat	ed	
Гуре: С=С	oncentration, D=Dep	oletion, RM	Reduced Matrix, C	S=Covered o	r Coate	d Sand G	rains. ² Lo	cation: PL=	Pore Lining,	M=Matrix.
ydric Soil	Indicators:		Indicators for	Problematic	Hydric	Soils ³ :				
Histosol	or Histel (A1)		Alaska Col	or Change (T	A4) ⁴		Alaska	a Gleyed Wi	thout Hue 5Y	' or Redder
Histic E	pipedon (A2)		Alaska Alpi	ine Swales (T	⁻ A5)		Und Und	erlying Laye	r	
Hydroge	en Sulfide (A4)		Alaska Rec	dox With 2.5Y	′ Hue		Other	(Explain in I	Remarks)	
Thick Da	ark Surface (A12)									
Alaska (Gleyed (A13)		³ One indicator of	of hydrophytic	c vegeta	tion, one	primary indica	tor of wetlan	d hydrology,	
Alaska F	Redox (A14)		and an appro	opriate landso	cape pos	sition mus	t be present u	nless disturb	ed or problei	matic.
Alaska (Gleyed Pores (A15)		⁴ Give details of	color change	in Rem	narks.				
estrictive	Layer (if present):									
Туре:									V	
Depth (in	ches):						Hydric Soi	Present?	Yes X	No
emarks:							1			
vdric so	oil indicator A	1 prese	nt.							
<i>j</i>										

Wetland Hydrology Indicator	s:		Sec	condary Indicators (2 or more required)
Primary Indicators (any one inc	licator is sufficient)		Ц	Water-stained Leaves (B9)
Surface Water (A1)	🛄 In	undation Visible on Aerial Imagery	(B7)	Drainage Patterns (B10)
High Water Table (A2)	Sp Sp	parsely Vegetated Concave Surfac	e (B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Ma	arl Deposits (B15)		Presence of Reduced Iron (C4)
Water Marks (B1)	🗌 Ну	vdrogen Sulfide Odor (C1)		Salt Deposits (C5)
Sediment Deposits (B2)	Dr	y-Season Water Table (C2)		Stunted or Stressed Plants (D1)
Drift Deposits (B3)	OI	ther (Explain in Remarks)		Geomorphic Position (D2)
Algal Mat or Crust (B4)				Shallow Aquitard (D3)
Iron Deposits (B5)				Microtopographic Relief (D4)
Surface Soil Cracks (B6)				FAC-Neutral Test (D5)
Field Observations:	Ň			
Surface Water Present?	Yes No X	Depth (inches):		
Water Table Present?	Yes X No	Depth (inches): 14		
Saturation Present?	Yes X No	Depth (inches): 0	Wetland	Hydrology Present? Yes X No
(includes capillary fringe)				
Describe Recorded Data (strea	im gauge, monitorir	ng well, aerial photos, previous ins	pections), if av	ailable:
-				
Remarks:				
Primary and seconda	arv wetland h	vdrology indicators pre	sent.	
		,	/	

Project/Site: Katlian Bay Road		Borough/Cit	y: Sitka	Sampling Date: June 22, 2015
Applicant/Owner: ADOT & PF, Southcoast Region				Sampling Point: 38
Investigator(s): Jeff Gray, Tad Schwager		Landform (h	illside, terr	ace, hummocks, etc.): hillside
Local relief (concave, convex, none): none		Slope (%):	10-15	
Subregion: Southeast Alaska Lat:	-	/ _	Lor	- ng: ⁻ Datum: ⁻
Soil Map Unit Name: Kina peat				NWI classification: PFO4/PEM1
Are climatic / hydrologic conditions on the site typical for this	time of ve	ar? Yes X	No	(If no explain in Remarks)
Are Vegetation Soil or Hydrology sic	unificantly	disturbed?	Are '	"Normal Circumstances" present? Yes X No
Are Vegetation Soil or Hydrology na	turally pro	oblematic?	/lf ne	eveded evolain any answers in Remarks)
SUMMARY OF FINDINGS – Attach site map sho	wing sa	ampling po	oint locat	ions, transects, important features, etc.
Hudrophytic Vogetation Present? Vog	x			
Hydric Soil Present? Yes No	X	Is the	e Sampleo	I Area
Wetland Hydrology Present? Yes No	Х	withi	n a Wetla	nd? Yes No <u>X</u>
Remarks:				
Data point not located within a wetland; not all three	wetland	d indicators	present.	Data point located near flag U11 on upland slope.
VEGETATION – Use scientific names of plants.	List all	species in	the plot.	
Troo Strotum	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>1 ree Stratum</u> Picea sitchensis	<u>% Cover</u> 25.00	Yes	FACU	Number of Dominant Species
2 Tsuga beterophylla	15.00	Yes	FAC	That Are OBL, FACW, of FAC: (A)
2.		·		Total Number of Dominant Species Across All Strata: 6 (B)
4Total Cover:	40	·		Percent of Dominant Species That Are OBL EACW or EAC: 33 (A/B)
50% of total cover: 20	20% (- of total cover	8	Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of Multiply by:
1 Oplopanax horridus	25	Yes	FACU	OBL species x 1 =
2. Menziesia ferruginea	25	Yes	FACU	FACW species x 2 =
3 Tsuga heterophylla	5	No	FAC	FAC species $30 \times 3 = 90$
4				FACU species $83 \times 4 = 332$
5				UPL species x 5 =
6				Column Totals: 113 (A) 422 (B)
Total Cover:	55	_	44	
50% of total cover: <u>27.5</u>	20% o	of total cover:	11	Prevalence Index = B/A =3.7
1 Athyrium filix-femina	10	Yes	FAC	Hydrophytic Vegetation Indicators:
2 Gymnocarpium dryopteris	8	Yes	FACU	Dominance Test is >50%
3		·		Prevalence Index is ≤3.0
4				Morphological Adaptations ¹ (Provide supporting
5.				Problematic Hydrophytic V/cactation ¹ (Evaluation)
6.				
7.				¹ Indicators of hydric soil and wetland hydrology must
8				be present unless disturbed or problematic.
9				
10				
Total Cover:	18			
50% of total cover:9	20% o	of total cover:	3.6	Underschutig
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare	Ground	25	Typerophytic Vegetation
% Cover of Wetland Bryophytes Total Cov (Where applicable)	er of Bryo	ophytes	60	Present? Yes <u>No X</u>

Remarks:

No hydrophytic vegetation indicators present.

Profile Desc	ription: (Describe	to the dep	th needed to docur	nent the	indicator	or confirm	n the absence of in	dicator	s.)	
Depth	Matrix		Redo	s						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-3	10YR 3/3	100					loam			
3-7	10YR 2/1	100					loam			
7-18	10YR 3/3	100					sandy loam			
¹ Type: C=C	oncentration, D=Dep	oletion, RM=	Reduced Matrix, CS	=Covere	d or Coate	d Sand G	rains. ² Locatior	ו: PL=P	ore Lining, M=	Matrix.
Hydric Soil	Indicators:		Indicators for F	roblema	tic Hydric	Soils ³ :				
Histosol	or Histel (A1)		Alaska Colo	r Change	(TA4) ⁴		Alaska Gley	yed With	out Hue 5Y or	Redder
Histic Ep	pipedon (A2)		Alaska Alpir	ne Swales	s (TA5)		Underlyin	g Layer		
Hydroge	en Sulfide (A4)		Alaska Red	ox With 2	.5Y Hue		Other (Expl	ain in Re	emarks)	
Thick Da	ark Surface (A12)									
Alaska (Gleyed (A13)		³ One indicator o	f hydroph	ytic vegeta	tion, one	primary indicator of	wetland	hydrology,	
Alaska F	Redox (A14)		and an approp	oriate land	dscape po	sition mus	t be present unless	disturbe	d or problema	tic.
Alaska (Gleyed Pores (A15)		⁴ Give details of o	color char	nge in Ren	narks.			·	
Restrictive	Layer (if present):									
Туре:										
Depth (in	ches):						Hydric Soil Pres	sent?	Yes	No <u>X</u>
Remarks:										
No hydrio	c soil indicato	rs prese	ent.							
HYDROLO	GY									

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is	sufficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)) Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B	8) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	N .	
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes	No X Depth (inches):	V
Saturation Present? Yes (includes capillary fringe)	No X Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge	, monitoring well, aerial photos, previous inspecti	ions), if available:
-		
Remarks:		
No wetland hydrology indic	ators present	

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Project/Site: Katlian Bay Road		_ Borough/City: S	itka	Sampling Date: June 22, 2015
Applicant/Owner: ADOT & PF, Southcoast Region				Sampling Point: <u>39</u>
Investigator(s):		Landform (hillsic	le, terrace, hummocks	, etc.): saddle
Local relief (concave, convex, none): <u>concave</u>		Slope (%):		
Subregion: Southeast Alaska	Lat: _		Long: _	Datum:
Soil Map Unit Name: Verstovia-McGilvery complex			NV	/I classification: <u>None</u>
Are climatic / hydrologic conditions on the site typica	al for this time of	year? Yes X	No (If no, ex	plain in Remarks.)
Are Vegetation, Soil, or Hydrology _	significant	tly disturbed?	Are "Normal Circum	stances" present? Yes X No
Are Vegetation, Soil, or Hydrology _	naturally	problematic?	(If needed, explain a	ny answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes X	No
Remarks:				
Data point located within Wetland	16; all three wetland indicators	s present. Data point located	l near flag T7.	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Tsuga heterophylla	15.00	Yes	FAC	That Are OBL, FACW, or FAC:7 (A)
2 Callitropsis nootkatensis	5.00	Yes	FAC	
2				Total Number of Dominant
S				Species Across All Strata: (B)
4				Percent of Dominant Species
Total Cover:	20			That Are OBL, FACW, or FAC: 100 (A/B)
50% of total cover: <u>10</u>	20% of	f total cover	· <u>4</u>	Prevalence Index worksheet
Sapling/Shrub Stratum				
1. Tsuga heterophylla	15	Yes	FAC	
2. Menziesia ferruginea	5	No	FACU	OBL species x 1 =
3 Vaccinium caespitosum	15	Yes	FACW	FACW species x 2 =
				FAC species x 3 =
4				FACU species x 4 =
5				
6				
Total Cover:	35			Column Lotals: (A) (B)
50% of total cover: 17.5	20% of	total cover	7	Dravalance Index D/A -
Herb Stratum	_ 2070 01		·	
1 Carex mertensii	15	Yes	FACW	Hydrophytic Vegetation Indicators:
Carex pauciflora	10	Yes	OBI	✓ Dominance Test is >50%
	7			Prevalence Index is ≤3.0
3. Lysichiton americanus				Morphological Adaptations ¹ (Provide supporting
4. Nephrophyliidium crista-galli	12	Yes	OBL	data in Remarks or on a separate sheet)
5 Cornus suecica	6	No	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
6.				
7				¹ Indicators of hydric soil and wetland hydrology must
··				be present unless disturbed or problematic.
δ				
9				
10				
Total Cover:	50			
50% of total cover: 25	20% of	total cover	10	
Plot size (radius, or length y width) radius by stratum: 30', 15', 5'	Bare (Pround	0	Hydrophytic
			65	Vegetation Present? Ves X No
(Where applicable) (Where applicable)	er of Bryop	onytes	00	Fresent: Tes <u>···</u> N0
Remarks:				
Hydrophytic vegetation indicator presen	t.			

Profile Desc	ription: (Describe	to the dept	h needed to docur	nent the in	ndicator	or confirn	n the absence	e of indicators.)
Depth	Matrix		Redo	x Features	;	2		
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-18	10YR 2/1	100					organic	saturated
				·				
						·		
		· ·						
·		· ·		·		·		
¹ Type: C=Co	oncentration, D=Dep	letion, RM=	Reduced Matrix, CS	S=Covered	or Coate	d Sand G	rains. ² Lo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:		Indicators for F	Problemati	ic Hydric	Soils ³ :		
Histosol	or Histel (A1)		Alaska Colo	or Change	(TA4) ⁴		Alaska	a Gleyed Without Hue 5Y or Redder
Histic Ep	oipedon (A2)		Alaska Alpi	ne Swales	(TA5)		Und	erlying Layer
Hydroge	n Sulfide (A4)		Alaska Red	ox With 2.	5Y Hue		Other	(Explain in Remarks)
Thick Da	ark Surface (A12)							
Alaska C	Gleyed (A13)		³ One indicator o	of hydrophy	tic vegeta	tion, one	primary indicat	tor of wetland hydrology,
Alaska F	Redox (A14)		and an appro	priate land	scape po	sition mus	t be present ur	nless disturbed or problematic.
Alaska C	Gleyed Pores (A15)		⁴ Give details of	color chan	ge in Ren	narks.		
Restrictive I	_ayer (if present):							
Туре:								
Depth (ind	ches):						Hydric Soi	l Present? Yes X No
Remarks:								
Hydric so	bil indicator A	l preser	nt					
		procer						
HYDROLO	GY							
Wetland Hy	drology Indicators:						Secondary In	dicators (2 or more required)

wetland Hydrology Indicato	ors:	Secondary Indicators (2 or more required)
Primary Indicators (any one ir	ndicator is sufficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery	(B7) Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surfac	e (B8) Uxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)	1	FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present?	Yes No X Depth (inches):	_
Water Table Present?	Yes X No Depth (inches): 18	_
Saturation Present?	Yes X No Depth (inches): 0	Wetland Hydrology Present? Yes X No
(includes capillary fringe)		
Describe Recorded Data (stre	eam gauge, monitoring well, aerial photos, previous ins	pections), if available:
-		
Remarks:		
Primary wetland hyd	drology indicator present	

Project/Site: Katlian Bay Road			Borough/City	y: <u>Sitka</u>	Sampling Date: June 22, 2015
Applicant/Owner: <u>ADOT & PF, Southc</u>	oast Region				Sampling Point: 40
Investigator(s):	jer		Landform (h	illside, terr	race, hummocks, etc.): <u>hillside</u>
Local relief (concave, convex, none):	none		Slope (%):	3-12	_
Subregion: Southeast Alaska	Lat:	-		Lor	ng: Datum:
Soil Map Unit Name: Verstovia-McGilv	ery complex				NWI classification: None
Are climatic / hvdrologic conditions on	the site typical for this	time of ve	ar? Yes X	No	(If no. explain in Remarks.)
Are Vegetation . Soil . o	r Hvdrology sig	nificantly	disturbed?	Are	"Normal Circumstances" present? Yes X No
Are Vegetation Soil o	r Hydrology na	aturally pro	blematic?	(If ne	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – A	ttach site map sho	owing sa	mpling pc	int locat	ions transects important features etc
		oming oc			
Hydrophytic Vegetation Present?	Yes X No		Is the	e Sampleo	d Area
Hydric Soil Present?	Yes No	<u>×</u>	withi	n a Wetla	nd? Yes No ^X
Wetland Hydrology Present?	Yes <u>No</u>	<u> </u>			
Remarks:					
Data point not located within a w	letland; not all three	ewetland	indicators	present.	Data point located near flag 17.
VEGETATION – Use scientific	names of plants.	List all s	species in	the plot.	
T O (i)		Absolute	Dominant	Indicator	Dominance Test worksheet:
Iree Stratum Tsuga beteroph	vlla	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1. Callitropsis pootka	tonsis	10.00	Ves	FAC	That Are OBL, FACW, or FAC: (A)
		10.00	163	1 40	Total Number of Dominant
3					Species Across All Strata: 0 (B)
4	Tatal Osuar	45		<u> </u>	Percent of Dominant Species
500			-	. 9	That Are OBL, FACW, or FAC:(A/B)
Sapling/Shrub Stratum	of total cover:	20% 0	or total cover		Prevalence Index worksheet:
1. Menziesia ferrug	inea	45	Yes	FACU	Total % Cover of: Multiply by:
2. Vaccinium ovalifo	olium	10	No	FAC	OBL species x 1 =
3.					FACW species x 2 =
4.					FAC species x 3 =
5.					FACU species x 4 =
6.					UPL species x 5 =
	Total Cover:	55	_		Column Totals: (A) (B)
50%	of total cover: 27.5	20% o	f total cover:	11	Prevalence Index = B/A =
Herb Stratum		_		54.011	Hydrophytic Vegetation Indicators:
1. Streptopus amplex	Ifolius		Yes	FACU	✓ Dominance Test is >50%
2. Cornus suecid	<u>a</u>		Yes	FAC	Prevalence Index is ≤3.0
3. Biechnum spica	ant	6	Yes	FAC	Morphological Adaptations ¹ (Provide supporting
4					data in Remarks or on a separate sheet)
5					Problematic Hydrophytic Vegetation ¹ (Explain)
6				·	
7				<u> </u>	be present unless disturbed or problematic.
8				·	
9				<u> </u>	
10		10		<u> </u>	
	Total Cover:	10	<u>.</u>	26	
50%	of total cover: 9	20% o	t total cover:	3.0	Hydrophytic
Plot size (radius, or length x width) ^{ra}		% Bare	Ground	80	Vegetation
% Cover of Wetland Bryophytes (Where applicable)	Total Cov	er of Bryo	phytes	00	
Remarks:					

Hydrophytic vegetation indicator present.

SOIL

Profile Desc	cription: (Describe	to the dept	th needed to docu	ment the	indicator	or confirm	n the absence of indi	cators.)	
Depth	Matrix		Redo	ox Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remark	S
0-4	10YR 2/1	100					loam		
4-11	10YR 4/3	70					loam		
	10YR 2/1	30					sandy loam		
11-18	10YR 4/3	100							
<u> </u>									
¹ Type: C=C	oncentration, D=Dep	oletion, RM=	Reduced Matrix, C	S=Covere	d or Coate	d Sand G	rains. ² Location:	PL=Pore Lining	, M=Matrix.
Hydric Soil Histosol Histic E Hydroge	Indicators: or Histel (A1) pipedon (A2) en Sulfide (A4) ark Surface (A12)		Indicators for I Alaska Col Alaska Alpi Alaska Rec	Problema or Change ne Swales lox With 2	tic Hydric (TA4) ⁴ (TA5) .5Y Hue	Soils ³ :	Alaska Gleyed Underlying I Other (Explain	d Without Hue 5 Layer h in Remarks)	Y or Redder
Alaska (Gleyed (A13)		³ One indicator of	of hydroph	ytic vegeta	ition, one	primary indicator of we	tland hydrology	/,
Alaska F	Redox (A14)		and an appro	priate lan	dscape po	sition mus	st be present unless dis	sturbed or probl	ematic.
Alaska (Gleyed Pores (A15)		⁴ Give details of	color char	nge in Ren	narks.			
Restrictive	Layer (if present):								
Туре:									V
Depth (in	ches):						Hydric Soil Preser	nt? Yes	No
Remarks:									
No hydri	c soil indicato	rs prese	ent.						
HYDROLO	GY								

Wetland Hydrology Indicators	s:		Secondary Indicators (2 or more required)
Primary Indicators (any one ind	licator is sufficio	ent)	Water-stained Leaves (B9)
Surface Water (A1)		Inundation Visible on Aerial Imagery (B7	37) <u>L</u> Drainage Patterns (B10)
High Water Table (A2)		Sparsely Vegetated Concave Surface (E	(B8) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)		Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)		Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)		Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)			Shallow Aquitard (D3)
Iron Deposits (B5)			Microtopographic Relief (D4)
Surface Soil Cracks (B6)			FAC-Neutral Test (D5)
Field Observations:		X	
Surface Water Present?	Yes No	Depth (inches):	
Water Table Present?	Yes No	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes No	Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (strea	m gauge, mon	itoring well, aerial photos, previous inspec	ctions), if available:
-			
Remarks:			
No wetland hydrology	v indicator	s present.	
	,	- p	

I

Project/Site: Katlian Bay Road		Borough/City: Sit	ka		Sampling Date:	June 22, 2015
Applicant/Owner: ADOT & PF, Southcoast Region					Sampling Point:	41
Investigator(s): Jeff Gray, Tad Schwager		Landform (hillside	e, terrace, hum	mocks, etc.): hills	side	
Local relief (concave, convex, none): <u>none</u>		Slope (%): <u>5-8</u>				
Subregion: Southeast Alaska	Lat:		Long: -		Datum: _	
Soil Map Unit Name: Verstovia-McGilvery complex				NWI classifica	ation: None	
Are climatic / hydrologic conditions on the site typical fo	r this time of ye	ear? Yes X	No (If	no, explain in Re	emarks.)	
Are Vegetation, Soil, or Hydrology	significantly	/ disturbed?	Are "Normal C	ircumstances" pr	resent? Yes X	No
Are Vegetation, Soil, or Hydrology	naturally pr	oblematic?	(If needed, ex	plain any answer	s in Remarks.)	
SUMMARY OF FINDINGS – Attach site map	o showing s	ampling point I	ocations, tra	nsects, impor	tant features,	etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X	No
Remarks:					
Data point located within Wetland	17 near flag	S5; all three wetla	nd indicators present.		

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	<u>% Cover</u>	<u>Species?</u>	<u>Status</u>	Number of Dominant Species
1. Tsuga heterophylla	35.00	Yes	FAC	That Are OBL, FACW, or FAC:6 (A)
2. Callitropsis nootkatensis	15.00	Yes	FAC	Total Number of Dominant
3.				Species Across All Strata: 7 (B)
4				
Tatal Causar	50			Percent of Dominant Species
I otal Cover:			10	That Are OBL, FACW, or FAC: (A/B)
50% of total cover: 25	20% o	f total cover	. 10	Prevalence Index worksheet:
Vaccinium ovalifolium	15	Yes	FAC	Total % Cover of: Multiply by:
Menziesia ferruginea	15	Yes	FACU	OBL species x 1 =
2Tsuga beterophylla	10	Ves	FAC	FACW species x 2 =
	10	103	140	FAC species x 3 =
4				FACU species x 4 =
5				UPL species x 5 =
6				$\begin{array}{c} c = c = c \\ c =$
Total Cover:	40			
50% of total cover:20	20% of	total cover:	8	Prevalence Index = B/A = ⁸⁶
Herb Stratum				Hydrophytic Vegetation Indicators:
1. Nephrophyliidium crista-galli	15	Yes	OBL	\checkmark Dominance Test is >50%
2. Carex pauciflora	5	No	OBL	
3. Lysichiton americans	8	No	OBL	
4. Carex mertensii	8	No	FACW	data in Remarks or on a separate sheet)
5. Carex anthoxanthea	10	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Evaluation)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
7				be present unless disturbed or problematic.
8				
9				
10				
Total Cover:	46			
50% of total cover: 23	20% of	total cover:	9.2	
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare 0	Ground	15	Hydrophytic Vegetation
% Cover of Wetland Bryophytes ^{100 (sphagnum)} Total Cov	er of Brvor	ohytes	50	Present? Yes X No
(Where applicable)	-)	,		
Remarks:				·
Hydrophytic vegetation indicator presen	t.			

Profile Des	cription: (Describe	to the dep	th needed to docur	ment the in	dicator	or confirm	n the absence of in	dicators.)	
Depth	Matrix		Redo	x Features	1	2			
(inches)	Color (moist)	%	Color (moist)		Type'	Loc	Texture	Remarks	
0-18	10YR 2/1	100					organic		
							·		
							·		
4									
'Type: C=C	Concentration, D=Dep	oletion, RM=	Reduced Matrix, C	S=Covered	or Coate	d Sand G	rains. ² Location	1: PL=Pore Lining,	M=Matrix.
Hydric Soll	Indicators:			roblematio		5011S :			(a a D a dal a a
HIStoso	ninodon (A2)			or Change (TA4)			d without Hue 51	or Redder
Hydrog	$\frac{1}{2} = \frac{1}{2} $			ov With 2 5				y Layer ain in Romarks)	
	ark Surface (A12)			07 101 2.0	Thue				
Alaska	Gleved (A13)		³ One indicator o	of hydrophyt	tic vegeta	ation. one	primary indicator of	wetland hvdrology.	
Alaska	Redox (A14)		and an appro	priate lands	scape po	sition mus	st be present unless	disturbed or proble	matic.
Alaska	Gleyed Pores (A15)		⁴ Give details of	color chang	je in Ren	narks.			
Restrictive	Layer (if present):								
Туре:									
Depth (ir	iches):						Hydric Soil Pres	ent? Yes X	No
Remarks:									
Hydric s	oil indicator A	1 presei	nt						
		. p							
)GY								
Watland Ll							Casandan Indiaat	ara (2 ar mara ragu	ired)

wetland Hydrology Indicato	rs:		Secondary Indicators (2 or more required)
Primary Indicators (any one in	ndicator is suffic	<u>cient)</u>	Water-stained Leaves (B9)
Surface Water (A1)	Ļ	Inundation Visible on Aerial Imagery (B7	7) Drainage Patterns (B10)
High Water Table (A2)	L	Sparsely Vegetated Concave Surface (E	(B8) Qxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Γ	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Γ	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Γ	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)			Shallow Aquitard (D3)
Iron Deposits (B5)			Microtopographic Relief (D4)
Surface Soil Cracks (B6)			FAC-Neutral Test (D5)
Field Observations:		X	
Surface Water Present?	Yes N	No X Depth (inches):	
Water Table Present?	Yes X N	No Depth (inches): 20	
Saturation Present?	Yes X N	No Depth (inches): _0	Wetland Hydrology Present? Yes X No
(includes capillary fringe)			
Describe Recorded Data (stre	am gauge, mo	onitoring well, aerial photos, previous inspect	ctions), if available:
-			
Remarks:			
Primary wetland hyp	Iroloav ind	licator present	
	in crogy ind		

Project/Site: Katlian Bay Road			Borough/City	/: Sitka	Sam	pling Date: June 2	22, 2015
Applicant/Owner: ADOT & PF, Southcoast Region	n				Sam	pling Point: 42	
Investigator(s): Jeff Gray, Tad Schwager			Landform (h	illside, terr	ace, hummocks, etc.): hillside		
Local relief (concave, convex, none): none			Slope (%):	10-15	, , ,		
Subregion: Southeast Alaska	Lat: -			Lor	a: -	Datum: -	
Soil Man Unit Name. Verstovia-McGilvery compl	ex				NWI classification:	None	
Are climatic / hydrologic conditions on the site ty	nical for this ti	me of ve	ar? Ves X	No	(If no, explain in Remark	(6)	
Are Vegetation Soil or Hydrolog		nificantly	disturbed?	NO	Normal Circumstances" presen	it? Vec X N	
Are Vegetation, Soil, or Hydrolog	ny sigi	urally pro	blomatic?	(If pc		C: Tes N	
	jy nau	arany pro		(II He	eueu, explain any answers in P	terriarks.)	
SUMMARY OF FINDINGS – Attach sit	e map show	wing sa	impling po	int locati	ons, transects, important	features, etc.	
Hudronbutin Vagatation Propert2	X No						
Hydrophylic Vegetalion Present? Yes		x	Is the	e Sampled	Area		
Wetland Hydrology Present? Yes	No	x	withi	n a Wetlar	nd? Yes	No _X	-
Remarks:							
Data point not located within a wetland; r	not all three	wetland	indicators	present.	Data point located in uplan	ds near flag S5	
	<u> </u>						
VEGETATION – Use scientific names	of plants. L	list all s	species in	the plot.	•		
Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet	:	
1 Tsuga heterophylla	-	30.00	Yes	FAC	Number of Dominant Species	; 5	(A)
2 Callitropsis nootkatensis		15.00	Yes	FAC			_ ('')
3 Picea sitchensis		10.00	No	FACU	Total Number of Dominant	7	(B)
4.							_ (D)
	Total Cover:	55			Percent of Dominant Species	~ 71	(Δ/B)
50% of total c	over: 27.5	20% c	of total cover	11	Provalence Index workshoe	····	_ (70.6)
Sapling/Shrub Stratum		-			Total % Cover of	Multiply by:	
1 Tsuag heterophylla		10	Yes	FAC		<u>v 1 =</u>	—
2 Picea sitchensis		4	No	FACU		x 2 =	—
3. Menziesia ferruginea		35	Yes	FACU	FAC species	x 3 =	—
4			·		FACU species	x 4 =	—
5			<u> </u>		UPL species	x 5 =	—
6		40			Column Totals: 0	(A) 0	(B)
	Total Cover: _	49		0.0			()
50% of total co Herb Stratum	over: 24.5	20% o	f total cover:	9.0	Prevalence Index = B/A	λ =	
1. Gymnocarpium dryopteris		7	Yes	FACU	Hydrophytic Vegetation Ind	icators:	
2. Athyrium filix-femina		6	Yes	FAC	Dominance Test is >50%)	
3. Cornus candensis		5	No	FACU	Prevalence Index is ≤3.0	1	
4. Blechnum spicant		3	No	FAC	Morphological Adaptation	is' (Provide suppo a separate sheet)	orting
5. Coptis aspleniifolia		6	Yes	FAC	Problematic Hydrophytic	Vegetation ¹ (Expl	ain)
6. Streptopus amplexifolius		4	No	FACU		vogetation (Expl	uniy
7					¹ Indicators of hydric soil and	wetland hydrology	/ must
8					be present unless disturbed of	r problematic.	
9							
10							
	Total Cover:	31					
50% of total co	over: 15.5	20% o	f total cover:	6.2	Hydrophytic		
Plot size (radius, or length x width) radius by stra	tum: 30', 15', 5'	% Bare	Ground	25	Vegetation		
% Cover of Wetland Bryophytes (Where applicable)	Total Cove	r of Bryo	phytes	50	Present? Yes X	No	
Remarks:							
Hydrophytic vegetation indicato	r present.						

SOIL

Profile Desc	cription: (Describe	to the dept	th needed to docur	nent the i	ndicator	or confirr	n the absence of	of indicato	ors.)	
Depth	Matrix		Redo	x Feature	s					
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc ²	Texture		Remarks	
0-3	10YR 2/1	100					loam			
3-10	10YR 4/3	65					loam			
	10YR 4/3	35					loam			
10-18	10YR 4/3	100					sandy loam			
		·		·						
¹ Type: C=C	oncentration, D=Dep	bletion, RM=	Reduced Matrix, CS	S=Covered	d or Coate	d Sand G	rains. ² Loca	ation: PL=	Pore Lining, I	M=Matrix.
Hydric Soil	Indicators:		Indicators for F	roblemat	tic Hydric	Soils ³ :				
Histosol	or Histel (A1)		Alaska Colo	or Change	$(TA4)^4$		Alaska	Gleyed Wit	thout Hue 5Y	or Redder
Histic Ep	pipedon (A2)		Alaska Alpii	ne Swales	(TA5)		Under	rlying Laye	r	
Hydroge	en Sulfide (A4)		Alaska Red	ox With 2.	5Y Hue		Other (I	Explain in F	Remarks)	
Thick Da	ark Surface (A12)									
Alaska (Gleyed (A13)		³ One indicator o	f hydroph	ytic vegeta	ation, one	primary indicato	or of wetlan	d hydrology,	
Alaska F	Redox (A14)		and an appro	priate land	iscape po	sition mus	t be present unl	ess disturb	ed or probler	natic.
Alaska (Gleyed Pores (A15)		⁴ Give details of	color char	ige in Ren	narks.				
Restrictive	Layer (if present):									
Туре:										\mathbf{v}
Depth (in	ches):						Hydric Soil I	Present?	Yes	No <u>^</u>
Remarks:										
No hydri	c soil indicato	r preser	nt.							
HYDROLO	GY									

Wetland Hydrology Indicato	ors:		Sec	condary Indicators (2 or more required)
Primary Indicators (any one in	ndicator is suffic	cient)	_ Ц	Water-stained Leaves (B9)
Surface Water (A1)	L	Inundation Visible on Aerial Imagery (B7)		Drainage Patterns (B10)
High Water Table (A2)	Ľ	Sparsely Vegetated Concave Surface (Ba	8) 📙	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)		Marl Deposits (B15)		Presence of Reduced Iron (C4)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)		Salt Deposits (C5)
Sediment Deposits (B2)	Γ	Dry-Season Water Table (C2)		Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Γ	Other (Explain in Remarks)		Geomorphic Position (D2)
Algal Mat or Crust (B4)				Shallow Aquitard (D3)
Iron Deposits (B5)				Microtopographic Relief (D4)
Surface Soil Cracks (B6)				FAC-Neutral Test (D5)
Field Observations:		N/		
Surface Water Present?	Yes N	No X Depth (inches):		
Water Table Present?	Yes N	No X Depth (inches):		X
Saturation Present? (includes capillary fringe)	Yes N	No X Depth (inches):	Wetland	Hydrology Present? Yes No X
Describe Recorded Data (stre	am gauge, mor	nitoring well, aerial photos, previous inspecti	ons), if av	ailable:
-				
Remarks:				
No wetland hydrolog	v indicato	or present		
	,,			

Project/Site: Katlian Bay Road	Borough/City:	Sitka	Sampling Date: June 22, 2015			
Applicant/Owner: <u>ADOT & PF, Southcoast Region</u>			Sampling Point: 43			
Investigator(s):	Landform (hills	_ Landform (hillside, terrace, hummocks, etc.): hillside				
Local relief (concave, convex, none): <u>concave</u>	Slope (%): 2-5					
Subregion: Southeast Alaska La	nt:	Long:	Datum:			
Soil Map Unit Name: Kina-Sukoi association, sloping lowlar	nds	NW	I classification: <u>None</u>			
Are climatic / hydrologic conditions on the site typical for th	is time of year? Yes X	No (If no, exp	plain in Remarks.)			
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circums	tances" present? Yes X No			
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain ar	y answers in Remarks.)			

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>X</u> Yes <u>X</u> Yes <u>X</u>	No No No	Is the Sampled Area within a Wetland?	Yes X	No		
Remarks:							
Data point located within Wetland 18 near flag RR4; all three wetland indicators present.							

	Absolute	Dominant	Indicator	Dominance Test worksheet:			
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species			
1. Tsuga heterophylla	25.00	Yes	FAC	That Are OBL, FACW, or FAC:6	(A)		
2. Callitropsis nootaktensis	15.00	Yes	FAC	Total Number of Deminent			
3				I otal Number of Dominant Species Across All Strata: 6	(B)		
1					(D)		
T	40			Percent of Dominant Species			
l otal Cover:	-+0		0	That Are OBL, FACW, or FAC:	(A/B)		
50% of total cover: 20	20% o	f total cover	. 8	Prevalence Index worksheet:			
Saping/Snrub Stratum	25	Voc	EAC	Total % Cover of: Multiply by:	_		
	2.0	165	FAC	OBL species x 1 =			
2. I suga neterophylia	15	Yes	FAC				
3. Menziesia ferruginea	8	No	FACU				
4.				FAC species x 3 =			
5				FACU species x 4 =			
6				UPL species x 5 =			
0	19			Column Totals: ⁰ (A) ⁰	(B)		
Total Cover:	40				. ,		
50% of total cover: 24	20% of	total cover	9.6	Prevalence Index = B/A =	_		
Herb Stratum	47	Vee		Hydrophytic Vegetation Indicators:			
1. Nephrophyliidium crista-gaili	17	res	OBL	Dominance Test is >50%			
2. Lysichiton americanus	8	No	OBL	$\square Browalance Index is <3.0$			
3. Carex anthoxanthea	10	Yes	FACW	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
4. Carex pauciflora	5	No	OBL				
5 Carex disperma	3	No	FACW	Droblematic Lludrophytic Magaztation ¹ (Evaluin)			
6)		
0				¹ Indicators of hydric soil and watland hydrology m	unt		
1				be present unless disturbed or problematic.	usi		
8							
9							
10							
Total Cover:	43						
50% of total cover: 21.5	20% of	total cover	8.6				
Plet size (redius, er length y width) radius by stratum 30' 15' 5'	0/ Doro (10	Hydrophytic			
	Plot size (radius, or length x width) radius by stratum, so, 10, 3 % Bare Ground Vegetation						
% Cover of Wetland Bryophytes <u>100 (spnagnum)</u> Total Cover of Bryophytes <u>60</u> Present? Yes ^ No (Where applicable)							
Remarks:							
Hydrophytic vegetation indicator presen	t.						

Profile Desc	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth	Matrix		Redo	x Features	6		_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0-18	10YR 2/1	100					organic	
¹ Type: C=Ct Hydric Soil Histosol Histic Ep Hydroge Thick Da Alaska (oncentration, D=Dep Indicators: or Histel (A1) bipedon (A2) en Sulfide (A4) ark Surface (A12) Sleved (A13)	letion, RM=Re	Alaska Colo Alaska Alpi Alaska Red	S=Coverec Problemat or Change ne Swales lox With 2.	I or Coate ic Hydric (TA4) ⁴ (TA5) 5Y Hue	d Sand G Soils ³ :	Grains. ² Location: PL=Pore Lining, M=Matrix. Alaska Gleyed Without Hue 5Y or Redder Underlying Layer Other (Explain in Remarks)	
Alaska	Redox (A14)		and an appro	nriate land	scane no	sition mus	st he present unless disturbed or problematic	
Alaska (Gleyed Pores (A15)		⁴ Give details of	color chan	ge in Ren	narks.		
Restrictive	Layer (if present):							
Туре:							×	
Depth (in	ches):						Hydric Soil Present? Yes X No	
Remarks:								
Hydric so	bil indicator A	1 present.						
HYDROLO	GY							

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indica	ator is sufficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8)) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Ye	es No X Depth (inches):	
Water Table Present? Ye	es X No Depth (inches): 16	X
Saturation Present? Ye	es X No Depth (inches): 0 V	Netland Hydrology Present? Yes X No
(includes capillary fringe)		
Describe Recorded Data (stream g	gauge, monitoring well, aerial photos, previous inspectio	ins), if available:
-		
Remarks:		
Primary wetland hydrol	logy indicator present.	
	- 5 7	

Project/Site: Katlian Bay Road	Bor	ough/City: Sitka	Sampling Date:	June 22, 2015		
Applicant/Owner: ADOT & PF, Southcoast Region				Sampling Point:	44	
Investigator(s): Jeff Gray, Tad Schwager	Lar	Landform (hillside, terrace, hummocks, etc.): hillside				
Local relief (concave, convex, none): none	Slo	pe (%): <u>10-15</u>				
Subregion: Southeast Alaska	Lat: _	Long: _		Datum: <u>-</u>		
Soil Map Unit Name: Kina-Sukoi association, sloping lov	wlands		NWI classific	cation: None		
Are climatic / hydrologic conditions on the site typical for	or this time of year?	Yes X No	(If no, explain in R	Remarks.)		
Are Vegetation, Soil, or Hydrology	significantly dist	sturbed? Are "Normal Circumstances" present? Yes X No			No	
Are Vegetation, Soil, or Hydrology	naturally problem	matic? (If neede	d, explain any answe	ers in Remarks.)		
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.						

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>X</u> Yes Yes	No No <u>X</u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes	No <u>X</u>		
Remarks:							
Data point not located within a wetland; not all three wetland indicators present. Data point located near flag RR4.							

	Absolute	Dominant	Indicator	Dominance Test worksheet:			
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species			
1. Tsuga heterophylla	35.00	Yes	FAC	That Are OBL, FACW, or FAC: 5 (A)			
2 Callitropsis nootkatensis	10.00	Yes	FAC				
2				Total Number of Dominant			
S				Species Across All Strata: (B)			
4				Percent of Dominant Species			
Total Cover:	45			That Are OBL, FACW, or FAC: 83 (A/B)			
50% of total cover:22.5	20% o	f total cover	. 9	Prevalence Index worksheet:			
Sapling/Shrub Stratum							
1. Menziesia ferruginea	35	Yes	FACU				
2. Tsuga heterophylla	10	Yes	FAC	OBL species x 1 =			
Picea sitchensis	8	No	FACU	FACW species x 2 =			
Vaccinium ovalifolium	5	No	FAC	FAC species x 3 =			
4			1710	FACU species x 4 =			
5							
6							
Total Cover:	58						
50% of total cover: 29	20% of	total cover	11.6	Prevalence Index = B/A =			
Herb Stratum							
1. Coptis aspleniifolia	12	Yes	FAC	Hydrophytic Vegetation indicators:			
2 Cornus canadensis	5	No	FACU	Dominance Test is >50%			
2 Trisetum cernuum	3	No	FACU	Prevalence Index is ≤3.0			
S	9	Ves	FAC	Morphological Adaptations ¹ (Provide supporting			
4				data in Remarks or on a separate sheet)			
5 Biechnum spicant	5	NO	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)			
6							
7				¹ Indicators of hydric soil and wetland hydrology must			
8.				be present unless disturbed or problematic.			
0							
5							
10							
Total Cover:	- 34						
50% of total cover:17	20% of	total cover:	6.8	Ludroph tio			
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare 0	Ground	15	Vegetation			
% Cover of Wetland Bryophytes Total Cov	er of Brvor	hvtes	60	Present? Yes X No			
(Where applicable)							
Remarks:							
Hydrophytic vegetation community pres	ent.						

SOIL

Profile Desc	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remark	ks
0-4	10YR 2/1	100					loam	
4-10	10YR 4/3	75					loam	
	10YR 2/1	25						
10-18	10YR 4/3	100					sandy loam	
		·						
¹ Type: C=C	oncentration, D=De	oletion, RM=	Reduced Matrix, C	S=Covered	d or Coate	d Sand G	rains. ² Location: PL=Pore Lining	g, M=Matrix.
Hydric Soll	Indicators:		Indicators for			5011S :		5V en Dedden
Histosol	or Histel (A1)			or Change	(TA4)			by or Redder
	$\frac{\text{pipedon}(AZ)}{\text{pipedon}(AZ)}$			Ine Swales	EV Llue		Other (Evplain in Demarka)	
	eri Suillae (A4)				or nue			
			³ One indicator	f la value a la			win and indicator of wedlend budgets	
Alaska			One indicator o	n nyaropn	ytic vegeta	ation, one	primary indicator of wetland hydrolog	y, Iomotio
	Cloved Deres (A15)			oolor obor	iscape po		st be present unless disturbed of prob	iemalic.
AldSka (Sleyeu Foles (A15)		Give details of			Idi KS.	1	
Restrictive	Layer (if present):							
Type:			<u>_</u>					X
Depth (in	ches):						Hydric Soil Present? Yes	No <u>/</u>
Remarks:								
No hydri	c soil indicato	r presen	it.					
HYDROLO	GY							

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indica	ator is sufficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B	7) Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (F	B8) Dxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	N/	
Surface Water Present? Ye	es No X Depth (inches):	
Water Table Present? Ye	es No X Depth (inches):	
Saturation Present? Ye (includes capillary fringe)	*s No X Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream g	gauge, monitoring well, aerial photos, previous inspec	tions), if available:
-		
Remarks:		
No wetland hydrology i	ndicators present	

Project/Site: Katlian Bay Road	Borough/City:	Sitka	Sampling Date: June 22, 2015				
Applicant/Owner: <u>ADOT & PF, Southcoast Region</u>			Sampling Point: 45				
Investigator(s):	Landform (hills	_ Landform (hillside, terrace, hummocks, etc.): hillside					
Local relief (concave, convex, none): <u>concave</u>	Slope (%): <u>10</u>	15					
Subregion: Southeast Alaska	at:	Long: _	Datum:				
Soil Map Unit Name: Kina-Sukoi association, sloping lowlands NWI classification: None							
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)							
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumst	ances" present? Yes X No				
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain an	y answers in Remarks.)				

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>X</u> Yes <u>X</u> Yes <u>X</u>	No No No	Is the Sampled Area within a Wetland?	Yes X	No		
Remarks:							
Data point located within Wetland 19 near flag R7; all three wetland indicators present.							

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Callitropsis nootkatensis	10.00	Yes	FAC	That Are OBL, FACW, or FAC:6 (A)
2. Tsuga heterophylla	15.00	Yes	FAC	Total Number of Densis and
3				Species Across All Strata: 8 (B)
4				
T	25			Percent of Dominant Species
			5	That Are OBL, FACW, or FAC: 75 (A/B)
50% of total cover:	20% o	t total cover		Prevalence Index worksheet:
Picea sitchensis	8	Yes	FACU	Total % Cover of: Multiply by:
2 Tsuga heterophylla	6	No	FAC	OBL species x 1 =
2. Menziesia ferruginea	8	Yes	FACU	FACW species x 2 =
3. Vaccinium ovalifolium	12	Ves	FAC	FAC species x 3 =
4	12	103	140	FACU species x 4 =
5				UPL species x 5 =
6				Column Totals: 0 (A) 0 (B)
Total Cover:	34			
50% of total cover:17	20% of	total cover	6.8	Prevalence Index = B/A =
Herb Stratum	10		0.01	Hydrophytic Vegetation Indicators:
1. Lysichiton americanus	12	Yes	OBL	✓ Dominance Test is ≥50%
2. Trisetum cernuum	4	No	FACU	Browalance Index is <3.0
3. Cornus canadensis	4	No	FACU	Marphelagiaal Adaptations ¹ (Dravide supporting
4. Drosera rotundifolia	6	No	OBL	data in Remarks or on a separate sheet)
5. Athyrium filix-femina	7	No	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Blechnum spicant	3	No	FAC	
7 Coptis asplendiifolia	14	Yes	FAC	¹ Indicators of hydric soil and wetland hydrology must
8 Carex disperma	5	No	FAC	be present unless disturbed or problematic.
g Carex mertensii	8	Yes	FACW	
10				
Total Cover	63			
50% of total cover 31.5	200/ of	total anyor	12.6	
50% 01 (0(a) COVer	_ 20% 01		5	Hydrophytic
Plot size (radius, or length x width) radius by stratum. 30, 13, 3	% Bare C	sround	10	Vegetation
% Cover of Wetland Bryophytes 100 (spnagnum) Total Cov (Where applicable)	er of Bryop	ohytes	40	Present? Yes <u>^</u> No
Remarks:				
Hydrophytic vegetation indicator presen	t.			

Profile Desc	ription: (Describe	to the depth nee	ded to docun	nent the ir	ndicator	or confirm	n the absence of indicators.)
Depth	Matrix		Redo	x Features			
(inches)	Color (moist)	<u> </u>	or (moist)	%	Type ¹	Loc ²	Texture Remarks
0-18	10YR 2/1	100					organic
						·	
		ation DM-Doduc	ad Matrix CC		or Coata	d Cond Cr	reina ² Leastian: DL-Dara Lining M-Matrix
Hydric Soil	ndicators:		licators for P	roblemati	c Hydric		
Histosol	or Histel (A1)		Alaska Colo	r Change	(TAA) ⁴	00110 .	Alaska Gleved Without Hue 5X or Redder
Histic Fr	ninedon (A2)		Alaska Alnir	e Swales	(TA5)		
Hydroge	n Sulfide ($\Delta 4$)		Alaska Red	ny With 2 F	57 Hue		Other (Explain in Remarks)
	ark Surface (A12)	L		JX WIUI 2.0	or ride		
Alaska	leved (A13)	³ O	ne indicator of	f hydronhy	tic vegeta	ation one i	primary indicator of wetland bydrology
Alaska F	Redox (A14)	C C	and an appror	priate lands	scape po	sition must	t be present unless disturbed or problematic.
Alaska G	Gleyed Pores (A15)	⁴ G	ive details of c	color chang	ge in Ren	narks.	· · · F · · · · · · · · · · · · · · · ·
Restrictive I	ayer (if present):				-		
Type:							
Depth (inc	ches):						Hydric Soil Present? Yes X No
Remarks:							
Hydric so	il indicator A1	present					
		p					
HYDROLO	GY						

Wetland Hydrology Indicato	rs:		Se	condary Indicators (2 or more required)
Primary Indicators (any one in	dicator is sufficient)			Water-stained Leaves (B9)
Surface Water (A1)	lnundat	ion Visible on Aerial Imagery (B7) [_	Drainage Patterns (B10)
High Water Table (A2)	Sparsel	y Vegetated Concave Surface (B	8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	🗌 Marl De	eposits (B15)		Presence of Reduced Iron (C4)
Water Marks (B1)	Hydroge	en Sulfide Odor (C1)		Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Sea	ason Water Table (C2)		Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Drift Deposits (B3)			Geomorphic Position (D2)
Algal Mat or Crust (B4)				Shallow Aquitard (D3)
Iron Deposits (B5)				Microtopographic Relief (D4)
Surface Soil Cracks (B6)				FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes <u>No X</u> [Depth (inches):		
Water Table Present?	Yes X No [Depth (inches): 15		X
Saturation Present? (includes capillary fringe)	Yes X No [Depth (inches): 0	Wetland	Hydrology Present? Yes X No
Describe Recorded Data (stre	am gauge, monitoring we	II, aerial photos, previous inspect	ions), if av	vailable:
-				
Remarks:				
Primary wetland hyd	rology indicator r	present.		
	57 1			

Project/Site: Katlian Bay Road		Borough/Cit	y: Sitka	Sampling Date: June 22, 2015			
Applicant/Owner: ADOT & PF, Southcoast Region		Ū		Sampling Point: 46			
Investigator(s): Jeff Gray, Tad Schwager		Landform (hillside, terrace, hummocks, etc.); hillside/ridge					
Local relief (concave, convex, none): <u>none</u>		Slope (%):	15-20	_			
Subregion: Southeast Alaska Lat:	-		Lor	ng: Datum:			
Soil Map Unit Name: Kina-Sukoi association, sloping lowland	ls			NWI classification: None			
Are climatic / hydrologic conditions on the site typical for this	time of ye	ar? Yes X	No	(If no, explain in Remarks.)			
Are Vegetation , Soil , or Hydrology si	ignificantly	disturbed?	Are	"Normal Circumstances" present? Yes X No			
Are Vegetation , Soil , or Hydrology n	aturally pro	oblematic?	(lf ne	eeded, explain any answers in Remarks.)			
SUMMARY OF FINDINGS – Attach site map sh	owing sa	ampling po	pint locat	ions, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes X	0						
Hydric Soil Present? Yes No	X	IS th	e Sampled	I Area			
Wetland Hydrology Present? Yes No	_o x	with	in a wetia	nd? Yes No <u>^</u>			
Remarks:							
Data point not located within a wetland; not all three	e wetland	l indicators	present.	Data point located near flag R5.			
VEGETATION – Use scientific names of plants.	List all s	species in	the plot.				
	Absolute	Dominant	Indicator	Dominance Test worksheet:			
<u>Tree Stratum</u> Callitropsis nootkatensis	<u>% Cover</u> 20.00	<u>Species</u> ? Yes	FAC	Number of Dominant Species That Are OBL $FACW$ or FAC			
2 Tsuga heterophylla	10.00	Yes	FAC				
3 Picea sitchensis	5.00	No	FACU	Total Number of Dominant			
۵ ۵	·	·		Species Across All Strata (B)			
Total Cover	. 35	·		Percent of Dominant Species			
50% of total cover: 17.5	5 20% c	- of total cover		Provelence Index workshoet			
Sapling/Shrub Stratum				Total % Cover of: Multiply by:			
1. Vaccinium ovalifolium	35	Yes	FAC	OBL species x 1 =			
2. Menziesia ferruginea	15	Yes	FACU	EACW species x 2 =			
3. I suga hterophylla	4	No	FAC	FAC species x 3 =			
4	·	·		FACU species x 4 =			
5	·	·		UPL species x 5 =			
6	<u> </u>	·		Column Totals: 0 (A) 0 (B)			
I otal Cover	:	_					
50% of total cover:	20% o	of total cover:		Prevalence Index = B/A =			
1. Maianthemum dilatatum	5	No	FAC	Hydrophytic Vegetation Indicators:			
2. Cornus canadensis	25	Yes	FACU	✓ Dominance Test is >50%			
3. Lysichiton americanus	3	No	OBL	Prevalence index is ≤ 3.0			
4. Streptopus amplexifolius	4	No	FACU	data in Remarks or on a separate sheet)			
5	<u></u>			Problematic Hydrophytic Vegetation ¹ (Explain)			
6	·	·					
7				¹ Indicators of hydric soil and wetland hydrology must			
8	·			be present unless disturbed of problematic.			
9	·	·					
10		·					
Total Cover	37	-					
50% of total cover: 18.5	20% o	of total cover	10	Hydrophytic			
Plot size (radius, or length x width) radius by stratum: 30°, 15°, 5	% Bare	Ground	53	Vegetation			
% Cover of Wetland Bryophytes Total Co (Where applicable)	ver of Bryo	phytes	00	riesent? Tes <u>~</u> No			

Remarks:

Hydrophytic vegetation indicator present.

SOIL

Profile Desc	ription: (Describe	to the dept	th needed to docur	nent the i	ndicator	or confirm	n the absence of indicators.)	
Depth	Matrix		Redo	x Feature	S1	. 2		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc ²	Texture Remarks	
0-4	10YR 2/1	100					loam	
4-16	10YR 2/1	80					silt loam	
	10YR 4/3	20						
16-22	10YR 4/3	100					sandy loam	
		<u> </u>						
		<u> </u>						
¹ Type: C=Co	oncentration, D=Dep	letion, RM=	Reduced Matrix, C	S=Covered	d or Coate	d Sand Gr	rains. ² Location: PL=Pore Lining, M=	Matrix.
Hydric Soil I Histosol Histic Ep Hydroge Thick Da	ndicators: or Histel (A1) bipedon (A2) n Sulfide (A4) ark Surface (A12)		Alaska Colo Alaska Alpi Alaska Alpi	or Change ne Swales ox With 2.	(TA4) ⁴ (TA5) (TA5) 5Y Hue	Soils	Alaska Gleyed Without Hue 5Y or Underlying Layer Other (Explain in Remarks)	Redder
Alaska G	Gleyed (A13)		³ One indicator o	of hydrophy	tic vegeta	ition, one	primary indicator of wetland hydrology,	
Alaska F	Redox (A14)		and an appro	priate land	Iscape po	sition mus	at be present unless disturbed or problemat	ic.
Alaska G	Bleyed Pores (A15)		⁴ Give details of	color chan	ge in Rem	arks.		
Restrictive L	ayer (if present):							
Type:								. X
Depth (ind	ches):						Hydric Soil Present? Yes I	NO <u></u>
No budeid	o o il indianta		\ +					
NO HYUNG	Soli muicato	presen						
HYDROLO	GY							
Wetland Hy	trology Indicators:						Secondary Indicators (2 or more required	

Wetland Hydrology Indicators:		<u>Secondary Indicators (2 or more required)</u>
Primary Indicators (any one indicator is su	ufficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7) Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B	8) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	X	
Surface Water Present? Yes	_ No X Depth (inches):	
Water Table Present? Yes	No X Depth (inches):	X
Saturation Present? Yes (includes capillary fringe)	_ No X Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge,	monitoring well, aerial photos, previous inspect	ions), if available:
-		
Remarks:		
No wetland hydrology indica	itors present	

Project/Site: Katlian Bay Road	Borough/City: <u>Sitka</u>	Sampling Date: June 21, 2015
Applicant/Owner: ADOT & PF, Southcoast Region		Sampling Point: 47
Investigator(s): Jeff Gray, Carolyn Prentice	Landform (hillside, terrace, hummocks, ε	etc.): toe of slope
Local relief (concave, convex, none): none	Slope (%):	
Subregion: Southeast Alaska Lat: -	Long:	Datum:
Soil Map Unit Name: Kina peat	NWI	classification: PFO/PSS
Are climatic / hydrologic conditions on the site typical for this time o	of year? Yes X No (If no, expl	lain in Remarks.)
Are Vegetation, Soil, or Hydrology significa	antly disturbed? Are "Normal Circumsta	ances" present? Yes X No
Are Vegetation, Soil, or Hydrology naturally	y problematic? (If needed, explain any	y answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X No			
Remarks:							
Data point located in Wetland 20 near flag N6; all three indicators present.							

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Tusga heterophylla	20.00	Yes	FAC	That Are OBL, FACW, or FAC: 6 (A)
2. Callitropsis nootkatensis	15.00	Yes	FAC	
3				I otal Number of Dominant
A.				
4	35			Percent of Dominant Species
I otal Cover:			7	That Are OBL, FACW, or FAC: (A/B)
50% of total cover: 17.5	20% o	f total cover	:/	Prevalence Index worksheet:
Sapling/Shrub Stratum	10	Voc	EAC	Total % Cover of: Multiply by:
	10	165	FAC	OBL species x 1 =
2. Menziesia ferruginea	15	Yes	FACU	
3. Vaccinium ovalifolium	8	Yes	FAC	
4.				FAC species x 3 =
5				FACU species x 4 =
6				UPL species x 5 =
0	33			Column Totals: (A) (B)
I otal Cover:			0.0	
50% of total cover: 16.5	20% of	total cover:	6.6	Prevalence Index = B/A =
Herb Stratum	15	Voc		Hydrophytic Vegetation Indicators:
	- 10	165		✓ Dominance Test is >50%
2. Cornus canadensis	/	NO	FACU	\square Prevalence Index is <3.0
3. Cinna latifolia	5	No	FACW	Morphological Adaptations ¹ (Provide supporting
4. Eriophoreum angustifolium	10	Yes	OBL	data in Remarks or on a separate sheet)
5 Coptis asplendifolia	8	No	FAC	Problematic Hydrophytic Vegetation ¹ (Evaluin)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
<i>1</i>				be present unless disturbed or problematic.
8				· · · · · · · · · · · · · · · · · · ·
9				
10				
Total Cover:	45			
50% of total cover: 22.5	20% of	total cover:	9	
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare (Ground	15	Hydrophytic
% Cover of Wetland Prior hytes 100 (sphagnum) Total Cov			50	Present? Yes X No
(Where applicable)	er of Bryop	onytes		
Remarks:				
Hydrophytic vegetation indicator presen	t.			

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redox	Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0-18	10YR 2/1	100					organic	
¹ Type: C=Co	ncentration, D=Dep	etion, RM=Re	educed Matrix, CS	=Covered	or Coate	d Sand Gr	rains. ² Location: PL=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators:		Indicators for P	roblemati	c Hydric	Soils [°] :		
✓ Histosol	or Histel (A1)		Alaska Colo	r Change	(TA4) ⁴		Alaska Gleyed Without Hue 5Y or Redder	
Histic Ep	ipedon (A2)		Alaska Alpin	e Swales	(TA5)		Underlying Layer	
Hydroge	n Sulfide (A4)		Alaska Redo	ox With 2.8	5Y Hue		L Other (Explain in Remarks)	
Thick Da	rk Surface (A12)		³ 0 · · · · ·					
Alaska G	lleyed (A13)		One indicator of	nydropny	tic vegeta	tion, one p	primary indicator of wetland hydrology,	
Alaska R	edox (A14)		⁴ Cive details of c	olor obop	scape pos		t be present unless disturbed or problematic.	
	(if (A15)		Give details of t	color chang	ye in Ken	larks.		
Restrictive L	ayer (if present):							
Type: Depth (inc	hes):						Hydric Soil Present? Yes X No	
Remarks:	·							
Hydric so	il indicator A1	present.						
HYDROLO	GY							

Wetland Hydrology Indicate	ors:			<u>s</u>	econdary Indicators (2 or more required)
Primary Indicators (any one in	ndicator is suff	icient)		L	Water-stained Leaves (B9)
Surface Water (A1)		📙 Inun	dation Visible on Aerial Imagery (E	37) L	Drainage Patterns (B10)
High Water Table (A2)		🔄 Spa	rsely Vegetated Concave Surface	(B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)		Marl	Deposits (B15)		Presence of Reduced Iron (C4)
Water Marks (B1)		Hydi	rogen Sulfide Odor (C1)		Salt Deposits (C5)
Sediment Deposits (B2)		Dry-	Season Water Table (C2)		Stunted or Stressed Plants (D1)
Drift Deposits (B3)		er (Explain in Remarks)		Geomorphic Position (D2)	
Algal Mat or Crust (B4)					Shallow Aquitard (D3)
Iron Deposits (B5)					Microtopographic Relief (D4)
Surface Soil Cracks (B6)					FAC-Neutral Test (D5)
Field Observations:		X			
Surface Water Present?	Yes	No <u>X</u>	_ Depth (inches):		
Water Table Present?	Yes X	No	_ Depth (inches): <u>10</u>		
Saturation Present? (includes capillary fringe)	Yes X	No	_ Depth (inches): 0	Wetlan	d Hydrology Present? Yes X No
Describe Recorded Data (stre	am gauge, m	onitoring	well, aerial photos, previous inspe	ections), if a	available:
-					
Remarks:					
Wetland hydrology i	ndicators	prese	ent		
	indicatoro	p1000			

Project/Site: Katlian Bay Road	I	Borough/City	: Sitka	Sar	npling Date: June 2	21, 2015	
Applicant/Owner: ADOT & PF, Southcoast Region					Sar	mpling Point: 48	
Investigator(s): _Jeff Gray, Carolyn Prentice			Landform (hillside, terrace, hummocks, etc.): hillside				
Local relief (concave, convex, none): none		:	Slope (%): <u>1</u>	0-15			
Subregion: Southeast Alaska	Lat:			Lor	ng: _	Datum:	
Soil Map Unit Name: Kina peat					NWI classification	PFO/PSS	
Are climatic / hydrologic conditions on the site type	cal for this tim	ne of vea	ar? Yes X	No	(If no, explain in Remai	rks.)	
Are Vegetation , Soil , or Hydrology	signi	ficantly	disturbed?	Are '	'Normal Circumstances" prese	nt? Yes X N	lo
Are Vegetation , Soil , or Hydrology	natu	rally pro	blematic?	(lf ne	eded, explain any answers in	Remarks.)	
	manahow	ing oo	malina no	int loooti	iona transcata importan	t footuroo oto	
SUMMART OF FINDINGS – Allach sile	map show	nny sa		int locat			
Hydrophytic Vegetation Present? Yes X	No		ls the	Sampled	Area		
Hydric Soil Present? Yes <u>No X</u>			withi	n a Wetlau	nd? Yes	No X	
Wetland Hydrology Present? Yes	No <u>X</u>		with	i u metiai	Id. 105		1
Remarks:							
Data point not located within a wetland; not	all three we	tland ir	idicators pr	esent. Da	ata point located near flag l	N6 on slope abov	e bog.
VEGETATION - Use scientific names of	f plants. Li	st all s	species in	the plot.			
	A	bsolute	Dominant	Indicator	Dominance Test workshee	et:	
Tree Stratum		<u>6 Cover</u>	Species?	Status	Number of Dominant Specie	es	
1 Callitropsis pootsktepsis	······································	5.00	No	FAC	That Are OBL, FACW, or FA	AC: <u> </u>	_ (A)
		5.00		TAC	Total Number of Dominant		
3	<u></u>		·		Species Across All Strata:		_ (B)
4	tal Cover:	50			Percent of Dominant Specie	es 60	
50% of total cov	_{er} 25	20% 0	f total cover	10	That Are OBL, FACVV, or FA	AC:	_ (A/B)
Sapling/Shrub Stratum	CI	20700			Prevalence Index workshe	et:	
1. Menziesia ferruginea		35	Yes	FACU	OPL apacias		—
2. Oplopanax horridus		15	Yes	FACU		_ X =	—
3					FAC species	_ X2=	—
4					FACU species	_ × 4 =	
5	·		·		UPL species	x 5 =	_
6		50	·		Column Totals: 0	(A) 0	(B)
Тс	otal Cover:	50		10		_ (*)	(=)
50% of total cove	er: 25	20% of	f total cover:	10	Prevalence Index = B	/A =	
1. Coptis asplendifolia		8	Yes	FAC	Hydrophytic Vegetation In	dicators:	
2. Athyrium filix-femina		7	Yes	FAC	Dominance Test is >50°	%	
3. Blechnum spicant		3	No	FAC	Prevalence Index is ≤3.		
4. Cornus canadensis		5	No	FACU	data in Remarks or c	ons' (Provide suppo on a separate sheet	orting ()
5					Problematic Hydrophytic	c Vegetation ¹ (Expla	, ain)
6						0	,
7					¹ Indicators of hydric soil and	d wetland hydrology	must
8						or problematic.	
9							
10			·				
Тс	otal Cover:	23		4.0			
50% of total cove	er: 11.5	20% of	f total cover:	4.0	Hydrophytic		
Plot size (radius, or length x width) radius by stratur	T-4-1 0	% Bare (iround	40	Vegetation Present? Veg X	No	
% Cover of Wetland Bryophytes (Where applicable)	I otal Cover	of Bryo	onytes			ON	
Hydrophytic vegetation indicator	present.						

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redo	x Feature	S1			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc	Texture Rema	arks
0-5	10YR 2/1	100					loam	
5-13	10YR 2/1	75					loam	
	10YR 4/3	25						
13-18	10YR 4/3	100					sandy loam	
		·		- <u> </u>				
		·						
¹ Type: C=Co	oncentration, D=Dep	letion, RM=	Reduced Matrix, CS	S=Covered	d or Coate	d Sand Gr	rains. ² Location: PL=Pore Lini	ing, M=Matrix.
Histosol Histic Ep Hydroge Thick Da Alaska G Alaska G Alaska G	or Histel (A1) pipedon (A2) n Sulfide (A4) ark Surface (A12) Gleyed (A13) Redox (A14) Gleyed Pores (A15)		Alaska Colo Alaska Alpin Alaska Red ³ One indicator c and an appro	or Change ne Swales ox With 2. If hydrophy priate land color chan	(TA4) ⁴ (TA5) 5Y Hue ytic vegeta Iscape pos	tion, one sition musi	Alaska Gleyed Without Hun Underlying Layer Other (Explain in Remarks primary indicator of wetland hydrolo t be present unless disturbed or pro	e 5Y or Redder) ogy, oblematic.
Restrictive L	_ayer (if present):							
Type: Depth (inc	ches):						Hvdric Soil Present? Yes	No X
Remarks:	/-						,	
No hydrid	c soil indicato	r presen	ıt.					
HYDROLO	GY							
Wotland Hy	drology Indicators:						Secondary Indicators (2 or more r	coquirod)

Wetland Hydrology Indicators	3:	Secondary Indicators (2 or more required)
Primary Indicators (any one indi	icator is sufficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery	(B7) Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surfac	e (B8) Uxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	X	
Surface Water Present?	Yes No X Depth (inches):	_
Water Table Present?	Yes No X Depth (inches):	_
Saturation Present? (includes capillary fringe)	Yes No X Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream	m gauge, monitoring well, aerial photos, previous ins	pections), if available:
-		
Remarks:		
No wetland hydrology	indicators present	

Project/Site: Katlian Bay Road		Borough/City:	Sitka	Sampling Date: June 21, 2015			
Applicant/Owner: ADOT & PF, Southcoast Region				Sampling Point: <u>49</u>			
Investigator(s): Jeff Gray, Carolyn Prentice		Landform (hills	Landform (hillside, terrace, hummocks, etc.): <u>floodplain, toe of slope</u> Slope (%): <u>0-2</u>				
Local relief (concave, convex, none): none		Slope (%):					
Subregion: Southeast Alaska	Lat:		Long: _	Datum:			
Soil Map Unit Name: Tuxekan silt loam, floodplains			NW	/I classification: PFO4			
Are climatic / hydrologic conditions on the site typica	I for this time of	year? Yes X	No (If no, ex	plain in Remarks.)			
Are Vegetation, Soil, or Hydrology	significar	ntly disturbed?	Are "Normal Circums	stances" present? Yes X No			
Are Vegetation, Soil, or Hydrology	naturally	problematic?	(If needed, explain a	ny answers in Remarks.)			

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X	No		
Remarks:							
Data point located within Wetland 21 near flag QQ7; all three indicators present.							

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species	
1. Alnus rubra	20.00	Yes	FAC	That Are OBL, FACW, or FAC: 3 ((A)
2. Picea sitchensis	20.00	Yes	FACU		
3				Total Number of Dominant	
				Species Across All Strata.	D)
4	40			Percent of Dominant Species	
Total Cover:	40			That Are OBL, FACW, or FAC: 60 ((A/B)
50% of total cover: 20	20% o	f total cover	8	Prevalence Index worksheet:	
Sapling/Shrub Stratum	_		-	Total % Cover of Multiply by	
1. Picea sitchensis		Yes	FACU		
2. Alnus rubra	5	Yes	FAC		
3.				FACW species x 2 =	
1				FAC species x 3 =	
-				FACU species x 4 =	
5				UPL species x 5 =	
6				Column Totals: 0 (A) 0	(B)
Total Cover:	12				(D)
50% of total cover: ⁶	20% of	total cover:	2.4	Prevalence Index = $B/A =$	
Herb Stratum	_			Hydrophytic Vogetation Indicators:	
1. Lysichiton americanus	70	Yes	OBL		
2 Veratrum viride	10	No	FAC	■ Dominance Test is >50%	
2 Athyrium filix-femina	15	No	FAC	Prevalence Index is ≤3.0	
5				Morphological Adaptations ¹ (Provide supportin	ıg
4				data in Remarks or on a separate sheet)	
5				Problematic Hydrophytic Vegetation ¹ (Explain))
6					
7.				¹ Indicators of hydric soil and wetland hydrology mu	ust
8				be present unless disturbed or problematic.	
0					
9					
10					
Total Cover:	95				
50% of total cover: 47.5	20% of	total cover:	19	Hadaa hada	
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare 0	Ground	5	Hydrophytic	
% Cover of Wetland Bryonbytes Total Cov	er of Brvor	hvtes	0	Present? Yes X No	
(Where applicable)	CI OI DI YO				
Remarks:					
Hydrophytic vegetation indicator presen	t.				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Redox	Features	6					
(inches)	Color (moist)		Color (moist)	%	Type'	Loc ²	Texture		Remarks	
0-3	10YR 2/1	100					loam			
3-12	10YR 4/1	95					silt loam			
	10YR 2/1	5						organic	s transloo	ated
12-18	10YR 3/2						silt loam	muck		
¹ Type: C=Co	oncentration, D=Dep	letion, RM=	Reduced Matrix, CS	=Covered	or Coate	d Sand Gr	ains. ² Loc	ation: PL=P	ore Lining, M	=Matrix.
	ndicators:		Alaska Color	Chongo		5011S :		Cloued With		or Boddor
Histic Er	O(A)		Alaska Color Change (TA4)				Underlying Laver			
Hydroge	n Sulfide (A4)		Alaska Redo	w With 2	(173) 5Y Hue		Other (Explain in Remarks)			
Thick Da	ark Surface (A12)				011100				omanoj	
Alaska G	Bleyed (A13)		³ One indicator of	hydrophy	/tic vegeta	ition, one p	primary indicate	or of wetland	hydrology,	
Alaska F	Redox (A14)		and an approp	riate land	Iscape po	sition must	be present un	less disturbe	d or problem	atic.
Alaska G	Bleyed Pores (A15)		⁴ Give details of c	olor chan	ge in Rem	arks.				
Restrictive L	ayer (if present):									
Туре:									V	
Depth (ind	ches):						Hydric Soil	Present?	Yes <u>^</u>	No
Remarks:										
Hydric so	oil determined	to be pi	resent due to	shallo	w grou	ndwate	er and hyd	Irophytic	vegetatio	on.

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	Water-stained Leaves (B9)
Surface Water (A1) Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2) Sparsely Vegetated Concave Surface (B8	3) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3) Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2) Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3) Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)	Shallow Aquitard (D3)
Iron Deposits (B5)	Microtopographic Relief (D4)
Surface Soil Cracks (B6)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes X No Depth (inches): 10	N.
Saturation Present? Yes X No Depth (inches): 0	Wetland Hydrology Present? Yes <u>X</u> No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection	ons), if available:
-	
Remarks:	
Primary wetland indicators present.	
······································	

HYDROLOGY

Project/Site: Katlian Bay Road		Borough/City	y: <u>Sitka</u>	Sampling Date: June 21, 2015					
Applicant/Owner: ADOT & PF, Southcoast Region				Sampling Point: 50					
Investigator(s): Jeff Gray, Carolyn Prentice, Tad Schwager		_ Landform (hillside, terrace, hummocks, etc.): hillside							
Local relief (concave, convex, none): <u>none</u>		Slope (%):	10-12	_					
Subregion: Southeast Alaska	: <u>-</u>		Lor	ng: Datum:					
Soil Map Unit Name: Tuxekan silt loam, floodplains				NWI classification: PFO4					
Are climatic / hydrologic conditions on the site typical for th	is time of ve	ar? Yes X	No	(If no, explain in Remarks.)					
Are Vegetation , Soil , or Hydrology	significantly	disturbed?	Are	"Normal Circumstances" present? Yes X No					
Are Vegetation , Soil , or Hydrology	naturally pro	blematic?	(lf ne	eeded, explain any answers in Remarks.)					
				· · · · · · · · · · · · · · · · · · ·					
SUMMARY OF FINDINGS – Attach site map s	nowing sa	ampling po	oint locat	ions, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes	No X		_						
Hydric Soil Present? Yes	No X	Is the	e Samplec	l Area					
Wetland Hydrology Present? Yes	No X	withi	n a Wetla	nd? Yes No					
Remarks:									
Data point not located within a wetland; not all three	ee wetland	l indicators	present.	Data point located near flag QQ7.					
VEGETATION Liss scientific names of plants		enocios in	the plot						
		Deminant	line piot.	Deminence Test worksheet					
Tree Stratum	% Cover	Species?	Status	Number of Deminent Chasics					
1. Picea sitchensis	60.00	Yes	FACU	That Are OBL, FACW, or FAC:1 (A)					
2				Total Number of Deminent					
3				Species Across All Strata: 4 (B)					
4									
Total Cove	er: 60	_		That Are OBL, FACW, or FAC: 25 (A/B)					
50% of total cover: <u>3</u>	0 20% (of total cover	12	Prevalence Index worksheet:					
Sapling/Shrub Stratum	15	Vee		Total % Cover of: Multiply by:					
	15	res	FACU	OBL species x 1 =					
2		·		FACW species x 2 =					
3				FAC species 4 x 3 = 12					
4		·		FACU species <u>82</u> x 4 = <u>382</u>					
5		·		UPL species x 5 =					
0Tetel Cour	15			Column Totals: <u>86</u> (A) <u>394</u> (B)					
	200/ 0	- ftatal aguar							
Herb Stratum	20% 0	r total cover:		Prevalence Index = B/A =					
1Blechnum spicant	4	Yes	FAC	Hydrophytic Vegetation Indicators:					
2. Gymnocarpium dryopteris	7	Yes	FACU	Dominance Test is >50%					
3				Prevalence index is ≤ 3.0					
4				data in Remarks or on a separate sheet)					
5				Problematic Hydrophytic Vegetation ¹ (Explain)					
6									
7				¹ Indicators of hydric soil and wetland hydrology must					
8				be present unless disturbed of problematic.					
9		·							
10		·							
Total Cove	er: <u>11</u>	-							
50% of total cover:5.8	5 <u> </u>	f total cover:	2.2	Hydrophytic					
Plot size (radius, or length x width) radius by stratum: 30', 15'	^{, 5'} % Bare	Ground	80	Vegetation					
% Cover of Wetland Bryophytes Total C (Where applicable)	over of Bryo	phytes	10	Present? Yes <u>No X</u>					
Remarks:									
No hydrophytic vegetation indicator pre	esent.								
Profile Des	cription: (Describe	e to the dep	th needed to docu	ment the	indicator	or confirm	n the absence of indi	cators.)	
------------------------	---------------------	--------------	-------------------	-------------	--------------------	----------------------	-------------------------------	----------------	----------------
Depth	Matrix	0/	Redo	x Feature	<u>s</u>	12	Tautum	Dem	
(Incnes)			Color (moist)	%	Type	LOC		Rema	arks
0-4	10YR 2/2	100					Ioam		
4-18	10YR 3/3	100					sandy loam		
				_					
					·				
			-						
					·				
¹ Type: C=C	oncentration, D=De	pletion, RM=	Reduced Matrix, C	S=Covere	d or Coate	d Sand G	rains. ² Location:	PL=Pore Lini	ng, M=Matrix.
Hydric Soil	Indicators:		Indicators for I	Problema	tic Hydric	Soils ³ :	_		
Histoso	l or Histel (A1)		Alaska Colo	or Change	(TA4) ⁴		Alaska Gleyed	Without Hu	e 5Y or Redder
Histic E	pipedon (A2)		Alaska Alpi	ne Swales	s (TA5)		Underlying L	ayer	
Hydroge	en Sulfide (A4)		Alaska Red	lox With 2	.5Y Hue		Other (Explain	in Remarks)
Thick D	ark Surface (A12)		30						
Alaska	Gleyed (A13)		"One indicator o	of hydroph	ytic vegeta	ation, one	primary indicator of we	tland hydrold	ogy,
Alaska	Redox (A14)		and an appro	priate land	iscape po	sition mus	st be present unless dis	sturbed or pro	bolematic.
	Gleyed Pores (A15)		Give details of	color char	ige in Ren	iarks.	1		
Turney	Layer (if present):								
Type:							Ukudain Coll Danson	40 Vaa	No X
Depth (In	icnes):						Hydric Soll Preser	it? res_	NO
Remarks:	11		- 1						
ino hydri	c soil indicato	or preser	าt.						
IYDROLO	GY								

Wetland Hydrology Indicator	'S:	Secondary Indicators (2 or more required)
Primary Indicators (any one ind	dicator is sufficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on A	Aerial Imagery (B7) 📃 Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Co	oncave Surface (B8) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odo	r (C1) Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Tal	ble (C2) Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Rem	arks) Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present?	Yes <u>No X</u> Depth (inches):	
Water Table Present?	Yes <u>No X</u> Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes <u>No X</u> Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (strea	am gauge, monitoring well, aerial photos	s, previous inspections), if available:
-		
Remarks:		
No wetland hydrolog	v indicator present	

Project/Site: Katlian Bay Road	Borou	gh/City: Sitka	Sampling Date: June 21, 2015
Applicant/Owner: ADOT & PF, Southcoast Region			Sampling Point: 51
Investigator(s): Jeff Gray, Carolyn Prentice	Landf	orm (hillside, terrace, hummocks, etc.): floodplain
Local relief (concave, convex, none): <u>concave</u>	Slope	(%): 0-2	
Subregion: Southeast Alaska	Lat: _	Long:	Datum:
Soil Map Unit Name: <u>Tuxekan silt loam, floodplains</u>		NWI cla	ssification: PFO4
Are climatic / hydrologic conditions on the site typical for	r this time of year? Y	es X No (If no, explain	ı in Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturt	oed? Are "Normal Circumstanc	es" present? Yes X No
Are Vegetation, Soil, or Hydrology	naturally problema	tic? (If needed, explain any ar	nswers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	o showing samplir	ng point locations, transects, ir	mportant features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X	No
Remarks:					
Data point located within Wetland	21 near flag	Q4D; all three indi	cators present.		

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	<u>% Cover</u>	<u>Species?</u>	Status	Number of Dominant Species	
1. Picea sitchensis	25.00	Yes	FACU	That Are OBL, FACW, or FAC: 2	(A)
2. Alnus rubra	25.00	Yes	FAC	Total Number of Dominant	
3.				Species Across All Strata: 3	(B)
4					_ (0)
Total Cover:	50			Percent of Dominant Species That Are OBL_EACW_or EAC 66.7	(A/B)
50% of total cover: 25	20% o	f total cover	10		(,,,,,)
Sapling/Shrub Stratum	_			Frevalence index worksheet.	
1				I otal % Cover of: Multiply by:	
2				OBL species x 1 =	
2				FACW species x 2 =	
3				FAC species x 3 =	
4				FACU species x 4 =	
5					
6.				UPL species X 5 =	
Total Cover:	0			Column Totals: (A)	(B)
E0% of total cover:	200/ of	total aquar			
Herb Stratum	20% 01	total cover.		Prevalence Index = B/A =	_
1 Lysichiton americanus	65	Yes	OBL	Hydrophytic Vegetation Indicators:	
Athyrium filix-femina	5	No	FAC	✓ Dominance Test is >50%	
		No		Prevalence Index is ≤3.0	
	Z	INO	FACW	Morphological Adaptations ¹ (Provide supp	ortina
4				data in Remarks or on a separate shee	t)
5				Problematic Hydrophytic Vegetation ¹ (Exp	lain)
6.					,
7				¹ Indicators of hydric soil and wetland hydrolog	v must
0				be present unless disturbed or problematic.	,
0					
9					
10					
Total Cover:	72				
50% of total cover: <u>36</u>	20% of	total cover:	14.4		
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare (Ground	10	Hydrophytic	
% Cover of Wetland Bryonbytes	er of Bryon	hvtes	40	Present? Yes X No	
(Where applicable)	CI OI DI YOF		<u> </u>		
Remarks:					
Hydrophytic vegetation indicator preserv	ŀ				
	ι.				

SOIL

Profile Desc	ription: (Describe	to the dept	h needed to docum	ent the i	ndicator	or confirn	n the absence	of indicator	s.)	
Depth	Matrix		Redox	Features	5					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-2	10YR 2/1	100					loam			
2-12	10YR 4/1	100					silt loam	organic	s transpla	anted
12-16	10YR 3/2	100					silt loam	refusal	at 16" (gr	avels)
¹ Type: C=C	oncentration, D=Dep	letion, RM=I	Reduced Matrix, CS	=Covered	or Coate	d Sand G	rains. ² Lo	cation: PL=P	ore Lining, N	1=Matrix.
Hydric Soil	Indicators:	,	Indicators for P	roblemat	ic Hydric	Soils ³ :			, j,	
Histosol	or Histel (A1)		Alaska Colo	r Change	$(TA4)^4$		Alaska	Gleved With	nout Hue 5Y	or Redder
Histic Er	pipedon (A2)		Alaska Alpin	e Swales	(TA5)		Und	erlving Laver		
Hydroge	n Sulfide (A4)		Alaska Redo	w With 2	5Y Hue		✓ Other	(Explain in R	emarks)	
	ark Surface (A12)				orride				cinano)	
Alaska			³ One indicator of	bydrophy	itic vocato	tion one	primary indicat	or of wetland	hydrology	
Alaska	$\frac{1}{2} \frac{1}{2} \frac{1}$		and an appror	riato lano	lecano no	sition mus	t bo prosont ur	loce disturbe	d or problem	atio
Alaska	Neutox (A14)		⁴ Civo dotoilo of o		as in Dom		t be present u			auc.
	Sleyeu Poles (A15)		Give details of d	olor chan	ge in Ren	iarks.	1			
Restrictive I	_ayer (if present):									
Depth (ind	ches):						Hydric Soil	Present?	_{Yes} X	No
Remarks [.]	,						-			
Ludria ac	, determined	to be pr	acout due te	aballa		nducto	ar and by	Ironhutio	voqeteti	
Hydric sc	on determined	to be pr	esent due to	snallo	w grou	nuwate	er and nyc	iropnytic	vegetati	on.

Wetland Hydrology Indicato	rs:				Se	condary Indicators (2 or more required)
Primary Indicators (any one in	idicator is suffi	cient)				Water-stained Leaves (B9)
Surface Water (A1)	[Inundat	ion Visible on Aerial Ima	agery (B7)		Drainage Patterns (B10)
High Water Table (A2)	l	Sparse	ly Vegetated Concave S	Surface (B8)		Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	[Marl De	eposits (B15)			Presence of Reduced Iron (C4)
Water Marks (B1)	[Hydrog	en Sulfide Odor (C1)			Salt Deposits (C5)
Sediment Deposits (B2)	[Dry-Sea	ason Water Table (C2)			Stunted or Stressed Plants (D1)
Drift Deposits (B3)	[Other (Explain in Remarks)			Geomorphic Position (D2)
Algal Mat or Crust (B4)						Shallow Aquitard (D3)
Iron Deposits (B5)						Microtopographic Relief (D4)
Surface Soil Cracks (B6)						FAC-Neutral Test (D5)
Field Observations:		X				
Surface Water Present?	Yes	No X	Depth (inches):			
Water Table Present?	Yes X	No	Depth (inches): 10			
Saturation Present?	Yes X	No	Depth (inches): 0	Wetl	land	Hydrology Present? Yes X No
(Includes capillary fringe)		nitorina we	Il aerial photos previou	inspections)	if av	zailable.
	am gauge, me	mitoring we		13 mapeetions),	nav	
-						
Remarks:						
Primary wetland hyd	Irology ind	dicator p	present.			
	57					

HYDROLOGY

Project/Site: Katlian Bay Road		Borough/City:	Sitka	Sampling D	ate: June	e 21, 2015
Applicant/Owner: ADOT & PF, Southcoast Region				Sampling P	oint: <u>52</u>	
Investigator(s): Jeff Gray, Carolyn Prentice		Landform (hil	lside, terra	ce, hummocks, etc.): terrace above fl	oodplain	
Local relief (concave, convex, none): <u>none</u>	Lat	Slope (%): 0-	2	n - Datu	m: -	
Soil Map Unit Name: <u>Tuxekan silt loam, floodplains</u>	Lat			NWI classification: PF04		
Are climatic / hydrologic conditions on the site typical fo	r this time of ye	ear? Yes X	No	(If no, explain in Remarks.)		
Are Vegetation, Soil, or Hydrology Are Vegetation, Soil, or Hydrology SUMMARY OF FINDINGS – Attach site map	significantly naturally pr	/ disturbed? oblematic? ampling poi	Are "۱ ۱f nee) nt locatio	Normal Circumstances" present? Yes eded, explain any answers in Remark ons, transects, important featu	, <u>X</u> s.) res, etc	No
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No X No X No X	Is the within	Sampled a Wetland	Area d? Yes N	lo <u>×</u>	_
Data point not located within a wetland; not all	three wetlan	d indicators	oresent. [Data point located near flag Q4D).	
VEGETATION – Use scientific names of pla	nts. List all	species in t	he plot.			
Tree Stratum 1. Picea sitchensis	Absolute <u>% Cove</u> 40.00	e Dominant I <u>r Species?</u> Yes	ndicator <u>Status</u> FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
2. Alnus rubra	35.00	Yes	FAC			
3				Species Across All Strata:	4	(B)
4 Total C	over: 75	 _	15	Percent of Dominant Species That Are OBL, FACW, or FAC:	50	(A/B)
50% of total cover:	37.5 20%	of total cover:	15	Prevalence Index worksheet:		

				That Are OBL, FA	ACW, or FA	AC:	50	. (A/B	
50% of total cover: <u>37.5</u>	20% o	of total cover	: 15	Prevalence Inde	x workshe	et:			
Sapling/Shrub Stratum				Total % Cove	er of:	Mu	Itiply by:		
1				OBL species	3	x 1 =	3	_	
2				FACW species		x 2 =			
3				FAC species	50	x 3 =	150		
4				FACU species	58	x 4 =	232	_	
5				UPL species		x 5 =			
6Total Cover:	0			Column Totals:	111	(A)	385	(B)	
50% of total cover:	20% of	f total cover:		Prevalence	Index = B	/A =	3.5		
Herb Stratum	_			Hydrophytic Ver	etation In	dicators:			
1 Lysichiton americanus	3	No	OBL		Fest is >50°	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
2. Athyrium filix-femina	11	Yes	FAC		ndev is <3	0			
3. Gymnocarpium dryopteris	5	No	FACU		Morphological Adaptations ¹ (Provide support				
4. Dryopteris expansa	13	Yes	FACU	data in Remarks or on a separate sheet)					
5. Maianthemum dilatatum	4	No	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)				ain)	
6					5 1 5	0	, i	,	
7				¹ Indicators of hyd	tric soil and	wetland	hydrology	must	
8				be present unless	s disturbed	or proble	matic.		
9									
10.									
Total Cover:	36								
50% of total cover: ¹⁸	20% 01	f total cover:	7.2						
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	- % Bare (Ground	10	Hydrophytic					
% Cover of Wetland Bryophytes Total Cove (Where applicable)	er of Bryor	phytes	60	Present?	Yes	No	, <u>×</u>		
Remarks:									
No hydrophytic vegetation indicator pres	sent.								

SOIL

Profile Desc	ription: (Describe	to the depth	n needed to docum	nent the i	ndicator	or confirn	m the absence of indicators.)	
Depth	Matrix		Redo	x Features	5		_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0-4	10YR 4/2	70					silt loam	
	10YR 3/2	30						
4-8	10YR 4/1	100					silt loam	
8-16	2.5Y 4/4	100					sandy loam	
¹ Type: C=Cd Hydric Soil Histosol Histic Ep Hydroge Thick Da Alaska C Alaska C Alaska C Alaska C	oncentration, D=Dep Indicators: or Histel (A1) bipedon (A2) on Sulfide (A4) ark Surface (A12) Gleyed (A13) Redox (A14) Gleyed Pores (A15)	letion, RM=F	Reduced Matrix, CS Indicators for F Alaska Colo Alaska Alpir Alaska Red ³ One indicator o and an appro ⁴ Give details of o	S=Covered Problemat or Change the Swales the	d or Coate ic Hydric (TA4) ⁴ (TA5) 5Y Hue vtic vegeta lscape por ge in Ren	d Sand Gi Soils ³ : ation, one sition mus narks.	Crains. ² Location: PL=Pore Lining, M=Matrix. Alaska Gleyed Without Hue 5Y or Redder Underlying Layer Other (Explain in Remarks) e primary indicator of wetland hydrology, st be present unless disturbed or problematic.	
Type:								
Depth (inc	ches):						Hydric Soil Present? Yes <u>No X</u>	
Remarks:							1	
No hydrio	c soil indicator	present	t.					

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is suf	f <u>icie</u> nt)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8)) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	X	
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes	No X Depth (inches):	X
Saturation Present? Yes (includes capillary fringe)	No X Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge, m	nonitoring well, aerial photos, previous inspectio	ns), if available:
-		
Remarks:		
No wetland hydrology indicat	ors present	

HYDROLOGY

Project/Site: Katlian Bay Road	Borough/City: Sitka	Sampling Date: June 21, 3	2015			
Applicant/Owner: ADOT & PF, Southcoast Region		Sampling Point: 53				
Investigator(s): Jeff Gray, Carolyn Prentice	Landform (hillside, ter	Landform (hillside, terrace, hummocks, etc.): floodplain				
Local relief (concave, convex, none): <u>concave</u>	Slope (%): 0-2	_				
Subregion: Southeast Alaska La	at: <u>-</u> Lo	ng: Datum:				
Soil Map Unit Name: Tuxekan silt loam, floodplains		NWI classification: PFO4				
Are climatic / hydrologic conditions on the site typical for th	nis time of year? Yes X No	(If no, explain in Remarks.)				
Are Vegetation, Soil, or Hydrology	significantly disturbed? Are	"Normal Circumstances" present? Yes X No_				
Are Vegetation, Soil, or Hydrology	naturally problematic? (If r	eeded, explain any answers in Remarks.)				

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>X</u> Yes <u>X</u> Yes <u>X</u>	No No No	Is the Sampled Area within a Wetland?	Yes X	No	
Remarks:						
Data point located within Wetland 22 near flag HA5; all three wetland indicators present.						

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species	
1. Alnus rubra	70.00	Yes	FAC	That Are OBL, FACW, or FAC: 3	(A)
2. Picea sitchensis	10.00	No	FACU	Total Number of Deminent	
3				I otal Number of Dominant	(B)
					(D)
Total Cover:	80			Percent of Dominant Species	(A/R)
50% of total cover: 40	20% 0	f total cover	- 16		(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Sapling/Shrub Stratum	20700		·	Prevalence Index worksheet:	
1				Total % Cover of: Multiply by:	
2				OBL species x 1 =	
2				FACW species x 2 =	
3		<u> </u>		FAC species x 3 =	
4				FACU species x 4 =	
5					
6					
Total Cover:	0				(B)
50% of total cover:	20% of	total cover:		Prevalence Index = B/A =	
Herb Stratum	50	Maa	540	Hydrophytic Vegetation Indicators:	
1. <u>Atnyrium filix-temina</u>	50	Yes	FAC	Dominance Test is >50%	
2. Lysichiton americanus	35	Yes	OBL	$\square \text{ Browslonce Index is } \leq 3.0$	
3. Cinna latifolia	4	No	FACW	Marshala sizel Adaptation a ¹ (Description anti-	
4. Maianthemum dilatatum	5	No	FAC	data in Remarks or on a separate sheet)	ıg
5. Gymnocarpium dryopteris	4	No	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)	`
6)
7				¹ Indicators of hydric soil and wetland hydrology m	ust
7				be present unless disturbed or problematic.	aot
8					
9					
10					
Total Cover:	98				
50% of total cover: <u>49</u>	20% of	total cover:	19.6		
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare 0	Ground	2	Hydrophytic Vegetation	
% Cover of Wetland Bryophytes Total Cov	er of Brvor	hvtes	35	Present? Yes X No	
(Where applicable)	er or Bryor				
Remarks:					
Hydrophytic vegetation indicator presen	t.				

SOIL

Profile Desc	cription: (Describe	to the de	pth needed to docu	ment the	indicator	or confirm	n the absence o	f indicato	ors.)	
Depth	Matrix		Redo	x Featur	es					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-1	10YR 2/1			_			loam			
1-11	10YR 4/2	75	10YR 4/6	15	С	m	silt loam			
			10YR 4/1	10	d	m				
11-20	5GY 4/1	100					sandy loam			
¹ Type: C=C	oncentration, D=Dep	letion, RM	I=Reduced Matrix, C	S=Covere	ed or Coate	ed Sand G	rains. ² Loca	tion: PL=	Pore Lining, N	/I=Matrix.
Hydric Soil	Indicators:		Indicators for	Problema	atic Hydrid	: Soils ³ :				
Histosol	or Histel (A1)		Alaska Col	or Chang	e (TA4) ⁴		Alaska (Gleyed Wit	thout Hue 5Y	or Redder
Histic Ep	pipedon (A2)		Alaska Alpi	ne Swale	s (TA5)		Underlying Layer			
Hydroge	en Sulfide (A4)		Alaska Rec	lox With 2	2.5Y Hue		Other (Explain in Remarks)			
Thick Da	ark Surface (A12)									
🖌 Alaska (Gleyed (A13)		³ One indicator of	of hydropl	nytic veget	ation, one	primary indicator	of wetlan	d hydrology,	
Alaska F	Redox (A14)		and an appro	priate lar	idscape po	sition mus	st be present unle	ess disturb	ed or problem	natic.
Alaska (Gleyed Pores (A15)		⁴ Give details of	color cha	nge in Rer	narks.				
Restrictive I	Layer (if present):									
Туре:									V	
Depth (in	ches):						Hydric Soil P	Present?	Yes X	No
Remarks:										
Hydric so	oil indicator A	13 pres	ent.							
HYDROLO	GY									

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is suff	ficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7) Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B	38) . Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	X	
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes X	No Depth (inches): 10	
Saturation Present? Yes X	No Depth (inches): 0	Wetland Hydrology Present? Yes X No
(includes capillary fringe)		I
Describe Recorded Data (stream gauge, m	onitoring well, aerial photos, previous inspect	tions), if available:
-		
Remarks:		
Wetland hydrology indicators	present.	
	F	

Project/Site: Katlian Bay Road	Borough/Cit	ty: Sitka	Sampling Date: June 21, 2015		
Applicant/Owner: <u>ADOT & PF, Southcoast Region</u>			Sampling Point: <u>54</u>		
Investigator(s): Jeff Gray, Carolyn Prentice	Landform (I	Landform (hillside, terrace, hummocks, etc.): floodplain			
Local relief (concave, convex, none): none	Slope (%):	0-2			
Subregion: Southeast Alaska	_at: _	Long:	Datum:		
Soil Map Unit Name: Tuxekan silt loam, floodplains		NWI	classification: PFO4		
Are climatic / hydrologic conditions on the site typical for	this time of year? Yes X	No (If no, exp	lain in Remarks.)		
Are Vegetation, Soil, or Hydrology	_ significantly disturbed?	Are "Normal Circumst	ances" present? Yes X No		
Are Vegetation, Soil, or Hydrology	_ naturally problematic?	(If needed, explain an	y answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No Yes No	X Is the Sampled Area x within a Wetland?	Yes N	lo <u>×</u>		
Remarks:						
Data point not located in a wetland; not all three indicators present.						

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Alnus rubra	45.00	Yes	FAC	That Are OBL, FACW, or FAC: 2 (A)
2. Picea sitchensis	35.00	Yes	FACU	
3				Total Number of Dominant
5				Species Across All Strata: (B)
4				Percent of Dominant Species
Total Cover:	80			That Are OBL, FACW, or FAC: <u>33.3</u> (A/B)
50% of total cover: 40	20% o	f total cover	<u>16</u>	Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: Multiply by:
1. Picea sitchensis	10	Yes	FACU	
2 Menziesia ferruginea	5	Yes	FACU	OBL species x 1 =
2				FACW species x 2 =
S				FAC species $70 \times 3 = 210$
4				EACLI species $65 \times 4 = 260$
5				
6				OPL species X 5 =
Total Cover:	15			Column Totals: (A) (B)
	000/ - 6		3	25
Herb Stratum	20% of	total cover:		Prevalence Index = B/A =
Athyrium filix-femina	25	Yes	FAC	Hydrophytic Vegetation Indicators:
T	40			Dominance Test is >50%
2. Dryopteris expansa	10	res	FACU	\square Prevalence Index is <3.0
3. Gymnocarpium dryopteris	5	No	FACU	Marphalagiaal Adaptationa ¹ (Dravida supporting
4.				data in Remarks or on a separate sheet)
5				Desklamatic Underskatic Vasstation ¹ (Forstain)
				Problematic Hydrophytic Vegetation (Explain)
0				
7				ho present uplace disturbed or problematic
8				be present unless disturbed of problematic.
9.				
10				
T	40			
Total Cover:				
50% of total cover: 20	20% of	total cover:	8	Hydrophytic
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare C	Ground	35	Vegetation
% Cover of Wetland Bryophytes - Total Cov	er of Brvor	phytes	30	Present? Yes No X
(Where applicable)	,•r	J		
Remarks:				
No hydrophytic vegetation indicators pre	esent.			

							in the absence	or maloute		
Depth (inches)	Color (moist)	%	Color (moist)	<u>ox Features</u> %	Tvpe ¹	L oc ²	Texture		Remar	ks
0-3	10YR 3/3	100					loam			
3-18	10YR 4/2	100					loam	no rede	ox featu	ires
Type: C=C	oncentration, D=De	pletion, RM=	-Reduced Matrix, C	S=Covered c	or Coate	d Sand G	rains. ² Lo	ocation: PL=	Pore Linin	g, M=Matrix.
Iydric Soil	Indicators:		Indicators for	Problematic		Soils':		<u> </u>		
HISTOSOI	or Histel (A1)		Alaska Col	or Change (1 ino Swalos (1	A4)			a Gleyed Wi		5Y or Redder
Hydroge	Sulfide (A4)		Alaska Reg	ne Swales (1	(Hue		Other (Explain in Remarks)			
	ark Surface (A12)			207 111 2.01	Thườ				(emarko)	
Alaska	Gleved (A13)		³ One indicator	of hvdrophyti	c veaeta	tion. one	primary indica	tor of wetlan	d hvdroloo	IV.
Alaska F	Redox (A14)		and an appro	opriate landso	cape pos	sition mus	t be present unless disturbed or problematic.			
Alaska (Gleyed Pores (A15)		⁴ Give details of	color change	e in Rem	narks.				
Restrictive	Layer (if present):									
Туре:										V
Depth (in	ches):						Hydric Soi	I Present?	Yes	No
Remarks:										
lo hydri	c soil indicato	or preser	nt.							

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is suf	ff <u>icie</u> nt)	_ Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8	3) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	N N	
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes	No X Depth (inches):	X
Saturation Present? Yes (includes capillary fringe)	No X Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge, m	nonitoring well, aerial photos, previous inspection	ons), if available:
-		
Remarks:		
No wetland hydrology indicat	ors present.	

Project/Site: Katlian Bay Road		Borough/City: Sitka	Sampling Date: _ ^{JL}	_ Sampling Date: June 21, 2015		
Applicant/Owner: <u>ADOT & PF, Southcoas</u>	st Region		Sampling Point: 5	5		
Investigator(s): Jeff Gray, Carolyn Prentic	ce	Landform (hillside, terrace,	Landform (hillside, terrace, hummocks, etc.): hummocks			
Local relief (concave, convex, none): <u>con</u>	ncave	Slope (%): <u>0-2</u>				
Subregion: Southeast Alaska	Lat: _	Long: -	Datum:			
Soil Map Unit Name: Tuxekan silt loam, f	loodplains		NWI classification: PFO4			
Are climatic / hydrologic conditions on the	e site typical for this time	of year? Yes X No	_ (If no, explain in Remarks.)			
Are Vegetation, Soil, or ⊢	lydrology signific	cantly disturbed? Are "Norr	nal Circumstances" present? Yes X	No		
Are Vegetation, Soil, or H	lydrology natura	Ily problematic? (If needed	d, explain any answers in Remarks.)			

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No _ No	Is the Sampled Area within a Wetland?	Yes X	No	
Remarks:						
Data point located within Wetland 22 near flag HH11; all three wetland indicators present.						

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Alnus rubra	60.00	Yes	FAC	That Are OBL, FACW, or FAC: 3 (A)
2 Picea sitchensis	5.00	No	FACU	
2				Total Number of Dominant
S				Species Across All Strata: (B)
4				Percent of Dominant Species
Total Cover:	65			That Are OBL, FACW, or FAC: 75 (A/B)
50% of total cover: 32.5	20% o	f total cover	r: <u>13</u>	Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: Multiply by:
1. Picea sitchensis	5	Yes	FACU	
2.				OBL species x 1 =
3				FACW species x 2 =
				FAC species x 3 =
4				FACU species x 4 =
5				LIPL species x 5 =
6				
Total Cover:	5			Column Lotals: (A) (B)
50% of total cover:2.5	20% of	total cover:	1	Prevalence Index = B/A =
Herb Stratum				Hydrophytic Vegetation Indicators:
1. Lysichiton americanus	35	Yes	OBL	
2. Athyrium filix-femina	20	Yes	FAC	
3 Cinna latifolia	5	No	FACW	Prevalence Index is ≤3.0
				Morphological Adaptations ¹ (Provide supporting
4				data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
8.				be present unless disturbed or problematic.
0				
10	60			
Total Cover:	00			
50% of total cover: <u>30</u>	20% of	total cover:	12	Hydrophytic
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare 0	Ground 25 (water/mud)	Vegetation
% Cover of Wetland Bryophytes - Total Cov	er of Brvor	ohvtes	15	Present? Yes X No
(Where applicable)	0. 0. 2. 90			
Remarks:				
Hydrophytic vegetation indicator present	t.			
	-			

Depth (inches) Matrix Redox Features (inches) Color (moist) % Type ¹ Loc ² Texture Remarks 0-2 10YR 3/2 100 isandy loam organics 2-18 5B 4/1 50 isandy loam isandy loam 2-18 5B 4/1 50 isandy loam isandy loam	Profile Desc	ription: (Describe	to the dep	oth needed to docu	ment the	indicator	or confirm	n the absence	of indicators.)
Interest Coor (most) 7s Loc Loc Letture remarks Q-2 10YR 3/2 100 7.5YR 5/8 20 C M sandy loam 2-18 5B 4/1 50	Depth	Matrix	0/	Redo	x Feature	es Turn 1	12	Tautum	Demedia
0-2 10 YR 2/1 30 7.5YR 5/8 20 C M sandy loam 2-18 5B 4/1 50	(Incres)		100		%	iype	LOC		
2-18 10YR 2/1 30 7.5YR 5/8 20 C M sandy loam 2-18 5B 4/1 50	0-2	1011 3/2	100					104111	organics
2-18 5B 4/1 50	2-18	10YR 2/1	30	7.5YR 5/8	20	С	Μ	sandy loam	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils [*] : Alaska Gleyed Without Hue 5Y or Redder Histic Spipedon (A2) Alaska Alpine Swales (TA5) Underfying Layer Hydrogen Sulfide (A4) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Thick Dark Surface (A12) 30ne indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. Alaska Gleyed Pores (A15) *Give details of color change in Remarks. Restrictive Layer (if present): Type: Type: Hydric Soil Present? Yes No Remarks: Hydric soil indicator A13 present. Hydric soil indicators A13 present. Secondary Indicators (2 or more required)	2-18	5B 4/1	50						
Image: Solid December 2 Image: Solid December 2 Image: Solid December 2 Image: Solid December 2 <td></td> <td></td> <td>·</td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td>			·		_				
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ¹ : Alaska Gleyed Without Hue 5Y or Redder Histics Epipedon (A2) Alaska Color Change (TA4) ⁴ Indicators for Problematic Hydric Soils ¹ : Underlying Layer Hydrogen Sulfide (A4) Alaska Aclor Change (TA5) Underlying Layer Underlying Layer Thick Dark Surface (A12) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Alaska Gleyed (A13) ³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. Alaska Gleyed Pores (A15) 'Give details of color change in Remarks. Restrictive Layer (if present): Type: Type:									
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Alaska Gleyed Without Hue 5Y or Redder Histosol or Histel (A1) Alaska Color Change (TA4) ⁴ Underlying Layer Hydrogen Sulfide (A4) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Thick Dark Surface (A12) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Alaska Gleyed Vita alaska Redox With 2.5Y Hue Other (Explain in Remarks) Alaska Gleyed Pores (A13) ³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. Maska Gleyed Pores (A15) ⁴ Give details of color change in Remarks. Restrictive Layer (if present): Type: Hydric Soil Present? Yes X No Remarks: Hydric soil indicator A13 present. Hydric Soil Indicators (2 or more required) No									
*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils*: Alaska Gleyed Without Hue 5Y or Redder Histic Epipedon (A2) Alaska Color Change (TA4) ⁴ Indicating Layer Hydrogen Sulfide (A4) Alaska Alpine Swales (TA5) Underlying Layer Thick Dark Surface (A12) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Alaska Gleyed (A13) *One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. Alaska Gleyed Pores (A15) *Give details of color change in Remarks. Restrictive Layer (If present): Yes X No Type:									
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Alaska Gleyed Without Hue 5Y or Redder Histosol or Histel (A1) Alaska Color Change (TA4) ⁴ Alaska Gleyed Without Hue 5Y or Redder Hydrogen Sulfide (A2) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Thick Dark Surface (A12) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Alaska Gleyed (A13) ³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. Alaska Gleyed Pores (A14) Alaska of color change in Remarks. Restrictive Layer (if present): Type: Type:									
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Alaska Gleyed Without Hue 5Y or Redder Histosol or Histel (A1) Alaska Color Change (TA4) ⁴ Indicators (TA5) Underlying Layer Hydricgen Sulfide (A4) Alaska Alpine Swales (TA5) Underlying Layer Other (Explain in Remarks) Thick Dark Surface (A12) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Alaska Gleyed (A13) Alaska Gleyed (A13) ³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, and an appropriate landscape position must be present unless disturbed or problematic. ⁴ Give details of color change in Remarks. Restrictive Layer (if present): Type:			·						
Type: Deptement to the formation of the form	$\frac{1}{1}$ Type: C=C	ncentration D=Den	letion RM	Reduced Matrix C	S=Covere	d or Coate	d Sand G	rains ² Lo	cation: PI =Pore Lining M=Matrix
Histosol or Histel (A1) Alaska Cleyed (A13) Alaska Redox (A14) Alaska Cleyed Pores (A15) * Give details of color change in Remarks. Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes X No No Hydric soil indicator A13 present. HyDROLOGY Wetland Hydrology Indicators: Secondary Indicators (2 or more required)	Hydric Soil	Indicators:		Indicators for I	Problema	tic Hydric	Soils ³ :		
Histic Epipedon (A2) Hydrogen Sulfide (A4) Thick Dark Surface (A12) Alaska Redox With 2.5Y Hue Other (Explain in Remarks) Alaska Gleyed (A13) Alaska Gleyed (A13) Alaska Gleyed Pores (A15) *Give details of color change in Remarks. Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Indicator A13 present. Hydrology Indicators: Secondary Indicators (2 or more required)	Histosol	or Histel (A1)		Alaska Colo	or Change	e (TA4) ⁴		Alaska	a Gleyed Without Hue 5Y or Redder
Hydrogen Sulfide (A4) Alaska Redox With 2.5Y Hue Thick Dark Surface (A12) Alaska Gleyed (A13) Alaska Redox (A14) Alaska Gleyed Pores (A15) *Give details of color change in Remarks. Restrictive Layer (if present): Type: Depth (inches): Permarks: Hydric Soil Indicator A13 present. HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators:	Histic Ep	oipedon (A2)		Alaska Alpi	ne Swale	s (TA5)		Unde	erlying Layer
Thick Dark Surface (A12) Alaska Gleyed (A13) Alaska Gleyed (A13) Alaska Redox (A14) Alaska Gleyed Pores (A15) *Give details of color change in Remarks. Restrictive Layer (if present): Type: Depth (inches): Remarks: Hydric Soil Present A13 present. Hydric Soil indicator A13 present. Wetland Hydrology Indicators: Secondary Indicators (2 or more required)	Hydroge	n Sulfide (A4)		Alaska Red	lox With 2	2.5Y Hue		Other	(Explain in Remarks)
Alaska Gleyed (A13) "One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology, Alaska Redox (A14) and an appropriate landscape position must be present unless disturbed or problematic. Alaska Gleyed Pores (A15) "Give details of color change in Remarks. Restrictive Layer (if present): Type: Depth (inches):	Thick Da	ark Surface (A12)		3					
Alaska Redox (A14) and an appropriate landscape position must be present unless disturbed or problematic. Alaska Gleyed Pores (A15) ⁴ Give details of color change in Remarks. Restrictive Layer (if present):	Alaska C	Gleyed (A13)		°One indicator c	of hydroph	iytic veget	ation, one	primary indicat	or of wetland hydrology,
Alaska Gleged Pores (A15) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes X No Remarks: Hydric soil indicator A13 present. Hydric Soil indicator A13 present. HYDROLOGY Wetland Hydrology Indicators:	Alaska F	Redox (A14)		and an appro	priate ian	oscape po	sition mus	t be present ur	niess disturbed or problematic.
Restrictive Layer (if present): Type:		Sleyed Pores (A15)		Give details of	color cha	nge in Rer	narks.		
Type:	Tuno	_ayer (if present):							
Remarks: Hydric soil indicator A13 present. HYDROLOGY Wetland Hydrology Indicators:	Denth (in	chec):		,				Hydric Soil	Present? Ves X No
Hydric soil indicator A13 present. HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (2 or more required)	Remarks:							Tryunc Son	
HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (2 or more required)	Ludria or	il indiactor A1	2 0 000	ont					
HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (2 or more required)	Hyunc so	DI Indicator A	is pres	ent.					
HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (2 or more required)									
HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (2 or more required)									
Wetland Hydrology Indicators: Secondary Indicators (2 or more required)	HYDROLO	GY							
	Wetland Hy	drology Indicators:						Secondary In	dicators (2 or more required)
Primary Indicators (any one indicator is sufficient) Water-stained Leaves (B9)	Primary Indic	ators (any one indic	ator is suf	f <u>icie</u> nt)				Water-st	ained Leaves (B9)

Primary Indicators (any one indica	ator is sufficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7) Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (E	8) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)	—	Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Ye	es No _X Depth (inches):	
Water Table Present? Ye	es X No Depth (inches): 7	
Saturation Present? Ye	es X No Depth (inches): 0	Wetland Hydrology Present? Yes X No
(includes capillary fringe)		
Describe Recorded Data (stream	gauge, monitoring well, aerial photos, previous inspect	ions), if available:
-		
Remarks:		
Wetland hydrology indi	cators present.	
]	·····	

Project/Site: Katlian Bay Road		Borough/City: Sitk	a	Sampling Date: June 21, 2015
Applicant/Owner: ADOT & PF, Southcoast Region				Sampling Point: 56
Investigator(s): Jeff Gray, Carolyn Prentice	Landform (hillside, terrace, hummocks, etc.): floodplain			
Local relief (concave, convex, none): none	Slope (%): <u>0-2</u>			
Subregion: Southeast Alaska	Lat: _		Long:	Datum: _
Soil Map Unit Name: Tuxekan silt loam, floodplains			NWI classifica	ation: PFO4
Are climatic / hydrologic conditions on the site typical for	this time of ye	ar? Yes X	No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology		disturbed?	Are "Normal Circumstances" pi	resent? Yes X No
Are Vegetation, Soil, or Hydrology	naturally pro	oblematic?	(If needed, explain any answer	s in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>X</u> Yes Yes	No No _X No _X	Is the Sampled Area within a Wetland?	Yes	No <u>×</u>			
Remarks:	Remarks:							
Data point not located within a wetland; all three indicators not present. Data point located near flag HH11.								

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Alnus rubra	65.00	Yes	FAC	That Are OBL, FACW, or FAC: <u>3</u> (A)
2. Picea sitchensis	15.00	No	FACU	
3				I otal Number of Dominant
				Species Across Air Strata. (B)
4				Percent of Dominant Species
Total Cover:	80			That Are OBL, FACW, or FAC: 75 (A/B)
50% of total cover: <u>40</u>	20% o	f total cover	<u> </u>	Prevalence Index worksheet:
Sapling/Shrub Stratum	_			Total % Cover of: Multiply by:
1. Alnus rubra	5	Yes	FAC	
2. Picea sitchensis	5	Yes	FACU	
3				FACW species x 2 =
4				FAC species x 3 =
4				FACU species x 4 =
5				UPL species x 5 =
6				$\begin{array}{c} c = c \\ c = c \\$
Total Cover:	10			
50% of total cover: 5	20% of	total cover	2	Prevalence Index = B/A =
Herb Stratum				
1. Athyrium filix-femina	45	Yes	FAC	Hydrophytic vegetation indicators:
2 Gymnocarpium dryopteris	11	No	FACU	Dominance Test is >50%
2. Drvonteris expansa	8	No	FACU	Prevalence Index is ≤3.0
SCippo lotifolio			EACW	Morphological Adaptations ¹ (Provide supporting
	4	INU	FACW	data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7.				¹ Indicators of hydric soil and wetland hydrology must
8				be present unless disturbed or problematic.
0				
9				
10				
Total Cover:	68			
50% of total cover: <u>34</u>	20% of	total cover:	13.6	
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	' % Bare (Ground	20	Hydrophytic
% Cover of Wetland Bryonhytes Total Cov	er of Bryon	hvtes	15	Present? Yes X No
(Where applicable)				
Remarks:				
Hydrophytic vegetation indicator presen	t.			

Profile Desc	ription: (Describe	to the dept	th needed to docun	nent the i	ndicator	or confirn	m the absence of indicators.)	
Depth	Matrix		Redo	x Features	3		_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0-3	10YR 2/1	100					loam	
3-6	10YR 3/3	100					loam	
6-18	10YR 4/2	100					silt loam	
							·	
							·	
					. <u></u>			
							- <u> </u>	
¹ Type: C=Co	oncentration, D=De	pletion, RM=	Reduced Matrix, CS	=Covered	or Coate	d Sand G	Grains. ² Location: PL=Pore Lining, M=Matrix.	
Hydric Soil I Histosol Histic Ep Hydroge	Indicators: or Histel (A1) bipedon (A2) en Sulfide (A4)		Indicators for P Alaska Colo Alaska Alpir Alaska Red	r Change ne Swales ox With 2.	ic Hydric (TA4) ^⁴ (TA5) 5Y Hue	Soils ³ :	Alaska Gleyed Without Hue 5Y or Redder Underlying Layer Other (Explain in Remarks)	
Alaska	Gleyed (A13)		³ One indicator o	f hydrophy	/tic vegeta	ition, one	primary indicator of wetland hydrology,	
Alaska F	Redox (A14)		and an approp	oriate land	scape po	sition mus	st be present unless disturbed or problematic.	
Alaska G	Gleyed Pores (A15)		⁴ Give details of o	color chan	ge in Ren	arks.		
Restrictive I	Layer (if present):							
Туре:							V	
Depth (ind	ches):						Hydric Soil Present? Yes No	-
Remarks:								
No hydrio	c soil indicato	r presen	nt.					
HYDROLO	GY							

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator	s sufficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes	No X Depth (inches):	
Saturation Present? Yes	No X Depth (inches): We	etland Hydrology Present? Yes No X
(includes capillary fringe)		
Describe Recorded Data (stream gau	ge, monitoring well, aerial photos, previous inspections	;), if available:
-		
Remarks:		
No wetland hydrology ind	icators present	

Project/Site: Katlian Bay Road		Borough/City:	Sitka	Sampling Date	June 20, 2015
Applicant/Owner: ADOT & PF, Southcoas	st Region			Sampling Poin	t: 57
Investigator(s):	e	Landform (hill	side, terrace, hum	mocks, etc.): floodplain	
Local relief (concave, convex, none): <u>cor</u>	ncave	Slope (%):	2		
Subregion: Southeast Alaska	Lat:		Long:	Datum:	-
Soil Map Unit Name: Kina-Sukoi associat	ion, sloping lowlands			NWI classification: PFO4	
Are climatic / hydrologic conditions on the	e site typical for this time of	year? Yes X	No (If	f no, explain in Remarks.)	
Are Vegetation, Soil, or H	ydrology significar	ntly disturbed?	Are "Normal C	Circumstances" present? Yes X	No
Are Vegetation, Soil, or H	ydrology naturally	problematic?	(If needed, ex	plain any answers in Remarks.)	
SUMMARY OF FINDINGS – Atta	ach site map showing	sampling poir	nt locations, tra	ansects, important feature	s, etc.
Hydrophytic Vegetation Present?	Yes X No	- Is the	Sampled Area	X	
Wetland Hydrology Present?	Yes X No	within	a Wetland?	Yes <u>×</u> No	

Data point located within Wetland 23 near flag GG1D; all three indicators present.

VEGETATION – Use scientific names of plants. List all species in the plot.

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Alnus rubra	70.00	Yes	FAC	That Are OBL, FACW, or FAC: <u>3</u> (A)
2. Picea sitchensis	15.00	No	FACU	Total Number of Dominant
3.				Species Across All Strata: 3 (B)
4				
Total Cover:	85			Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
50% of total cover: 42.5	20% o	f total cover	17	Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of:
1				
2.				OBL species x 1 =
3				FACW species x 2 =
4				FAC species x 3 =
4				FACU species x 4 =
5				UPL species x 5 =
6				Column Totals: 0 (A) 0 (B)
Total Cover:	0			
50% of total cover:	20% of	total cover:		Prevalence Index = B/A =
Herb Stratum			0.51	Hydrophytic Vegetation Indicators:
1 Lysichiton americanus	35	Yes	OBL	✓ Dominance Test is ≥50%
2. Athyrium filix-femina	10	Yes	FAC	$\square Provalonce Index is <3.0$
3. Tiarella trifoliata	4	No	FAC	Marshalasiaal Adaptations ¹ (Depuids supporting
4. Maianthamum dilatatum	5	No	FAC	data in Remarks or on a separate sheet)
5. Dryopteris expansa	6	No	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Cinna latifolia	4	No	FACW	
7. Gymnocarpium dryopteris	7	No	FACU	¹ Indicators of hydric soil and wetland hydrology must
8				be present unless disturbed or problematic.
0				
5				
10	71			
	000/ - 6	4 - 4 - 1	14.2	
50% Of total cover: 30.3	20% of	total cover:	10	Hydrophytic
Plot size (radius, or length x width) radius by stratum: 30°, 15°, 5°	% Bare C	Ground	10	Vegetation
% Cover of Wetland Bryophytes Total Cov (Where applicable)	er of Bryop	ohytes	30	Present? Yes <u>*</u> No
Remarks:				,
Hydrophytic vegetation indicator present	t			

Remarks:

Profile Desc	ription: (Describe	e to the de	pth needed to docu	ment the	indicator	or confiri	n the absence o	f indicato	ors.)	
Depth	Matrix	Matrix Redox Features								
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-4	10YR 2/1	100					loam			
4-18	10YR 4/2	30	10YR 4/6	15	С	m	loam			
	10Y 4/1	55					silt loam			
		<u> </u>								
1										
Type: C=Co	oncentration, D=De	pletion, RN	I=Reduced Matrix, C	S=Covere	d or Coate	ed Sand G	rains. Loca	tion: PL=	Pore Lining, M=Matrix.	
	indicators:			Problema		5011S :				
Histosol	or Histel (A1)		Alaska Color Change (TA4)					sleyed wi	Inout Hue 5Y or Redder	
	Dipedon (A2)		Alaska Alpine Swales (TAS)				Onderlying Layer			
Hydroge	n Sulfide (A4)		Alaska Red							
Thick Da	ark Surface (A12)		2							
Alaska G	Gleyed (A13)		°One indicator o	indicator of hydrophytic vegetation, one primary indicator of wetland hydrology,						
Alaska F	Redox (A14)		and an appro	and an appropriate landscape position must be present unless disturbed or problematic.						
Alaska G	Eleyed Pores (A15)		⁴ Give details of	color cha	nge in Rer	narks.				
Restrictive I	_ayer (if present):									
Туре:									N/	
Depth (ind	ches):						Hydric Soil P	resent?	Yes X No	
Remarks:										
Hydric so	oil indicator A	13 pres	sent.							
-										
	CV.									

Drimony Indiasters (any one indiaster is sufficient)	
Primary indicators (any one indicator is sumicient) vater-stained Leaves (B9)	
Surface Water (A1) Inundation Visible on Aerial Imagery (B7) Jrainage Patterns (B10)	
High Water Table (A2) Sparsely Vegetated Concave Surface (B8)	(C3)
Saturation (A3) Marl Deposits (B15) Presence of Reduced Iron (C4)	
Water Marks (B1) Hydrogen Sulfide Odor (C1) Salt Deposits (C5)	
Sediment Deposits (B2) Dry-Season Water Table (C2) Stunted or Stressed Plants (D1)	
Drift Deposits (B3) Other (Explain in Remarks)	
Algal Mat or Crust (B4) Shallow Aquitard (D3)	
Iron Deposits (B5)	
Surface Soil Cracks (B6)	
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes No X Depth (inches):	
Saturation Present? Yes X No Depth (inches): 14 Wetland Hydrology Present? Yes X No (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
-	
Remarks:	
Secondary wetland hydrology indicators present	

L

Project/Site: Katlian Bay Road	Borough/City:	Sitka	Sampling Date: June 20, 2015			
Applicant/Owner: ADOT & PF, Southcoast Region			Sampling Point: 58			
Investigator(s): Jeff Gray, Carolyn Prentice	Landform (hills	Landform (hillside, terrace, hummocks, etc.): floodplain				
Local relief (concave, convex, none): none	Slope (%): <u>0-2</u>	2				
Subregion: Southeast Alaska La	t: <u>-</u>	Long:	Datum:			
Soil Map Unit Name: Kina-Sukoi association, sloping lowlar	nds	NW	I classification: PFO4			
Are climatic / hydrologic conditions on the site typical for th	is time of year? Yes X	No (If no, exp	plain in Remarks.)			
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circums	tances" present? Yes X No			
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain ar	ny answers in Remarks.)			

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>X</u> Yes Yes	No No _X No _X	Is the Sampled Area within a Wetland?	Yes	No <u>×</u>		
Remarks:							
Data point located in upland near flag GG1D; not all wetland indicators present.							

	Absolute	Dominant	Indicator	Dominance Test worksheet:				
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species				
1. Alnus rubra	75.00	Yes	FAC	That Are OBL, FACW, or FAC: 2 (A)				
2. Picea sitchensis	10.00	No	FACU					
3				I otal Number of Dominant				
				Species Across Air Strata. (B)				
4	05			Percent of Dominant Species				
Total Cover:	60			That Are OBL, FACW, or FAC: (A/B)				
50% of total cover: 42.5	20% o	f total cover	r: <u>17</u>	Prevalence Index worksheet:				
Sapling/Shrub Stratum				Total % Cover of: Multiply by:				
1. Picea sitchensis	8	Yes	FACU					
2								
3.				FACW species x 2 =				
1				FAC species x 3 =				
4				FACU species x 4 =				
5				UPL species x 5 =				
6				Column Totals: 0 (A) 0 (B)				
Total Cover:	8							
50% of total cover: 4	20% of	total cover	1.6	Prevalence Index = B/A =				
Herb Stratum				Hydrophytic Vegetation Indicators:				
1. Athyrium filix-femina	70	Yes	FAC					
2. Gymnocarpium dryopteris	5	No	FACU	□ Dominance Test is >50%				
3 Maianthemum dilatatum	7	No	FAC	Prevalence Index is ≤3.0				
Cinna lattifolia	4	No	FACW	Morphological Adaptations ¹ (Provide supporting				
4		110	17.011	data in Remarks or on a separate sheet)				
5				Problematic Hydrophytic Vegetation ¹ (Explain)				
6								
7				¹ Indicators of hydric soil and wetland hydrology must				
8.				be present unless disturbed or problematic.				
9								
10								
Total Cover:	00							
50% of total cover: 43	20% of	total cover	17.2	Hydrophytic				
Plot size (radius, or length x width) radius by stratum: 30', 15', 5	/ % Bare C	Ground	10	Vegetation				
% Cover of Wetland Bryophytes - Total Cov	ver of Bryon	phytes	25	Present? Yes X No				
(Where applicable)	-)	,						
Remarks:								
Hydrophytic vegetation indicator								

Profile Desc	ription: (Describe	to the de	pth needed to docur	nent the	indicator	or confirm	n the absence	of indicators.)	
Depth	Matrix		Redo	x Feature	es				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc	Texture	Remarks	
0-3	10YR 2/1	100					loam		
3-18	10YR 3/1	80	10YR 4/2	5	d	m	silt loam	no redox concentrations	
	10YR 2/1	15		·					
		<u> </u>		·					
					<u> </u>				
<u></u>		<u> </u>		·					
· <u> </u>				·					
¹ Type: C=Co	oncentration, D=Dep	letion, RM	I=Reduced Matrix, CS	S=Covere	d or Coate	d Sand G	rains. ² Lo	cation: PL=Pore Lining, M=Matrix.	
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol or Histel (A1) Alaska Color Change (TA4) ⁴ Alaska Gleyed Without Hue 5Y of Alaska Alpine Swales (TA5) Hydrogen Sulfide (A4) Alaska Redox With 2.5Y Hue Other (Explain in Remarks)					a Gleyed Without Hue 5Y or Redder erlying Layer (Explain in Remarks)				
Alaska C	Gleyed (A13)		³ One indicator o	f hydropł	ytic vegeta	ation, one	primary indicat	or of wetland hydrology,	
Alaska F	Redox (A14)		and an appro	and an appropriate landscape position must be present unless disturbed or problematic.					
Alaska C	Gleyed Pores (A15)		⁴ Give details of	color cha	nge in Ren	narks.			
Restrictive I	Layer (if present):								
Туре:								V	
Depth (ind	ches):						Hydric Soil	Present? Yes <u>No </u> X	
Remarks:							•		
No hydrio	c soil indicato	r obser	rved.						
HYDROLO	GY								

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is	sufficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)) Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B	8) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	N .	
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes	No X Depth (inches):	V
Saturation Present? Yes (includes capillary fringe)	No X Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge	, monitoring well, aerial photos, previous inspecti	ions), if available:
-		
Remarks:		
No wetland hydrology indic	ators present	

Project/Site: Katlian Bay Road	Borough/City: Sitka Sampling Date: June 20, 2015	
Applicant/Owner: <u>ADOT & PF, Southcoast Region</u>	Sampling Point: 59	
Investigator(s):	Landform (hillside, terrace, hummocks, etc.): toe of slope	
Local relief (concave, convex, none): <u>concave</u>	Slope (%): 0-2	
Subregion: Southeast Alaska Lat:	Long: Datum:	
Soil Map Unit Name: Kina-Sukoi association, sloping lowlands	NWI classification: PFO4	
Are climatic / hydrologic conditions on the site typical for this time of ye	ar? Yes X No (If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" present? Yes X No	
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answers in Remarks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X	No		
Remarks:							
Data point located within Wetland 23 near flag G7; all three indicators present.							

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Tsuga heterophylla	60.00	Yes	FAC	That Are OBL, FACW, or FAC: 2 (A)
2. Picea sitchensis	5.00	No	FACU	
3				I otal Number of Dominant
				Species Across Air Strata. (b)
4	6E			Percent of Dominant Species
Total Cover:	00			That Are OBL, FACW, or FAC: 40 (A/B)
50% of total cover: 32.5	20% o	f total cover	: 13	Prevalence Index worksheet:
Sapling/Shrub Stratum	4	Mar	FAOL	Total % Cover of: Multiply by:
1. Menziesia ferruginea	4	Yes	FACU	$\frac{1}{1} \frac{1}{1} \frac{1}$
2. Oplopanax horridus	4	Yes	FACU	
3. Picea sitchensis	5	Yes	FACU	FACW species 3 $x 2 = 10$
1				FAC species 70 x 3 = 210
				FACU species22 x 4 =88
5				UPL species x 5 =
6				Column Totals: 166 (A) 381 (B)
Total Cover:	13			
50% of total cover:	20% of	total cover:		Prevalence Index = $B/A = 2.3$
Herb Stratum				Hydrophytic Vegetation Indicators:
1. Lysichiton americanus	65	Yes	OBL	
2. Athyrium filix-femina	10	No	FAC	Dominance Test is >50%
3 Dryopteris expansa	4	No	FACU	Prevalence Index is ≤3.0
Viola nalustris		No	FACW	Morphological Adaptations ¹ (Provide supporting
4			17.017	data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7.				¹ Indicators of hydric soil and wetland hydrology must
8				be present unless disturbed or problematic.
0				
9		<u> </u>		
10				
Total Cover:	88			
50% of total cover: 44	20% of	total cover:	17.6	the described in
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare 0	Ground		Hydrophytic
% Cover of Wetland Bryonbytes Total Cov	er of Brvor	hvtes		Present? Yes X No
(Where applicable)				
Remarks:				
Hydrophytic vegetation indicator present	t.			

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth	Matrix		Redo	k Features	_ 1		
(inches)	Color (moist)	<u> </u>	or (moist)	%	Type'	Loc ²	Texture Remarks
0-20	10YR 2/1						organic
		·					·
							· ·
	, <u></u>	· ·		······			· ·
							·
$\frac{1}{1}$	ncontration D-Don	otion DM-Doduc	od Matrix CS	-Covorod	or Coato	d Sand Gr	raine ² Location: DL-Poro Lining M-Matrix
Hvdric Soil I	ndicators:		dicators for P	roblemati	c Hvdric	Soils ³ :	
Histosol	or Histel (A1)		Alaska Colo	r Change	(TA4) ⁴		Alaska Gleved Without Hue 5Y or Redder
Histic Ep	pipedon (A2)		Alaska Alpir	e Swales	(TA5)		Underlying Layer
Hydroge	n Sulfide (A4)		Alaska Redo	ox With 2.5	5Y Hue		Other (Explain in Remarks)
Thick Da	ark Surface (A12)						
Alaska G	Gleyed (A13)	³ O	ne indicator of	f hydrophy	tic vegeta	ition, one p	primary indicator of wetland hydrology,
Alaska F	Redox (A14)		and an approp	oriate land	scape pos	sition must	st be present unless disturbed or problematic.
Alaska G	Bleyed Pores (A15)	⁴G	ive details of o	color chang	ge in Rem	arks.	
Restrictive L	ayer (if present):						
Туре:							Y
Depth (inc	ches):						Hydric Soil Present? Yes <u>A</u> No
Remarks:							
Hydric so	il indicator A1	present.					
HYDROLO	GY						
Wetland Hyd	trology Indicators:						Secondary Indicators (2 or more required)

Wetland Hydrology Indicato	ors:	Se	condary Indicators (2 or more required)	
Primary Indicators (any one ir	ndicator is suffici		Water-stained Leaves (B9)	
Surface Water (A1)		gery (B7)	Drainage Patterns (B10)	
High Water Table (A2)		Sparsely Vegetated Concave Su	ırface (B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)		Marl Deposits (B15)		Presence of Reduced Iron (C4)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)		Salt Deposits (C5)
Sediment Deposits (B2)		Dry-Season Water Table (C2)		Stunted or Stressed Plants (D1)
Drift Deposits (B3)			Geomorphic Position (D2)	
Algal Mat or Crust (B4)				Shallow Aquitard (D3)
Iron Deposits (B5)				Microtopographic Relief (D4)
Surface Soil Cracks (B6)				FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes N	o X Depth (inches):		
Water Table Present?	Yes X N	o Depth (inches): <u>8</u>		
Saturation Present?	Yes X N	o Depth (inches): 0	Wetland	Hydrology Present? Yes X No
(includes capillary fringe)				
Describe Recorded Data (stre	am gauge, mon	itoring well, aerial photos, previous	s inspections), if a	vailable:
-				
Remarks:				
Primary wetland hyd	Iroloav indi	icators present		

Project/Site: Katlian Bay Road	Borough/Cit	y: Sitka	Sa	ampling Date: Jur	ne 20, 2015	
Applicant/Owner: ADOT & PF, Southcoast Region				Sa	ampling Point: <u>60</u>	
Investigator(s):		Landform (h	nillside, terra	ace, hummocks, etc.): hillsop	e	
Local relief (concave, convex, none): <u>none</u>		Slope (%): _	>35			
Subregion: Southeast Alaska Lat:	-		Lon	g:	Datum:	
Soil Map Unit Name: Kina-Sukoi association, sloping lowland	S			NWI classificatio	n: PFO4	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes X	No	(If no, explain in Rema	arks.)	
Are Vegetation, Soil, or Hydrologysi	gnificantly	disturbed?	Are "	Normal Circumstances" pres	ent? Yes X	No
Are Vegetation , Soil , or Hydrology na	aturally pro	blematic?	(If ne	eded, explain any answers ir	ו Remarks.)	
SUMMARY OF FINDINGS – Attach site map sho	owing sa	mpling po	oint locati	ons, transects, importa	nt features, et	С.
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No	$\frac{X}{X}$	ls th with	e Sampled in a Wetlar	Area nd? Yes	No X	
Remarks:						
Data point not located in a wetland; not all three ind	licators p	resent. Da	ta point lo	cated near flag G7 on hil	Islope above w	etland.
VEGETATION – Use scientific names of plants.	List all s	species in	the plot.			
	Absolute	Dominant	Indicator	Dominance Test workshe	et:	
Tree Stratum 1. Tsuga heteroiphylla	<u>% Cover</u> 50.00	Species? Yes	Status FAC	Number of Dominant Speci That Are OBL, FACW, or F	ies AC: 2	(A)
2. Picea sitchensis	25.00	Yes	FACU	Total Number of Dominant		
3				Species Across All Strata:	6	(B)
4 Total Cover:	75			Percent of Dominant Speci That Are OBL, FACW, or F	es AC: <u>33.3</u>	(A/B)
50% of total cover· 37.5	20% c	of total cover	r 15			

···				
4 Total Cover: _	75	·		Percent of Dominant Species That Are OBL, FACW, or FAC:
50% of total cover: 37.5	20% c	of total cover	15	Prevalence Index worksheet:
Sapling/Shrub Stratum				Total % Cover of: Multiply by:
1. Menziesia ferruginea	35	Yes	FACU	
2. Oplopanax horridus	5	No	FACU	
3. Vaccinium ovalifolium	10	Yes	FAC	FACW species X 2 =
4				FAC species 32 $x 3 = 100$
5.				FACU species $x 4 = {332}$
6				UPL species x 5 =
Total Cover:	50			Column Totals: <u>143</u> (A) <u>512</u> (B)
50% of total cover:	20% of	f total cover:	10	Prevalence Index = B/A =3.6
Herb Stratum	10	Voo	EACU	Hydrophytic Vegetation Indicators:
1. Dryoptens expansa	10	Yes	FACU	Dominance Test is >50%
2. Streptopus amplexitolius	8	Yes	FACU	Prevalence Index is ≤3.0
3				Morphological Adaptations ¹ (Provide supporting
4				data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
8.				be present unless disturbed or problematic.
9.				
10				
Total Cover:	18			
50% of total cover: 9	20% of	f total cover	3.6	
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare (Ground	25	Hydrophytic
Cover of Wetland Dryophytop			60	Vegetation Present? Yes No X
(Where applicable)		phytes		
Remarks:				
No hydrophytic vegetation indicator pres	sent.			

SOIL

Profile Desc	cription: (Describe	to the depth n	eeded to docu	ment the i	ndicator	or confirm	n the absence	of indicato	ors.)	
Depth	Matrix		Redo	x Features	5					
(inches)	Color (moist)	<u>%</u> (Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-12	7.5YR 2.5/2	100					loam	refusal	at 12" (rock)	
Type: C=C	oncentration, D=Dep	etion, RM=Red	duced Matrix, C	S=Covered	or Coate	d Sand G	rains. Lo	cation: PL=	Pore Lining, M=Matrix.	
Hydric Soll Histosol Histic E Hydroge Thick Da	or Histel (A1) pipedon (A2) en Sulfide (A4) ark Surface (A12)		Alaska Colo Alaska Alpi Alaska Alpi	or Change ne Swales	(TA4) ⁴ (TA5) 5Y Hue	Solis :	Alaska Und Other	a Gleyed Wi erlying Laye (Explain in I	thout Hue 5Y or Redder r Remarks)	r
Alaska (Gleyed (A13)		³ One indicator c	of hydrophy	tic vegeta	tion, one	primary indicat	tor of wetlan	d hydrology,	
Alaska F	Redox (A14)		and an appro	priate land	scape po	sition mus	t be present ur	nless disturb	ed or problematic.	
Alaska (Gleyed Pores (A15)		⁴ Give details of	color chan	ge in Ren	narks.				
Restrictive	Layer (if present):									
Туре:									V	
Depth (in	ches):						Hydric Soi	Present?	Yes No X	_
Remarks:										
No hydri	c soil indicator	present.								
HYDROLO	GY									

Wetland Hydrology Indicators	3:		<u>Se</u>	condary Indicators (2 or more required)
Primary Indicators (any one ind	icator is sufficie	nt)	_ L	Water-stained Leaves (B9)
Surface Water (A1)		Inundation Visible on Aerial Imagery (B7	') L	Drainage Patterns (B10)
High Water Table (A2)		Sparsely Vegetated Concave Surface (E	38)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)		Marl Deposits (B15)		Presence of Reduced Iron (C4)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)		Salt Deposits (C5)
Sediment Deposits (B2)		Dry-Season Water Table (C2)		Stunted or Stressed Plants (D1)
Drift Deposits (B3)		Other (Explain in Remarks)		Geomorphic Position (D2)
Algal Mat or Crust (B4)				Shallow Aquitard (D3)
Iron Deposits (B5)				Microtopographic Relief (D4)
Surface Soil Cracks (B6)				FAC-Neutral Test (D5)
Field Observations:		X		
Surface Water Present?	Yes No	X Depth (inches):		
Water Table Present?	Yes No	X Depth (inches):		X
Saturation Present? (includes capillary fringe)	Yes No	X Depth (inches):	Wetland	Hydrology Present? Yes No X
Describe Recorded Data (streat	m gauge, monit	oring well, aerial photos, previous inspec	tions), if a	vailable:
-				
Remarks:				
No wetland hydrology	/ indicators	spresent		
	maioutore			

Project/Site: Katlian Bay Road	_ Borough/City:	Sitka	Sampling Date: June 20, 2015				
Applicant/Owner: ADOT & PF, Southcoast Region	n			Sampling Point: <u>61</u>			
Investigator(s): Jeff Gray, Carolyn Prentice,		Landform (hill	Landform (hillside, terrace, hummocks, etc.): toe of slope				
Local relief (concave, convex, none): none		Slope (%):	2				
Subregion: Southeast Alaska	Lat: _		Long: _	Datum:			
Soil Map Unit Name: Tuxekan silt loam, floodpla	ns		NW	/I classification: PFO4			
Are climatic / hydrologic conditions on the site ty	pical for this time of	year? Yes X	No (If no, ex	plain in Remarks.)			
Are Vegetation, Soil, or Hydrolog	y significan	tly disturbed?	Are "Normal Circums	stances" present? Yes X No	_		
Are Vegetation, Soil, or Hydrolog	y naturally	problematic?	(If needed, explain a	ny answers in Remarks.)			

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X	No
Remarks:					
Data point located in Wetland 24	near flag EEE	2; all three wetlan	d indicators present.		

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species	
1. Alnus rubra	75.00	Yes	FAC	That Are OBL, FACW, or FAC: 3	(A)
2. Picea sitchensis	5.00	No	FACU	Total Number of Deminent	
3				Species Across All Strata: 3	(B)
1					(D)
T-t-	80			Percent of Dominant Species	
			16	That Are OBL, FACW, or FAC: 100	(A/B)
50% of total cover: 40	20% o	t total cover	10	Prevalence Index worksheet:	
				Total % Cover of: Multiply by:	_
1		<u> </u>		OBL species x 1 =	
2				FACW species x 2 =	
3				FAC species x 3 =	
4					_
5				FACU species x 4 =	_
6.				UPL species x 5 =	
Total Cover:	0			Column Totals: (A)	(B)
50% of total covor:	20% of	total covor:		Dravalance la dava D/A	
Herb Stratum	20 /0 01			Prevalence Index = B/A =	_
Lysichiton americanus	25	Yes	OBL	Hydrophytic Vegetation Indicators:	
2 Athyrium filix-femina	30	Yes	FAC	Dominance Test is >50%	
2. Circaea alnina	8	No	FACW	Prevalence Index is ≤3.0	
S Gympocarpium dryoptoric	5	No	EACU	Morphological Adaptations ¹ (Provide suppor	ting
4. Gynnocarpium dryoptens			FACU	data in Remarks or on a separate sheet)	
5 Cinna latifolia	4	NO	FACW	Problematic Hydrophytic Vegetation ¹ (Explain	n)
6					
7				¹ Indicators of hydric soil and wetland hydrology i	nust
8.				be present unless disturbed or problematic.	
9					
10					
Total Cover	72				
			14.4		
50% of total cover:	20% of	total cover:	20	Hydrophytic	
Plot size (radius, or length x width) radius by stratum: 30°, 15°, 5°	% Bare C	Ground	28	Vegetation	
% Cover of Wetland Bryophytes Total Cov	er of Bryop	ohytes	0	Present? Yes <u>×</u> No	
(Where applicable)					
Remarks:					
Hydrophytic vegetation indicator presen	t.				

Profile Desc	cription: (Describe	to the de	pth needed to docu	ment the	indicator	or confirm	n the absence of i	ndicators.)	
Depth	Matrix		Redo	x Feature	es1	. 2			
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture	Re	emarks
0-3	10YR 2/1	100					loam		
3-18	10Y 4/1	55					silt loam		
	10YR 4/2	40	10YR 4/6	5	С	m			
				- <u> </u>					
¹ Type: C=C	oncentration, D=Dep	oletion, RN	I=Reduced Matrix, C	S=Covere	d or Coate	ed Sand G	rains. ² Locatio	n: PL=Pore l	_ining, M=Matrix.
Hydric Soil	Indicators:	· ·	Indicators for I	Problema	tic Hydrid	: Soils ³ :			0.
Histosol	or Histel (A1)		Alaska Col	or Change	e (TA4) ⁴		Alaska Gle	eyed Without I	Hue 5Y or Redder
Histic Ep	pipedon (A2)		Alaska Alpi	ne Swale	s (TA5)		Underlyir	ng Layer	
Hydroge	en Sulfide (A4)		Alaska Rec	ox With 2	2.5Y Hue		Other (Exp	olain in Remai	rks)
Thick Da	ark Surface (A12)								
Alaska (Gleyed (A13)		³ One indicator of	of hydroph	nytic veget	ation, one	primary indicator of	f wetland hyd	rology,
Alaska F	Redox (A14)		and an appro	priate lan	dscape po	sition mus	t be present unless	s disturbed or	problematic.
Alaska (Gleyed Pores (A15)		⁴ Give details of	color cha	nge in Rei	narks.			
Restrictive	Layer (if present):								
Туре:									V
Depth (in	ches):						Hydric Soil Pre	sent? Yes	X No
Remarks:									
Hydric so	oil indicator A	13 pres	sent.						
2		•							
HYDROLO	GY								

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indica	ator is sufficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Ye	es No X Depth (inches):	
Water Table Present? Ye	es X No Depth (inches): 14	
Saturation Present? Ye	es X No Depth (inches): 2 W	Vetland Hydrology Present? Yes X No
(includes capillary fringe)		· · · · · · · · · · · · · · · · · · ·
Describe Recorded Data (stream	gauge, monitoring well, aerial photos, previous inspection	is), if available:
-		
Remarks:		
Wetland hydrology indi	icators present.	

Project/Site: Katlian Bay Road				Borough/City:	Sitka	Sampling Date: June 20, 2015		
Applicant/Owner: AD	OT & PF, So	uthcoast Region				Sampling Point: 62		
Investigator(s): Jeff C	Gray, Carolyn	Prentice, Tad Schw	ager	Landform (hillside, terrace, hummocks, etc.): hillside				
Local relief (concave,	convex, nor	ne): none		Slope (%): <u>15</u>				
Subregion: Southeast Alaska Lat:					Long: _	Datum:		
Soil Map Unit Name:	Tuxekan silt	loam, floodplains				NWI classification: PFO4		
Are climatic / hydrolog	gic condition	s on the site typical	for this time of y	vear? Yes X	_ No (If n	o, explain in Remarks.)		
Are Vegetation	_, Soil	_, or Hydrology	significantl	y disturbed?	Are "Normal Cire	cumstances" present? Yes X No		
Are Vegetation	, Soil	_, or Hydrology	naturally p	roblematic?	(If needed, expla	ain any answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No X No X No X	Is the Sampled Area within a Wetland?	Yes	No <u>×</u>
Remarks:					
Data point located on upland slop	e near flag E	EE4 above wetlan	d; not all wetland indicators	present.	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1. Tsuga heterophylla	35.00	Yes	FAC	That Are OBL, FACW, or FAC: 2 (A)
2. Picea sitchensis	15.00	Yes	FACU	Total Number of Deminant
3.				Species Across All Strata: 6 (B)
4				
Total Cover:	50			Percent of Dominant Species
50% of total cover 25	20% a	f total aquar	. 10	That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum	20%0			Prevalence Index worksheet:
1 Menziesia ferruginea	25	Yes	FACU	Total % Cover of:Multiply by:
2 Vaccinium ovalifolium	5	No	FAC	OBL species x 1 =
2 Picea sitchensis	5	No	FACU	FACW species5 x 2 =10
3				FAC species 55 x 3 = 165
4			<u> </u>	FACU species63 x 4 =252
5				UPL species x 5 =
6				Column Totals: 123 (A) 427 (B)
Total Cover:	35			
50% of total cover: 17.5	20% of	total cover:	7	Prevalence Index = B/A =3.5
Herb Stratum				Hydrophytic Vegetation Indicators:
1 Athyrium filix-temina	15	Yes	FAC	Dominance Test is >50%
2. Dryopteris expansa	10	Yes	FACU	
3. Gymnocarpium dryopteris	8	Yes	FACU	Marchelarical Adaptations ¹ (Dravide supporting
4. Circaea alpina	5	No	FACW	data in Remarks or on a separate sheet)
5.				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
0				be present unless disturbed or problematic.
0				
9				
10				
Total Cover:	38			
50% of total cover:19	_ 20% of	total cover:	7.6	Hydrophytic
Plot size (radius, or length x width) radius by stratum: 30', 15', 5'	% Bare C	Ground	0	Vegetation
% Cover of Wetland Bryophytes Total Cov (Where applicable)	er of Bryop	ohytes	75	Present? Yes No $\frac{X}{X}$
Remarks:				
No hydrophytic vegetation indicator pres	sent.			

Profile Desc	ription: (Describe	to the dept	th needed to docu	ment the i	ndicator	or confirm	n the absence	e of indicate	ors.)	
Depth	Matrix		Redo	x Features	S _					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	·	Remarks	6
0-4	10YR 2/1	100					loam			
4-18	10YR 3/3	100					loam	organio	cs	
								·		
¹ Type: C=C	oncentration, D=De	pletion, RM=	Reduced Matrix, C	S=Covered	or Coate	d Sand G	rains. ² Lo	cation: PL=	Pore Lining,	M=Matrix.
Hydric Soil	Indicators:		Indicators for I	Problemat	ic Hydric	Soils ³ :				
Histosol	or Histel (A1)		Alaska Col	or Change	$(TA4)^4$		Alask	a Gleyed Wi	thout Hue 5	r or Redder
Histic Ep	pipedon (A2)		Alaska Alpi	ne Swales	(TA5)			lerlying Laye	er	
Hydroge	en Sulfide (A4)		Alaska Rec	lox With 2.	5Y Hue		Other	(Explain in	Remarks)	
Thick Da	ark Surface (A12)									
Alaska (Gleyed (A13)		³ One indicator of	of hydrophy	tic veget	ation, one	primary indica	tor of wetlan	d hydrology,	
Alaska F	Redox (A14)		and an appropriate landscape position must be present unless disturbed or problematic.						matic.	
Alaska (Gleyed Pores (A15)		⁴ Give details of	color chan	ge in Ren	narks.				
Restrictive I	Layer (if present):									
Туре:										V
Depth (in	ches):						Hydric Soi	I Present?	Yes	No <u>^</u>
Remarks:										
No hydrio	c soil indicato	r preser	nt.							
HYDROLO	GY									

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is suf	ff <u>icie</u> nt)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7) Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (E	88) US Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	N .	
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes	No X Depth (inches):	X
Saturation Present? Yes (includes capillary fringe)	No X Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge, m	nonitoring well, aerial photos, previous inspec	tions), if available:
-		
Remarks:		
No wetland hydrology indicat	tors present	

I

Project/Site: Katlian Bay Road		Borough/City: S	itka	Sampling Date: June 20, 2015
Applicant/Owner: ADOT & PF, Southcoast Region				Sampling Point: <u>63</u>
Investigator(s):		Landform (hillsio	de, terrace, hummocks,	etc.): floodplain
Local relief (concave, convex, none): <u>concave</u>		Slope (%): 0-2		
Subregion: Southeast Alaska	Lat: _		Long:	Datum:
Soil Map Unit Name: Tuxekan silt loam, floodplains			NW	l classification: PFO4
Are climatic / hydrologic conditions on the site typical for	or this time of y	ear? Yes X	No (If no, exp	blain in Remarks.)
Are Vegetation, Soil, or Hydrology	significantl	y disturbed?	Are "Normal Circums	tances" present? Yes X No
Are Vegetation, Soil, or Hydrology	naturally p	roblematic?	(If needed, explain ar	y answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	_ No _ No _ No	Is the Sampled Area within a Wetland?	Yes X	No					
Remarks:	Remarks:									
Data point located in Wetland 24 near flag E2; all three wetland indicators present.										

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Alnus rubra	75.00	Yes	FAC	That Are OBL, FACW, or FAC:3 (A)
2				
2				Total Number of Dominant
S				Species Across All Strata: (B)
4				Percent of Dominant Species
Total Cover:	75			That Are OBL, FACW, or FAC: 100 (A/B)
50% of total cover: 37.5	20% o	f total cover	15	Prevalence Index worksheet
Sapling/Shrub Stratum				
1				
2				OBL species x 1 =
2				FACW species x 2 =
3				FAC species x 3 =
4				
5				1 ACO species X 4
6.				UPL species x 5 =
Total Covor	0			Column Totals: (A) (B)
50% of total cover:	20% of	total cover:		Prevalence Index = B/A =
Athurium filix fomino	15	No	EAC	Hydrophytic Vegetation Indicators:
	15		FAC	Dominance Test is >50%
2. Lysichiton americanus	25	Yes	OBL	$\square Provolonce Index is <3.0$
3. Viola palustris	5	No	FACW	
4 Heracleum maximum	15	No	FACU	Morphological Adaptations' (Provide supporting
5 Veratrum viride	5	No	FAC	
5	20	Vec	EAC/M/	Problematic Hydrophytic Vegetation (Explain)
6	20	163	TAON	1
7				Indicators of hydric soil and wetland hydrology must
8				be present unless disturbed of problematic.
9				
10				
10	85			
I otal Cover:	00		. –	
50% of total cover: 42.5	20% of	total cover:	17	Hydrophytic
Plot size (radius, or length x width) radius by stratum: 30', 15', 5	' % Bare 0	Ground	15	Vegetation
% Cover of Wetland Bryophytes Total Cov	er of Brvor	ohvtes	0	Present? Yes X No
(Where applicable)				
Remarks:				1
Hydrophytic vogetation indicator proces	+			
	ι.			

Profile Desc	ription: (Describe	to the dep	oth needed to docum	nent the	indicator	or confirn	m the absence of indicators.)
Depth	Matrix		Redox	Feature	es		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0-18	10YR 3/1	75	10YR 4/4	10	С	PL	silt loam
			10Y 4/1	15	d	PL	
						- <u> </u>	·
		·					· ·
1							
'Type: C=Co	oncentration, D=Dep	letion, RM	=Reduced Matrix, CS	=Covere	d or Coate	ed Sand G	arains. ² Location: PL=Pore Lining, M=Matrix.
	ar lists (A1)					50IIS :	Alaska Claved Without Live 5V or Dedder
Histic Er	vinedon (A2)		Alaska Colo	n Change	e (TA5)		
	n Sulfide (A4)		Alaska Redu	with 2			Other (Explain in Remarks)
Thick Da	ark Surface (A12)						
Alaska G	Gleved (A13)		³ One indicator of	hydroph	nytic veget	ation, one	primary indicator of wetland hydrology.
Alaska F	Redox (A14)		and an approp	oriate lan	dscape po	sition mus	st be present unless disturbed or problematic.
🖌 Alaska 🤆	Gleyed Pores (A15)		⁴ Give details of c	olor cha	nge in Rer	narks.	
Restrictive I	_ayer (if present):						
Туре:							
Depth (ind	ches):						Hydric Soil Present? Yes X No
Remarks:							
Hydric so	oil indicator A1	5 pres	ent				
riyano oc			0111.				
	O Y						
HIDROLO	GY						
Wetland Hyd	drology Indicators:						Secondary Indicators (2 or more required)
Primary Indic	ators (any one indication	ator is suf	icient)				Water-stained Leaves (B9)

Primary Indicators (any one in	dicator is suffic	<u>sient)</u>	_ 🗹	Water-stained Leaves (B9)
Surface Water (A1)	Ļ	Inundation Visible on Aerial Imagery (B7) 🗹	Drainage Patterns (B10)
High Water Table (A2)	L	Sparsely Vegetated Concave Surface (B	38) 📙	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)		Marl Deposits (B15)		Presence of Reduced Iron (C4)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)		Salt Deposits (C5)
Sediment Deposits (B2)	Γ	Dry-Season Water Table (C2)		Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Ľ	Other (Explain in Remarks)	\checkmark	Geomorphic Position (D2)
Algal Mat or Crust (B4)				Shallow Aquitard (D3)
Iron Deposits (B5)				Microtopographic Relief (D4)
Surface Soil Cracks (B6)				FAC-Neutral Test (D5)
Field Observations:		N/		
Surface Water Present?	Yes N	No X Depth (inches):		
Water Table Present?	Yes N	No X Depth (inches):		N/
Saturation Present?	Yes N	No X Depth (inches):	Wetland	Hydrology Present? Yes X No
(includes capillary fringe)				
Describe Recorded Data (stre	am gauge, mor	nitoring well, aerial photos, previous inspect	tions), if av	ailable:
-				
Remarks:				
Wetland hydrology in	ndicators r	oresent		

Project/Site: Katlian Bay Road	Borough/City: Sitka	Sampling Date: June 20, 2015
Applicant/Owner: ADOT & PF, Southcoast Region		Sampling Point: 64
Investigator(s): Jeff Gray, Carolyn Prentice	Landform (hillside, terrace, hummod	cks, etc.): <u>floodplain</u>
Local relief (concave, convex, none): none	Slope (%): <u>0-2</u>	
Subregion: Southeast Alaska Lat:	Long:	Datum:
Soil Map Unit Name: Tuxekan silt loam, floodplains		NWI classification: PFO4
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes X No (If no,	explain in Remarks.)
Are Vegetation, Soil, or Hydrology sig	nificantly disturbed? Are "Normal Circu	umstances" present? Yes X No
Are Vegetation, Soil, or Hydrology na	turally problematic? (If needed, explain	n any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>X</u> Yes Yes	No No _X No _X	Is the Sampled Area within a Wetland?	Yes	No <u>X</u>					
Remarks:	Remarks:									
Data point located in uplands near flag E2; not all three indicators present.										

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species	
1. Alnus rubra	75.00	Yes	FAC	That Are OBL, FACW, or FAC: 2 ((A)
2				Total Number of Deminent	
3				Species Across All Strata: 3	(B)
1					(D)
Total Cover:	75			Percent of Dominant Species	
	2001/ -		. 15	That Are OBL, FACW, or FAC: ((A/B)
Sanling/Shrub Stratum	20% 0	r total cover		Prevalence Index worksheet:	
				Total % Cover of: Multiply by:	
				OBL species x 1 =	
2				FACW species x 2 =	
3				FAC species x 3 =	
4				FACIL species x4 =	
5					
6.				UPL species x 5 =	
Total Cover:	0			Column Totals: (A)	(B)
50% of total covor:	20% of	total covor:		Development in develop D/A	
Herb Stratum	2070 01			Prevalence index = B/A =	•
1 Athyrium filix-femina	35	Yes	FAC	Hydrophytic Vegetation Indicators:	
2 Heracleum maximum	25	Yes	FACU	Dominance Test is >50%	
2 Lysichiton americanus	3	No	OBI	Prevalence Index is ≤3.0	
	15	No		Morphological Adaptations ¹ (Provide supportir	ng
			TAON	data in Remarks or on a separate sheet)	
5. Veratrum viride	5	INO	FAC	Problematic Hydrophytic Vegetation ¹ (Explain))
6					
7				¹ Indicators of hydric soil and wetland hydrology m	ust
8.				be present unless disturbed or problematic.	
9.					
10					
Total Cover:	83				
	2001/ -		16.6		
50% Of total cover. 41.5	20% of	total cover:	17	Hydrophytic	
Plot size (radius, or length x width) radius by stratum. 30, 13, 5	% Bare 0	Ground	17	Vegetation	
% Cover of Wetland Bryophytes Total Cov (Where applicable)	er of Bryop	ohytes	0	Present? Yes <u>^</u> No	
Remarks:					
Hydrophytic vegetation indicator present	ŀ				

Profile Desc	cription: (Describe	e to the dep	th needed to docur	nent the i	ndicator	or confirm	n the absence	of indicators.)	
Depth	Matrix		Redo	x Feature	S				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-16	10YR 2/1	90					silt loam	some sand	
	10YR 2/2	10							
16-24	10YR 2/1	100					sandy loam		_
				·					—
									_
								-	—
¹ Type: C=C	oncentration, D=De	pletion, RM=	Reduced Matrix, CS	S=Covered	d or Coate	d Sand G	rains. ² Lo	cation: PL=Pore Lining, M=Matrix.	—
Hydric Soil	Indicators:		Indicators for F	roblemat	ic Hydric	Soils ³ :			
Histosol	or Histel (A1)		Alaska Colo	Alaska Color Change (TA4) ⁴			Alaska Gleyed Without Hue 5Y or Redder		
Histic E	pipedon (A2)		Alaska Alpine Swales (TA5)				Underlying Layer		
Hydroge	en Sulfide (A4)		Alaska Redox With 2.5Y Hue				Other	(Explain in Remarks)	
Thick D	ark Surface (A12)								
Alaska	Gleyed (A13)		³ One indicator o	f hydroph	ytic vegeta	ation, one	primary indicat	or of wetland hydrology,	
Alaska I	Redox (A14)		and an appropriate landscape position must be present unless disturbed or problematic.						
Alaska (Gleyed Pores (A15)		⁴ Give details of	color chan	ige in Ren	narks.			
Restrictive	Layer (if present):								
Туре:									
Depth (in	ches):						Hydric Soil	Present? Yes <u>No X</u>	
Remarks:									
No hydri	c soil indicato	or preser	nt.						
-									
HYDROLO	GY								

Wetland Hydrology Indicate	ors:		<u>s</u>	econdary Indicators (2 or more required)
Primary Indicators (any one in	ndicator is suffic	cient)	L	Water-stained Leaves (B9)
Surface Water (A1)		Inundation Visible on Aerial Imagery	(B7)	Drainage Patterns (B10)
High Water Table (A2)	L	Sparsely Vegetated Concave Surfac	e (B8)	Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)		Marl Deposits (B15)	Ļ	Presence of Reduced Iron (C4)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)	Ļ	Salt Deposits (C5)
Sediment Deposits (B2)		Dry-Season Water Table (C2)	Ļ	Stunted or Stressed Plants (D1)
Drift Deposits (B3)		Other (Explain in Remarks)	Ļ	Geomorphic Position (D2)
Algal Mat or Crust (B4)			Ļ	Shallow Aquitard (D3)
Iron Deposits (B5)			Ļ	Microtopographic Relief (D4)
Surface Soil Cracks (B6)			L	FAC-Neutral Test (D5)
Field Observations:		X		
Surface Water Present?	Yes N	No X Depth (inches):	_	
Water Table Present?	Yes N	No X Depth (inches):	_	
Saturation Present?	Yes N	No X Depth (inches):	_ Wetlan	d Hydrology Present? Yes No X
Describe Recorded Data (stre	am gauge, mor	nitoring well, aerial photos, previous insi	pections), if a	available:
_	J J	3 · · · · · · · · · ·		
Remarks:				
No wetland hydrolog	jy indicato	ors present.		

Project/Site: Katlian Bay Road	Borough/City:	Sitka	Sampling Date: June 25, 2015			
Applicant/Owner: <u>ADOT & PF, Southcoast Region</u>				Sampling Point: 65		
Investigator(s): Jeff Gray, Tad Schwager		Landform (hillside, terrace, hummocks, etc.): floodplain				
Local relief (concave, convex, none): none		_ Slope (%): <u>0-2</u>				
Subregion: Southeast Alaska		Long:	Datum:			
Soil Map Unit Name: Tuxekan silt loam, floodplains		NV	/I classification: PFO4			
Are climatic / hydrologic conditions on the site typical	for this time of	year? Yes X	_ No (If no, e>	plain in Remarks.)		
Are Vegetation, Soil, or Hydrology	significant	ly disturbed?	Are "Normal Circum	stances" present? Yes X No		
Are Vegetation, Soil, or Hydrology	naturally p	problematic?	(If needed, explain a	ny answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X Yes X Yes X	No No No	Is the Sampled Area within a Wetland?	Yes X No			
Remarks:							
Data point located in Wetland 25 near flag D4; all three indicators present.							

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	<u>% Cover</u>	<u>Species?</u>	<u>Status</u>	Number of Dominant Species	
1 Alnus rubra	70.00	Yes	FAC	That Are OBL, FACW, or FAC: 3	(A)
2				Total Number of Dominant	
3.				Species Across All Strata: 3	(B)
4					(-)
Total Cover:	70	·		Percent of Dominant Species That Are OBL_EACW_or_EAC ¹⁰⁰	(A/B)
50% of total cover: 35	20% o	f total cover:	14	Brovalance Index worksheet:	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Sapling/Shrub Stratum					
1				I otal % Cover of: Multiply by:	
2.				OBL species x 1 =	_
3				FACW species x 2 =	_
				FAC species x 3 =	_
4				FACU species x 4 =	
5				UPL species x 5 =	_
6				$\begin{array}{c} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 $	(P)
Total Cover:	0				_ (B)
50% of total cover:	20% of	total cover:		Prevalence Index = B/A =	
Herb Stratum				Hydrophytic Vegetation Indicators:	
1 Athyrium filix-femina	30	Yes	FAC	Dominance Test is >50%	
2. Lysichiton americanus	20	Yes	OBL		
3. Circaea alpina	15	No	FACW		
4. Veratrum viride	8	No	FAC	Morphological Adaptations' (Provide suppo	rting
5 Heracleum maximum	5	No	FACU	Problematic Hydrophytic Vegetation ¹ (Explanation)	(ain)
6)
7				¹ Indicators of hydric soil and wetland hydrology	must
/				be present unless disturbed or problematic.	maor
8					
9					
10					
Total Cover:	78				
50% of total cover: <u>39</u>	20% of	total cover:	15.6	Hadaan kada	
Plot size (radius, or length x width) radius by stratum: 30', 15', 5	% Bare 0	Ground	22	Hydrophytic	
% Cover of Wetland Bryophytes Total Cov	er of Bryop	ohytes	0	Present? Yes X No	
Remarks:				L	
Hydrophytic vegetation indicator presen	t.				

Profile Desc	ription: (Describe	to the dep	th needed to docun	nent the ir	ndicator	or confirm	m the absence of indicators.)	
Depth	Matrix		Redox	Features		0		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0-4	10YR 2/1	100					silt loam	
4-18	10YR 4/2	60					sandy loam	
	10YR 2/2	40						
¹ Type: C=C	oncentration, D=Dep	letion, RM=	Reduced Matrix, CS	=Covered	or Coate	d Sand G	Brains. ² Location: PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators:		Indicators for P	roblemati	ic Hydric	Soils ³ :		
Histosol	or Histel (A1)		Alaska Colo	r Change	(TA4) ⁴		Alaska Gleyed Without Hue 5Y or Redder	
Histic Ep	pipedon (A2)		Alaska Alpin	e Swales	(TA5)		Underlying Layer	
Hydroge	n Sulfide (A4)		Alaska Redo	ox With 2.8	5Y Hue		Other (Explain in Remarks)	
Thick Da	ark Surface (A12)		_					
Alaska (Gleved (A13)		³ One indicator of	hydrophy	tic vegeta	ation, one	primary indicator of wetland hydrology,	
Alaska F	Redox (A14)		and an approp	riate land	scape por	sition mus	st be present unless disturbed or problematic.	
Alaska (Gleyed Pores (A15)		⁴ Give details of c	olor chang	ge in Ren	narks.		
Restrictive I	_ayer (if present):							
Туре:								
Depth (in	ches):						Hydric Soil Present? Yes X No	_
Remarks:								
Hydric so	oil determined	l to be p	present due to	shallo	<i>w</i> wate	r table	2.	
,								

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)	Water-stained Leaves (B9)
Surface Water (A1) Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2) Sparsely Vegetated Concave Surface (B8)) Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3) Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1) Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2) Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3) Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)	Shallow Aquitard (D3)
Iron Deposits (B5)	Microtopographic Relief (D4)
Surface Soil Cracks (B6)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes <u>No X</u> Depth (inches):	
Water Table Present? Yes X No Depth (inches): 12	X
Saturation Present? Yes X No Depth (inches): 3	Netland Hydrology Present? Yes X No
(Includes capillary fringe)	ns) if available:
Describe Recorded Data (sitean gauge, monitoring well, aenal photos, previous inspection	ns), il available.
Remarks:	
Wetland hydrology indicators present.	

HYDROLOGY

Project/Site: Katlian Bay Road	Borough/City: Sitka	Sampling Date: June 25, 2015				
Applicant/Owner: ADOT & PF, Southcoast Region		Sampling Point: <u>66</u>				
Investigator(s): Jeff Gray, Tad Schwager	Landform (hillside, terrace, humn	_ Landform (hillside, terrace, hummocks, etc.): hillside				
Local relief (concave, convex, none): <u>none</u>	Slope (%): 0-2					
Subregion: Southeast Alaska Lat:	Long:	Datum:				
Soil Map Unit Name: <u>Tuxekan silt loam, floodplains</u>		_ NWI classification: PFO4				
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes X No (If I	no, explain in Remarks.)				
Are Vegetation, Soil, or Hydrology si	gnificantly disturbed? Are "Normal Ci	rcumstances" present? Yes X No				
Are Vegetation, Soil, or Hydrology na	aturally problematic? (If needed, exp	lain any answers in Remarks.)				

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>X</u> Yes Yes	No No _X No _X	Is the Sampled Area within a Wetland?	Yes	No <u>×</u>		
Remarks:							
Data point located on hillside above wetland near flag D4; not all three indicators present.							

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species	
1. Alnus rubra	80.00	Yes	FAC	That Are OBL, FACW, or FAC: 2 (A))
2				()	
Z				Total Number of Dominant	
3				Species Across All Strata:3 (B))
4					
Total Cover:	80			Percent of Dominant Species	(D)
50% of total over 40	000/	6 4 - 4 - 1	16		в)
50% OT TOTAL COVER:	20% 0	r total cover	. 10	Prevalence Index worksheet:	
Saping/Sinub Stratum				Total % Cover of: Multiply by:	
				OBI species x 1 =	
2					
3.				FACW species x 2 =	
				FAC species x 3 =	
4				FACU species x 4 =	
5					
6					
Total Cover	0			Column Totals: 0 (A) 0 (E	3)
	000/ 0				
50% Of total cover:	20% of	total cover:		Prevalence Index = B/A =	
Athurium filix famina	25	Vee	EAC	Hydrophytic Vegetation Indicators:	
		165	FAC	Dominance Test is >50%	
2. Veratrum viride	15	No	FAC		
3. Heracleum maximum	25	Yes	FACU		
Circaea alpina	10	No	FACW	Morphological Adaptations ¹ (Provide supporting	
4				data in Remarks or on a separate sheet)	
5				Problematic Hydrophytic Vegetation ¹ (Explain)	
6					
7				¹ Indicators of hydric soil and wetland hydrology must	t
				be present unless disturbed or problematic.	
ö					
9					
10					
Total Cover:	85				
	2001/ -5	total annual	17		
	20% of	total cover:	45	Hydrophytic	
Plot size (radius, or length x width) radius by stratum: 30', 15', 5	% Bare C	Ground	15	Vegetation	
% Cover of Wetland Bryophytes - Total Cov	er of Bryon	phytes	0	Present? Yes X No	
(Where applicable)		·			
Remarks:					
Uvdrophytic vogetation indicator preserv	+				
proprior vegetation indicator presen	ι.				

Profile Des	cription: (Describe	e to the dep	th needed to docu	nent the i	ndicator	or confirr	m the absence of indicators.)		
Depth	Matrix		Redo	x Feature	s		_		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-4	10YR 2/1	100					loam		
4-18	10YR 2/2	80					silt loam		
	10YR 2/1	20							
				<u> </u>					
¹ Type: C=C	concentration, D=De	pletion, RM=	Reduced Matrix, CS	S=Covered	d or Coate	d Sand G	Grains. ² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators:		Indicators for I	Problemat	tic Hydric	Soils ³ :			
Histoso	l or Histel (A1)		Alaska Colo	or Change	$(TA4)^4$		Alaska Gleyed Without Hue 5Y or Redder		
Histic E	pipedon (A2)		Alaska Alpine Swales (TA5)				Underlying Layer		
Hydrog	en Sulfide (A4)		Alaska Redox With 2.5Y Hue				Other (Explain in Remarks)		
Thick D	ark Surface (A12)								
Alaska	Gleyed (A13)		³ One indicator of	f hydroph	ytic vegeta	ation, one	e primary indicator of wetland hydrology,		
Alaska	Redox (A14)		and an appro	priate land	dscape po	sition mus	st be present unless disturbed or problematic.		
Alaska	Gleyed Pores (A15)		⁴ Give details of	color char	ige in Ren	narks.			
Restrictive	Layer (if present):								
Туре:									
Depth (in	iches):						Hydric Soil Present? Yes No X	-	
Remarks:									
No hydri	c soil indicato	ors prese	ent.						
		•							
HYDROLC	OGY								

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is suf	ficient)	Water-stained Leaves (B9)
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8	3) U Oxidized Rhizospheres along Living Roots (C3)
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)
Algal Mat or Crust (B4)		Shallow Aquitard (D3)
Iron Deposits (B5)		Microtopographic Relief (D4)
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)
Field Observations:	X	
Surface Water Present? Yes	No X Depth (inches):	
Water Table Present? Yes	No X Depth (inches):	V
Saturation Present? Yes (includes capillary fringe)	No X Depth (inches):	Wetland Hydrology Present? Yes No X
Describe Recorded Data (stream gauge, m	nonitoring well, aerial photos, previous inspection	ons), if available:
-		
Remarks:		
No wetland hydrology indicat	ors present	

Appendix E ADDENDUM KATLIAN BAY ROAD BOSWORTH BOTANICAL CONSULTING This page is intentionally left blank.

Addendum Katlian Bay Road

Bosworth Botanical Consulting



August 2016
Contents

Introduction	4
Methods	4
Results	4
Staging Area - MP_0.0 (Upland w/ 5% wetland mosaic)	4
Waste site - MP_2.9 (Upland)	8
Waste site - MP_3.875 (Wetland)	10
Log Deck - MP_6.375 (Upland)	13
Log Deck - MP_7.5 (Upland)	15
Coxe River Rd. Realignment	17
Staging Area - LTF -FS Rd_7579 (Upland)	19
Eelgrass in Katlian Bay	21
Appendix A - ACOE Data Sheets	24

List of Acronyms

Amec Foster Wheeler	Amec Foster Wheeler Environment & Infrastructure, Inc.
BBC	Bosworth Botanical Consulting
FAC	facultative
FACU	facultative upland
FACW	facultative wetland
GIS	Geographical Information System
HGM	Hydro-geomorphic
LEI	LEI Engineering and Surveying, LLC
LTF	log transfer facility
MHW	mean high water
MP	milepost
MSL	mean sea level
NE	northeast
NW	southeast
OBL	obligate
PEM	palustrine emergent
PEM1B	palustrine emergent persistent, saturated
PFO	palustrine forested
PFO1A	palustrine forested broad-leaved deciduous, temporarily flooded
PFO1B	palustrine forested broad-leaved deciduous, saturated
PFO4	palustrine forested needle-leaved evergreen
PFO4A	palustrine forested needle-leaved evergreen, temporarily flooded
PFO4B	palustrine, forested, needle-leaved evergreen, saturated
PSS	palustrine scrub-shrub
PSS1B	palustrine scrub-shrub broad leaved-deciduous, saturated
PUB3X	palustrine unconsolidated bottom, mud, excavated
RPW	Relatively Permanent Water
SE	southeast
Shee Atiká	Shee Atiká Urban Corporation
SW	southwest
TNW	Traditional Navigable Water
USACE	United States Army Corps of Engineers
WESPAK-SE	Wetland Ecosystems Services Protocol for Southeast Alaska

Introduction

This addendum is a supplement to Amec Foster Wheeler's, *Katlian Bay Road Wetlands and Streams Delineation Report, May 2016.* Seven sites were surveyed for wetlands and watercourses and parts of the shoreline of Katlian Bay were check for presence of eelgrass.

Methods

The wetland delineation methodology generally followed that of the Amec Foster Wheeler *Katlian Bay Road* survey.

The sites were visited on July 20th and 21st, 2016. The weather was overcast and in the high 50's during the survey. For the month before the fieldwork was done the average daytime temperature was in the low 60's and rainfall totaled less than three inches.

Seas were calm and boat access to Katlian Bay was unrestricted. Eel grass presence/absence checks were done at low tide, which was between 8 and 9 am on the survey days. Stream water levels were low so stream crossings, when accessing most of the sites, were relatively easy. The salmon had not come into the streams yet so there was no recent sign of bears.

Results

Staging Area - MP_0.0 (Upland w/ 5% wetland mosaic)

This proposed staging area is a 1.5 acre triangular, forested piece at the end of Halibut Pt. Rd., next to the Starrigavan Hikers Campground. The piece is bedrock-cored, hilly and completely forested. The western and broader half of the triangle is an upland forest dominated by Sitka spruce (FACU), western hemlock (FAC), rusty menziesia (FACU) and dwarf dogwood (FACU). The northern half of the triangle is an upland/wetland mosaic of 15- 20% wetland. The wetlands are small narrow (3-4 ft) stringers in the depressions between the small bedrock-cored hills. The wetland stringers have an overstory of Sitka spruce and western hemlock and understory of blueberry (FAC) and skunk cabbage (OBL). The soil in the wet areas is a mucky peat over bedrock.



Figure 1 - Potential staging area at the end of Halibut Point Rd. at Starrigavan campground. Green line shows approximate location of wetland mosaic area. Oval with label is BBC sample point #8.



Figure 2 - View looking SE into the upland part of the triangle.



Figure 3 - View from within of the upland section of the "triangle".



Figure 4 - Rooty, unsaturated peat in upland section of "triangle".



Figure 5 - Narrow wetland stringers in the mosaic of the eastern section of the "triangle".



Figure 6 - Rooty, saturated peat in a wetland stringer in the wetland mosaic in the eastern section of the "triangle.

Waste site - MP_2.9 (Upland)

This proposed waste site on a ridgeline with no drainages. The vegetation is young secondgrowth dominated by mountain and western hemlock (FAC), Sitka spruce (FACU), rusty menziesia (FACU), blueberries (3 species) (FAC), devils club (FACU) and dwarf dogwood (FACU). The soils are unsaturated peats down to at least 12 inches.



Figure 7 - Oval with label is BBC sample point #1.



Figure 8 - Overview of the proposed waste site at mile point 2.9.



Figure 9 - Detail view of proposed waste site at mile point 2.9.

Waste site - MP_3.875 (Wetland)

- Wetland Habitat Type Evergreen Forest
- Cowardin Class PFO4B
- HGM Class Slope
- WESPAK_SE Wetland Type Forested Peatland

There is a small wetland in a depression between a steep cliff and a bedrock knob at this proposed waste site. The wetland boundaries were flagged and LEI said they would survey it in. There is a small drainage out of the wetland to the north and a larger one out of the wetland to the south. This one drains down to a large stream just below the knob that then drains west into Katlian Bay. The wetland is dominated by yellow cedar (FAC), mountain and western hemlock (FAC), rusty menziesia (FACU), evergreen *Coptis* (FAC) and skunk cabbage (OBL). The soils are a deep, saturated peat.



Figure 10 - The green is the approximate wetland location at mile point 3. 875. The ovals with labels are BBC sample points #2 and #3.



Figure 11 - Upland vegetation at sample point #2. Western hemlock, Sitka spruce rusty menziesia and dwarf dogwood dominate.



Figure 12 - Unsaturated peat at sample point #2.



Figure 13 - Forested wetland at sample point #3 - dominated by yellow cedar, rusty menziesia, evergreen *Coptis* and skunk cabbage.



Figure 14 - Deep saturated peat at wetland sample point #3.

Log Deck - MP_6.375 (Upland)

This proposed log deck is found over and around the old logging road 7591. The area around the road is second-growth red alder (FAC) forest with a scattering of Sitka spruce and an understory of devils club (FACU), skunk currant (FACU), and salmonberry (FACU) and a forb layer of enchanters nightshade (FAC) and lady fern (FAC). The soil is a well-drained silt-loam.



Figure 15 - Proposed log deck at mile post 6.375. The oval with label is BBC sample point #4.



Figure 16 - Unsaturated silt loam and enchanters nightshade at BBC sample point #4.

Log Deck - MP_7.5 (Upland)

The below-drawn, proposed, log deck would have impacted wetland so LEI proposed moving it north of the second drainage and along the old road prism. The road prism is well-drained and minimally vegetated. The area around the road is second-growth red alder (FAC) forest with a scattering of Sitka spruce(FACU) and a forb layer of enchanters nightshade (FAC) and lady fern (FAC). The soil is a well-drained silt-loam.



Figure 17 - The new proposed log deck was moved along the old logging road to an upland are north of the two stream wetlands.



Figure 18 - Upland second-growth red alder forest at BBC sample point #5.



Figure 19 - The old logging road at BBC sample point #5.

Coxe River Rd. Realignment

- Wetland Habitat Type Evergreen Forest
- Cowardin Class PFO4B
- HGM Class Depressional
- WESPAK_SE Wetland Type Forested Peatland

The western side of the Coxe River realignment stays up on the upland second -growth hillside, well out of the wet floodplain/overflow channel that runs along the toe of the slope. A sample point was done in a toe-of-slope PFO4 wetland that might be within the ROW of the road. This wetland was flagged and way pointed and could be surveyed if it was determined that it would be impacted by the road construction. The alignment comes off the hillside just above where the overflow channel leaves Coxe River and so would not be impacted. The eastern side of the realignment route is all upland in second growth red alder growing in well-drained alluvial sediments.



Figure 20 - The general location of the wetland and BBC sample point #6 along the west arm of the Coxe River road realignment. The depiction of the road route on this map is different from that flagged and walked in the field.



Figure 21 - Looking downstream along a toe-of-slope wetland (BBC sample point #6) between the road alignment up the logged hill to the left and a Coxe River overflow channel to the right.



Figure 22 - A jumble of layers of saturated, mixed, organics and loam and sand.

Staging Area - LTF -FS Rd_7579 (Upland)

The LTF site is a quarried bedrock bench with a steep, rocky, salt water landing site with a band of eelgrass at least 10 feet deep all along that section of the bay. The bench has been seeded with *Festuca rubra and Deschampsia beringensis* (FAC). The margins have red alder (FAC) and young Sitka spruce (FACU), goats beard (UPL), salmonberry (FACU) and red elderberry (FACU). The back wall is vertical and is sparsely vegetated with Sitka alder (FAC) and goatsbeard.



Figure 23 - Quarried bench at the LTF site.



Figure 24 - The LTF landing site at high tide.

Eelgrass in Katlian Bay

Four landing sites, three along the southern side of Katlian Bay and one on the northern side were visited at or near low tide on the two field days (Figure 25). All sites had thick, healthy patches of eelgrass. Surprisingly three of the four sites were rocky sites.



Figure 25 - The green clouds are the potential landing sites that were visited for presence or absence of eelgrass.



Figure 26 - The center potential landing site on the south shore of Katlian Bay.



Figure 27 - The eastern most of the southern sites, the largest, and the only one visited that was found in rooted in silt rather than on the rocks.

Table 1 - Sample Pt. Table

ID	Wetland Habitat Type	Cowardin Class ¹	HGM Class ²	WESPAK-SE Wetland Type ³	Functional Rating	Acreage in Study area (acres)	Latitude N	Longitude W
BBC-1	Upland						57.157806	135.337280
MP-2.9								
BBC-2	Upland						57.162540	135.329437
MP-3.75								
BBC-3	Evergreen	PFO4	slope	Forested			57.162449	135.329147
MP-3.75	Forest			Peatland				
BBC-4	Upland							
MP- 6.375								
BBC-5	Upland							
MP - 7.5								
BBC-6	Wetland	PFO4	Depression	Forested				
Coxe				Peatland				
BBC-7	Upland							
LTF site								
BBC-8	Mostly upland							
Staging								

Appendix A - ACOE Data Sheets

waste site

WETLAND DETERMINATION DATA FORM – Alaska Region

10
Sitka Sampling Date: July 17, 2016
Sampling Point: BBC -1
e, hummocks, etc.): http://de
Datum: NAD83
NWI classification:
No x (If no, explain in Remarks.)
e "Normal Circumstances" present? Yes No
needed explain any answers in Remarks)
ations, transects, important features, etc.
ed Area
and? Yes No
this year. Stream levels are low.
Pretaten Sufide (94) Ataska Per
The Bark Surger 14 LL
ot.
Dominance Test worksheet:
Number of Deminant Species
That Are OBL, FACW, or FAC: (A)
Total Number of Dominant 5 (B)
Percent of Dominant Species
Prevalence Index worksheet:
Total % Cover of: Multiply by:
FACW species x 2 =
FAC species $45 \times 3 = 35$
FACU species $175 \times 4 = 560$
Column Totals: 180 (A) 715 (B)
Devialance Index = D/A = 3.97
Prevalence Index = B/A =/ / / /
Hydrophytic vegetation indicators.
Dominance Test is >50%
Prevalence Index is ≤3.0
Morphological Adaptations ¹ (Provide supporting
data in Remarks or on a separate sheet)
Problematic Hydrophytic Vegetation ¹ (Explain)
¹ Indicators of hydric soil and wetland hydrology must
be present unless disturbed or problematic.
ter Lable Present? Yes
Drabon Present? Yes
liven capitary (nege)
Hydrophytic
vegetation
Present? Yes No V

Wasle Site

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Katlian Bay Road - WP - 3, 875	10000 10 10	Borough	/City: S	itka Sampling Date: July 19, 2016
Applicant/Owner: ADOT & PF - Southcoast Region	n			Sampling Point: BBC - 2
Investigator(s): Koren Bosworth, Nina Horne	Landforn	n (hillside.	terrace.	hummocks, etc.): Hillsido -
Local relief (concave, convex, none): hom Q	Slope	(%):		· · · · · · · · · · · · · · · · · · ·
Subregion: Southeast Alaska Lat:		(10).	Long	Datum: NAD83
Soil Man Unit Name: Sitte / Partofshi P	of	Com	Olo x	NWI classification:
Are dimetic / hydrologic conditions on the site typical for this til	me of year?	Ves	PILA	No x (If no explain in Remarks)
Are Vegetation Soil or Hydrology signific	antly disturb	ned2	Are "	Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology signific	roblematic?	eu:	(If ne	anded evolution any answers in Remarks)
SUMMARY OF FINDINGS – Attach site map show	wing samp	oling poi	nt locat	ions, transects, important features, etc.
Hudrashutia Magatatian Drasant?				
Hydrophytic Vegetation Present? Pres)	Is the	Sampled	d Area /
Hydric Soli Present? Yes (No		within	n a Wetla	nd? Yes No
Wetland Hydrology Present? Yes (No Remarks: Painfall has been lower and temperatures have	heen high	er than a	verage th	is year. Stream levels are low
VEGETATION – Use scientific names of plants. L	ist all spe	cies in t	the plot.	Thide Dark Surface (A12) Alaska Gioyeo (A13) Abelo: Medio: 2010
Ab	osolute Dor	minant In	dicator	Dominance Test worksheet:
1 Pres	20 N	ecles r c	FU	Number of Dominant Species
2 Tshe	30 1	/	F	That Are OBL, FACW, or FAC: (A)
3. Xg no-Xanthocuperis noot.	5		F	Total Number of Dominant
4				Species Across All Strata: (B)
Total Cover: 50% of total cover: _ <u>27,5</u> Sapling/Shrub Stratum	55 20% of tota	al cover: _	11	Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B) Prevalence Index worksheet:
1. Mefe	50	/	FU	Total % Cover of: Multiply by:
2. Vaov	8		F	OBL species x1 =
3				FACW species x2=
4				FACU species 105 x4 = 120
5				UPL species $x = 5$
b Total Cover	58			
50% of total cover: 29	20% of tota	al cover:	11.7	Prevalence Index = B/A = /
Herb Stratum		/		Hydrophytic Vegetation Indicators:
1. <u>Cocq</u>	35		EU	Dominance Test is >50%
2. Coas	5	e (0.0)	t	Prevalence Index is ≤3.0
4. Blsp - Blechnum spirant	2		F	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
b				¹ Indicators of hydric soil and wetland hydrology must
				be present unless disturbed or problematic.
9.				
10				
Total Cover:	47		0	
50% of total cover: 23,5	20% of tota	al cover: _	7.4	Hydrophytic
Plot size (radius, or length x width) <i>15' radius</i> % Cover of Wetland Bryophytes Total Cove	% Bare Gro r of Bryophy	ound rtes		Vegetation Present? Yes No
(Where applicable)				
Remarks:				

SOIL

		\cap	$() \land$		~
Consuling	Deinte	14	150	*****	1
Sampling	POINT	\mathcal{L}	\sim		(

Profile Desc Depth	ription: (Describe to Matrix	the depth needed to docu Red	ument the indicator ox Features	or confirm	n the absence o	of indicators.)		
(inches)	Color (moist)	% Color (moist)	% Type ¹	Loc ²	Texture	Remarks		
0-16+	7.54R2572			1 <u></u>	Peat	unsat		
	Dation HADBA					Eoutheast Alaska		
		16015-2426-17581				anski knu		
	old	aa jaaniisiamuu D. konstilli	en A Stracto		hindle yo	Solwitt to Bolls and the		
	ก หรือก-ลก่วม.ว	eedeo, oolaan aay aaeve s	<u> </u>	danelop	1991a - 418 A	tation 2ni ist Hydralogy		
	Paptifeatures, etc.	ions transatis impor	sool (1300 philas	vsa oniv	s <u>ite mao sh</u> o	ARY OF FINDRIGS - Attach		
Type: C=Co	oncentration, D=Deple	tion, RM=Reduced Matrix, C Indicators for	S=Covered or Coat Problematic Hydri	ed Sand G	rains. ² Locati	on: PL=Pore Lining, M=Matrix.		
Histosol	or Histel (A1)	Alaska Co	lor Change (TA4) ⁴		Alaska	Gleved Without Hue 5Y or Redder		
Histic En	pipedon (A2)	Alaska Alr	Alaska Alpine Swales (TA5) Underlying Layer					
Hydroae	n Sulfide (A4)	Alaska Re	dox With 2.5Y Hue		Other (Explain in Remarks)			
Thick Da	ark Surface (A12)							
Alaska G	Gleyed (A13)	³ One indicator	of hydrophytic veget	tation, one	primary indicato	r of wetland hydrology,		
Alaska R	Redox (A14)	and an appr	opriate landscape po	osition mus	t be present.	INFIDIATE SCENERAL		
Alaska G	Gleyed Pores (A15)	⁴ Give details of	f color change in Re	marks.				
Restrictive L	ayer (if present):	Number of Dominiana Spec						
Type:						. /		
Depth (inc	ches):	Total Number of Dominan			Hydric Soil Pr	resent? Yes <u>No V</u>		
temarks:								
DROLO	GY	0.81. 658.099						
Vetland Hyd	drology Indicators:	PACES SPECIES			Secondary India	cators (2 or more required)		
rimary Indic	ators (any one indicat	tor is sufficient)			Water-stai	ned Leaves (B9)		
Surface	Water (A1)	Inundation Visi	ble on Aerial Imager	y (B7)	Drainage	Patterns (B10)		
High Wa	ater Table (A2)	Sparsely Veget	_ Sparsely Vegetated Concave Surface (B8)			Oxidized Rhizospheres along Living Roots (C		
Saturation (A3) Marl Depos			(B15)		Presence	of Reduced Iron (C4)		

Hydrogen Sulfide Odor (C1)

Other (Explain in Remarks)

No

No

No V

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Yes

Yes

Yes

Dry-Season Water Table (C2)

Depth (inches)

Depth (inches):

Depth (inches):

6

0

Salt	Deposits	(C5)

- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Wetland	Hydrology	Present?	Yes

Remarks:

Water Marks (B1)

Drift Deposits (B3)

Iron Deposits (B5)

Field Observations:

Surface Water Present?

(includes capillary fringe)

Water Table Present?

Saturation Present?

Sediment Deposits (B2)

Algal Mat or Crust (B4)

Surface Soil Cracks (B6)

No

Woste Site

WETLAND DETERMINATION DATA FORM – Alaska Region

Project/Site: Katlian Bay Road - WP - 3,8	75	Borou	igh/City:	Sitka Sampling Date: July 19, 2016
Applicant/Owner: ADOT & PF - Southcoast Re	gion			Sampling Point: BBC-3
Investigator(s): Koren Bosworth, Nina Horn	neLan	dform (hillsi	ide, terrace,	hummocks, etc.): hillside - bench
Local relief (concave, convex, none); Comave	SI	ope (%):	WELENA	5
Subregion: Southeast Alaska Lat:			Long:	Datum: NAD83
Soil Map Unit Name: Maybesd Seri	05			NWI classification: PF04
Are climatic / hydrologic conditions on the site typical for t	this time of y	ear? Yes_		Nox (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology si	ignificantly di	sturbed?	Are	"Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology natura	ally problema	atic?	(lf n	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing s	ampling p	point loca	tions, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No		Second State	 Cell averaging the De David on Third and the Market of the Device of Market on The Device
Hydric Soil Present? Yes	No	Is t	the Sample	d Area
Wetland Hydrology Present? Yes	No	wit	hin a Wetla	and? Yes No
VEGETATION – Use scientific names of plant	ts. List all	species i	in the plot	Children States States (2010) (201
	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum	% Cover	Species?	Status	Number of Dominant Species
1. Xand	25	- <u>\</u>	1-	That Are OBL, FACW, or FAC: (A)
2. Tome	10		E	Total Number of Dominant
A Pico - Pinus conterta	10			Species Across All Strata: (B)
Total Cove	er: 65			Percent of Dominant Species
50% of total cover: 32	5 20%	of total cove	r: 13	That Are OBL, FACW, or FAC:(A/B)
Sapling/Shrub Stratum		,	P	Prevalence Index worksheet:
1. Mete	15		FU	Total % Cover of: Multiply by:
2. <u>VGOV</u>	10		F	OBL species x 1 =
3. ISME (Sapling)	10		-	FACW species X 2 = FAC species X 3 =
4				FACU species x 4 =
5				UPL species X 5 = (B)
oTotal Cove	.35			
50% of total cover: 1.7	7,5 20% 0	of total cove	r: 7	Prevalence Index = B/A =
Herb Stratum		/		Hydrophytic Vegetation Indicators:
1. Coas .	15	$\overline{}$	F	Dominance Test is >50%
2. Lyam	10	\sim	OB	Prevalence Index is ≤3.0
3. <u>Coca</u> 4. <u>B</u> SP	2		F	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
7				¹ Indicators of hydric soil and wetland hydrology must
8		-		be present unless disturbed or problematic.
9			(89000)	an Table Present? Ves No Dept
Total Cove	: 30		(seron)	ration Present? Yes No
50% of total cover	5 20% 0	of total cove	r: 6	ries capitary transi
Plot size (radius, or length x width) 15 rad (U	5 % Bar	e Ground		Hydrophytic /
% Cover of Wetland Bryophytes Total (Where applicable)	Cover of Bry	ophytes		Present? Yes No
Remarks:				1

OIL	Region	ell – Alaska	103 A.T.	40 MON	18.14.18.17	83736 6 844.173	Sampling Point: DDL 3
Profile Description: (Describe	e to the depth r	needed to docur	ment the i	ndicator	or confirm	m the absence of ir	idicators.)
(inches) Color (moist)	%	Color (moist)	x Features	S Type ¹	1.002	Texture	Remarks
						Tontaro	Homano
All+ JEDR	2510					0 +/M	U. t
0-16T 7.5 %K.	2012			681.50	012	realling	KSar,
							in <u>Southeast Alasica</u>
	Wi-crassification	14					Unit Name.
(chamorran			-				
nt? Yes No	even lasonsien	e Marriel Czaw	<u>.</u>	Thente	ab vitoso	Minoia veolot	etation Soil or Hyd
Romarks n	ni answana yaa	nistore erotain	11)		noblemat	g yllenuten V@	station
		esnest shorte					
Type: C=Concentration D=De	pletion RM=Re	duced Matrix, C	S=Covered	or Coate	d Sand G	rains. ² Location:	PL=Pore Lining, M=Matrix,
ydric Soil Indicators:		Indicators for I	Problemat	ic Hydric	Soils ³ :		Field Property Strates 9 662
Histosol or Histel (A1)		Alaska Colo	or Change	(TA4)4		Alaska Gle	yed Without Hue 5Y or Redder
Histic Epipedon (A2)		Alaska Alpi	ne Swales	(TA5)		Underlyin	g Layer
Hydrogen Sulfide (A4)		Alaska Red	lox With 2.	5Y Hue		Other (Expl	ain in Remarks)
Thick Dark Surface (A12)		30 1 11 1					
Alaska Gleyed (A13)		"One indicator o	of hydroph	ytic vegeta	ation, one	primary indicator of	wetland hydrology,
Alaska Redox (A14) Alaska Gleved Pores (A15)	estworkehze)	⁴ Give details of	color char	iscape po	sition mus	st be present.	
Alaska Gleyeu Poles (A15)		Give details of	color char	ige in iten	Jains.	1	(Bitum
Tuno:							
Dopth (inchoo):		and second at the test of the				Hydric Soil Pros	Int2 Vos No
aci stoblati	ndex workshie Court of	Provalence					o Shrub Strathim 90, #4
YDROLOGY							
Netland Hydrology Indicators	5:					Secondary Indicato	ors (2 or more required)
Primary Indicators (any one indi	icator is sufficier	nt)				Water-stained	Leaves (B9)
Surface Water (A1)		Inundation Visib	le on Aeria	al Imagery	(B7)	Drainage Pat	terns (B10)
High Water Table (A2)	Ave a xear	Sparsely Vegeta	ated Conca	ave Surfac	e (B8)	Oxidized Rhiz	ospheres along Living Roots (C3
Saturation (A3)	Moonistion inc	Marl Deposits (E	315)			Presence of F	Reduced Iron (C4)
Water Marks (B1)	ness a nes talan	Hydrogen Sulfid	le Odor (C	1)		Salt Deposits	(C5)
Sediment Deposits (B2)	Stran rebrier	Dry-Season Wa	ter Table (C2)		Stunted or Str	ressed Plants (D1)
Drift Deposits (B3)	alla and Alla	Other (Explain i	n Remarks	5)		Geomorphic I	Position (D2)
Algal Mat or Crust (B4)						Shallow Aqui	tard (D3)
Iron Deposits (B5)						Microtopogra	phic Relief (D4)
Surface Soil Cracks (B6)						FAC-Neutral	Test (D5)
ield Observations:	riess opturbed i	. /					
	Yes No	Depth (i	inches):		-		
Surface Water Present?			inches).	16			/
Surface Water Present? Water Table Present?	Yes N	o Depth (1			/
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes No	o <u> </u>	inches):	2	Wetla	and Hydrology Pres	eent? Yes No
Surface Water Present? Water Table Present? Saturation Present? includes capillary fringe) Describe Recorded Data (strear	Yes No Yes No m gauge, monito	o Depth (o Depth (oring well, aerial	inches):	2 evious ins	Wetla pections).	and Hydrology Pres	ent? Yes No
Surface Water Present? Nater Table Present? Saturation Present? includes capillary fringe) Describe Recorded Data (strear	Yes No Yes No m gauge, monito	o <u>v</u> Depth (o Depth (oring well, aerial	inches):	2 evious ins	Wetla pections).	and Hydrology Pres	ent? Yes <u>V</u> No
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strear Remarks:	Yes No	o Depth (o Depth (oring well, aerial	inches):	2 evious ins	Wetla pections).	and Hydrology Pres	sent? Yes <u>No</u> No
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strear Remarks:	Yes No	o <u>v</u> Depth (o Depth (oring well, aerial	inches): photos, pr	2 evious ins	Wetla pections).	and Hydrology Pres	sent? Yes <u>No</u> No

	Logdock
	(mad orism
WETLAND DETERMINATION DATA FOR	RM – Alaska Region
ment the fedficerer or conference of the resource of the readous 1	ane Development (Development to the depth reached to doors
Project/Site: Katlian Bay Road - MP 6,375 Borough/City:	Sitka Sampling Date: July 20, 2016
Applicant/Owner: ADOT & PF - Southcoast Region	Sampling Point: <u>BBC-4</u>
Investigator(s): Koren Bosworth, Nina Horne Landform (hillside, terrace	e, hummocks, etc.): <u>flood plain</u>
Local relief (concave, convex, none): Slope (%):	
Subregion: Southeast Alaska Lat: Long	Datum: NAD83
Soil Map Unit Name: Juye Kan DIM Dam	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	No No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Are	e "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problematic? (If	needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point loc	ations transects important features etc.
Hydrophytic Vegetation Present? Yes	re CeCosteritory CeCostelas RUNReduced Matter C
Hydric Soil Present? Yes No Is the Sampl	led Area
Wetland Hydrology Present? Yes No within a Wet	land? Yes No V
Remarks: Rainfall has been lower and temperatures have been higher than average	this year. Stream levels are low.
clear cut in 60's road prism	may block surface flows
	during rainy season
VEGETATION - Use scientific names of plants. List all species in the plants	ot.
Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum <u>% Cover Species? Status</u>	Number of Dominant Species 2
1. ATO - MINOS I UNIA TO V F	That Are OBL, FACW, or FAC: (A)
	Total Number of Dominant
4.	Species Across All Strata:(B)
Total Cover: 75	Percent of Dominant Species
50% of total cover: 37.5 20% of total cover: 15	That Are OBL, FACW, or FAC: 50/0 (A/B)
Sapling/Shrub Stratum	Flevalence muck worksheet.
2 Ript - Ripes bracteostein 20 V FU	Total % Cover of: Multiply by:
3. RUSP RUDUS SOONADIUS 20 FU	FACW species $55 \times 2 = 10$
4	FAC species $10 \times 3 = 320$
5	UPL species <
600120 and 150 standard [2010]00120 mercent length or at	Column Totals: (A) (A) (B)
	Prevalence Index = $B/A = 3.15$
50% of total cover: 20% of total cover:	Hydrophytic Vegetation Indicators:
1 Cicl - Ciccopo alping 50 / FW	Dominance Test is >50%
2. Viad - Viola advinca. 5 FW	Prevalence Index is ≤3.0
3. Hela - Heracleum Langton 5 FU	Morphological Adaptations ¹ (Provide supporting
4. Philo - Phagopteris connecto 5EU	data in Remarks or on a separate sheet)
5. Gydr 5 FV	Problematic Hydrophytic Vegetation ¹ (Explain)
6. <u>Atte</u> 40 V F	¹ Indicators of hydric soil and wetland hydrology must
0	be present unless disturbed or problematic.
9.	
10	Per Tuble Prese 27 Peph (
Total Cover: 110	ucettori Present? Yes No
50% of total cover: 55 20% of total cover: 22	Hydrophytic
Plot size (radius, or length x width) 20 radiug % Bare Ground	Vegetation
% Cover of Wetland Bryophytes Total Cover of Bryophytes	Present? Yes No/_
Pamarke:	
romano.	

Profile Desc	ription: (Describe	to the dept	h needed to docun	nent the in	dicator	or confin	n the absence of ind	icators.)		
Depth (inches)	Color (moist)	%	Color (moist)	× Features %	Type ¹	_Loc ²	Texture	Remarks		
D-164	7.59R 3	13					loam	unsat		
								ernali SnU		
	-Remaks.)	i stawara y	needed, explain an	<u> </u>	50	iemsidos	r velenitisti	stationSolior Hydro		
T		Lation DM	Deduced Metric Of			d Canad C	21			
Type: C=Co Tydric Soil	Indicators:	letion, Rivi=	Indicators for P	roblemati	c Hydric	Soils ³ :	rains. Location: P	L=Pore Lining, M=Matrix.		
Histosol	or Histel (A1)		Alaska Colo	r Change (TA4) ⁴		Alaska Gleve	d Without Hue 5Y or Redder		
Histic Ep	pipedon (A2)		Alaska Alpir	ne Swales ((TA5)		Underlying Layer			
Hydroge	en Sulfide (A4)		Alaska Red	ox With 2.5	Y Hue		Other (Explai	n in Remarks)		
Thick Da	ark Surface (A12)									
Alaska C	Gleyed (A13)		³ One indicator or	fhydrophyt	tic vegeta	ation, one	primary indicator of w	etland hydrology,		
Alaska F	Redox (A14)		and an approp	oriate lands	scape por	sition mus	st be present.			
Alaska C	Sleyed Poles (A15)		Give details of t	color chang	je in Ken	Idiks.	1	muter		
ACTFINE .	Layer (if present):									
Tune							1			
Type:	choc);						Hydric Soil Proson	2 Yos No		
Type: Depth (ind	ches):	1940(1760).1	Total Nichalas				Hydric Soil Presen	t? Yes No		
Type: Depth (ind Remarks:	ches):	non francisco Angles (Sentor Angles	Total Number Total Number 1 and Am Old Free American Total Species		ve a terto		Hydric Soil Presen	t? Yes No		
Type: Depth (inc Remarks: YDROLO	ches):		Total Namo <u>e o</u> Perent of Com The As OSL Providence Inc C. 2004 apeops FAG Science				Hydric Soil Presen	t? Yes No (2 or more required)		
Type: Depth (ind Remarks: YDROLO Vetland Hyd Primary Indic	GY GY Grology Indicators:	ator is suffic	ient)				Hydric Soil Presen	t? Yes No		
Type: Depth (inc emarks: /DROLO /etland Hyo rimary Indic Surface	GY drology Indicators: cators (any one indic	ator is suffic	ient)	e on Aerial	Imagery	(B7)	Hydric Soil Presen Secondary Indicators Water-stained L Drainage Patter	t? Yes No (2 or more required) eaves (B9) rns (B10)		
Type: Depth (ind emarks: //DROLO /etland Hyd rimary Indic Surface High Wa	Ches): GY drology Indicators: cators (any one indic Water (A1) ater Table (A2)	ator is suffic	ient) Inundation Visible Sparsely Vegeta	e on Aerial	Imagery	(B7) e (B8)	Hydric Soil Presen Secondary Indicators Water-stained L Drainage Patter Oxidized Rhizos	t? Yes No (2 or more required) eaves (B9) rns (B10) spheres along Living Roots (C3		
Type: Depth (ind emarks: //DROLO /etland Hyd rimary Indic Surface High Wa Saturati	GY drology Indicators: cators (any one indic Water (A1) ater Table (A2) ion (A3)	ator is suffic	ient) Inundation Visible Sparsely Vegetat Marl Deposits (B	e on Aerial ted Concav 15)	Imagery ve Surfac	(B7) e (B8)	Hydric Soil Presen	t? Yes No (2 or more required) (2 or more required) eaves (B9) rns (B10) spheres along Living Roots (C3 duced Iron (C4)		
Type: Depth (ind emarks: //DROLO /etland Hyd rimary India Surface High Wa Saturati Water M	GY drology Indicators: cators (any one indic Water (A1) ater Table (A2) ion (A3) Marks (B1)	ator is suffic	ient) Inundation Visible Sparsely Vegetat Marl Deposits (B Hydrogen Sulfide	e on Aerial ted Concav (15) a Odor (C1)	Imagery ve Surfac	(B7) e (B8)	Hydric Soil Present Secondary Indicators Water-stained L Drainage Patter Oxidized Rhizos Presence of Re Salt Deposits (C	t? Yes No (2 or more required) eaves (B9) rns (B10) spheres along Living Roots (C3 duced Iron (C4) 25)		
Type: Depth (inc temarks: YDROLO Vetland Hyo 'rimary Indic Surface High Wa Saturati Water M Sedime	GY drology Indicators: ators (any one indic Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2)	ator is suffic	ient) Inundation Visible Sparsely Vegetal Marl Deposits (B Hydrogen Sulfide Dry-Season Wat	e on Aerial ted Concav 15) e Odor (C1) er Table (C	Imagery ve Surfac	(B7) e (B8)	Hydric Soil Present	t? Yes No (2 or more required) eaves (B9) rns (B10) spheres along Living Roots (C3 duced Iron (C4) (25) ssed Plants (D1)		
Type: Depth (ind Remarks: YDROLO YOROLO Vetland Hyd Primary Indic Surface Surface High Wa Saturati Water M Sedime Drift De	GY drology Indicators: cators (any one indic Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3)	ator is suffic	ient) Inundation Visible Sparsely Vegetat Marl Deposits (B Hydrogen Sulfide Dry-Season Wat Other (Explain ir	e on Aerial ted Concav 15) e Odor (C1) er Table (C n Remarks)	Imagery ve Surfac) :2)	(B7) e (B8)	Hydric Soil Presen	t? Yes No (2 or more required) eaves (B9) rns (B10) spheres along Living Roots (C duced Iron (C4) 25) ssed Plants (D1) sition (D2)		

Algar Mat of Crust (D4)				Shallow Aquitard (D3)
Iron Deposits (B5)				Microtopographic Relief (D4)
Surface Soil Cracks (B6)				FAC-Neutral Test (D5)
Field Observations:				9
Surface Water Present?	Yes	No Depth (inch	nes):	
Water Table Present?	Yes	_ No Depth (inc	hes): 716	
Saturation Present? (includes capillary fringe)	Yes	No Depth (incl	hes): <u>216</u>	Wetland Hydrology Present? Yes
Describe Recorded Data (stre	am gauge, m	onitoring well, aerial pho	otos, previous inspe	ections), if available:
Remarks:		Cite and and	ophytos	and the search of the T

No

	Log Deck
	moved 4 pr
WETLAND DETERMINATION DATA FOR	M - Alaska Region
most the indicator or confirming alreator of staticators)	Build - scilling discontrate to the court newbed to docu
ject/Site: Katlian Bay Road - WP + 5Borough/City:	Sitka Sampling Date: July 20, 2016
licant/Owner: ADOT & PF - Southcoast Region	Sampling Point: BBC-5
estigator(s): Koren Bosworth, Nina Horne Landform (hillside, terrace	, hummocks, etc.): Flood Plain
al relief (concave, convex, none): Slope (%):	· · · · · · · · · · · · · · · · · · ·
region: Southeast Alaska Lat: Long:	Datum: NAD83
Map Unit Name: TUXEKEN SIK LOAM	NWI classification:
climatic / hydrologic conditions on the site typical for this time of year? Yes	Nox (If no, explain in Remarks.)
Vegetation, Soil, or Hydrology significantly disturbed? Are	"Normal Circumstances" present? Yes No
Vegetation, Soil, or Hydrology naturally problematic? (If r	needed, explain any answers in Remarks.)
	tions transacts important factures at
IMMARY OF FINDINGS – Attach site map snowing sampling point loca	ations, transects, important features, etc.
vidrophytic Veretation Present? (Ves) No	Tree CrCommunities In Design District of the
rdrip Soil Present? Yes No	ed Area
atland Hydrology Present? Yes No	and? Yes No
emarks: Rainfall has been lower and temperatures have been higher than average t	this year. Stream levels are low.
Second-growth	
0	Thruk Body Surface (An2)
GETATION - Use scientific names of plants. List all species in the plo	vt.
Absolute Dominant Indicator	Dominance Test worksheet:
ee Stratum <u>% Cover</u> Species? Status	Number of Dominant Species
AIRU GU V F	That Are OBL, FACW, or FAC:(A)
P151 10 F0	Total Number of Deminant
	Species Across All Strata: 2 (B)
Total Cover: 70	Descent of Deminent Creasion (7)
Horb 50% of total cover: 35 20% of total cover: 14	That Are OBL, FACW, or FAC:(D6/0(A/B)
pling/Shrub Stratum	Prevalence Index worksheet:
Cial 60 / FV	Total % Cover of: Multiply by:
Helq 20 FU	OBL species x 1 =
Atte 12 E	FACW species x 2 =
6701 D FU	FACU species x 4 =
	UPL species x5 =(P)
Total Cover: 111	
50% of total cover: 55 20% of total cover: 2.2	Prevalence Index = B/A =
rb Stratum	Hydrophytic Vegetation Indicators:
Je Goorica) Gail (Capone Ca)	Dominance Test is >50%
(CJ) BIB (CS) State of State o	Prevalence Index is ≤3.0
N Kenaris)	Morphological Adaptations ¹ (Provide supporting
Sterrow Aquiland (D3)	data in Remarks or on a separate sheet)
1 CB 100 percent of the second s	Problematic Hydrophytic Vegetation ¹ (Explain)
	¹ Indicators of hydric soil and wetland hydrology must
	be present unless disturbed or problematic.
	1010 - Viginie - 1011 - 1020 - 1010 - 10000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000
·	
 Total Cover:	sie untrou Prozenii Indudes capitary (unos)
Total Cover:	Hydrophytic
Total Cover: 50% of total cover:20% of total cover: tot size (radius, or length x width)20' <u>radius</u> % Bare Ground	Hydrophytic Vegetation
Total Cover:	Hydrophytic Vegetation Present? Yes <u>No</u>

Profile Description: (Describe to the de	oth needed to document the indicator or confir	m the absence of indicators.)					
(inches) Color (moist) %	Color (moist) % Type ¹ Loc ²	Texture Remarks					
A 16+ 75UD 3/2	1000 <u></u>	condition is the					
2-101 7.211 -12	100 10	Sardylaer Unsee					
	<u></u>						
inssriication:	o 1990	amsP 800 c					
Carlosaria internetista con tra		i) drif talladagi) di e a bito enuditano cignia bgʻri oʻlo					
nin	network where the second se	etation 5 oil of Hydrolomy dinnify					
	na nisigka (babean ti) Solarneidon						
importent features etc.	<u>vina semalián post locations, transacte</u>	odziasmiatik (Setta – 201461413 RD V RAL					
Type: C=Concentration, D=Depletion, RM	=Reduced Matrix, CS=Covered or Coated Sand C	Grains. ² Location: PL=Pore Lining, M=Matrix.					
ydric Soil Indicators:	Indicators for Problematic Hydric Soils":						
_ Histosol or Histel (A1)	Alaska Color Change (TA4)" Alaska Gleyed Without Hue 5Y or Redder						
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Other (Eveloin in Demorke)					
Thick Dark Surface (A12)	Alaska Redox With 2.51 Hue	Other (Explain in Remarks)					
Alaska Gleved (A13)	³ One indicator of hydrophytic vegetation, one	e primary indicator of wetland hydrology					
Alaska Redox (A14)	and an appropriate landscape position must be present.						
Alaska Gleyed Pores (A15)	⁴ Give details of color change in Remarks.	JA Vite in the second s					
Restrictive Layer (if present):	NimoC to technology (Number of Domin						
Туре:	That Are OSL D	1					
Depth (inches):	To verimuld teto T	Hydric Soil Present? Yes No V					
lemarks:							
ac al.	AND AND THE ADDRESS OF						
YDROLOGY							
Vetland Hydrology Indicators:	E Company Company Company	Secondary Indicators (2 or more required)					
rimary Indicators (any one indicator is suf	ficient)	Water-stained Leaves (B9)					
Surface Water (A1)	Inundation Visible on Aerial Imagery (B7)	Drainage Patterns (B10)					
		Oxidized Rhizospheres along Living Roots (C3)					
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8)	Oxidized Rhizospheres along Living Roots (C3					

Salt	Deposits	(C5)

- Stunted or Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- FAC-Neutral Test (D5)

Wotland	Hydrology	Dracont?
vvenano	nyurology	Presentr

(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

No V

No V

No

Hydrogen Sulfide Odor (C1)

Other (Explain in Remarks)

Dry-Season Water Table (C2)

Depth (inches):

Depth (inches): ____

V Depth (inches): 2

6

Remarks:

Water Marks (B1)

Drift Deposits (B3)

Iron Deposits (B5)

Field Observations: Surface Water Present?

Water Table Present?

Saturation Present?

Sediment Deposits (B2)

Algal Mat or Crust (B4)

Surface Soil Cracks (B6)

Yes

Yes

Yes

Yes

No

Coxe River Rd. Realignment

WETLAND DETERMINATION DATA FORM – Alaska Region

Project Site Kation Pay Pard = A VO PULOT Barrush (Site	Sitka Sampling Data: July 20 2016
Application	Sampling Date: JULY20, 2010
Applicant/Owner. ADOT & PF - SouthCoast Region	Sampling Point. Dec 0
Investigator(s): Koren Boswortn, Nina Horne Landform (hillside, terrace	Nor Plan Change
Local relief (concave, convex, none): <u>CBALCOVE</u> Slope (%): <u>576</u>	Over Flow Charlie T
Subregion: Southeast Alaska Lat: Long:	Datum: <u>NAD83</u>
Soil Map Unit Name:	NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	Nox (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Are	e "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problematic? (If)	needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sampling point loca	ations, transects, important features, etc.
Hydrophytic Vegetation Present? (Yes No Is the Sample	ed Area
Hydric Soil Present? Yes No within a Wet	and? Yes V No
Wetland Hydrology Present? Yes No	this year. Stream levels are low
Remains. Rainian has been lower and temperatures have been higher than average	a Harad Seil araf la
second - grow m - log-ling wave thes	arreled son prome
VECETATION - Use scientific names of plants ist all species in the plants	t
Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum <u>% Cover</u> Species? Status	Dominaneo Foet Workerloot.
1. AIRU 30 V F	Number of Dominant Species
2. Pisi 20 V FU	
3	Total Number of Dominant
4	
Total Cover: <u><u>60</u></u>	Percent of Dominant Species
Sanling/Shrub Stratum	Prevalence Index worksheet:
1. Cigl $65 \vee FW$	Total % Cover of Multiply by
2. Titr - Tiarella trifoliata, 10 F	OBL species x1 =
3. Phop - Phoppteris connect. 8EU	FACW species x 2 =
4. Affe JI 3 F	FACU species x 3 =
5	UPL species x 5 = (D)
6	
50% of total cover: 43 20% of total cover: 17.2	Prevalence Index = B/A =
Herb Stratum	Hydrophytic Vegetation Indicators:
1 (10) shoops@vie8 (10) shoops@vie8	✓ Dominance Test is >50%
2	Prevalence Index is ≤3.0
3.	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
	Problematic Hydrophytic Vegetation ¹ (Explain)
0.	¹ Indicators of hydric soil and wetland hydrology must
8	be present unless disturbed of problematic.
9	ser Table Present? Yes No
Total Cover	Askor Present? Yes
50% of total cover: 20% of total cover:	
Plot size (radius, or length x width) % Bare Ground	Hydrophytic Vegetation
% Cover of Wetland Bryophytes Total Cover of Bryophytes (Where applicable)	Present? Yes No
Remarks:	

SOIL	oines alaska Region	ION DATA F	RMINAT	Sampling Point: BBC-6		
Profile Description: (Describe to th	ne depth needed to docume	nt the indicator	or confirm	n the absence of indicators.)		
(inches) Color (moist)	Redox F	eatures	1.002	Texture Remarks		
DILE TELIP 251				non deit et		
0-4.2 7.598 2.01	2 100%			DIMWISIM Sel.		
4.5-10 2.54 3/2	2 100%		312	sandyloan wlom set		
10-12+ 7.54R 2.51	2 100%			sand sat		
etcanaria rearrantes e	conti) La sea stamue (D. tametal se A			anaron na veze en		
ers in Remarks.)	(if needad, explain any anaw	S.S.	problemat	etation Soil or Hydrology naturally		
oriant features, etc	ami, stossenst, shoitaoo	Lining surface		ide.com.obi.comA – 20410413-30, XBA		
¹ Type: C=Concentration, D=Depletion	n, RM=Reduced Matrix, CS=0	Covered or Coate	d Sand Gr	rains. ² Location: PL=Pore Lining, M=Matrix.		
Hydric Soil Indicators:	Indicators for Pro	blematic Hydric	Soils':			
Histosol or Histel (A1)	Alaska Color C	hange (TA4) ⁴		Alaska Gleyed Without Hue 5Y or Redder		
Histic Epipedon (A2)	Alaska Alpine	Swales (TA5)		Other (Finderlying Layer		
Hydrogen Sulfide (A4) Thick Dark Surface (A12)	Alaska Redox	With 2.5Y Hue		Other (Explain in Remarks)		
Alaska Gleved (A13)	³ One indicator of h	vdrophytic vegeta	ation, one r	primary indicator of wetland hydrology.		
Alaska Redox (A14)	and an appropria	ate landscape por	sition must	t be present.		
Alaska Gleyed Pores (A15)	⁴ Give details of col	or change in Rem	narks.			
Restrictive Layer (if present):	si Number of Dominant S		1			
Type:	That Are OPL FACW,					
Depth (inches):	Total Number of Domin			Hydric Soil Present? Yes V No		
OM to 10" w	1 sand t sai	ay lo	am	washed in Aromabove		
IYDROLOGY						
Wetland Hydrology Indicators:	PAC socies			Secondary Indicators (2 or more required)		
Primary Indicators (any one indicator	is sufficient)			Water-stained Leaves (B9)		
Surface Water (A1)	Inundation Visible of	on Aerial Imagery	(B7)	Drainage Patterns (B10)		
High Water Table (A2)	Sparsely Vegetated	Concave Surfac	e (B8)	Oxidized Rhizospheres along Living Roots (C3)		
Saturation (A3)	Marl Deposits (B15)		Presence of Reduced Iron (C4)		
Water Marks (B1)	Hydrogen Sulfide C	Ddor (C1)		Salt Deposits (C5)		
Sediment Deposits (B2)	Dry-Season Water	Table (C2)		Stunted or Stressed Plants (D1)		
Drift Deposits (B3)	Other (Explain in R	emarks)		Geomorphic Position (D2)		
Algal Mat or Crust (B4)				Shallow Aquitard (D3)		
Iron Deposits (B5)				Microtopographic Relief (D4)		
Surface Soil Cracks (B6)				FAC-Neutral Test (D5)		
Field Observations:	1					
Surface Water Present? Yes	No Depth (incl	nes):	_			
Water Table Present? Yes	No Depth (inc	hes): 212		/ / /		
Saturation Present? Yes	No Depth (inc)	hoo):	Mation	nd Hudrology Drocont2 Voc V		

Remarks:

	Staging Area-L
WETLAND DETERMINATION DATA	A FORM – Alaska Region
Project/Site: Katlian Bay Road - FS Rd. 7579 Borough/	/City: Sitka Sampling Date: July . 2016
applicant/Owner: ADOT & PF - Southcoast Region	Sampling Point: BBC - 7
vestigator(s): Koren Bosworth. Nina Horne Landform (hillside.	terrace, hummocks, etc.): Man-made bench
$rac{1}{2}$	296
Ibregion: Southeast Alaska Lat:	Long: Datum: NAD83
il Map Unit Name:	NWI classification:
e climatic / hydrologic conditions on the site typical for this time of year? Yes	No (If no, explain in Remarks.)
e Vegetation , Soil , or Hydrology significantly disturbed?	Are "Normal Circumstances" present? Yes No
e Vegetation, Soil, or Hydrology naturally problematic?	(If needed, explain any answers in Remarks.)
JMMARY OF FINDINGS – Attach site map showing sampling poi	int locations, transects, important features, etc.
lydrophytic Vegetation Present? Yes No Is the	Sampled Area
lydric Soil Present? Yes (No) within	n a Wetland? Yes No
Vetland Hydrology Present? Yes (No)	verage this year. Stream levels are low
Rugmed bedrock bench used an 1	TE during 1099 ing. Grosses
quarter ere re peren ear	were planted
EGETATION – Use scientific names of plants. List all species in t	the plot.
Absolute Dominant In	Idicator Dominance Test worksheet:
Alver Species S	Number of Dominant Species
	That Are OBL, FACW, or FAC: (A)
Hydric Soil Present? Yes No Y	Total Number of Dominant
	Species Across All Strata: (B)
Total Cover:	Percent of Dominant Species
50% of total cover: 20% of total cover:	That Are OBL, FACW, or FAC: 60000 (A/B)
Sapling/Shrub Stratum 10	FU
RUSD - Rubis spectabilis ID V	FU OBL species x1=
- Reep Several	FACW species x 2 =
	FAC species x 3 =
Water-strined Loaves (BR)	UPL species x 5 =
eest Imagen (87) Digican Reheat (810)	Column Totals: (A) (B)
Total Cover:	Prevalence Index = B/A =
erb Stratum	Hydrophytic Vegetation Indicators:
Feru - Festuca rubra 30	Dominance Test is >50%
Ardi - Aruncus dilbecia 10	V Prevalence Index is ≤3.0
Agme - Aarpstis mertensu 10	EU Morphological Adaptations ¹ (Provide supporting
. Debe - Veschampsia Doning, 15 -	data in Remarks or on a separate sheet)
	Problematic Hydrophytic Vegetation ¹ (Explain)
	¹ Indicators of hydric soil and wetland hydrology must
	be present unless disturbed or problematic.
0	
Total Cover:65	12 (111.0.01 Proj.0.01) 12 (in latter caratiery transmission)
50% of total cover: 32.3 20% of total cover:	Hydrophytic /
Plot size (radius, or length x width) % Bare Ground	Vegetation Present? Yes \ No
(Where applicable)	
Remarks:	
10. Total Cover:65 50% of total cover:32.5 20% of total cover: Plot size (radius, or length x width)% Bare Ground % Bare Ground % Cover of Wetland Bryophytes Total Cover of Bryophytes (Where applicable) Remarks: Remarks:	13 Hydrophytic Vegetation Yes Present? Yes

enth	ption: (Describe t Matrix	o the dep	oth needed to do	edox Features	ndicator (or confir	m the absenc	e of indicators)	
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
2.5	Mixe	21-	no soil	douolar	mon	1	mixed	Immy	- aravo	1 - 110
adra	al)	1	10 0011	VIEVEIOF			- Popor Co	10AVII I	grade	- 011
2010	CK						·		0	
		16-01 MER BI	3 1V940							
	r an an V. Chang			2 ¹⁰					Sector Sectors	
				```	100000			-		
	0.831.9531.9524.93	21999016	Aue ureatra trans			· · ·	-	Alboro ro Auri	0 110 6	
			on transects							
ne: C=Con	centration D=Den	etion RM	=Reduced Matrix	CS=Covered	or Coate	d Sand (	Stains ² Loc	ation: PI =Pore	Lining M=Mat	rix
dric Soil Ind	dicators:	0.001, 7.00	Indicators f	or Problemat	ic Hydric	Soils ³ :			2.11.19, 11. 11.41	
Histosol or	Histel (A1)		Alaska	Color Change	(TA4) ⁴		Alask	a Gleyed Withd	out Hue 5Y or R	edder
Histic Epip	edon (A2)		Alaska	Alpine Swales	(TA5)		Un	derlying Layer		
Hydrogen	Sulfide (A4)		Alaska Redox With 2.5Y Hue Other (Explain in Remarks)							
Thick Dark	Surface (A12)									
Alaska Gle	eyed (A13)		³ One indicator of hydrophytic vegetation, one primary indicator of wetland hydrology,							
Alaska Re	dox (A14)		and an ap	and an appropriate landscape position must be present.						
Alaska Gle	eyed Pores (A15)		⁴ Give details	s of color chan	ge in Rem	arks.				
strictive La	yer (if present):		Impedito Isolaud							
Туре:	AC:	1.10., W.D.	ten "LISO Ista nati							1
Depth (inch	es):	tasaimeC	Total Numb <u>er of</u>				Hydric Soil	Present? Ye	esNo	V
marks:							1			

#### HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)			
Primary Indicators (any one indicator is suff	Water-stained Leaves (B9)			
Surface Water (A1)	Drainage Patterns (B10)			
High Water Table (A2)	Sparsely Vegetated Concave Surface (B	8) Oxidized Rhizospheres along Living Roots (C3)		
Saturation (A3)	Marl Deposits (B15)	Presence of Reduced Iron (C4)		
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Salt Deposits (C5)		
Sediment Deposits (B2)	Dry-Season Water Table (C2)	Stunted or Stressed Plants (D1)		
Drift Deposits (B3)	Other (Explain in Remarks)	Geomorphic Position (D2)		
Algal Mat or Crust (B4)		Shallow Aquitard (D3)		
Iron Deposits (B5)		Microtopographic Relief (D4)		
Surface Soil Cracks (B6)		FAC-Neutral Test (D5)		
Field Observations:	colou hogona ad			
Surface Water Present? Yes	No Depth (inches):			
Water Table Present? Yes	No V Depth (inches):	1		
Saturation Present? Yes (includes capillary fringe)	Vetland Hydrology Present? Yes No			
Describe Recorded Data (stream gauge, me	pnitoring well, aerial photos, previous inspecti	ons), if available:		
Remarks:		(ലർട്ടറിറോം തെ		
	TERMINAT	ION DA	TA FORI	M – Alaska Region
--------------------------------------------------------------------------------	------------------------------------------	---------------------------------	-------------------	-------------------------------------------------------------------------------------------
abstoce of indicators (			ed) hence	lie Gescription: (Describe to the rept) meded to doe
roject/Site: Katlian Bay Road - MP ()		Boroug	gh/City:	Sitka Sampling Date: July 20, 2016
oplicant/Owner: ADOT & PF - Southcoast Re	gion			Sampling Point: <u>BBC-B</u>
vestigator(s): Koren Bosworth, Nina Hor	ne Landi	form (hillsid	le, terrace,	hummocks, etc.): h1 5100
cal relief (concave, convex, none):	O Slo	pe (%):	210	
ubregion: Lat: Lat:			Long:	Datum: NAD83
bil Map Unit Name:				NWI classification:
e climatic / hydrologic conditions on the site typical for	this time of yea	ar? Yes		Nox (If no, explain in Remarks.)
e Vegetation, Soil, or Hydrology s	ignificantly dist	turbed?	Are	"Normal Circumstances" present? Yes No 🔨
e Vegetation, Soil, or Hydrology natur	ally problemat	ic?	(lf n	eeded, explain any answers in Remarks.)
UMMARY OF FINDINGS – Attach site map	showing sa	mpling p	oint loca	tions, transects, important features, etc.
hadron hadia Manatakian Danasa (2)	No			
hydrophytic Vegetation Present?	NO	Is th	ne Sample	d Area
lydric Soil Present?	NO	with	nin a Wetla	and? Yes No
Netland Hydrology Present? (Yes)	No have been hi	aher than	average f	his year. Stream levels are low
1.5 acre triangle cut off (	omplet.	dy by	5 100	ds. (Thiss. p. in the 20% wet
EGETATION – Use scientific names of plan	ts. List all s	species ir	the plot	this site.
	Absolute	Dominant	Indicator	Dominance Test worksheet:
ree Stratum	% Cover	Species?	Status	ensiste entry (CTA) autorities and anti-
. P151	40	$\overline{}$	FU	That Are OBL, FACW, or FAC:
Tshe	_30	$\checkmark$	F	
drid Soft Present? Yes 2 No				Total Number of Dominant Species Across All Strata:
	70			
50% of total cover: 3	5 20% of	total cover	. 14	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.776</u> (A/B)
Sapling/Shrub Stratum	10	1	E	Flevalence index worksheet.
mote	5	$\overline{\checkmark}$	FU	Total % Cover of: Multiply by:
				FACW species        x 1 =          x 2 =        x 2 =
geologies printing is a marketing of	0.90			FAC species x 3 =
Water-stained Leaves (89)	,			FACU species x 4 =
Trainaus Pademe (810)	(6.2)	vana sini ka		Column Totals:        (A)        (B)
Total Cove	er: 15		Interd Conc	Prevalence Index = $B/A =$
50% of total cover:	5_ 20% of	total cover	3	Hydrophytic Vegetation Indicators:
lerb Stratum		/	0	Dominance Test is >50%
Magin Marthan Maria	AUM D.		F	
Coca	2		FU	Prevalence Index is \$3.0
				Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
				Problematic Hydrophytic Vegetation ¹ (Explain)
3				
				¹ Indicators of hydric soil and wetland hydrology must
				be present unless disturbed of problematic.
				er Table Presnut? Yes No Dept
	13		(perona	ration Present
)  0	201		21-	udes capitary tropel
0Total Cove	sr: 12	total cover	· ~ . 10	
9 10 50% of total cover: Plot size (radius, or length x width)/ D X 5	<u>,5</u> 20% of % Bare	total cover Ground	: <u>X.10</u>	Hydrophytic
9	er: 20% of % Bare Cover of Bryo	total cover Ground phytes	: <u>Z. • [</u> 2	Hydrophytic Vegetation Present? Yes No

	depth needed to document the indicator or co	nfirm the absence of indicators.)	
Depth Matrix	Redox Features	2 Texture Remarks	
		Texture Remarks	WON:
0-12+ 7.5"R2,5/2	100%0	Peat w/roots sat	23) 343
ADESS AND ADOSS AND ADESS AND ADOSS AND ADESS AND ADOSS		Southeast Alaska Name Southeast Alaska Name Solt or Hediween in stocked	uni Salu Salu Salu Salu Salu Salu
swers in Keinank ( npodrant foaturne, ato	a someso	100 (Maldian 10000000000000000000000000000000	ARY
¹ Type: C=Concentration, D=Depletion, I Hydric Soil Indicators:	RM=Reduced Matrix, CS=Covered or Coated Sar Indicators for Problematic Hydric Soils	d Grains. ² Location: PL=Pore Lining, M=Matrix. ³ .	ouver Greek
Histosol or Histel (A1)	Alaska Color Change (TA4) ⁴	Alaska Gleved Without Hue 5Y or Red	der
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)	Underlying Layer	1 :20
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	Other (Explain in Remarks)	
Thick Dark Surface (A12)			
Alaska Gleyed (A13)	³ One indicator of hydrophytic vegetation,	one primary indicator of wetland hydrology,	
Alaska Redox (A14)	and an appropriate landscape position	must be present.	
Alaska Gleyed Pores (A15)	Give details of color change in Remarks.		nuteri
Restrictive Layer (if present):			
L (A) DAR 0 M			
Type:			
Type: Depth (inches): Remarks:	Contract and Contr	Hydric Soil Present? Yes Ves No	de
Type: Depth (inches): Remarks:	Total Number of December of De	Hydric Soil Present? Yes V No	
Type: Depth (inches): Remarks: IYDROLOGY	Parcent of Dominant Parcent o	Hydric Soil Present? Yes <u>No</u> No	
Type: Depth (inches): Remarks: IYDROLOGY Wetland Hydrology Indicators:	Const Number of Densities    Const Number of Densities    Const Number of Densities    Const Number of Densities    Const Const Number of Densities	Hydric Soil Present? Yes <u>No</u> No <u>Secondary Indicators (2 or more required)</u>	
Type: Depth (inches): Remarks: IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is s	sufficient)	Hydric Soil Present? Yes No No Secondary Indicators (2 or more required) Water-stained Leaves (B9)	
Type: Depth (inches): Remarks: <b>IYDROLOGY</b> Wetland Hydrology Indicators: Primary Indicators (any one indicator is s Surface Water (A1) Uich Water Table (A2)	sufficient) Inundation Visible on Aerial Imagery (B7)	Hydric Soil Present?      Yes      No        Secondary Indicators (2 or more required)	
Type: Depth (inches): Remarks: <b>IYDROLOGY</b> Wetland Hydrology Indicators: Primary Indicators (any one indicator is s Surface Water (A1) High Water Table (A2)	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Mad Denecity (B15)	Hydric Soil Present?      Yes      No        Secondary Indicators (2 or more required)	ts (C3
Type: Depth (inches): Remarks: <b>IYDROLOGY</b> Wetland Hydrology Indicators: Primary Indicators (any one indicator is s Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marke (B1)	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hudreen Sulfide Oder (C1)	Hydric Soil Present?      Yes      No        Secondary Indicators (2 or more required)	
Type: Depth (inches): Remarks: IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is s Surface Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3) Water Marks (B1) Sediment Descript (B2)	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry Spasson Water Table (C2)	Hydric Soil Present?      Yes      No        Secondary Indicators (2 or more required)	 ts (C3
Type: Depth (inches): Remarks: IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is s Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B2)	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Parmarks)	Hydric Soil Present?      Yes      No        Secondary Indicators (2 or more required)	ts (C3
Type: Depth (inches): Remarks: <b>IYDROLOGY</b> Wetland Hydrology Indicators: Primary Indicators (any one indicator is s Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks)	Hydric Soil Present?      Yes      No        Secondary Indicators (2 or more required)	ts (C3
Type: Depth (inches): Remarks: IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is s Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks)	Hydric Soil Present?      Yes      No        Secondary Indicators (2 or more required)	ts (C3
Type: Depth (inches): Remarks: <b>IYDROLOGY</b> <b>Wetland Hydrology Indicators:</b> Primary Indicators (any one indicator is s Surface Water (A1) High Water Table (A2) Saturation (A3) Vater Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Scil Cracks (PE)	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks)	Hydric Soil Present?      Yes      No        Secondary Indicators (2 or more required)	ts (C3
Type: Depth (inches): Remarks: <b>HYDROLOGY</b> Wetland Hydrology Indicators: Primary Indicators (any one indicator is s 	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks)	Hydric Soil Present?      Yes      No        Secondary Indicators (2 or more required)	ts (C3
Type: Depth (inches): Remarks: <b>IYDROLOGY</b> Wetland Hydrology Indicators: Primary Indicators (any one indicator is s 	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks) Depth (inches):	Hydric Soil Present?      Yes      No        Secondary Indicators (2 or more required)	ts (C3
Type: Depth (inches): Remarks: <b>HYDROLOGY</b> <b>Wetland Hydrology Indicators:</b> Primary Indicators (any one indicator is s 	sufficient) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8 Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks) Depth (inches): Depth (inches):	Hydric Soil Present?      Yes      No        Secondary Indicators (2 or more required)	dis (C3
Type: Depth (inches): Remarks: <b>HYDROLOGY</b> <b>Wetland Hydrology Indicators:</b> Primary Indicators (any one indicator is s 	sufficient)	Hydric Soil Present?      Yes      No        Secondary Indicators (2 or more required)	2:s (C:

Remarks:

